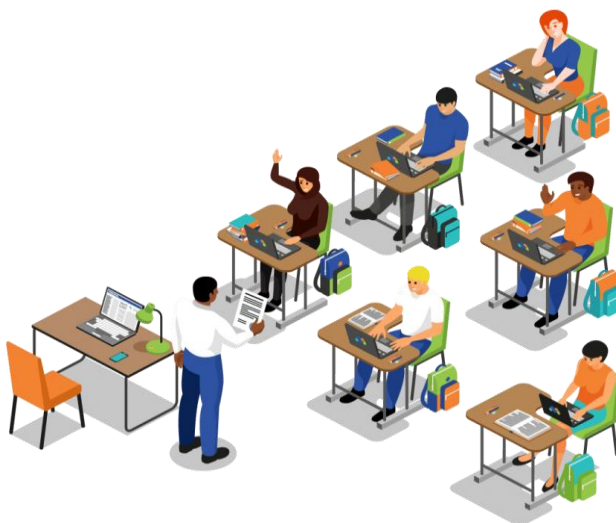


## 6.5.2 REVIEW ON TEACHING-LEARNING PROCESS & REFORMS FACILITATED BY IQAC



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**REVIEW PROCESS : I  
TLP FEEDBACK BY  
STUDENTS**





# **STUDENT FEEDBACK ON TLP (SPA)**



**ACADEMIC YEAR 2019 – 2020 /EVEN SEMESTER**

**STAFF PERFORMANCE APPRAISAL**

**DATE: 03.02.2020**

We are planning to conduct Staff Appraisal on 07.02.20 & 08.02.20 for this academic year 2019-2020(EVEN semester) through online feedback collection System. The respective **class coordinators** and **hour handling staffs** from all the departments are asked to assemble and monitor the students to the venue as per the schedule given below .

**CIVIL**

S.no	Date & Time	Department	Venue
1.	08.02.2020 & 10.00 am to 10.20 am	IV CIVIL	CSE LAB I
2.	07.02.2020 & 10.00 am to 10.20 am	III CIVIL	CSE LAB I
3.	07.02.2020 & 10.20 am to 10.45 am	II CIVIL	CSE LAB I

**CSE**

S.no	Date & Time	Department	Venue
1.	08.02.2020 & 11.45 am to 12.10 am	IV CSE	CSE LAB I
2.	07.02.2020 & 11.00 am to 11.20 am	III CSE	CSE LAB I
3.	07.02.2020 & 11.20 am to 11.45 am	II CSE	CSE LAB I

**ECE**

S.no	Date & Time	Department	Venue
1.	08.02.2020 & 10.20 am to 10.50 am	IV ECE	CSE LAB I
2.	07.02.2020 & 11.45 am to 12.10 pm	III ECE	CSE LAB I
3.	07.02.2020 & 12.10 pm to 12.30 pm	II ECE	CSE LAB I

**EEE**

S.no	Date & Time	Department	Venue
1.	08.02.2020 & 11.00 am to 11.20 am	IV EEE	CSE LAB I
2.	07.02.2020 & 1.15 pm to 1.35 pm	III EEE	CSE LAB I
3.		II EEE	CSE LAB I

**MECH**

S.no	Date & Time	Department	Venue
1.	08.02.2020 & 11.20 am to 11.45 am	IV MECH A	CSE LAB I
2.		IV MECH B	CSE LAB II
3.	07.02.2020 & 1.35 pm to 2.00 pm	III MECH	CSE LAB I
4.	07.02.2020 & 2.00 pm to 2.30 pm	II MECH	CSE LAB I

*[Signature]*  
21/2/2020  
COORDINATOR  
(Mr. R.Sriramkumar)

*[Signature]*  
03/2/2020  
PRINCIPAL

**Note: All the students must participate in online feedback process without absent.**

## **ACADEMIC YEAR 2019 - 2020 (EVEN SEMESTER)**

### **QUESTIONNAIRE FOR STAFF PERFORMANCE APPRAISAL**

#### **QUESTION BASED ON THEORY**

1. Staff is well prepared for class and deliver the subject content well.
2. Staff provides activities that make subject matter meaningful.
3. Staff is flexible in offering individual student needs.
4. Staff is punctual to the class and punctual in returning the corrected papers.
5. Staff encourages students to ask questions in the class.
6. Staff conveys current information/related practices to the subject often.
7. Staff controls the classroom for effective teaching learning process.
8. Staff completes syllabus of the course in time.
9. Handwritten notes given by the staff is useful.
10. Staff discusses important key points in a topic.

#### **QUESTION BASED ON PRACTICAL**

1. Procedure of experiments explained clearly.
2. Support provided during lab sessions for completing experiments.
3. Session stimulates expansion of knowledge / Skill.
4. Opportunity for questions and discussions.
5. Quality and Condition of lab components.

  
**COORDINATOR**

  
**PRINCIPAL**



**KINGS**  
COLLEGE OF ENGINEERING  
(NAAC Accredited Institution)  
(Approved by AICTE, New Delhi, Affiliated to  
Anna University, Chennai)

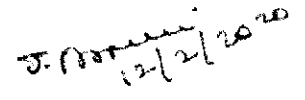


**DEPARTMENT OF CIVIL ENGINEERING**  
**STAFF PERFORMANCE APPRAISAL: 2019-2020 (EVEN SEM)**  
**DEPARTMENT WISE CONSOLIDATED REPORT**

S.NO	STAFF NAME	SUBJECT CODE	THEORY / LAB	YEAR/ SEM/DEPT	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL (100)
1.	Ms.R.REVATHI	CE6021	T1	IV/VIII/CIVIL	88.6	88.1	87.0	88.1	89.2	87.6	84.9	88.1	87.6	89.2	87.84
		CE6811	L1	IV/VIII/CIVIL	90.3	83.2	81.1	84.9	81.6	84.22					
2.	Mr.R.SUNDHARAM	CE8005	T1	III/VI/CIVIL	87.1	88.6	90.0	90.7	86.4	84.3	88.6	90.0	85.0	86.4	87.71
		CE8612	L1	III/VI/CIVIL	87.9	89.3	89.3	86.4	87.9	88.14					
3.	Mr.K.ARUN	CE6016	T1	IV/VIII/CIVIL	93.5	93.5	93.0	93.5	95.7	92.4	94.6	96.2	91.4	91.9	93.57
		CE6811	L1	IV/VIII/CIVIL	90.3	83.2	81.1	84.9	81.6	84.22					
4.	Ms.T.BHUVANESWARI	CE8602	T1	III/VI/CIVIL	87.1	85.0	79.3	87.1	80.7	78.6	84.3	86.4	87.1	84.3	84.00
5.	Mr.K.RANJITH	CE8603	T1	III/VI/CIVIL	77.9	77.1	76.4	77.9	80.0	77.9	79.3	81.4	75.7	77.1	78.07
		CE8481	L1	II/IV/CIVIL	89.5	92.6	92.6	90.5	90.5	91.16					
6.	Mr.S.R.ELWIN GURU CHANTH	CE8401	T1	II/IV/CIVIL	93.7	92.6	92.6	87.4	90.5	89.5	89.5	91.6	88.4	87.4	90.32
		CE8611	L1	III/VI/CIVIL	81.4	82.1	78.6	75.0	70.0	77.43					
7.	Ms.K.BHAVAROHINI	CE8404	T1	II/IV/CIVIL	87.4	89.5	85.3	86.3	88.4	83.2	83.2	84.2	87.4	88.4	86.32
		CE8461	T1	II/IV/CIVIL	96.8	93.7	94.7	95.8	87.4	93.68					
8.	Ms.M.PRIYA	CE8491	T1	II/IV/CIVIL	91.6	91.6	94.7	94.7	92.6	86.3	90.5	93.7	94.7	93.7	92.42
		CE8601	T2	III/VI/CIVIL	83.6	82.9	83.6	87.9	82.1	85.0	86.4	90.7	87.9	81.4	85.14
		CE8481	L1	II/IV/CIVIL	89.5	92.6	92.6	90.5	90.5	91.16					
9.	Ms.K.JEYASHANKARI	CE8402	T1	II/IV/CIVIL	91.6	93.7	91.6	95.8	94.7	89.5	91.6	95.8	94.7	92.6	93.16
		CE8604	T2	III/VI/CIVIL	92.1	87.1	86.4	87.9	87.9	82.9	85.0	88.6	88.6	89.3	87.57
		CE8611	L1	III/VI/CIVIL	81.4	82.1	78.6	75.0	70.0	77.43					

10.	Mr.S.KAMARAJ	CE8461	T1	II/IV/CIVIL	96.8	93.7	94.7	95.8	87.4	93.68					
11.	Ms.V.ISHWARYA	CE8403	T1	II/IV/CIVIL	91.6	89.5	90.5	90.5	90.5	87.4	85.3	91.6	92.6	88.4	89.79
		EN8592	T2	III/VI/CIVIL	87.1	87.1	87.9	88.6	84.3	84.3	82.9	84.3	84.3	85.0	85.57
		CE8612	L1	III/VI/CIVIL	87.9	89.3	89.3	86.4	87.9	88.14					

  
COORDINATOR

  
PRINCIPAL



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**STAFF PERFORMANCE APPRAISAL: 2019-2020 (EVEN SEM)**  
**DEPARTMENT WISE CONSOLIDATED REPORT**

S.NO	STAFF NAME	SUBJECT CODE	THEORY/ LAB	YEAR/ SEM/DEPT	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL (100)
1.	Dr.S.M.UMA	CS8601	T1	III/VI/CSE	78.6	73.3	74.3	74.8	75.2	78.1	78.6	75.2	76.7	77.1	76.19
2.	Ms.K.ABHIRAMI	CS8493	T1	II/IV/CSE	88.5	86.5	87	91	88	88.5	87	86.5	87.5	84	87.45
		CS6811	L1	IV/VIII/CSE	80.0	78.3	78.3	75.6	75.6	77.56					
3.	Ms.S.PUVANESWARI	CS8691	T1	III/VI/CSE	89.0	85.7	82.9	85.7	81.9	83.3	82.4	81.4	81.4	82.4	83.62
		CS8661	L1	III/VI/CSE	94.3	91.9	91.9	91.4	88.1	91.52					
4.	Ms.B.SANGEETHA	CS8603	T1	III/VI/CSE	81.4	79.5	78.1	77.1	77.1	80.5	78.1	79.5	78.6	76.7	78.67
		CS8662	L1	III/VI/CSE	83.8	82.4	83.3	82.4	82.9	82.95					
5.	Mr.K.RAJESH	IT8076	T1	III/VI/CSE	81.0	79.5	77.6	78.6	76.2	76.7	77.1	77.1	77.1	79.0	78.00
6.	Mr.R.RANITHA	CS8651	T1	III/VI/CSE	96.7	96.7	98.1	97.6	95.7	97.1	97.1	97.1	96.7	97.6	97.05
		CS8661	L1	III/VI/CSE	94.3	91.9	91.9	91.4	88.1	91.52					
7.	Mr.S.RAJARAJAN	IT6011	T1	IV/VIII/CSE	81.7	81.1	79.4	81.1	80.6	81.7	80.6	83.3	78.3	79.4	80.72
		CS8461	L1	II/IV/CSE	78.5	80	76	73.5	70	75.6					
8.	Mr.D.SIVAKUMAR	CS8494	T1	II/IV/CSE	90.5	88.5	89.5	90	88.5	91	91	93.5	86.5	88.5	89.75
		CS8461	L1	II/IV/CSE	78.5	80	76	73.5	70	75.6					
9.	Ms.P.NALAYINI	CS8491	T1	II/IV/CSE	70.5	68	71.5	77.5	69.5	63	69	77	66.5	64	69.65
		CS6801	T2	IV/VIII/CSE	74.4	73.3	72.8	75.6	77.8	75.0	78.3	78.9	75.6	77.2	75.89

10.	Ms.R.SUGANTHA LAKSHMI	CS8492	T1	II/IV/CSE	89.5	88.5	87	87.5	85	84	89.5	88.5	84	79.5	86.3
		CS8481	L1	II/IV/CSE	89	85.5	84.5	82	76	83.4					
11.	Mr.R.SRIRAMKUMAR	MG6088	T1	IV/VIII/CSE	83.3	81.7	81.1	80.6	81.7	80.0	78.9	80.6	81.1	81.7	81.06
		CS8481	L1	II/IV/CSE	89	85.5	84.5	82	76	83.4					
		CS8662	L2	III/VI/CSE	83.8	82.4	83.3	82.4	82.9	82.95					
12.	Ms.G.CHANDRAPRABHA	CS8602	T1	III/VI/CSE	87.6	84.3	85.7	86.7	85.2	82.9	83.3	85.2	83.3	83.3	84.76
13.	Mr.M.ARUN	CS8451	T1	II/IV/CSE	88.5	89.5	88	91	86.5	91	91.5	91	90.5	87	89.45
		CS8611	L1	III/VI/CSE	79.5	75.7	75.2	76.2	76.2	76.57					

  
COORDINATOR

  
12/2/2020  
PRINCIPAL





**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**STAFF PERFORMANCE APPRAISAL: 2019-2020 (EVEN SEM)**

**DEPARTMENT WISE CONSOLIDATED REPORT**

S.NO	STAFF NAME	SUBJECT CODE	THEORY / LAB	YEAR/ SEM/DEPT	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL (100)
1.	Dr.T.SHANTHI	EC6802	T1	IV/VIII/ECE	89.8	88.4	84.2	84.2	87.0	87.4	83.7	87.4	84.7	86.0	86.28
		EC8611	L1	III/VI/ECE	86.3	86.3	83.4	85.7	86.3	85.60					
2.	Ms.N.MANGAIYARKARASI	EC8002	T1	III/VI/ECE	94.3	94.3	93.7	96.0	93.1	93.1	96.6	97.1	95.4	96.6	95.03
		EC8462	L1	II/IV/ECE	82.0	81.3	78.7	76.7	66.0	76.93					
3.	Mr.K.SUDARSANAN	EE8451	T1	II/IV/EEE	94	90	94	92	94	88	90	92	90	92	91.6
		EE8461	L1	II/IV/EEE	92	92	96	94	92	93.2					
4.	Mr.S.RAMARAJAN	EC8491	T1	II/IV/ECE	91.3	90.0	88.0	94.0	87.3	90.0	88.0	89.3	90.0	88.7	89.67
		EC8461	L1	II/IV/ECE	89.3	84.7	82.7	83.3	66.0	81.20					
5.	Mr.R.SATHYARAJ	EC8652	T1	III/VI/ECE	94.3	92.6	91.4	94.9	92.6	92.0	96.0	97.1	95.4	90.9	93.71
		EC8681	L1	III/VI/ECE	92.0	93.1	92.6	90.3	85.7	90.74					
6.	Mr.T.JEYASEELAN	EC8095	T1	III/VI/ECE	98.3	98.9	97.1	98.3	97.1	96.0	91.4	94.3	98.3	96.0	96.57
		EC8661	L1	III/VI/ECE	94.9	96.0	95.4	95.4	94.9	95.31					
7.	Mr.P.RAJAPIRIAN	EC8691	T1	III/VI/ECE	84.6	85.1	88.6	87.4	88.6	85.1	82.3	82.9	84.6	84.6	85.37
		EC8681	L1	III/VI/ECE	92.0	93.1	92.6	90.3	85.7	90.74					

8.	Mr.A.HERALD	EC8453	T1	II/IV/ECE	85.3	82.7	82.7	84.7	85.3	85.3	85.3	84.7	84.0	80.7	<b>84.07</b>
		EC8462	L1	II/IV/ECE	82.0	81.3	78.7	76.7	66.0	<b>76.93</b>					
9.	Mr.R.BALAKRISHNAN	EC8651	T1	III/VI/ECE	95.4	92.0	93.1	90.9	93.7	89.7	93.7	92.6	91.4	94.9	<b>92.74</b>
10.	Ms.R.PONNI	EC6801	T1	IV/VIII/ECE	91.2	90.2	88.4	91.6	88.4	87.9	91.2	91.6	92.1	92.1	<b>90.47</b>
		EC8661	L1	III/VI/ECE	95.31	95.31	95.31	95.31	95.31	<b>95.31</b>					
		EE8681	L1	III/VI/EEE	89.2	86.2	89.2	92.3	87.7	<b>88.92</b>					
11.	Ms.D.VENNILA	EC6019	T1	IV/VIII/ECE	99.5	97.7	98.1	99.5	98.1	97.2	99.5	99.0	99.1	99.5	<b>98.74</b>
		EE8681	L1	III/VI/EEE	89.2	86.2	89.2	92.3	87.7	<b>88.92</b>					
12.	Ms.P.THIRUMAGAL	EC8451	T1	II/IV/ECE	86.0	86.7	87.3	92.0	90.0	83.3	88.7	88.7	86.0	85.3	<b>87.40</b>
13.	Ms.U.JEYAMALAR	EC8452	T1	II/IV/ECE	61.3	60.7	62.0	72.0	70.0	64.0	64.7	66.0	59.3	60.7	<b>64.07</b>
		EC8461	L1	II/IV/ECE	89.3	84.7	82.7	83.3	66.0	<b>81.20</b>					
14.	Mr.R.THANDAYUTHAPANI	EC6018	T1	IV/VIII/ECE	89.8	87.3	87.9	89.5	89.8	87.4	88.8	87.0	87.1	88.4	<b>88.30</b>
		EC6811	L1	IV/VIII/ECE	87.0	87.9	86.5	87.0	81.9	<b>86.05</b>					

  
COORDINATOR

  
12/2/2020  
PRINCIPAL



**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**STAFF PERFORMANCE APPRAISAL: 2019-2020 (EVEN SEM)**  
**DEPARTMENT WISE CONSOLIDATED REPORT**

S.NO	STAFF NAME	SUBJECT CODE	THEORY / LAB	YEAR/ SEM/DEPT	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL (100)
1.	Dr.S.SIVAKUMAR	EE8002	T1	III/VI/EEE	100.0	100.0	98.5	100.0	98.5	98.5	98.5	100.0	100.0	98.5	99.23
2.	Dr.A.ALBERT MARTIN RUBAN	EE8602	T1	III/VI/EEE	95.4	92.3	95.4	93.8	96.9	92.3	96.9	96.9	87.7	92.3	94.00
3.	Mr.R.SUNDARAMOORTHY	EE8601	T1	III/VI/EEE	100	100	98.5	98.5	100	100	98.5	100	98.5	100	99.38
		EE8412	L1	II/IV/EEE	94	96	92	96	94	94.4					
		EE6811	L2	IV/VIII/EEE	98.2	98.2	98.2	100.0	96.4	98.18					
4.	Mr.S.R.KARTHIKEYAN	IC8451	T1	II/IV/EEE	98	94	96	98	96	96	96	98	96	94	96.2
5.	Ms.N.RAJESWARI	EE6801	T1	IV/VIII/EEE	74.5	83.6	81.8	80.0	72.7	74.5	80.0	80.0	81.8	80.0	78.91
		EE8611	L1	III/VI/EEE	89.2	87.7	83.1	84.6	93.8	87.69					
6.	Mr.J.AROKIARAJ	EE8005	T1	III/VI/EEE	92.3	89.2	92.3	90.8	90.8	93.8	92.3	92.3	90.8	93.8	91.85
		EE8661	L1	III/VI/EEE	89.2	89.2	87.7	92.3	93.8	90.46					
7.	Mr.S.SAKTHIVEL	EE8403	T1	II/IV/EEE	100	100	100	100	100	96	94	96	96	98	98
8.	Dr.M.MEENALACHANI	EE8691	T1	III/VI/EEE	100.0	93.8	96.9	96.9	92.3	98.5	89.2	100.0	96.9	96.9	96.15
9.	Mrs.N.ARULMOZHI	EE8402	T1	II/IV/EEE	90	82	90	86	90	92	90	90	92	90	89.2
10.	Mr.C.JOHN SELVARAJ	EE8401	T1	II/IV/EEE	94	94	92	96	98	96	94	94	92	94	94.4
		EE6009	T2	IV/VIII/EEE	94.5	96.4	94.5	90.9	92.7	92.7	96.4	94.5	92.7	94.5	94.00
		EE8411	L1	II/IV/EEE	94	98	92	94	88	93.2					

*[Signature]*  
**COORDINATOR**

*[Signature]*  
**PRINCIPAL**



**DEPARTMENT OF MECHANICAL ENGINEERING**  
**STAFF PERFORMANCE APPRAISAL: 2019-2020 (EVEN SEM)**  
**DEPARTMENT WISE CONSOLIDATED REPORT**

S.NO	STAFF NAME	SUBJECT CODE	THEORY / LAB	YEAR/ SEM/DEPT	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL (100)
1.	Dr.T.PUSHPARAJ	ME6016	T1	IV/VIII/MECH B	93.1	82.8	86.9	88.3	86.9	84.8	84.8	89.7	83.4	85.5	86.62
2.	Mr.P.P. SHANTHARAMAN	ME8692	T1	III/VI/MECH A	92.2	91.3	90.4	93.0	93.0	90.4	93.0	93.0	91.3	93.0	92.09
		ME8692	T2	III/VI/MECH B	69.2	70.8	70.8	74.6	73.8	73.1	73.8	70.8	70.0	76.2	72.31
3.	Mr.B.ADICHELVAN	ME8493	T1	II/IV/MECH	68.3	66.0	67.5	70.6	71.7	70.6	72.8	69.1	69.4	67.9	69.40
		ME6016	T1	IV/VIII/MECH A	99.4	99.4	98.3	98.9	98.3	98.3	100	97.1	99.4	97.1	98.63
4.	Mr.N.MAGESH	IE6605	T1	IV/VIII/MECH A	98.3	97.7	98.9	99.4	98.3	96.6	100	99.4	97.7	99.4	98.57
		ME6811	L1	IV/VIII/MECH A	94.9	93.1	94.9	96.6	94.3						94.74
5.	Mr.M.MELWIN JEGADEESH SRIDHAR	ME8492	T1	II/IV/MECH	72.8	73.2	75.5	75.1	67.5	76.6	75.8	74.3	68.3	74.0	73.32
		CE8381	L1	II/IV/MECH	78.1	77.7	76.6	77.0	78.5						77.58
6.	Mr.M.SAKTHIVEL	ME8694	T1	III/VI/MECH B	88.5	91.5	87.7	89.2	87.7	87.7	90.8	92.3	91.5	90.0	89.69
		ME8682	L1	III/VI/MECH B	90.0	86.9	86.9	86.9	89.2						88.00
7.	Mr.H.AGILAN	ME8693	T1	III/VI/MECH A	90.4	92.2	93.0	90.4	90.4	93.0	91.3	91.3	91.3	93.0	91.65
		ME8693	T2	III/VI/MECH B	92.3	92.3	92.3	93.8	90.0	91.5	90.0	93.8	90.8	92.3	91.92
8.	Mr.S.DESIKAN	ME8451	T1	II/IV/MECH	90.9	90.6	91.3	90.6	89.8	92.1	90.2	90.9	91.7	91.3	90.94
		ME8651	T2	III/VI/MECH B	95.4	95.4	96.2	95.4	94.6	96.2	95.4	92.3	95.4	95.4	95.15
9.	Mr.B.RAMVIGNESH	ME8091	T1	III/VI/MECH B	93.8	93.1	93.1	91.5	94.6	95.4	91.5	94.6	93.1	91.5	93.23
		ME8682	L1	III/VI/MECH A	96.5	95.7	96.5	94.8	93.0						95.30
10.	Mr.S.KARTHI	ME8691	T1	III/VI/MECH B	81.5	79.2	75.4	77.7	73.1	76.9	75.4	80.8	74.6	83.1	77.77

		ME8694	T2	III/VI/MECH A	96.5	93.0	93.9	93.9	93.0	94.8	94.8	97.4	93.9	93.0	94.43
		ME8462	L1	II/IV/MECH	79.2	77.7	75.8	72.8	73.2	75.77					
11.	Mr.R.SHANKAR	ME8091	T1	III/VI/MECH A	98.3	100.0	96.5	94.8	93.9	95.7	93.9	93.9	96.5	99.1	96.26
		ME8681	L1	III/VI/MECH A	93.9	96.5	97.4	96.5	94.8	95.83					
12.	Mr V.VIJAYAKUMAR	IE6605	T1	IV/VIII/MECH B	88.3	85.5	85.5	95.9	91.0	86.2	90.3	91.0	85.5	85.5	88.48
		ME6811	L1	IV/VIII/MECH B	90.3	80.0	89.7	84.8	69.0	82.76					
13.	Mr.J. RAJAPARTHIPAN	ME8491	T1	II/IV/MECH	82.6	78.9	78.5	81.1	78.9	79.6	76.2	81.5	80.4	79.2	79.70
		ME8651	T2	III/VI/MECH A	96.5	93.9	89.6	92.2	96.5	93.9	92.2	94.8	92.2	91.3	93.30
14.	Mr.S.SABANAYAGAM	CE8395	T1	II/IV/MECH	82.6	75.8	75.5	77.7	72.5	73.6	74.7	75.8	74.0	76.6	75.89
		ME8691	T2	III/VI/MECH A	93.0	94.8	96.5	94.8	95.7	93.9	95.7	93.9	93.0	92.2	94.35
		ME8681	L1	III/VI/MECH B	78.5	78.5	72.3	75.4	76.2	76.15					

  
COORDINATOR

  
PRINCIPAL 12/2/2020

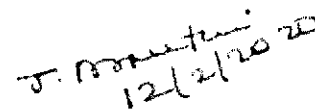


**DEPARTMENT OF SCIENCE AND HUMANITIES**  
**STAFF PERFORMANCE APPRAISAL: 2019-2020 (EVEN SEM)**  
**DEPARTMENT WISE CONSOLIDATED REPORT**

S.NO	STAFF NAME	SUBJECT CODE	THEORY / LAB	YEAR/ SEM/DEPT	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL (100)
1.	Mr.G.JEYAKRISHNAN	MA8451	T1	II/IV/ECE	97.3	96.7	92.0	98.7	96.0	96.0	98.0	90.0	96.7	93.3	95.47
2.	Dr.G.SHANKARAKALIDOSS	MA8491	T1	II/IV/EEE	84	88	92	90	90	88	94	88	94	92	90
		MA8452	T2	II/IV/MECH	70.9	72.5	72.5	73.6	66.4	67.2	75.5	64.9	73.2	70.6	70.72
3.	Dr.R.SURESH	MA8402	T1	II/IV/CSE	82.5	80.5	77	92	82	79.5	86	81.5	84	74.5	81.95
4.	Ms.S.GEETHA	MA8491	T1	III/IV/CIVIL	87.4	83.2	84.2	92.6	85.3	75.8	82.1	88.4	83.2	77.9	84.00
5.	Mr.B.BARANKUMAR	MG6851	T1	IV/VIII/CIVIL	88.6	85.4	83.8	89.2	85.9	88.1	90.3	93.5	89.2	86.5	88.05
		MG8591	T1	III/VI/ECE	98.9	96.6	97.1	98.3	97.1	96.0	97.7	98.3	94.3	93.1	96.74
6.	Dr.R.SENGUTTUVAN	HS8461	L1	II/IV/CSE	85	83.5	85.5	87	83						84.8
7.	Mr.P.RAJESHWARAN	HS8461	L1	II/IV/CIVIL	95.8	92.6	92.6	92.6	89.5						92.63
		HS8581	L2	III/VI/MECH B	83.8	85.4	85.4	85.4	81.5						84.31
8.	Ms.C.JANSIRANI	HS8581	L1	III/VI/CIVIL	82.1	79.3	80.0	78.6	77.1						79.42
		HS8461	L2	II/IV/MECH	82.6	79.2	81.9	80.4	80.0						80.83

9.	Mr.K.ANANDHA RAJ	HS8461	L1	II/IV/CSE	85	83.5	85.5	87	83	84.8					
		HS8581	L2	III/VI/CSE	79.0	77.1	74.8	73.3	74.3	75.71					
		HS8581	L3	III/VI/MECH A	93.0	94.8	92.2	93.9	92.2	93.22					
		HS8581	L4	III/VI/ECE	88.0	90.3	90.9	91.4	89.7	90.06					
10.	Dr.V.SURESHKUMAR	GE8291	T1	II/IV/ECE	96.7	92.7	94.0	96.0	96.0	97.3	97.3	94.7	92.0	94.0	95.07
11.	Mr.B.SURESH BABU	GE6757	T1	IV/VIII/EEE	98.2	96.4	94.5	94.5	96.4	92.7	94.5	92.7	94.5	96.4	95.09
12.	Mr.K.SUDHAKAR	MG6863	T1	IV/VIII/MECH A	98.9	97.7	96.6	98.3	97.7	98.3	98.9	98.3	97.7	98.3	98.06
		MG6863	T1	IV/VIII/MECH B	94.5	92.4	93.1	91.7	89.7	93.1	91.0	91.0	85.5	86.2	90.83

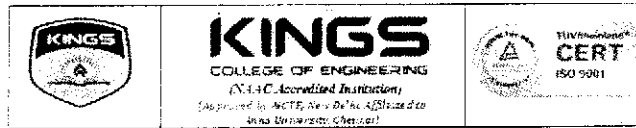
  
COORDINATOR

  
12/2/20 20  
PRINCIPAL



# **QUALITY CIRCLE MEETING**





23.10.17

## CIRCULAR

III Year students nominated by the departments for representing student views towards promotion of quality in academic process are directed to attend meeting with Principal on 25.10.17 by 3.00pm at Block-I Conference Hall (III Floor)

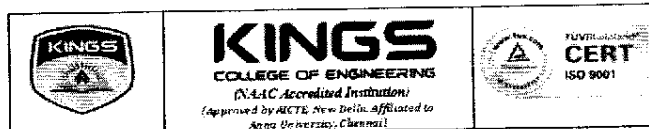
### Departmentwise students list

Civil : A.Neka, Vasanth.S  
CSE : D.Santhosh Ram, Samaya.G  
ECE : K.Gayathry, Tamilselvan.J  
EEE : R.Santhoshsamy, Muthumeena.K  
Mech : Manohari.M, Alex Raja

PRINCIPAL

### Copy To:

1. Secretary
2. CEO
3. VP
4. All HoDs



**ACADEMIC YEAR 2017-18 (ODD SEM)**  
**Student Representative Meeting with Principal**  
**Agenda: Student View on Academic Processes**

Date: 25.10.2017

**(Minutes of Meeting and action taken)**

**Principal convened Student Representative Meeting regarding student views on academic processes to strengthen quality aspects on 25.10.2017 between 3.00-4.45pm at Conference Hall. Categorywise representations made by students and enlightenment made are as follows:**

**Infrastructure**

<b>Student Representations</b>	<b>Enlightenment made / steps planned</b>
<b>Transport</b> <ul style="list-style-type: none"> <li>○ Arrival time for buses during exam timing shall be advanced (route no:4). Route is also crowded and state of no seats regularly for certain points.</li> <li>○ Kumbakonam route to cover Ayyampettai and Papanasam</li> <li>○ Request for reduce in bus fee was made.</li> </ul>	Transport issues were represented to the committee. Issue resolved.
Few equipments at certain labs are not working.	Servicing of lab equipments are made periodically. Issue resolved through maintenance.
Rest room facility issues (Block II)	Issue resolved. Facility arranged at II Floor.

**Teaching - Learning Processes**

<b>Student Representations</b>	<b>Enlightenment made / steps planned</b>
Explanations for lab exercise shall be given at class / at lab using projector / suitable method as applicable.	Lab session practices shall be strengthened. Explanations for the experiment by the staff during 1 <sup>st</sup> hr., experimental slot-2 <sup>nd</sup> , 3 <sup>rd</sup> hr which includes verification of completion and viva voce session. Appropriate demo session will be made.
<b>Self-learning</b> in lab sessions to be promoted	Additional learning resources will be made available at respective folders at computer centre for programming labs. Alternative experiment / suitable content beyond syllabus experiment shall be experimented by advanced learners.
Viva questions for experiments shall be made experiment related. Application oriented viva questions shall be added.	Lab manuals will be updated with theoretical procedure and application of the experiment. Viva questions will be made to strengthen learning of the corresponding experiment.

<b>Student Representations</b>	<b>Enlightenment made / steps planned</b>
Lab manual and Question bank content of few lab manuals to be reviewed. Count of Part-A questions shall be increased	Will be resolved in subsequent semester
Additional hours for problem based courses	Additional hours will be allotted for tough / problem oriented papers
Assignment question - unique for every student	Assignment question is planned to support student preparation for exams and student enrichment. Accordingly it will be planned.

#### **Examination and Evaluation process**

<b>Student Representations</b>	<b>Enlightenment made / steps planned</b>
2 Hrs internal assessment slot is convenient. Exams shall be conducted during 3 <sup>rd</sup> and 4 <sup>th</sup> hour. 1 <sup>st</sup> and 2 <sup>nd</sup> hr preparation slot is comfortable. Additional 10 minutes shall be provided for exam slot.	Will be continued. 10 min extension will be provided
Saturday coaching classes are effective. Slow learners are utilizing the slot.	Will be continued
Need Part-C section for all assessments	Will be made. Awareness about the content based preparation in University theory exams was insisted. Students should do in-depth learning in order to meet the University evaluation process.

#### **Support services**

<b>Student Representations</b>	<b>Enlightenment made / steps planned</b>
Library/Net hour utilization. Membership card clarifications. Net facility at computing systems at library	No alterations on library and net hour. 3 cards per student will continue. Students to utilize library resources. Net facility will be provided shortly.
Cash counter and Scholarship section services during break hours.	Break hour services at cash counter and scholarship section was arranged.

#### **Skill enhancement practices**

<b>Student Representations</b>	<b>Enlightenment made / steps planned</b>
T&P hours - 1 hr for communication skill enhancement	T&P hour will be conducted similar to lab sessions. Evaluation component will be included for student progression
Regular support for communication skill improvement.	Strategy will be introduced

### General

Student Representations	Enlightenment made / steps planned
Dress code for lab session	Students should wear Uniform during regular lab sessions. Higher classes (II, III, IV Year students) shall wear uniform and I Year students overcoat. Higher class students if required shall get overcoat and use it during lab sessions. Requirement details classwise to be submitted in prior. Student should come in formal dress code. Personal grooming to be in-tact and violations will not be entertained
Time-table hour clarification (APH , Interaction hour)	Current Time-table hours meet academic requirements, coaching classes and long distance dwellers.
Academic calendar visibility	Academic calendar visibility is ensured. Separate exam calendar and activity calendar will be planned during next semester onwards.

### Member Present

#### Students

Civil : A.Neka, Vasanth.S  
CSE : D.Santhosh Ram, Samaya.G  
ECE : K.Gayathry, Tamilselvan.J  
EEE : R.Santhoshsamy, Muthumeena.K  
Mech : Manohari.M, Alex Raja.G

Mr.K.Abhirami, IQAC Coordinator  
Dr.S.Sivakumar, Vice-Principal

*J. Praveen*  
25/10/2017.

**PRINCIPAL**

Student Representative Meeting with Principal  
regarding Student Views on Academic Processes  
(25/10/17)

Attendance sheet

Branch	Student Name	Signature
		K. Gauthi
I - ECE - A	GAYATHRY, K.	
II - CSE	G. SAMAYA	G. Samaya
III - Mech	M. MANOHARI	M. Mani
III - EEE	K. Muthumara	K. Muthu
III - EEE	R. Santhosh Sami	R. Santhosh
III - CSE	D. SANTHOSH RAN	D. Santhosh
III - MECH	G. Alexraja	G. Alexraja
III - ECE-B	J. Tamilselvan	J. Tamilselvan
III CIVIL-A	A. Neka	A. Neka
III CIVIL-B	S. Vasanth	S. Vasanth

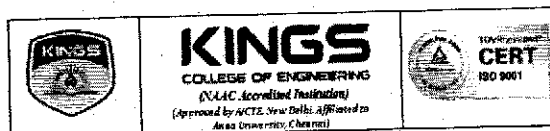
K. Abhirami

Dr. S. SIVAKUMAR.

K. Gauthi  
25/10/17

  
25/10/17

J. Manikumar  
25/10/17



**ACADEMIC YEAR 2017-18 (EVEN SEMESTER)**  
**Student Representative Meeting with Principal**

**08.02.18**

**Minutes of Meeting**

Principal convened meeting with I year class student representatives on 8.2.18 with the core agenda of support needed for academic progression. Two representatives (1 boy and 1 girl) from each branch of I year class participated, put across the following points. Suitable measures to resolve the issues raised were made.

**Common representation regarding academics -I Semester**  
**(Dec'17-Jan'18 AU exam) result aspects**

Representation made	Initiative / steps planned to support/ suggestions provided
<b>Mathematics-I</b>	
Mathematics question paper covered unexpected problems. 3 indirect questions were asked in Part-B section. Part -A was also found difficult. Students were unable to identify the method to be used for solving problem	<ul style="list-style-type: none"> <li>Prescribed /Reference books are issued for current semester for better exposure.</li> <li>Unitwise solved material will be issued to students for preparation</li> </ul>
For Part-A section, question bank was referred for preparation. Lack of sufficient exposure.	
University Exam schedule (1 day gap between exams except physics) was not sufficient for preparation	Students were insisted for regular reading practices to raise to the standard of engineering courses. Day before exam to be utilized for revising the learnt content.
<b>Engg. Physics</b>	
Due to postponement of AU exams, more leave days. Students has missed due to lethargic attitude. Question paper was easy.	<ul style="list-style-type: none"> <li>Students were informed about the credit of No history of arrear record in academics for placement drives.</li> <li>Examination for failed subjects will be held during next odd semester only. Hence, students have to understand the credit of clearing papers with good marks in the current semester itself.</li> </ul>
<b>Problem Solving and Python Programming</b>	
Reason for "Mech-A students were able to get only 50% of results though other branches have faired well" - Students cooperation was missing.	<ul style="list-style-type: none"> <li>Students to be regular to classes and follow the instructions given by faculty for better performance.</li> </ul>

Representation made	Initiative / steps planned to support/ suggestions provided
<b>Engineering Graphics</b>	
For morning batch, question paper was tough. Only 3 questions were found easier. Unit 1 and 5 <sup>th</sup> questions were unexpected. Inspite of more problems solved during class hours students were unable to do better.	Application oriented questions to be practiced.
For afternoon batch, students were unable to understand the question.	
<b>Engg. Chemistry</b>	
Class tests was not taken serious by Mechanical students. Retest followup also was not utilized by students	Student cooperation was sought in future.

### Branchwise representation regarding academics –Current Semester

Representation made	Initiative / steps planned to support/ suggestions provided
<b>Civil Engg.</b>	
<b>Basic Electrical and Electronics Engineering</b> by Ms.E.Suganya – No difficulties	<ul style="list-style-type: none"> <li>Students to prepare theoretical aspects of the problems and equip for attending any sought of question paper</li> <li>Unitwise notes will be given by faculty</li> </ul>
<b>Engg. Mechanics</b> by Mr.M.Mohammed Ilyas – No difficulties	<ul style="list-style-type: none"> <li>Textbook purchase for the subject was insisted</li> </ul>
<b>Engg. Mathematics -II</b> by Ms.G.Ramya Arokiyamary – No difficulties (Books issued)	-
<b>Environmental Science and Engineering</b> by Ms.P.Vijayakumari– No difficulties	-
<b>English</b> by Mr.K.Albert Lawrance – No difficulties	-
<b>Physics for Civil Engg.</b> by Mr.A.Anbhazhagan – No difficulties	-
<b>Engg. Practices Lab</b> by Mr.M.Mohammed Ilyas Mr.R.Sundaramoorthi – No difficulties	-
<b>CAD Lab</b> <ul style="list-style-type: none"> <li>Demo to be given in batches</li> <li>More input shall be provided</li> </ul>	Will be provided by the faculty in-charge.
Question bank and lab manual issue	Will be made within a week
Exposure to better presentation needed	Faculty will give the required exposure
<b>EEE</b>	

Representation made	Initiative / steps planned to support/ suggestions provided
<b>English by Mr.K.Albert Lawrence</b> - No difficulties	-
<b>Engg. Mathematics II by Ms.S.Revathi</b> - No difficulties Doubts are attended. Homeworks are given and verified.	-
<b>Physics by Ms.S.Anuradha</b> Delivery is good. But, few students are unable to understand. Need more attractive session	Will be made by faculty
<b>Environmental Science and Engineering by Dr.S.Udhayakumar</b> - No difficulties	-
<b>Basic Civil &amp; Mechanical Engg. by Mr.S.Giridharan</b> - No difficulties Classes are interesting and easy to follow	Students to utilize the rich experience of the faculty
<b>Circuit theory - Ms.A.Prabha</b> - No difficulties	-
<b>Labs - No difficulties</b> Engineering practices lab by Mr.R.Sundaramoorthi, Mr.M.Mohammed. Ilyas Electrical circuits lab by Mr.P.Narasimhan, Ms.A.Prabha	-
<b>ECE</b>	
<b>Engg. Mathematics-II by Ms.N.Latha</b> - No difficulties Homeworks given and verified. Individual support given	-
<b>English by Mr.P.Rajeshwaran</b> - No difficulties	-
<b>Physics for Electrical Engg. by Ms.S.Anuradha</b> Student involvement is missing. Classes shall be made interesting	Will be made by faculty.
<b>Circuit theory by Ms.C.M.Kalaiselvie</b> - No difficulties	-
<b>Electron devices by Mr.W.Newton Davidraj</b> - No difficulties	-
<b>Basic Electrical and Electronics Engineering by Ms.P.Thirumagal</b> - No difficulties Books are to be identified and issued	Will be made.
<b>Labs- No difficulties</b> Circuits & Devices lab by Mr.K.Sudarsanan, Mr.W.Newton David Raj Engg. Practices lab by Mr.S.Sivakumar, Ms.C.M.Kalaiselvie, Mr.R.Suryamurthy	-



CSE	
Representation made	Initiative / steps planned to support/ suggestions provided
<b>English</b> by Mr.P.Rajeshwaran – No difficulties. Classes interesting	-
<b>Engg. Mathematics-II</b> by Dr.R.Suresh – No difficulties <ul style="list-style-type: none"> <li>• Easy to follow. Homework verified. Individual support given.</li> <li>• 12<sup>th</sup> Maths coverage does not mandate on Integral calculus preparation. Hence, additional classes can be given.</li> </ul>	<ul style="list-style-type: none"> <li>• Special classes will be organized. In 2 slots session will be organized for all the branches.</li> </ul>
<b>Basic Electrical Electronics and Mechanical Engineering</b> by Mr.S.R.Karthikeyan Slow learners are not able to cope-up.	<ul style="list-style-type: none"> <li>• Since course coverage is vast, additional special session will be organized for Mech, EEE, CSE branches</li> </ul>
<b>C Programming</b> by Ms.G.Chandrababha Students find subject tough.	<ul style="list-style-type: none"> <li>• More programming examples will be provided during lab session.</li> <li>• Additional support will be made.</li> </ul>
<b>Environmental Science and Engineering</b> by Dr.A.L.Kavitha– No difficulties	-
<b>Physics for Information Science</b> by Ms.R.Umamaheshwari – No difficulties	-
<b>Labs</b> – No difficulties More writing work due to manual readiness  Engg. Practices lab by Mr.R.Balakrishnan, Mr.P.Rajapriyan Mr.G.Mathivanan  Computer Programming Lab Mr.D.Sivakumar, Mr.M.Arun	<ul style="list-style-type: none"> <li>• Will be provided within a week</li> </ul>
Mech- A	
<b>English</b> by Dr.V.Kumaran– No difficulties Faculty speaking fully in English and deep level delivery. Few students to cope-up.	<ul style="list-style-type: none"> <li>• Students to utilize the sessions</li> </ul>
<b>Engg. Mathematics II</b> by Mr.G.Jeyakrishnan – No difficulties	-
<b>Basic Electrical and Electronics Engineering</b> by Mr.M.Mayapandi – No difficulties	-
<b>Environmental Science and Engineering</b> by Dr.P.Saravanan– No difficulties	-
<b>Material Science</b> by Mr.A.Anbhazhagan – No difficulties	-
<b>Engg. Mechanics</b> by Mr.S.Giridharan – No difficulties	-

Representation made	Initiative / steps planned to support/ suggestions provided
<b>Basic Electrical Electronics and Instrumentation Engg. Lab</b> – by Mr.M.Mayapandi, Mr.V.Moorthy Hour utilization to be made effective. One hour was only used for experiments and concepts unknown.	Concepts will be taught in the 1hr. and 2 hours for experiment
<b>Engineering practices lab</b> by Ms.P.Geethabai, Ms.E.Suganya, Mr.Rajeshkumar.S No difficulties	-
<b>Mech- B</b>	
<b>Basic Electrical and Electronics Engineering</b> by Mr.P.Narasimman Classes going on fast. Slow learners find it difficult	• Special session will be organized
<b>Engg. Mathematics II</b> by Ms.J.Angelin Thamaraiselvi – No difficulties	-
<b>English</b> by Mr.k.Radhakrishnan – No difficulties	-
<b>Environmental Science and Engineering</b> – by Dr.V.Sureshkumar -No difficulties	-
<b>Material Science</b> by Mr.S.Ambalatharasu – No difficulties	-
<b>Engg. Mechanics</b> by Mr.Melwin J.Sridhar Subject tough. Teaching is good.	Problem based subject. Hence, students to concentrate more.
<b>Basic Electrical Electronics and Instrumentation Engg. Lab</b> By Mr.Narasimman.P, Ms.A.Prabha Theory and lab mismatch. Need basics	Will be provided
<b>Engineering practices lab</b> By Mr.P.Rajapriyan, Mr.A.Herald, Mr.N.Magesh– No difficulties	-

#### General representation made(Students) and suggestions made

- Slot for utilizing library facility.
  - Extended hour support to be utilized. Additional slots will be identified and provided.
- Slot for physical activity (sports).
  - Will be identified and provided.
- Newspaper provision to hostel.
  - Students to utilize the facility at central library.

### **General suggestions made(Principal & Vice-Principal)**

- Students were motivated for overall development and raise their standard through right attitude towards academics. Regular learning attitude is essential for better performance.
- Prescribed text books and reference books to be utilized in preparation. Faculty will provide unitwise material for supporting in preparation.
- All genuine representations will be considered and necessary support will be provided.
- For problem based subjects, more problems to be solved and practiced. Homework problems to be solved regularly by student.
- Students should utilize opportunities provided for skill enhancement and build better career. Placement opportunities in MNCs and other companies was elaborated and insisted to be prepared for utilizing the drives organized internally and externally. For current batch, 11 students are taking part in Infosys drive organized by AU, CUIC. Additional coaching sessions are arranged for these students.
- Students to be regular to classes to cope-up.

*J. M. M. M.*  
8/2/18

**PRINCIPAL**



ACADEMIC YEAR 2017-18

08.2.18

**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
**(Towards Quality improvement initiatives)**  
**I yr classes**  
**ATTENDANCE SHEET**

Branch	Student	Signature
ECE	U. Vdhayarani	U. Vdhayarani
CIVIL	M. Soundariya.	M. Soundariya.
EEE	M. Nandhini	M.N
CSE	E. Teevitha	E. Teevitha
CIVIL	GURU SWATHIR. K.S.	G. Swathir.
EEE	Aadhavan. S	Aadhavan
ECE	Melvin Charles. B	B. Melvin Charles
CSE	Venkatesh Raghu. K.	K. Venkatesh Raghu
Mech-A	R. Mohamed Yasin Sharif	R. Mohamed Yasin Sharif
Mech-A	Madhesh. D	D. Madhesh
Mech-B	Senthamiz Sudas. K	K. Senthamiz Sudas
Mech-B	Shriram Sundar. k	K. Shriram Sundar



**ACADEMIC YEAR 2017-18 (EVEN SEMESTER)**  
**Student Representative Meeting with Principal** (IQAC meeting)

**08.02.18**

**Minutes of Meeting**

Principal convened meeting with II and III year class student representatives on 8.2.18 with the agenda of student support requirements for academic progression. Two representatives (1 boy and 1 girl) from each class participated, put across the following points. Suitable measures to resolve the issues raised were made.

Representation made	Initiative / steps planned to support/ suggestions provided
<b>General Issues</b>	
Coaching classes shall be organized on Saturdays due to difficulties in transport facility	<ul style="list-style-type: none"> <li>Students with poor performance in assessments to work hard and secure good marks.</li> <li>To support slow learners only coaching classes are organized. Students to fair well in Assessment -II.</li> <li>Saturdays are scheduled for identified tough subjects coaching.</li> </ul>
Coaching classes till assessment schedule.	Coaching classes will not be scheduled on assessment days.
Students thanked for college transport facility to public transportation users during coaching classes.	Will be continued
One Class test per day	Departments are scheduling class test.
Hostel study time for girl students	Will be discussed with Warden and finalized
Water facility & Internet facility at girls hostel	Will be addressed.
GATE Hour utilization	<ul style="list-style-type: none"> <li>GATE coaching only for aspirants during the slot</li> <li>Other students will be given coaching on tough subjects during the slot</li> </ul>
Preparatory time for Assessments on the day of exam	Scheduled between 10.30-12.30. 9.15 am to 10.15 shall be utilized to revise.
Boys hostel phone usage	Will be addressed
Industrial visit	In House Training slot during vacation to be utilized
<b>Branchwise representations</b>	
<b>Civil Engg.</b>	
Guest Lecture session are useful	Will be continued in future too.
Course difficulties are resolved	-
Course materials	<ul style="list-style-type: none"> <li>Faculty members will provide unitwise course material (covering Part-B questions)</li> </ul>

Representation made	Initiative / steps planned to support/ suggestions provided
Book issue & lending from department library	• Will be provided
Central Library – Better Xerox support	• Will be made
Laboratories – observation and records are verified	-
T&P hours are conducted as per schedule	-
<b>Computer Science and Engineering</b>	
For Department library usage additional staff needed	Will be made
Labs are going on with better learning approaches.	Will be continued
T&P hours are conducted as per schedule	-
DSP classes are going are smooth.	-
Communication Skills slot is utilized in a better manner	-
Daily test followup issue – Absent marked for failures	Will be addressed.
<b>Electronics and Communication Engineering</b>	
3 days consecutive AU exam schedule	Representation to AU already made.
Lab sessions going on well	-
Assessment test key – mismatch with question bank for the subject Antenna and Wave Propagation	Will be addressed
Additional assignment writing students irregular to classes (missed regular classes)	Will be addressed.
<b>Electrical and Electronics Engineering</b>	
OOPs lab – record submission not informed. All students stood and wrote for 3 hrs.	Will be addressed.
<b>Mechanical Engineering</b>	
CNC lab sessions are going on well	-
PPT sessions are required	Will be made
Monthly events are organized for enrichment	Will be continued
Student programmes in tie-up with other organizations	Will be addressed.

**ACADEMIC YEAR 2017-18**

**08.2.18**

**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL  
(Towards Quality improvement initiatives)**

**ATTENDANCE SHEET**

Branch	Student	Signature
CIVIL	K.Kowsalya, II Yr.	R. Kowsalya
	S.Surya, II Yr.	S. Surya
	A.Neka, III Yr	A. Neka
	S.Vasanth, III Yr.	S. Vasanth
CSE	Santhosh Ram.D, II Yr.	D. Santhosh
	Samaya.G, II Yr.	G. Samaya
	Bharanitharan.N, III Yr.	N. Bharanitharan
	Thilagavathi.S, III Yr.	S. Thilagavathi
ECE	S.Dhanasekaran, II Yr	S. Dhanasekaran
	K.Priyadharsini, II Yr.	K. Priyadharsini
	K.Gayathry, III Yr.	K. Gayathry
	J.Tamilselvan, III Yr.	J. Tamilselvan
EEE	S.Parthiban, II Yr	S. Parthiban
	R.Pavithra, II Yr	R. Pavithra
	R.Santhoshamy, III Yr.	R. Santhoshamy
	K.Muthumeena, III Yr.	K. Muthumeena
MECH	S.Afshal Hussain, II Yr.	S. Afshal Hussain
	Chyleshwar.M, II Yr.	M. Chyleshwar
	M.Manohari, III Yr.	M. Manohari
	Alex Raja.G, III Yr.	G. Alex Raja

**VICE-PRINCIPAL**

J. Mani  
8/2/18  
**PRINCIPAL**



**ACADEMIC YEAR 2017-18 (EVEN SEMESTER)**  
**Student Representative Meeting with Principal(I Yr. classes)**

**03.04.18**

**Minutes of Meeting**

Principal convened meeting with 1 year class student representatives on 2.4.18 with the agenda to identify academic progression and student requirements.

**Branchwise representation regarding academics –Current Semester**

Representation made	Initiative / steps planned to support/ suggestions provided
Civil Engg.	
Basic Electrical and Electronics Engineering by Ms.E.Suganya - No difficulties	Subject is voluminous. Spend more time.
Engg. Mechanics by Mr.M.Mohammed Ilyas - No difficulties	Library books to be utilized for reference. Problem based subject. Hence, students to concentrate more.
Engg. Mathematics -II by Ms.G.Ramya Arokiyamary - No difficulties	-
Environmental Science and Engineering by Ms.P.Vijayakumari- No difficulties	-
English by Mr.K.Albert Lawrance - No difficulties	To complete book exercises. Verification on 7.4.18
Physics for Civil Engg. by Mr.A.Anbhazhagan - No difficulties, Weekly 2 tests are conducted	-
Engg. Practices Lab by Mr.M.Mohammed Ilyas Mr.R.Sundaramoorthi - No difficulties	To utilize additional hours (if required) and complete lab sessions as per schedule.
CAD Lab - No difficulties. Procedure is explained in prior	
EEE	
Representation made	Initiative / steps planned to support/ suggestions provided
English by Mr.K.Albert Lawrence - No difficulties	To complete book exercises. Verification on 7.4.18
Engg. Mathematics II by Ms.S.Revathi - No difficulties	-



Representation made	Initiative / steps planned to support/suggestions provided
<b>Physics</b> by Ms.S.Anuradha Student attention is made. Classes interesting.	-
<b>Environmental Science and Engineering</b> by Dr.S.Udhayakumar – No difficulties	-
<b>Basic Civil &amp; Mechanical Engg.</b> by Mr.S.Giridharan– No difficulties	-
<b>Circuit theory</b> – Ms.A.Prabha– No difficulties	-
<b>Labs</b> – No difficulties Engineering practices lab by Mr.R.Sundaramoorthi, Mr.M.Mohammed. Ilyas Electrical circuits lab by Mr.P.Narasimhan, Ms.A.Prabha	-
<b>ECE</b>	
<b>Engg. Mathematics-II</b> by Ms.N.Latha – No difficulties Homeworks given and verified.	-
<b>English</b> by Mr.P.Rajeshwaran – No difficulties	To complete book exercises. Verification on 7.4.18
<b>Physics for Electrical Engg.</b> by Ms.S.Anuradha Classes are interesting. Tests conducted. Retest also given.	-
<b>Circuit theory</b> by Ms.C.M.Kalaiselvie – No difficulties	-
<b>Electron devices</b> by Mr.W.Newton Davidraj – No difficulties	-
<b>Basic Electrical and Electronics Engineering</b> by Ms.P.Thirumagal – No difficulties Books are to be identified and issued	Subject is voluminous. Spend more time
<b>Labs</b> Circuits & Devices lab by Mr.K.Sudarsanan, Mr.W.Newton David Raj - Only 4 experiments completed. - Few meters not working Engg. Practices lab by Mr.S.Sivakumar, Ms.C.M.Kalaiselvie, Mr.R.Suryamurthy	Additional lab sessions will be planned.
<b>CSE</b>	
Representation made	Initiative / steps planned to support/suggestions provided
<b>English</b> by Mr.P.Rajeshwaran – No difficulties.	To complete book exercises. Verification on 7.4.18
<b>Engg. Mathematics-II</b> by Dr.R.Suresh – No difficulties	-

Representation made	Initiative / steps planned to support/ suggestions provided
<b>Basic Electrical Electronics and Mechanical Engineering</b> by Mr.S.R.Karthikeyan	<ul style="list-style-type: none"> <li>Subject is voluminous. Spend more time.</li> </ul>
<b>C Programming</b> by Ms.G.Chandrababha Programs are explained. Easy to follow	Aps for C programming shall be utilized. Reference books to be utilized for enhancing programming skills.
<b>Environmental Science and Engineering</b> by Dr.A.L.Kavitha– No difficulties	-
<b>Physics for Information Science</b> by Ms.R.Umamaheshwari – No difficulties	-
<b>Labs</b> – No difficulties Engg. Practices lab by Mr.R.Balakrishnan, Mr.P.Rajapriyan Mr.G.Mathivanan Computer Programming Lab Mr.D.Sivakumar, Mr.M.Arun	-
<b>Mech- A</b>	
<b>English</b> by Dr.V.Kumaran - Need examination oriented preparatory guidelines. - Revision for all topics is required.	<ul style="list-style-type: none"> <li>Will be provided.</li> </ul>
<b>Engg. Mathematics II</b> by Mr.G.Jeyakrishnan – No difficulties	-
<b>Basic Electrical and Electronics Engineering</b> by Mr.M.Mayapandi – Unit IV is just started. Few days for syllabus completion. Additional hrs. needed.	Extra hours will be planned.
<b>Environmental Science and Engineering</b> by Dr.P.Saravanan– No difficulties	-
<b>Material Science</b> by Mr.A.Anbrazhagan – No difficulties	-
<b>Engg. Mechanics</b> by Mr.S.Giridharan – No difficulties	-
<b>Basic Electrical Electronics and Instrumentation Engg. Lab</b> – by Mr.M.Mayapandi, Mr.V.Moorthy	-
<b>Engineering practices lab</b> by Ms.P.Geethabai, Ms.E.Suganya, Mr.Rajeshkumar.S No difficulties	-
<b>Mech- B</b>	
<b>Basic Electrical and Electronics Engineering</b> by Mr.P.Narasimman - Individual attention is needed for problems based sessions.	<ul style="list-style-type: none"> <li>Subject is voluminous. Spend more time.</li> </ul>
<b>Engg. Mathematics II</b> by Ms.J.Angelin Thamaraiselvi– No difficulties	-

Representation made	Initiative / steps planned to support/ suggestions provided
<b>English</b> by Mr.k.Radhakrishnan - Need examination oriented preparatory guidelines.	Will be provided
<b>Environmental Science and Engineering</b> – by Dr.V.Sureshkumar -No difficulties	-
<b>Material Science</b> by Mr.S.Ambalatharasu – No difficulties	-
<b>Engg. Mechanics</b> by Mr.Melwin J.Sridhar -No difficulties	Problem based subject. Hence, students to concentrate more.
<b>Basic Electrical Electronics and Instrumentation Engg. Lab</b> By Mr.Narasimman.P, Ms.A.Prabha	Will be provided
<b>Engineering practices lab</b> By Mr.P.Rajapriyan, Mr.A.Herald, Mr.N.Magesh– No difficulties	-

#### Special session on

- Presentation tips for University examinations
  - Mathematics & Problem based subjects
  - Theory papers
- And preparatory guidelines is planned for all the classes.
- For CSE students, session will be planned for Basic Electrical Electronics and Mechanical Engineering

#### General suggestions made(Principal & Vice-Principal)

- Students should improve regular reading habits. Knowledge will give raise to confidence level too. Hence, students to cover topics regularly.
- Advanced learners shall guide and motivate average and slow learner. Peer learning activity was encouraged.
- Conduct of Revision and ICC classes was elaborated. Students to utilize revision classes effectively. Assigned topics for the day to be covered and test to be written.
- Students should aim for higher grades in examination and maintain good CGPA. Importance of no history of arrears and nil arrear category was explained. Priority for such category in placements was also elaborated to students.
- Lab sessions to be utilized effectively. Students should learn about essentials of every experiment and do experiments with clear understanding.

J. Ananthan  
3/4/18  
PRINCIPAL



ACADEMIC YEAR 2017-18

02.4.18

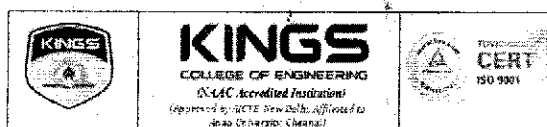
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL  
(Towards Quality improvement initiatives) – I Yr.**

**ATTENDANCE SHEET**

Branch	Student	Signature
CIVIL	M.Soundariya	M.Soundariya.
	K.S.Guruswathik	-AB-
CSE	Vengatesh Ragu	Vengatesh Ragu.k.
	Jeevitha.E	E. Jeevitha
ECE	U.Udayavani	U. Udayavani
	Melvin Charles	B Melvin Charles
EEE	S.Aadhavan	S. Aadhavan
	M.Nandhini	M. Nandhini
MECH-A	R.Mohamed Yasin Sharif	R. Mohamed Yasin Sharif
	D.Madhesh	D. Madhesh
MECH-B	K.Senthamizh Sudar	K. Senthamizh Sudar
	K.Shriram Sundar	K. Shriram Sundar

214HR

J. Mohan  
21/4/18



**ACADEMIC YEAR 2018-19 (ODD SEMESTER)**  
**Student Representative Meeting with Principal**

**08.08.18**

**Minutes of Meeting**

Principal convened meeting with II year class student representatives on 7.8.18 with the agenda of academic progression and identification of support needed by students. Two advanced learners and two average learners from each branch of II year class participated.

**Common representation regarding academics –I Semester**  
**(Dec'17-Jan'18 AU exam) result aspects**

<b>Representation made</b>	<b>Initiative / steps planned to support/ suggestions provided</b>
<b>CIVIL</b>	
No difficulties in subjects & labs. CDC for advanced learner covers soft skill and communication skills classes.	General : Students to practice exercise problems for problem based subjects.
<b>CSE</b>	
Communication Engineering : students represented for additional support.	Will be provided.
Issue of Lab manual & Question bank	Will be completed by this week.
IS&LS lab was scheduled in Saturdays	Will be scheduled during weekdays.
<b>ECE</b>	
Signals and Systems : Students requested for additional support. Few students were unable to understand concepts. Requested for notes.	Additional sessions will be arranged. Issue will be dealt.
ADC Lab : Few equipments not working (including power supply)	Will be rectified.
<b>EEE</b>	
No difficulties in theory subjects	-
Electronics Lab : Ammeter reading deviations	Will be rectified.
<b>Mech</b>	
Students represented for additional support for Engineering Thermodynamics, Fluid Mechanics and Machinery subjects	Will be provided. Tutorial sessions will be planned during 8 <sup>th</sup> hour.
Students represented about hotness at Manufacturing Technology lab	Appropriate set is available. Windows to be kept open.
Few machines at CAD lab not functioning	Will be rectified.

### **General requirements mentioned by students and solution provided**

- Few long distance students represented for closing timing as 4.30pm.
  - Giving importance to the revision slot (8<sup>th</sup> hour) which includes preparation cum test, it was resolved by commuting 1<sup>st</sup> slots for long distance routes.
- Request for hostel study timing changes.
  - Will be discussed and finalized.
- Participation in sport activities.
  - Interested candidates shall avail extended hour sport facilities.
- Hostel computing facility (Girls hostel)
  - Systems with internet facility will be provided.

### **General suggestions made(Principal & Vice-Principal)**

- Books are procured for all subjects. Prescribed text books and reference books to be utilized in preparation. Faculty will provide unitwise material for supporting in preparation.
- For all problem based subjects, book exercises to be practiced by students exhaustively. Additional revision slots will be provided for problem based subjects.
- Class securing 75% and above results in Anna University examinations will be permitted for Industrial visit. ISRO, Thermal Power station-Koodankulam and other related centre visits will be arranged.
- Absenteeism for internal assessments will be viewed seriously.
- Regulations 2017 is designed meeting the latest technological implementations and usage. Students to understand the raise in standard and inculcate regular learning habits to fair well.
- Since II year curriculum introduces core engineering papers, students to work hard regularly. Being explored to the AU examinations for 2 semesters, students to cope up and prepare well for examinations.

*J. M. Muthu*  
9/8/18  
PRINCIPAL

ACADEMIC YEAR 2018-19 - ODD

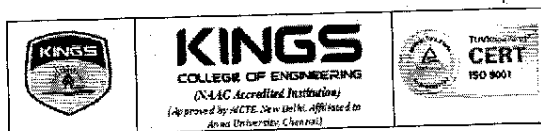
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL  
(Towards Quality improvement initiatives)**

**ATTENDANCE SHEET**

Branch	Student	Signature
CIVIL	M.Soundariya	M.Soundariya.
	K.Guruswathik	Guruswathik
CSE	K.Vengatesh Ragu	K.Vengatesh Ragu
	E.Jeevitha	E.Jeevitha
ECE	U.Udayavani	U.Udayavani
	Melvin Charles	Melvin Charles
EEE	S.Aadhavan	S.Aadhavan
	N.Nandhini	N.Nandhini
MECH	R.Mohammed Yasin Sharif	R. Mohamed Yasin Sharif
	D.Madhesh	D.Madhesh
	K.Senthamizh Sudar	K.Senthamizh Sudar
	K.Shriram Sundar	K.Shriram Sundar

  
 21/8/18  
**VICE-PRINCIPAL**

  
 21/8/18  
**PRINCIPAL**



**ACADEMIC YEAR 2018-19 (ODD SEMESTER)**  
**Student Representative Meeting with Principal**

23.08.18

**Minutes of Meeting**

Principal convened meeting with III year & IV year student representatives on 21.8.18 with the agenda of academic progression and identification of support needed by students. Two advanced learners and two average learners from each branch of II year & III Year classes participated. Principal briefed on the following matters during the meet.

- All **genuine student representations** are considered and necessary efforts are taken towards meeting student requirements. Student feedback is collected through various means viz., CCM, Staff Appraisal, IQAC meetings, Counseling sessions, Grievances redressal cell etc. KCE practice of Grandparents degree by Parents was highlighted and the responsibility that every son / daughter should have in honoring their parents was insisted.
- Principal enlightened on the efforts to be taken by the students towards **improving skills that are essential for engineers**. Periodical practices adopted at KCE was referred and students were directed to utilize the opportunities. Necessity for consistent learning habit and concept based learning was insisted. Peer team support shall be practiced for betterment.
- **Placement opportunities** created at KCE to be utilized by IV year students by exclusive utilizing training slots offered.
- **Periodical tests** are conducted to give better exposure and face AU exams with confidence. Students to be regular to classes and attend tests / exams with appropriate preparations. Retests are conducted to aid the slow learner to earn internals.
- **CDC classes** for advanced learners **enriching their skills** and **KDC classes** for average & slow learners supporting them for **academic courses** are practiced during this semester onwards. Students are directed to utilize their slots effectively.
- **Regularity and Punctuality** among students was insisted for regular classes and for examinations. Few deviations are identified in certain departments.



- **Quality final year project work** was insisted. Students to prepare for survey paper presentation , publication during VII semester and conference , journal publication during VIII semester.
- **SWAYAM** courses to be undergone by students. Class with maximum registration will be honored.
- **Professional society activities** are organized providing opportunity for talent exposure and enrichment. Students to utilize the events organized.

**General requirements mentioned by students and solution provided**

- **College closing time revision** was represented by students to support long distance student commutation (public transport facility availing students). Representation will be considered and changes will be informed shortly.
- **Arrear subject coaching** was represented by students. Classes are organized for mathematics subject. Respective department HoD will arrange for classes as per student request.
- Representation regarding **GATE classes** for Mechanical IV year student was made. Efforts will be made by the department to impart better exposure.
- Inclusion of **1 arrear students for CDC session** was represented. Students shall contact respective HoD and shall attend sessions.
- **Sports** - representation regarding inter-zonal game participation by athletes was made. Student to report with record of individual achievements and will be dealt suitably encouraging student participation.
- **Symposium** - general code of conduct to be followed. Refreshment representation was made. Students will be informed shortly about the decision. It was insisted to convene symposium meeting its objective of knowledge sharing, skill exposure, networking with community and enhancing organizing skills among student community.
- **Local visit / Industrial visit** will be considered crediting AU results.

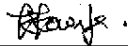
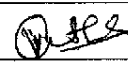
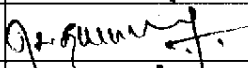
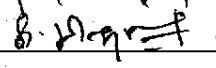
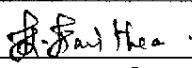
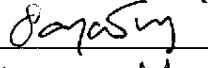
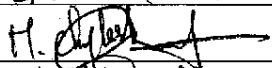

*J. R. Ramesh*  
23/8/18.

**PRINCIPAL**

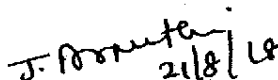
ACADEMIC YEAR 2018-19 - ODD

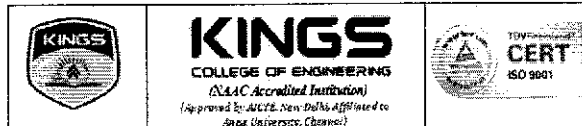
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
**(Towards Quality improvement initiatives)**

**ATTENDANCE SHEET**

Branch	Student	Signature
CIVIL	K.Kowsalya, III Yr.	
	S.Surya, III Yr.	AS
	A.Neka, IV Yr	A. Neka
	S.Vasanth, IV Yr.	
CSE	Santhosh Ram.D, IV Yr.	D. Santhosh
	Samaya.G, IV Yr.	G. Samaya
	Bharanitharan.N, III Yr.	—
	Thilagavathi.S, III Yr.	—
ECE	S.Dhanasekaran, III Yr	
	K.Priyadharsini, III Yr.	
	K.Gayathry, IV Yr.	—
	J.Tamilselvan, IV Yr.	J. Tamil
EEE	S.Parthiban, III Yr	—
	R.Pavithra, III Yr	
	R.Santhoshsamy, IV Yr.	
	K.Muthumeena, IV Yr.	K. Muthu
MECH	S.Afshal Hussain, III Yr.	S. Afzal Hussain
	Chyleshwar.M, III Yr.	
	M.Manohari, IV Yr.	
	Alex Raja.G, IV Yr.	G. Alex Raja

  
 21/8/19  
**VICE-PRINCIPAL**

  
 21/8/19  
**PRINCIPAL**



ACADEMIC YEAR 2018-19 - ODD

STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL  
(Towards Quality improvement initiatives)

ATTENDANCE SHEET

Branch	Student	Signature
CIVIL	T. Nandhini (III year)	T. Nandhini
	P. Shalini (IV year)	P. Shalini
CSE	S. Yuvalakshmi Priya (III yr)	S. Yuvalakshmi Priya
	K. Pradeep	K. Pradeep
ECE	G. Shobasree / T. Abinaya	G. Shobasree / T. Abinaya
	M. Ajay	M. Ajay
EEE	R. AKASH	R. AKASH
	SOMNIA S	SOMNIA S
	S. Pradip	S. Pradip
MECH	RASIK M	RASIK M
	K. Abinash K (III yr)	K. Abinash K
	B. Veerachandran	B. Veerachandran
	S. Raniya Kumar	S. Raniya Kumar

CIVIL K. Ganesh Adhithya K. Ganesh Adhithya

ECE S. JEEVA S. JEEVA

CIVIL M. MOHAMED AMEERALI M. MOHAMED AMEERALI

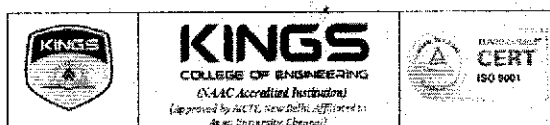
MECH R. Madhan R. Madhan

CIVIL M. Nithish Kumar M. Nithish Kumar

EEE P. Aravindan P. Aravindan

ECE S. Berkmarauz S. Berkmarauz

J. Raniya  
21/8/18



**ACADEMIC YEAR 2018-19 (ODD SEMESTER)**  
**Student Representative Meeting with Principal**

**17.09.18**

**Minutes of Meeting**

Principal convened meeting with II year Lateral entry students on 15.9.18 with the agenda of identifying support needed by students and motivate students for better performance. Principal elaborated on the following points initially and directed students to mention about their requirements.

- Highlights about **Regulations 2017 and Examination pattern** was detailed and students were insisted to prepare well for AU examinations.
- Importance of maintaining **consistent academic records** and **Placement opportunities** for students was explained.
- **Preparatory tips** for theoretical and problem based paper was detailed.
- Importance of **Quality project works** was explained.
- Students were directed to inculcate **regular learning habit** and conceptual learning for fairing well in AU exams.
- Students were directed to seek support of subject staff for any clarification in subjects.
- Students to solve book exercises for problem based subjects.
- Students to abide to the rules and code to maintain discipline

**Departmentwise representation made by students**

<b>Representation made</b>	<b>Initiative / steps planned to support/ suggestions provided</b>
<b>CIVIL</b>	
Fluid Mechanics & Strength of Materials : Extra classes required	Will be arranged
Construction Material : Keypoints required. Teaching in Tamil language	Keypoints will be provided. Students to cope up language skills. Additional support will be provided by staff
<b>CSE</b>	
Communication Engineering : students represented for additional support for problems	Will be provided.
OOPS : Support for writing Java Programs	Will be provided
<b>ECE</b>	
Additional revision slots for subjects	Additional sessions will be arranged.

Representation made	Initiative / steps planned to support/ suggestions provided
<b>EEE</b>	
Electro Magnetic Theory : Need additional support(Find difficulties in following equations)	Will be provided
<b>Mech-A</b>	
Students represented for additional support for Maths, Fluid Mechanics	Will be provided.
<b>Mech-B</b>	
Thermodynamics : Fast delivery. Not able to follow	Will be addressed

Students shall utilize Suggestion box and Grievances redressal cell to register any issues / requirements.

*J. Narayan*  
26/9/18

PRINCIPAL

ECE — S. Jayaram  
 EEE — C. B. S.  
 CSE → Y. Jeyaraj 21/9/18  
 CIVIL — P. Sankar  
 MECH — A. Sudhan 27/9/18  
 I year → R. Jeyaraj



**KINGS**  
COLLEGE OF ENGINEERING  
(NAAC Accredited Institution)  
Approved by: AICTE, New Delhi Affiliated to  
Anna University, Chennai



ACADEMIC YEAR 2018-19-ODD

**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
(Towards Quality improvement initiatives)

ATTENDANCE SHEET

(15.9.18)

*Lateral Entry students*

Branch	Student	Signature
EEE	P. GOPINATH	P. Gopinath
Civil	V. SARAVANAN	V. Saravanan
Civil	S. GURUHARAN	S. Guruharan
Civil	C. BOOMIDURAI	C. Boomidurai
Civil	L. Velupras Paul	L. Velupras Paul
EEE	S. Hariharan	S. Hariharan
Civil	P. SANTHOSH KANDHAN	P. Santosh Kandhan
Civil	Logesh. A	A. Logesh
Civil	A. ARUL STALIN	A. Arul Stalin
Civil	K. Anokha Alex	K. Anokha Alex
Civil	R. Vignesh	R. Vignesh
Civil	T. Rajesh	T. Rajesh
Meen	S. Anil Ione	S. Anil Ione
Mech	S. Vijay Chandru	S. Vijay Chandru
Civil	T. Premnath	T. Premnath
Civil	K. NARESH VEKKALIDAGAN	K. Naresh Vekkalidagan
Mech	B. Raja Rajeswaray	B. Raja Rajeswaray
Mech	K. Sathish sharan	K. Sathish sharan

[illegible]

28

J. Permuter  
15/9/18-



**ACADEMIC YEAR 2018-19 (ODD SEMESTER)**  
**Student Representative Meeting with Principal**

**30.10.18**

**Minutes of Meeting**

Principal convened meeting with I year class student representatives on 30.10.18 with the agenda of academic progression and identification of support needed by students. one advanced learner and one average learner from each section of I year class participated.

**Common representation regarding academics –I Semester**

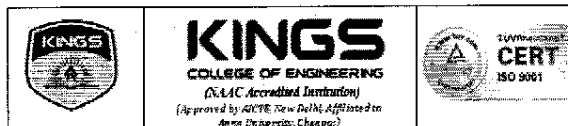
<b>Representation made</b>	<b>Initiative / steps planned to support/ suggestions provided</b>
<b>A -SECTION</b>	
Communicative English: Weekly 5 hours are given. But utilization is 3 hours only.	Informed concerned staff & no alterations in hours will be entertained.
Engineering Physics: The concern staff had taken break and lunch hours	Staff member informed about this.
Problem solving and python programming: Due to holidays, lab hours are shortage.	Hours will be compensated.
<b>B -SECTION</b>	
Engineering chemistry: Tamil medium students felt difficult to follow teaching in English.	Staff member informed & suitably classes will be handled.
Engineering Mathematics: He had given more number of problems as home work, the successive day he had given the final answer only. It is difficult for solving home works.	Guidance will be provided by staff.
<b>C -SECTION</b>	
Engineering Mathematics: Cannot understand the concepts clearly.	Additional coaching will be provided.
<b>D -SECTION</b>	
General: Class handling ladies staff members treats the slow learners not good, and using harsh words.	Staff members informed and will not occur in future.
<b>E -SECTION</b>	
No difficulties for teaching in all subjects	---



### **General requirements mentioned by students and solution provided**

- In EG-Drawing Hall, fan and tube lights facilities are not enough and some of them are not in working condition.
- Need internet connection in girls hostel.
  - Systems with internet facility will be provided
- In first year class rooms most windows are damaged.
- On the way to canteen, senior boys are sitting in the wall. This made inconvenience for first year girls.
- In girls hostel the wastages are put in the lift, mosquitoes are formed due to this
- In first year block, rest rooms (both boys and girls) are not maintained properly.

*J. Banerjee*  
30/10/18  
**PRINCIPAL**



ACADEMIC YEAR 2018-19 —ODD

**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL  
(Towards Quality improvement initiatives)**

ATTENDANCE SHEET *J 48*  
(30.10.18)

Branch	Student	Signature
CIVIL	P. Gitanubharasan	<i>P. Gitanubharasan</i>
	K. Hariya	<i>K. Hariya</i>
CSE	P. ABINAYA	<i>P. Abinaya</i>
	B. Fabilan	<i>B. Fabilan</i>
ECE	R. Vishwanath	<i>R. Vishwanath</i>
	S. Chitra sri	<i>S. Chitra sri</i>
EEE	P. RAGHUL	<i>P. Raghu</i>
	N. ISHWARYA	<i>N. Ishya</i>
MECH	K. Arjun Kumar	<i>K. Arjun</i>
	S. Siva	<i>S. Siva</i>



**ACADEMIC YEAR 2018-19 (EVEN SEMESTER)**  
**Student Representative Meeting with Principal**

**05.03.19**

**Minutes of Meeting**

Principal convened meeting with II year & III year student representatives on 04.03.19 with the composition of advanced, average and slow learner from engineering branches. With the agenda of identifying student requirements, meeting was organized.

Branchwise student representations are as follows.

**II Year classes**

**CIVIL**

- No issues. Extra classes are arranged for tough subjects
- Except Hydraulics Lab based experiments, other labs completed.
- Lateral entry students are able to perform better.

**CSE**

- Need extra coaching for OS & SE.
- PQT -5<sup>th</sup> Unit few topics to be completed

**ECE**

- PRP – 1 Unit to be completed
- LIC lab – 2<sup>nd</sup> batch – simulation based experiments to be completed.

**EEE**

- M&I subject is found tough by students.

**MECH**

- A sec – Maths, SoM, KoM – 5<sup>th</sup> unit is handled.
- B sec- syllabus completed. Labs also completed.

**III Year classes**

**CIVIL**

- No difficulties.

**CSE**

- Need extra classes for DSP and CD
- Lab classes completed

**ECE**

- FPGA Lab – R&D kit based experiment demo was requested.

- T&P training – additional exercises for practice was requested.

#### EEE

- Students are motivated for paper presentation and conference participation
- NIT workshop was found useful.
- PCE skills exercises are useful.
- DEM - need extra slots during revision.

#### MECH

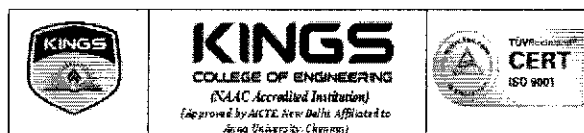
- A- sec -Labs sessions are over. Part-A practice is lagging in students.
- B-sec - ~~FE~~<sup>B</sup> Subject is tough

(FEA)

Principal motivated students to perform well in exams. Regular reading habits was insisted. Industrial training efforts are to be made effectively. In-House projects are encouraged. Students to concentrate on aptitude skills and overall development so as to land up with better career opportunities. Question bank covers Anna University question set, hence students to practice well and perform better in exams.

J. Ramesh  
5/3/19

**PRINCIPAL**



**ACADEMIC YEAR 2018-19 (EVEN SEMESTER)**  
**Student Representative Meeting with Principal**

**05.03.19**

**Minutes of Meeting**

Principal convened meeting with IV year student representatives on 04.03.19 with the composition of 2 overall performers, 1 average and 1 slow learner from engineering branches. Students were given open platform to share their experiences at the campus for 4 years period. Students were also directed to share suggestions if any.

Branchwise student representations are as follows

**CIVIL**

- **Learning experience** was joyful.
- **Appreciated the practices** of Value Added courses, My Credit Course, Library resources, Competency Development classes
- **Structure of Question bank** and its content was appreciated.
- Student from Chennai based mentioned about the **usefulness of coaching classes**.
- **Syllabus coverage and Assessment practice** was appreciated.
- Representation for **Cultural programmes** to be continued was raised.
- Represented about their comfort for color dress over uniform.
- Sports – event participation other than zonal matches was represented.
- Placement opportunities were represented. (efforts are taken)

**CSE**

- **Coaching & Saturday classes** though found tough initially were effective and useful.
- **Google classroom practice** is good.
- **Question bank is good. Guidance by staff is good.**
- **Revision classes** are very useful.
- **Coding** by student can be encouraged more.
- **Initiatives for communication skills** improvement were represented.
- Training sessions / provision for **GMAT / GRE / IELTS / UPSC exams** shall be arranged.

- **Arrear students** to be motivated for external event participation. OD not to be sanctioned based on arrear.
- **Lab printout sheet** size can be set as the size of **A4**. Find difficulties in taking printout.

#### ECE

- **Care and guidance is good.**
- **College timing is comfortable.**
- Representation for **Assessment answer script** correction can be made by staff not handling class / course
- **Weekly test during T&P hours. Additional practice for aptitude skills.**
- **Library – Computing system issue** due to virus was mentioned. (Steps taken to resolve).
- **Students** represented for Dispensary facility. (Steps will be taken)

#### EEE

- **Need printout facility at Library**
- **Question bank** distribution can be made little earlier.
- **Student friendly approach is good.**

#### MECH

- **CNC Machine** utilization can be enhanced. Service pack alone utilized. Other labs are OK.
- **Overall development activities** was appreciated and found effective. Stage fear defeated. Motivations for overall growth at KINGS is good. 18<sup>th</sup> ISTE provided platform to stage and then continued with other events.
- **Assignment Presentation Hour (APH)** is useful. To be continued effectively,
- **Graduation Day** certificate by Parents is good.
- **Staff-Student relationship** is good. Staff members are motivating and supporting for overall growth of students.
- **ALUMNI** interaction sessions are useful.

**Principal & Vice-Principal insisted for** student preparation towards placement opportunities. **Examination** preparation guidelines was shared. Mathematics arrear coaching sessions to be utilized. Principal appreciated the batch for their performance, wished students for better performance in exams and successful career.

RCE

J. Praveen  
05/3/19  
PRINCIPAL



**ACADEMIC YEAR 2018-19 (EVEN SEMESTER)**  
**Student Representative Meeting with Principal**

**06.03.19**

**Minutes of Meeting**

Principal convened meeting with I year student representatives on 05.3.19 with the agenda of academic progression and identification of support needed by students. Two advanced learners and 1 average & slow learner from each branch participated in the meeting.

Principal briefed on the following matters during the meet.

- Students should cultivate habit of regular learning & coverage of topics dealt every day. Regularity in attending classes, lab sessions, internal assessments was insisted.
- Students were informed about maintaining better CGPA with nil arrear status for availing campus placement opportunities. Students were advised to improve English communication skills.
- Regulations 2017 major highlights was briefed.
- Homeworks assigned for Mathematics courses are to be completed and submitted every day. Necessary support will be provided to support student progression in studies.
- Anna University preparatory guidelines was given
  - Prescribed textbooks and reference books are to be utilized for preparations.
  - Internal Assessment Question paper matches with the Anna University end-sem exam question paper. Students were instructed to prepare well for internal assessments, raise their standards and perform well.
  - Question Bank covers previous year Anna University Question paper collections. Hence, students were advised to utilize question bank for their preparations.
  - Students were also advised to attend Part-A questions for better scores.
- Students were advised to enhance their skills, maintain consistent records and avail placement opportunities.

**Branch specific representations made are as follows:**

**CIVIL**

- Need additional sessions. Content delivery to be little more elaborated.
- Physics – need simplified notes.
- Engineering Mechanics – Good
- Other subjects no issues.

**CSE & ECE**

- No issues

**EEE**

- Circuit Theory – difficult to understand. Need more support.

**MECH**

- BEEE – Need notes

*J. M. M. M. M. M.*  
6/3/19.  
**PRINCIPAL**



**ACADEMIC YEAR 2018-19**  
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
 (Towards Quality improvement initiatives)  
**ATTENDANCE SHEET – II & III Yr. classes**

Branch	Student	Signature
CIVIL	M.Soundariya, II Yr	M.Soundariya.
	K.G.Guruswathik, II Yr	AB
	K.Kowsalya, III Yr.	K.Kowsalya.
	S.Surya, III Yr.	S. Surya.
CSE	K.Vengatesh Ragu, II Yr	K.Venkatesh Ragu
	E.Jeevitha, II Yr	E.Jeevitha
	Bharanitharan.N, III Yr.	B. Bharanitharan.
	Thilagavathi.S, III Yr.	S. Thilagavathi.
ECE	S.Dhanasekaran, III Yr	S. Dhanasekaran.
	K.Priyadharsini, III Yr.	K. Priyadharsini.
	U.Udayani, II Yr.	U. Udayani.
	Melvin Charles, II Yr.	Melvin Charles.
EEE	S.Parthiban, III Yr	S. Parthiban.
	R.Pavithra, III Yr	R. Pavithra.
	S.Aadhavan, II Yr	S. Aadhavan.
	N.Nandhini, II Yr (N. Ishwarya)	N. Ishwarya.
MECH	S.Afshal Hussain, III Yr.	S. Afshal Hussain.
	Chyleshwar.M, III Yr. E. Sanjay	E. Sanjay.
	R.Mohammed Yasin Sharif, II Yr. (P. ENOCH EBENEZER)	P. Enoch Ebenezer.
	D.Madhesh, II Yr.	D. Madhesh.
	K.Senthamizh Sudar, II Yr.	K. Senthamizh Sudar.
	K.Shriram Sundar, II Yr.	AB

J. Praveen  
 4/3/19.  
**PRINCIPAL**

**ACADEMIC YEAR 2018-19**  
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
 (Towards Quality improvement initiatives)  
**ATTENDANCE SHEET – IV Yr. classes**

Branch	Student	Signature
CIVIL	A. Neka	A. Neka
	S. Amar Selvan	S. Amar Selvan
	M. Srinidhiyan	M. Srinidhiyan
	S. Vasanth	S. Vasanth
CSE	S. Buvaneshwari	S. Buvaneshwari
	S. Yuvalakshmi Preya	S. Yuvalakshmi Preya
	Mohan Kumar S	Mohan Kumar S
	B. Jayaprakash	B. Jayaprakash
ECE	J. Tamil Selvan	J. Tamil Selvan
	N. Vigneshwar	N. Vigneshwar
	G. Anitha	G. Anitha
	K. GIYATHRY	K. GIYATHRY
EEE	K. Muthumana	K. Muthumana
	R. Baranika	R. Baranika
	J. Dhinesh	J. Dhinesh
	B. Rohith	B. Rohith
MECH	R.R. PRAVIN	R.R. PRAVIN
	M. B. Samiksha	M. B. Samiksha
	G. ALEXRAJA	G. ALEXRAJA
	R. SIVA PRASATH	R. SIVA PRASATH

J. Praveen  
4/3/19.

**ACADEMIC YEAR 2018-19**  
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
 (Towards Quality improvement initiatives)  
**ATTENDANCE SHEET - I Yr. classes**

Branch	Student	Signature
CIVIL	R. Nandhini	R. Nandhini
	R. Padma Rekha	R. Padma Rekha
	J. Vinodh kumar	J. Vinodh kumar
	R. Vijaya prakash	R. VMDA
CSE	M. Abasina	M. Abasina
	P. Abirami	P. Abirami
	E. Harisharan	Harisharan E
	R. Sarath Kumar	R. Sarath Kumar
ECE	S. Thirumangalakudi	S. Thirumangalakudi
	A. Sarika	A. Sarika
	M. Keerthika	Keerthika
	B. Krunthika	B. Krunthika
EEE	U. ABIRAMI	U. Abirami
	S. JAYADEESH	S. Jayadeesh
	R. JAYAPRAKASH	R. Jayaprakash
	G. SANTHOSH	G. Santhosh
MECH	U. Muthu Kumaran	U. Muthu
	K. Sigineshwaran	K. Siginesh
	R. Karthikeyan	R. Karthikeyan
	Krishnakanth	S. Krishnakanth

J. Doran  
5/3/19



**ACADEMIC YEAR 2019-20 (2<sup>ND</sup> SEMESTER)  
Student Representative Meeting with Principal**

**18.08.19**

**Minutes of Meeting**

Principal convened meeting with II year student representatives on **17.08.19** with the composition of 4 members (2 boys and 2 girls) from engineering branches. With the agenda of identifying student requirements, meeting was organized. Branchwise student representations are as follows:

**CIVIL**

- Laboratory sessions learning / skill enrichment to be supported in a better manner.
- Survey (T) – practical mapping to the course is good. Need better approaches for theoretical preparations to meet AU exams. Additional hour requirement was represented.
- FM(T) – Need additional hours. Better approaches in teaching shall be given. Problems to be solved in class.
- Geology – Need notes for preparation.
- Guest Lecture held recently for 8 Hrs. Feedback for the session was good. Student felt comfortable and ease inspite of continuous session. Representation was made for continuous 2 hrs. slots for subjects.

**CSE**

- No difficulties in courses & lab sessions.
- DPSD – Advanced topics was dealt by ECE faculty.
- Representation for tap repair work at Gents toilet was made.

**ECE**

- Control System – Additional slot requirement was represented. Boy students to be given additional guidance.
- SS – additional slot requirement was represented.
- Maths – Teaching is good. Homework done by students. Additional slot requirement was represented.
- Data structures – Biology students need additional guidance.
- DE – teaching is good.
- Representation for Classroom board size (small) was made.

**EEE**

- No difficulties in Maths, DLC, EMT, EDC, PPE subjects.
- EM – representation for additional hours was made.

**MECH**

- No difficulties in Maths subject, Fluid Mechanics, MT
- Thermodynamics – class control to be established by the faculty. Teaching is good.
- Student regularity to classes is lacking.
- MT lab sessions

*J. Manick*  
18/08/19

**PRINCIPAL**



**ACADEMIC YEAR 2019-20 (ODD SEMESTER)**  
**Student Representative Meeting with Principal**

**18.08.19**

**Minutes of Meeting**

Principal convened meeting with III year student representatives on 17.08.19 with the composition of 2 members from engineering branches. Students were directed to share their suggestions / grievances about academics and general requirements if any. Branchwise student representations are as follows

**CIVIL**

- Concise study material is required for open elective including diagrams.
- Syllabus completion is made as per plan.
- Waste Water Analysis lab – mercury level low, chemicals shortage. Few repair and services to be undergone.
- Apr-May'19 AU exams – Students unable to attend Part-C questions. Part-A questions all were found difficult for few courses.
- Time management difficulty is found among students.

**CSE**

- MPMC – difficulty in remembering pin diagrams was made. Consolidated diagram sheet will be issued to support.
- 3 hrs Lab slots allotment was insisted.
- Local visit representation was made.
- Lab printout sheet – difficulty in taking printout was represented. Steps will be taken to rectify.

**ECE**

- RES – students found difficulty in writing theoretical paper. Guidance will be provided.
- DSP – additional hours to be allotted.

**EEE**

- Printing machine repair status at Central Library & Ladies hostel was reported. Steps will be taken immediately.

**MECH**

- MM lab - Instrument box and Component box with rust status was reported. Steps will be taken to rectify.
- Open Elective – Diagrams printout as consolidations was represented.
- Metrology – Multimedia based coverage is good.
- Student regularity to be improved
- MT – problems to be discussed.

**Principal insisted for regular learning among students. Guidelines regarding University examination preparations was discussed.**

- Students to follow prescribed textbooks and reference books. Exercises for chapters to be practiced by students.
- Continuous Internal Assessment Test (CAT) pattern change feasibility was discussed. 3 hrs test covering 2 units was proposed. Students coverage of topics per unit will be increased and writing practice will aid them in better performance. Coaching classes will be planned during AN for every subject. Students scoring 70 marks in all the subjects will be exempted from Saturday coaching classes. Students securing marks <60 will be attending evening coaching classes and Saturday coaching classes.
- Syllabus will be completed by Aug'19 end. Revision classes will be conducted after CAT. Students to utilize these slots effectively.
- Students to aim for better grade in University examinations.

J. M. M. 18/8/19

**PRINCIPAL**



**ACADEMIC YEAR 2019-20**  
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
 (Towards Quality improvement initiatives)  
**ATTENDANCE SHEET - II Yr. classes**

Branch	Student	Signature
CIVIL	R. Nandhini	R. Nandhini
	R. Padma Reka	R. Padma Reka
	J. VINOTH KUMAR	J. Vinoth Kumar
	J. Abraham Raja	J. Raja
CSE	Harisharan. E	Harisharan. E
	Abirami. P	P. Abirami
	Abasera M.	M. Abasera
ECE	A. Sarika	A. Sarika
	M. Keerthika	M. Keerthika
	G. Prabhu	G. Prabhu
	S. THIRUMURUGAN	S. Thirumurugan
EEE	K. Karthikeyan	K. Karthikeyan
	R. Jayaprakash	R. Jayaprakash
MECH	R. Karthikeyan	R. Karthikeyan
	S. Swiya	S. Swiya



**ACADEMIC YEAR 2019-20**  
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
 (Towards Quality improvement initiatives)  
**ATTENDANCE SHEET – III & IV Yr. classes**

Branch	Student	Signature
CIVIL	M.Soundariya, III Yr	M.Soundariya.
	K.G.Guruswathik, III Yr	[Signature]
	N. ANTONY JOE, III Yr	
	K.Kowsalya, IV Yr.	
	S.Surya, IV Yr.	
CSE	K.Vengatesh Ragu, III Yr	K.Venkatesh Ragu
	E.Jeevitha, III Yr	E.Jeevitha
	Bharanitharan.N, IV Yr.	
	Thilagavathi.S, IV Yr.	
ECE	S.Dhanasekaran, IV Yr	
	K.Priyadharsini, IV Yr.	
	U.Udayarani, III Yr.	M. Ezhilarasi
	M. Ezhilarasi	
	Melvin Charles, III Yr.	Melvin Charles
EEE	S.Parthiban, IV Yr	
	R.Pavithra, IV Yr	
	S.Aadhavan, III Yr	P. Gobinath
	P. Gobinath	
	N.Nandhini, II Yr	M. Nandhini
MECH	S.Afshal Hussain, IV Yr.	
	Chyleshwar.M, IV Yr.	
	R.Mohammed Yasin Sharif, III Yr.	R. Mohammed Yasin Sharif
	D.Madhesh, III Yr.	
	K.Senthamizh Sudar, III Yr.	
	K.Shriram Sundar, III Yr.	M. Sathya Moorthi
	M. Sathya Moorthi	



INTERNAL QUALITY ASSURANCE CELL  
STUDENT REPRESENTATIVE MEETING – I YR CLASSES  
Minutes of Meeting – 09.10.19

Student Representative Meeting for First year classes was organized on 09.10.19 between 1.00pm and 2.00pm at Principal Cabin. 4 students from every branch of Engineering participated in the meeting.

Principal convened the meeting mentioning the objective of the team and directed student members to represent student issues related to academics and general issues if any. Following points were insisted during the meeting by Principal & Vice Principal

- Prescribed textbooks and reference books to be followed.
- Regular learning to be practiced. Group learning activities shall be practiced during coaching / revision classes. Peer learning support by advanced learners to other teams was also insisted.
- Motivations towards overall development activities and become eligible for campus placements was insisted.

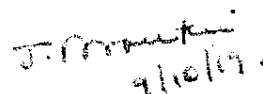
Representations made by students

- CSE branch – bi-lingual approach shall be practiced by Physics faculty for better understanding.
- Mechanical branch – Physics – derivations were found difficult by students. Representation was also made for additional support for maths.
- ECE branch – Physics lab utilization to be made during allotted slots . Break hours shall not be utilized as lab slot. EG slots were missed due to holidays and to be compensated.

General representation

- Tamil medium students from all branches find difficulties in Technical English course. Hence, additional support is required.
- Library slots at regular time table.
- Textbook for mathematics
- Student felt happy with the disciplinary approach practiced at the institute.
- Internal events participation was insisted during the I year study period.

Students were motivated for better performance and to obtain good results in CAT-2, model and University examinations.

  
9/10/19.

PRINCIPAL



**KINGS**  
COLLEGE OF ENGINEERING  
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Anna University, Chennai)



**ACADEMIC YEAR 2019-20**  
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
(Towards Quality improvement initiatives)  
**ATTENDANCE SHEET - I Yr. classes (09/10/19)**

Branch	Student	Signature
CIVIL	B. Agalya	B. Agalya
	R. Rengaswari	R. Rengaswari
CSE	S. Swetha	S. Swetha
	P. Deepika	P. Deepika
ECE	SM. Swetha	SM. Swetha
	S. Ramana Bharathi	S. Ramana Bharathi
	K. Gayathri	K. Gayathri
	K. Mathivanan	K. Mathivanan
EEE	KRISHNA.M.E.	KRISHNA.M.E.
	R. REGINA	R. REGINA
MECH	A. Barath babu	A. Barath babu
	M. Syed usman Ali	M. Syed usman Ali
	A. Sureshbabu	A. Sureshbabu
	D. Harin Hasan	D. Harin Hasan

*[Signature]*  
9/10/19

J. Monika  
9/10/19



**ACADEMIC YEAR 2020-21**

**INTERNAL QUALITY ASSURANCE CELL**

**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**

**CIRCULAR**

**06.01.2021**

**Student Quality Circle meet is scheduled as below. Student representatives are directed to join through google meet link at 11.50am on their scheduled date.**

**IV Year – 07.01.2021**

<https://meet.google.com/mbw-khdu-uhv>

**III Year – 08.01.2021**

<https://meet.google.com/rgt-xwwe-ver>

**II Year – 11.01.2021**

<https://meet.google.com/fuc-qaye-ins>

**Note :**

Students should join the meeting in formal dress code. IQAC department member to ensure respective students join on time.

*J. Manjunath*  
06/1/2021

**PRINCIPAL**

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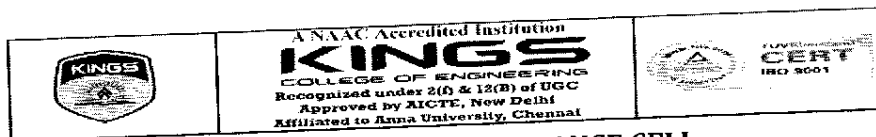
- 1. Secretary**
- 2. Vice-Principal**
- 3. HoDs & IQAC members**

**Encl : Student namelist**

**ACADEMIC YEAR 2020-21**  
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
 (Towards Quality improvement initiatives)  
**BRANCHWISE STUDENTS**

Branch	Student
CIVIL	M.Soundariya, IV Yr ✓
	K.G.Guruswathik, IV Yr ✓
	R.Nandhini, III Yr ✓
	D.Dhinakaran, III Yr ✓
	R.Madhumitha, II Yr ✓
	M.Jeyaseelan, II Yr ✓
CSE	E.Jeevitha, IV Yr ✓
	K.Vengatesh Ragu, IV Yr ✓
	T.Selvarani, III Yr ✓
	E.Hariharan, III Yr ✓
	Fasila Afreen.J, II Yr ✓
	Gopinath.P, II Yr ✓
ECE	Veeralakshmi.M, IV Yr. ✓
	B.Melvin Charles, IV Yr. ✓
	M.Kruthika, III Yr. <i>Saika</i> ✓
	G.Prabhu, III Yr. ✓
	K.Gayathri, II Yr ✓ <i>Nithitha</i>
EEE	A.Jayakumar, II Yr <i>Kishubasekan prakarth</i> ✓
	S.Aadhavan, IV Yr ✓ <i>Sudhakar</i>
	N.Nandhini, IV Yr ✓
	U.Abirami, III Yr ✓
	R.Karthikeyan, III Yr ✓
	P.Pandidevi, II Yr <i>Ramya P</i> ✓
	V.Raghu, II Yr ✓
MECH	R.Mohammed Yasin Sharif, IV Yr. ✓
	D.Madhesh, IV Yr. ✓ <i>(Abbas ml)</i>
	K.Senthamizh Sudar, IV Yr. ✓
	K.Shriram Sundar, IV Yr. ✓
	J.Venkateshwaran, III Yr ✓
	S.Arunpandiyan, III Yr ✓
	L.Priyadarshan, II Yr. ✓
	R.Kishore, II Yr. ✓

8-1-2021 - III yr meeting  
 11-1-2021 - II yr meeting  
 12-1-2021 - IV yr meeting



**INTERNAL QUALITY ASSURANCE CELL  
ACADEMIC YEAR 2020 – 2021 (ODD SEMESTER)**

**MINUTES OF STUDENT QUALITY CIRCLE MEET**

18.01.2021

Departmentwise student representations regarding ODD semester courses coverage through online mode, value additional initiatives was sought.

Google meet based online meeting was scheduled classwise and organized as follows

08.01.2021 – III year classes (between 12.00 to 1.45pm)

11.01.2021 – II year classes (between 12.00 to 1.30pm)

12.01.2021- IV year classes (between 2.00 to 3.30pm)

Principal & Vice-Principal motivated students towards skill enrichment initiatives and preparation for forthcoming end-semester examinations. Useful weblinks was also shared during discussion.

**General**

- Few students were having signal issues / smart phone issue. In case of technical issues, students were advised to visit college 2 days / week in consent with Class coordinator adhering to safety norms.
- Students were also advised to share additional reference material (MCQs) through class groups.
- Project works were carried out as per schedule by Final year students. Students were also directed to submit proposals for project work funding agencies.
- Final year students were also insisted to prepare for campus drives. Exclusive 1 week T&P training details was also shared.
- Students were insisted to undergo and complete SWAYAM/ NPTEL courses. Value addition initiatives to be utilized effectively
- Students were advised to follow Online examination guidelines provided by Anna University. Technical issues / phone issues to be solved. Students to ensure required bandwidth and adhere to guidelines while attending online exams.
- Students were also insisted to undergo Online internships.

*K. Allee* 18/1/21  
IQAC COORDINATOR

*J. Praveen*  
18/1/2021  
PRINCIPAL

Encl:  
Departmentwise student representations.

# DEPARTMENT OF CIVIL ENGINEERING

Sl. No.	SUB. CODE	NAME OF THE SUBJECTS	STAFF NAME	REMARKS
II YEAR / III SEM				
1	MA8353	Transforms and Partial Differential Equations	Dr.Suresh	<ul style="list-style-type: none"><li>• MCQ set were shared. Explanations provided.</li><li>• e-material &amp; e-books were posted at Google classroom for all courses</li><li>• Additional questions were identified &amp; used by students</li><li>• Revision classes were organized as per schedule. Students are appearing for Model exams</li></ul>
2	CE8301	Strength of Materials I	Mr.K.Arun	
3	CE8302	Fluid Mechanics	Ms.V.Ishwarya	
4	CE8351	Surveying	Ms.K.Bhavarohini	
5	CE8391	Construction Materials	Mr.R.Sundharam	
6	CE8392	Engineering Geology	Ms.T.Bhuvaneshwari	
III YEAR / V SEM				
1	CE8501	Design of Reinforced cement concrete elements	Mr.S.R.Elwin Guru Chanth	<ul style="list-style-type: none"><li>• e-books &amp; e-material were posted in Google classroom</li><li>• MCQ set was shared</li><li>• Explanations provided for MCQ set.</li><li>• PPT / Video based lecture sessions</li><li>• Revision classes, exams are planned and handled</li><li>• 2 SWAYAM Courses were registered by all (even sem)</li><li>• 23/27 were attending classes regularly</li></ul>
2	CE8502	Structural Analysis I	Ms.T.Bhuvaneshwari	
3	CE8591	Foundation Engineering	Ms.M.Priya	
4	EN8491	Water Supply Engineering	Ms.V.Ishwarya	
5	GI8014	Geographic Information System	Ms.K.Jeyashankari	
6	OA1551	Environment and Agriculture	Ms.K.Bhavarohini	
IV YEAR / VII SEM				
1	CE8701	Estimation Costing and Valuation Engineering	Mr.S.R.Elwin Guru Chanth	<ul style="list-style-type: none"><li>• E-material and MCQs were posted</li><li>• Students were referring additional MCQ sets also.</li></ul>
2	CE8702	Railways, Airport, Docks & Harbour Engineering	Ms.K.Jeyashankari	
3	CE8703	Structural design and Drawing	Mr.K.Ranjith	
4	CE8011	Design of Prestressed concrete Structures	Ms.R.Revathi	
5	OEN751	Green Building Design	Ms.M.Priya	

# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Sl. No.	SUB. CODE	NAME OF THE SUBJECTS	STAFF NAME	REMARKS
II YEAR / III SEM				
1	MA8351	Discrete Mathematics	Dr.R.Suresh	<ul style="list-style-type: none"><li>MCQ set along with explanations was provided.</li><li>E-material and books were also shared.</li><li>Few students were having connectivity issues sometimes.</li></ul>
2	CS 8351	Digital Principles and System Design	Ms.D.Vennila	
3	CS 8391	Data Structures	Mr.M.Arun	
4	CS 8392	Object Oriented Programming	Dr.D.Sivakumar	
5	EC 8395	Communication Engineering	Mr.Balakrishnan	
III YEAR / V SEM				
1	MA 8551	Algebra and Number Theory	Mr. Sankara Kalidoss	<ul style="list-style-type: none"><li>MCQ set were given for all courses. Ample questions were covered. E-material unitwise was also shared.</li><li>GATE questions were also covered.</li><li>Regularly 40/45 were attending classes.</li></ul>
2	CS 8591	Computer Networks	Mr.K.Rajesh	
3	EC 8691	Microprocessors and Microcontrollers	Mr.Thandayuthapani	
4	CS 8501	Theory of Computation	Ms.S.Puvaneswari	
5	CS 8592	Object Oriented Analysis and Design	Dr.S.M.Uma	
6	OMF551	Product Design and Development	Ms.R.Sugantha Lakshmi	
IV YEAR / VII SEM				
1	MG 8591	Principles of Management	Mr.Baran Kumar	<ul style="list-style-type: none"><li>Unitwise MCQ set were posted. E-material were also posted at Google classroom. NPTEL questions were also included in MCQ set. GATE question set were also referred.</li><li>Students were appearing for Model exams</li></ul>
2	CS 8792	Cryptography and Network Security	Mr.S.Rajarajan	
3	CS 8791	Cloud Computing	Ms.B.Sangeetha	
4	CS 8088	Wireless Adhoc & Sensor Networks	Ms.K.Abhirami	
5	IT 8075	Software Project Management	Mr.R.Sriramkumar	
6	OME752	Supply Chain Management	Ms.G.Chandra Praba	

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

II YEAR / III SEM				
Sl. No.	SUB. CODE	NAME OF THE SUBJECTS	STAFF NAME	REMARKS
1	MA8352	Linear Algebra and Partial Differential Equations	Ms.T.Gnanajeya	<ul style="list-style-type: none"><li>MCQ sets and e-materials were posted. Students were also sought to discuss MCQ set during revision classes. Explanations for provided for question set.</li><li>Revision classes were executed as per plan</li></ul>
2	EC8393	Fundamentals of Data structures	Ms. S.Puvaneshwari	
3	EC8351	Electronic circuits-I	Mr.S.Sivakumar	
4	EC8352	Signals and Systems	Mr.K.Sudarsanan	
5	EC8392	Digital Electronics	Mrs.R.Ponni	
6	EC8391	Control systems Engineering	Mrs.U.Jeyamalar	
III YEAR / V SEM				
1	EC8501	Digital Communication	Mr.A.Herald	<ul style="list-style-type: none"><li>MCQ set and e-materials were shared for all courses. Additional questions set were also provided.</li><li>Students sought board teaching based sessions for problem based courses</li><li>Classes were handled as per course plan.</li><li>Online teaching-learning was found comfortable by most of the students.</li><li>Few students had network connectivity issue / phone issues.</li></ul>
2	EC8553	Discrete Time Signal Processing	Mr.S.Ramarajan	
3	EC8552	Computer Architecture	Mr.R.Sathyaraj	
4	EC8551	Communication networks	Mrs.P.Thirumagal	
5	EC 8073	Medical electronics	Dr.T.Shanthi	
6	OR 0551	Renewable Energy sources	Mrs. N.Mangaiyarkarasi	
IV YEAR / VII SEM				
1	EC8701	Antennas & microwave Engineering	Mr.R.Balakrishnan	<ul style="list-style-type: none"><li>MCQ set including GATE questions were discussed and posted. E-materials were provided.</li><li>Two SWAYAM courses were registered by students.</li></ul>
2	EC8751	Optical communication	Mr.T.Pasupathi	
3	EC8791	Embedded and real time Systems	Mr.T.Jeyaseelan	
4	EC 8702	Ad-hoc and wireless sensor networks	Mr.P.Rajapirian	
5	EC 8092	Advanced Wireless communication	Mr.R.Sathyaraj	
6	OIC751	Transducer Engineering	Mrs.U.Jeyamalar	

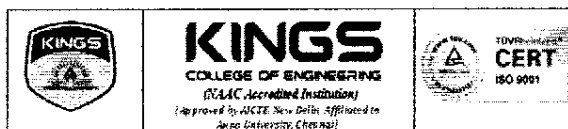


## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

II YEAR / III SEM				
Sl. No.	SUB. CODE	NAME OF THE SUBJECTS	STAFF NAME	REMARKS
1	MA8353	Transforms and Partial Differential Equations	Mr.G.Jeyakrishnan	<ul style="list-style-type: none"> <li>MCQ set covering GATE questions was provided. E-material was posted for all courses.</li> <li>No long absentees</li> </ul>
2	EE8351	Digital Logic Circuits	Mrs.D.Vennila	
3	EE8391	Electromagnetic Theory	Mrs.N.Rajeswari	
4	EE8301	Electrical Machines - I	Mr.C.John Selvaraj	
5	EC8353	Electron Devices and Circuits	Mr.W.Newton David Raj	
6	ME8792	Power Plant Engineering	Mr.J.Arokiaraj	
III YEAR / V SEM				
1	EE8501	Power System Analysis	Dr.S.Sivakumar	<ul style="list-style-type: none"> <li>MCQ sets with explanations was provided. E-material were also shared.</li> <li>Revision classes were also handled.</li> <li>3 students had network issue / phone issue.</li> </ul>
2	EE8551	Microprocessors and Microcontrollers	Dr.M.Meenalochani	
3	EE8552	Power Electronics	Mr.S.R.Karthikeyan	
4	EE8591	Digital Signal Processing	Mr.K.Sudharsan	
5	CS8392	Object Oriented Programming	Mrs.R.Ranitha	
6	OMD551	Basics of Biomedical instrumentation	Mr.R.Sundaramoorthi	
IV YEAR / VII SEM				
1	EE8701	High Voltage Engineering	Mr.S.Sakthivel	<ul style="list-style-type: none"> <li>Unitwise MCQ set were posted. E-material were also posted at Google classroom</li> <li>2 students had network issues.</li> </ul>
2	EE8702	Power System Operation and Control	Mrs,N.Arulmozhi	
3	EE8703	Renewable Energy Systems	Dr.A.Albert Martin Ruban	
4	OCS752	Introduction to C programming	Mr.R.Rajarajan	
5	GE8071	Disaster Management	Mr.B.Suresh Babu	
6	EE8010	Power Systems Transients	Mr.S.R.Karthikeyan	

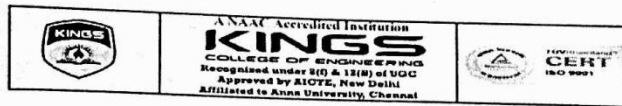
## DEPARTMENT OF MECHANICAL ENGINEERING

II YEAR / III SEM				
Sl. No.	SUB. CODE	NAME OF THE SUBJECTS	STAFF NAME	REMARKS
1	MA 8353	Transforms and Partial Differential Equations	Dr. Ramya	<ul style="list-style-type: none"><li>Unitwise MCQ set and e-material was provided. Students were insisted to take printout and prepare.</li><li>GATE questions was covered in MCQ set</li><li>Few students were finding network issues / phone issues.</li></ul>
2	ME 8391	Engineering Thermodynamics	Mr.H.Agilan	
3	CE 8394	Fluid Mechanics and Machinery	Mr.B.Adhichelvan	
4	ME 8351	Manufacturing Technology - I	Mr.S.Karthi	
5	EE 8353	Electrical Devices and Controls	Mr.C.John Selvaraj	
III YEAR / V SEM				
1	ME 8595	Thermal Engineering - II	Mr.S.Desigan	<ul style="list-style-type: none"><li>MCQ set and explanations was provided. For problem based courses, hints were provided for PART-B questions</li><li>Videos /PPT were also shared</li><li>GATE question were included in MCQ set.</li></ul>
2	ME 8593	Design of Machine Elements	Mr.V.Vijayakumar	
3	ME 8501	Metrology and Measurements	Mr.Melwin	
4	ME 8594	Dynamics of Machines	Mr.J.Rajaparthiban	
5	OAT 552	ICE	Mr.P.P.Santharaman	
IV YEAR / VII SEM				
1	ME 8792	Power Plant Engineering	Dr.T.Pushparaj & Dr.P.P.Santharaman	<ul style="list-style-type: none"><li>Unitwise MCQ set were posted. E-material were also posted at Google classroom</li></ul>
2	ME 8793	Process Planning and cost Estimation	Mr.S.Sabanayagam	
3	ME 8791	Mechatronics	Mr.M.Sakthivel Mr.Desigan.S	
4	OIE 750	Robotics	Mr.B.Ramvignesh	
5	ME 8097	Non Destructive Testing and Evaluation	Mr.N.Magesh Mr.V.Vijayakumar	
6	GE 8077	Total Quality Management	Mr.N.Sudhakar	



**ACADEMIC YEAR 2020-21**  
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
 (Towards Quality improvement initiatives)  
**BRANCHWISE STUDENTS**

Branch	Student
CIVIL	M.Soundariya, IV Yr
	K.G.Guruswathik, IV Yr
	R.Nandhini, III Yr
	D.Dhinakaran, III Yr
	R.Madhumitha, II Yr
	M.Jeyaseelan, II Yr
CSE	E.Jeevitha, IV Yr
	K.Vengatesh Ragu, IV Yr
	T.Selvarani, III Yr
	E.Hariharan, III Yr
	Fasila Afreen.J, II Yr
	Gopinath.P, II Yr
ECE	Veeralakshmi.M, IV Yr.
	B.Melvin Charles, IV Yr.
	M.Kruthika, III Yr.
	G.Prabhu, III Yr.
	K.Gayathri, II Yr
	A.Jayakumar, II Yr
EEE	S.Aadhavan, IV Yr
	N.Nandhini, IV Yr
	U.Abirami, III Yr
	K.Karthikeyan, III Yr
	P.Pandidevi, II Yr
	V.Raghu, II Yr
MECH	R.Mohammed Yasin Sharif, IV Yr.
	D.Madhesh, IV Yr.
	K.Senthamizh Sudar, IV Yr.
	K.Shriram Sundar, IV Yr.
	J.Venkateshwaran, III Yr
	S.Arunpandiyan, III Yr
	L.Priyadarshan, II Yr.
	R.Kishore, II Yr.



**INTERNAL QUALITY ASSURANCE CELL  
ACADEMIC 2020-21 (EVEN SEMESTER)**

**05.06.21**

**QUALITY CIRCLE MEET MoM  
(IV Year classes)**

Quality Circle Meeting for 2020-21 even semester comprising IV year class representatives was held online on 01.06.21 between 11.00am to 01.00pm. IQAC coordinator welcomed the gathering and invited student members to share their representations related to academics, examinations and related matters. 2 members from all UG IV classes attended the meeting. Since it was the last Quality circle meet of 2017-2021 batch, students also shared about their experiences at KCE.

Principal motivated students to utilize descriptive pattern of Anna University examinations. Principal insisted about adherence to Anna University guidelines and readiness with required study materials for AU exams. Utilization of course plan to identify topicwise content from books was also insisted. Vice-Principal briefed about revised AU examination guidelines to students. KCE contact persons related to AU exams was also shared to students for any queries. Students were also insisted to be ready with required stationeries for AU exams.

Recommendation of the following sites for student reference was shared  
Easyengineering.net – all engineering books and materials  
Clear scan app – to scan documents and generate pdf

Google meet id : [meet.google.com/ucn-oxzi-fbx](https://meet.google.com/ucn-oxzi-fbx)

**Departmentwise representations / opinions shared**

**Civil department**

M.Soundariya, K.G.Guruswathik represented Civil department

- Guruswathik, GATE scorer of 2017-21 batch, shared his preparatory experiences. Utilization of lockdown period since May'20 was the key factor. From May'20 till Dec'20 daily preparations was made (10 hours –3 hours per day). From Jan'21, series of online tests was attempted. He suggested students to start preparation from I year onwards, especially Maths, Aptitude papers. He also mentioned about his efforts towards Indian Engineering Services preparations.
- Soundariya mentioned about her likes towards practices of KCE : KoK award and Parent awarding degree to wards during convocation.
- Members represented juniors to utilize the wide learning opportunities available at KCE. Students to make use of various efforts taken by the institute.

### **CSE department**

E.Jeevitha, K.Venkatesh Ragu represented CSE department

- Teaching is good at KCE. Learning materials are prepared well in advance and circulated to students.
- VII semester exams – tough, grade dropped (represented by Jeevitha)
- 6 days intensive T&P training offered during IV year was useful.
- Members also requested for regular aptitude practice exercises (Moderate, complex levels) right from II year onwards.

### **ECE department**

Veeralakshmi.M, B.Melvin Charles represented ECE department

- Utilization of College library and textbooks was realized during III year. Juniors to utilize right from I year onwards. (represented by Melvin).
- School like practices helped in better preparations.
- VII semester exams tough – grade dropped
- Teaching is good at KCE. Staffs also good.
- More test practices is good
- Staff material preparations is good
- Convocation practice is good
- Students to recognize the efforts made towards students and utilize

### **EEE department**

N.Nandhini, Sudharsanan represented EEE department

- Practices like school is for the betterment of students
- Facilities at KCE is good
- Counseling & student attention is good
- Staff members are flexible and ready to get the voices of students
- IV year study was little tough due to online classes.
- Industry question papers can be circulated and practiced by students.
- Teaching is good
- Represented for sports activities (due to covid last 2 sem activities were not possible)
- Student to cooperate with staff. Staff followup is good.

### **Mechanical department**

R.Mohammed Yasin Sharif, Abbas Mohammed, K.Senthamizh Sudar, K.Shiram Sundar represented MECH department

- Learning materials are given.
- Rules are tough but good for students
- Staff involvement is good
- Unique qualities of staffs has helped students in the learning process
- Individual attention is given
- Slow learners were also able to do technical rounds of interview process.
- Regular IV year classes was missed (due to covid conducted via online).

- Students need writing practice
- Right from I year study period, subject staff motivated a lot. Other department staffs also guided and motivated
- Experiences at KCE is useful to face life. All good things was learnt at KCE. Staff guided even when did mistakes.
- All student representations were addressed
- Parent like approach was provided.
- Representation about work place experience was shared.

*K. S. S. S. S.* 5/6/21  
IQAC COORDINATOR

*J. R. R. R. R.* 5/6/2021  
PRINCIPAL





**INTERNAL QUALITY ASSURANCE CELL  
ACADEMIC 2020-21 (EVEN SEMESTER)**

**05.06.21**

**QUALITY CIRCLE MEET MoM  
(III Year classes)**

Quality Circle Meeting for 2020-21 even semester comprising III year class representatives was held online on 02.06.21 between 02.00pm to 03.00pm. IQAC coordinator welcomed the gathering and invited student members to share their representations related to examinations and related matters. 2 members from all UG III classes attended the meeting.

Principal motivated students to utilize descriptive pattern of Anna University examinations. Principal insisted about adherence to Anna University guidelines and readiness with required study materials for AU exams. Utilization of course plan to identify topicwise content from books was also insisted. Vice-Principal briefed about revised AU examination guidelines to students. KCE contact persons related to AU exams was also shared to students for any queries. Students were insisted to utilized 3 hours slot in a planned manner and attend all questions.

Recommendation of the following sites for student reference was shared  
Easyengineering.net – all engineering books and materials  
Pdfdrive.com- engineering books  
Clear scan app – to scan documents and generate pdf  
Readera app – book reader with a provision of bookmarking

Google meet id : [meet.google.com/etg-veit-eya](https://meet.google.com/etg-veit-eya)

**Departmentwise representations / opinions shared**

**Civil Department**

R.Nandhini, D.Dhinakaran

- Materials were shared through Google classroom
- AU guidelines session was organized by department.
- Online classes went on well.

**CSE Department**

T.Selvarani, E.Hariharan

- Online classes were good. Material was shared
- Exam practice is good. Time management is to be made carefully

**ECE Department**

Sarika, G.Prabhu

- Online classes went on well.
- Materials available
- Preparation for lab exams was raised and was explained to students.

**EEE Department**

U.Abirami, Jayaprakash, Karthikeyan

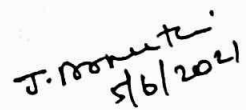
- Materials and books were shared
- Students to utilize exams.
- All students to take up AU exams without fail.

**Mechanical Department**

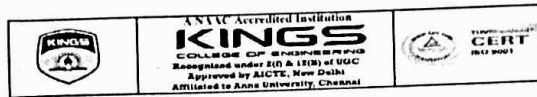
J.Venkateshwaran, S.Arunpandiyan

- Online classes went on well.
- Fee payment & Transport clarification was sought by a student.

  
IQAC COORDINATOR

  
PRINCIPAL





**INTERNAL QUALITY ASSURANCE CELL  
ACADEMIC 2020-21 (EVEN SEMESTER)**

**05.06.21**

**QUALITY CIRCLE MEET MoM  
(I Year classes)**

Quality Circle Meeting for 2020-21 even semester comprising I year class representatives was held online on 04.06.21 between 12.15pm to 01.15pm. IQAC coordinator welcomed the gathering and invited student members to share their representations related to examinations and related matters. 2 members from all UG I classes attended the meeting.

Principal motivated students to utilize descriptive pattern of Anna University examinations. Principal insisted about adherence to Anna University guidelines and readiness with required study materials for AU exams. Utilization of course plan to identify topicwise content from books was also insisted. Best of 2 option for Nov-Dec 2020 exam provision was declared on 02.06.21. Hence, students were insisted to utilize the provision and raise their grades. Vice-Principal briefed about revised AU examination guidelines to students. Students were insisted to utilized 3 hours slot in a planned manner and attend all questions.

Recommendation of the following sites for student reference was shared  
Easyengineering.net – all engineering books and materials  
Pdfdrive.com- engineering books  
Clear scan app – to scan documents and generate pdf  
Readera app – book reader with a provision of bookmarking

Google meet id : [meet.google.com/ucx-vqdv-sne](https://meet.google.com/ucx-vqdv-sne)

**Departmentwise student representations**

**CIVIL department**

Bharath.G, Maharish.H

- Classes going on smooth
- Materials shared
- Attending classes will make learning easier
- Exam modalities informed and known to all

**CSE department**

Bhavatharini.V, Gayathri.M

- No difficulties, classes going on well
- Materials available

**ECE department**

Ajay.A, Shanmugapriya.V

EEE department

Sneha, Gushendra Prasath

- 5 periods Online classes - datapack difficulty for few was represented. Break hours was represented.
- Seminar presentation slots were utilized well. Few students represented for flexibility in it. Members were explained about the purpose of overcoming stage fear and to improve presentation skills, such practices are followed.
- Staff motivations are good.

Mechanical department

Hemanathan.E, Samikannan.M

- Classes going on well. Materials were shared.
- Student absenteeism was represented.

K. Collier 5/6/21  
IQAC COORDINATOR

J. Ramani  
5/6/2021  
PRINCIPAL



**INTERNAL QUALITY ASSURANCE CELL  
ACADEMIC 2020-21 (EVEN SEMESTER)**

05.06.21

**QUALITY CIRCLE MEET MoM  
(II Year classes)**

Quality Circle Meeting for 2020-21 even semester comprising II year class representatives was held online on 03.06.21 between 02.00pm to 03.00pm. IQAC coordinator welcomed the gathering and invited student members to share their representations related to examinations and related matters. 2 members from all UG II classes attended the meeting.

Principal motivated students to utilize descriptive pattern of Anna University examinations. Principal insisted about adherence to Anna University guidelines and readiness with required study materials for AU exams. Utilization of course plan to identify topicwise content from books was also insisted. Best of 2 option for Nov-Dec 2020 exam provision was declared on 02.06.21. Hence, students were insisted to utilize the provision and raise their grades.

Vice-Principal briefed about revised AU examination guidelines to students. KCE contact persons related to AU exams was also shared to students for any queries. Students were insisted to utilized 3 hours slot in a planned manner and attend all questions. Students were demonstrated about pdf files submitted by students (do's and don'ts was elaborated)

Recommendation of the following sites for student reference was shared

Easyengineering.net – all engineering books and materials

Pdftdrive.com- engineering books

Clear scan app – to scan documents and generate pdf

Readera app – book reader with a provision of bookmarking

Google meet id : meet.google.com/ppw-jssa-wdu

**Departmentwise student members**

**Civil Department**

R.Madhumitha, M.Jeyaseelan

**CSE Department**

Fasila Afreen.J, Varun

**ECE Department**

K.Gayathri, Nithitha, Sarika, G.Prabhu

**EEE Department**

Regina, Pandidevi.P

**Mechanical Department**

L.Priyadharshan, R.Kishore

**Student representations**

- Online classes went on well
- Materials and books were shared through GCR
- Revision classes for ODD semester courses
- Exam procedures were informed

K. V. S. 5/6/21  
IQAC COORDINATOR

J. R. M. S. 5/6/2021.  
PRINCIPAL





# **EXIT SURVEY**



## 6.5.2 STUDENT QUALITY CIRCLE OVERALL FEEDBACK

### INDEX PAGE

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**ACADEMIC YEAR – 2020-21**  
**INTERNAL QUALITY ASSURANCE CELL**  
**EXIT SURVEY REPORT**  
**(2017-21 BATCH)**

**QUESTIONNAIRE**

**About Infrastructural Facilities (5 being highest)**

1. How do you rate classroom ambience (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
2. How do you rate Lab facilities (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
3. How do you rate Library facilities (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
4. Transport Facility - if availed (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
5. Hostel facility - if availed (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

**About Teaching-Learning -Assessment practices (5 being highest)**

1. Question Bank structure, content & usage(1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
2. Lab Manual structure, content & usage (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
3. e-Material content & usage (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
4. Teaching methodology adopted by faculty members (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
5. Do you agree - Learning Outcome for the courses is met (Strongly agree, Agree, Neutral, Disagree, Strongly disagree)
6. Any specific recommendation / suggestions / appreciations related to Teaching-Learning practices
7. Any specific recommendation/ suggestions related to learning materials
8. Rate Student Skill Enrichment practices (scale1-5, Fair(1)-Extremely good(5))
9. Rate effectiveness of Internal Counseling sessions(scale1-5, Fair(1)-Extremely good(5))
10. Rate provision of student feedback, suggestions system and its impact (scale1-5, Fair(1)-Extremely good(5))
11. How do you rate assessment practices (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
12. Fairness and transparency of assessment & evaluation practices (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

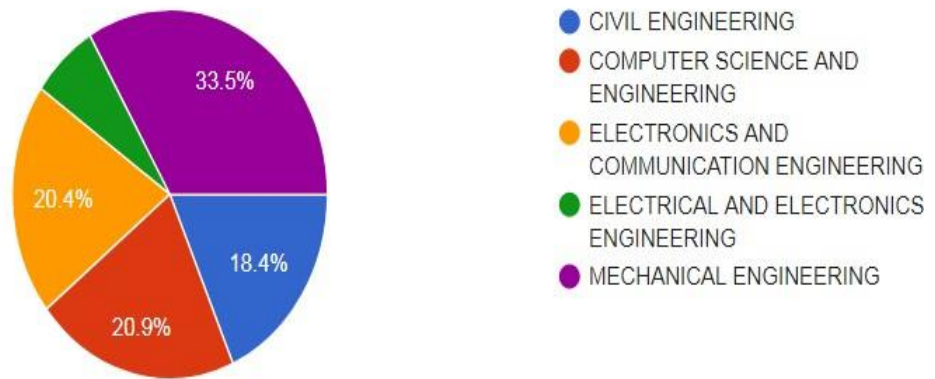
## RESPONSES SUMMARY

### Branchwise Responses

(206 students, Civil – 38, CSE – 43, ECE- 42, EEE-14, Mechanical -69)

Branch studied

206 responses



### About Infrastructural Facilities (5 being highest)

1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good

S.No	Question	1	2	3	4	5
1	How do you rate classroom ambience	4.4	3.4	21.4	29.6	41.3
2	How do you rate Lab facilities	5.3	8.7	25.7	24.3	35.9
3	How do you rate Library facilities	2.4	4.4	19.9	31.1	42.2
4	Transport Facility - if availed	6	8	25.4	26.4	34.3
5	Hostel facility - if availed	9.9	7.3	25.1	19.9	37.7



### About Teaching-Learning -Assessment practices (5 being highest)

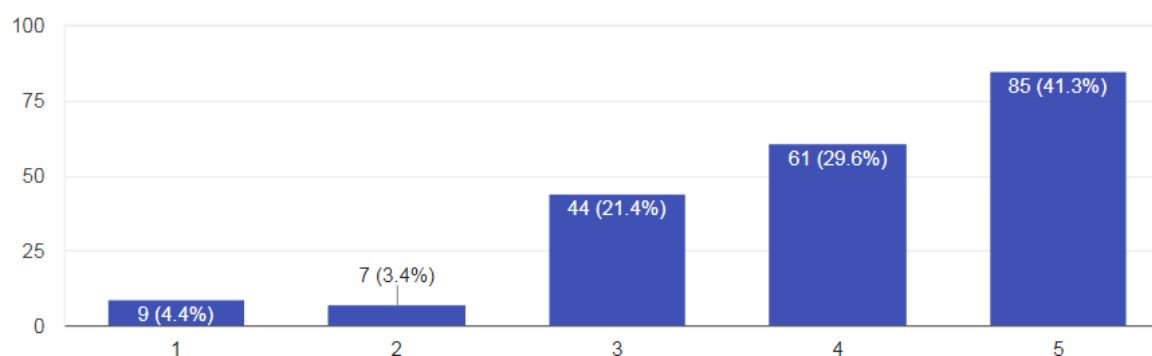
Qn.	Feedback regarding	1	2	3	4	5
1	Question Bank structure, content & usage	1.9	1.9	18.9	33	44.2
2	Lab Manual structure, content & usage	1	4.9	18.4	33	42.7
3	e-Material content & usage	5.3	2.9	19.9	30.1	41.7
4	Teaching methodology adopted by faculty members	1.5	1.9	22.8	28.2	45.6
5	Do you agree - Learning Outcome for the courses is met	23.8	2.4	29.6	39.3	4.9
6	Rate student skill enrichment practices	2.9	1.9	23.3	30.1	41.7
7	Rate effectiveness of Internal counseling sessions	1.5	4.4	17	33.5	43.7
8	Rate provision of student feedback, suggestions system and its impact	2.9	5.3	23.3	28.6	39.8
9	How do you rate assessment practices	1.9	4.4	23.3	33.5	36.9
10	Fairness and transparency of assessment & evaluation practices	1.5	3.9	20.9	36.4	37.4

### QUESTIONWISE RESPONSES

How do you rate classroom ambience (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



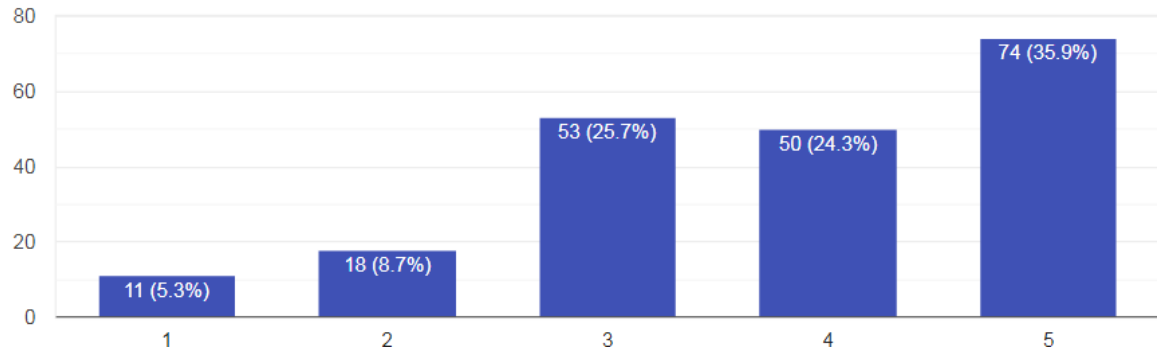
206 responses



How do you rate Lab facilities (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



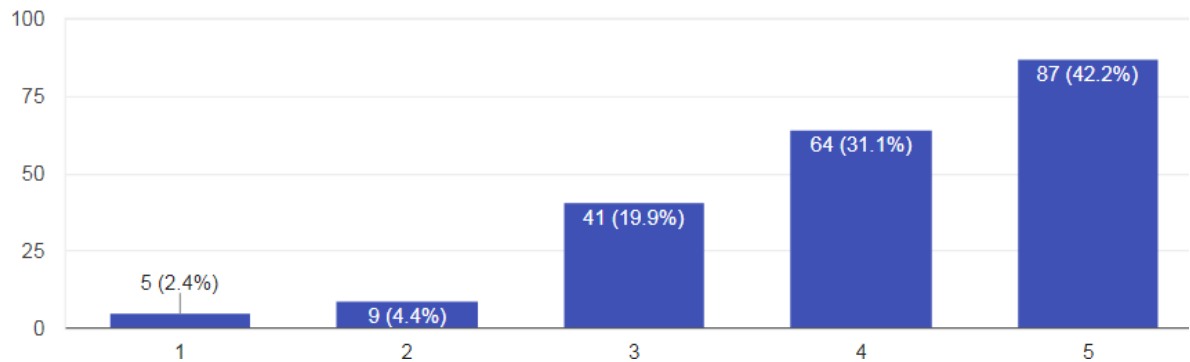
206 responses



How do you rate Library facilities (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



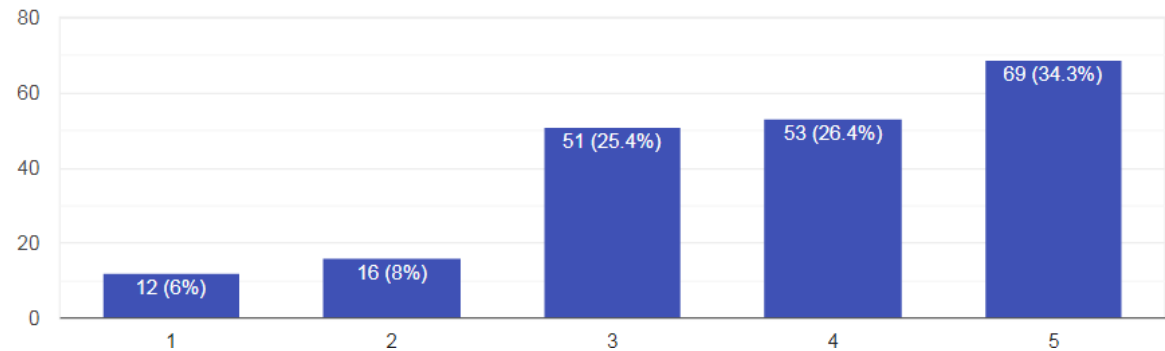
206 responses



Transport Facility - if availed (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



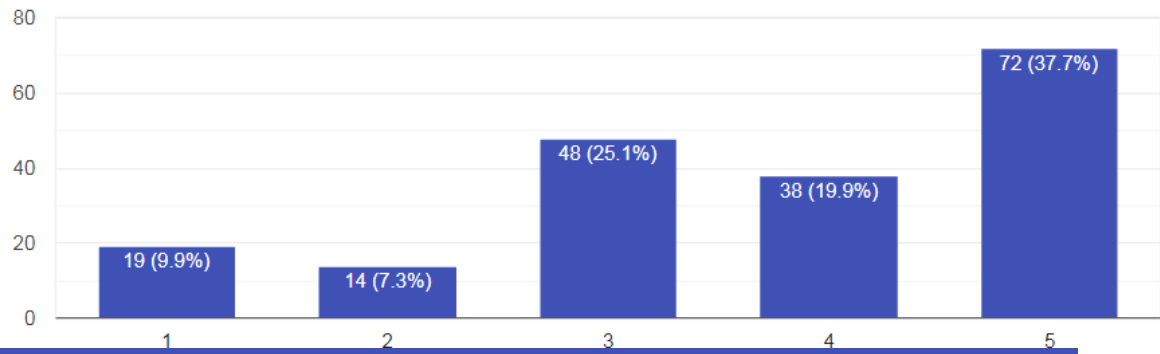
201 responses



Hostel facility - if availed (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



191 responses

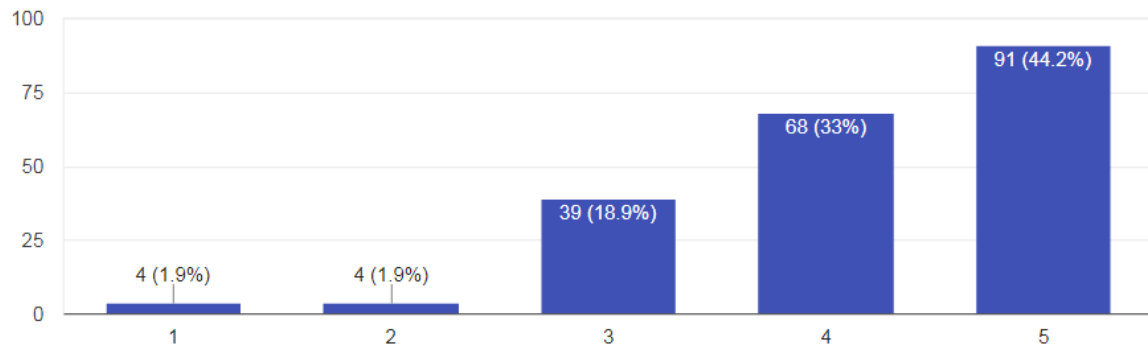


#### About Teaching-Learning -Assessment practices & Support system

Question Bank structure, content & usage(1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



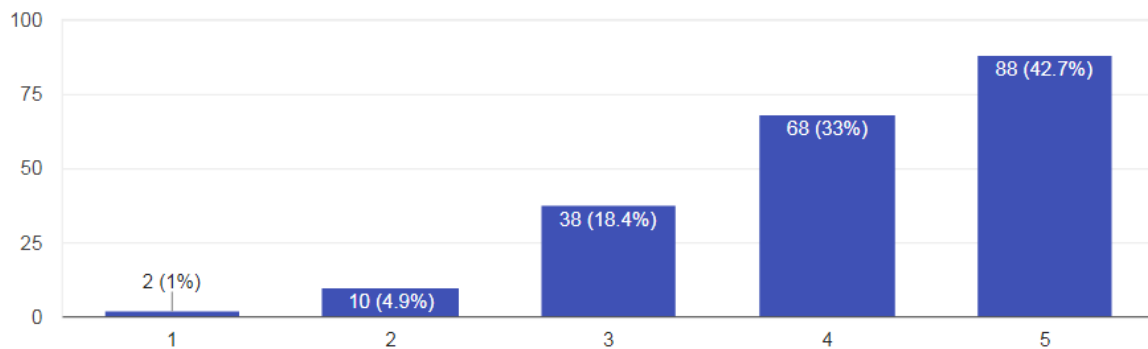
206 responses



Lab Manual structure, content & usage (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



206 responses



e-Material content & usage (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



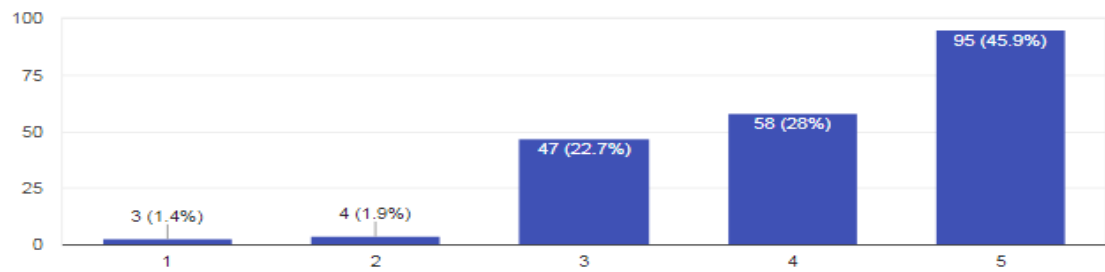
206 responses



Teaching methodology adopted by faculty members (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



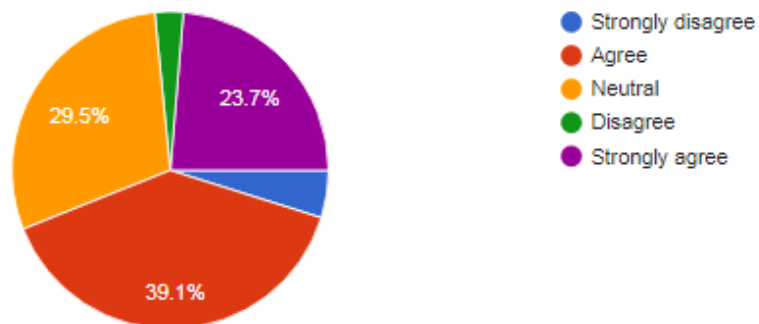
207 responses



Do you agree - Learning Outcome for the courses is met



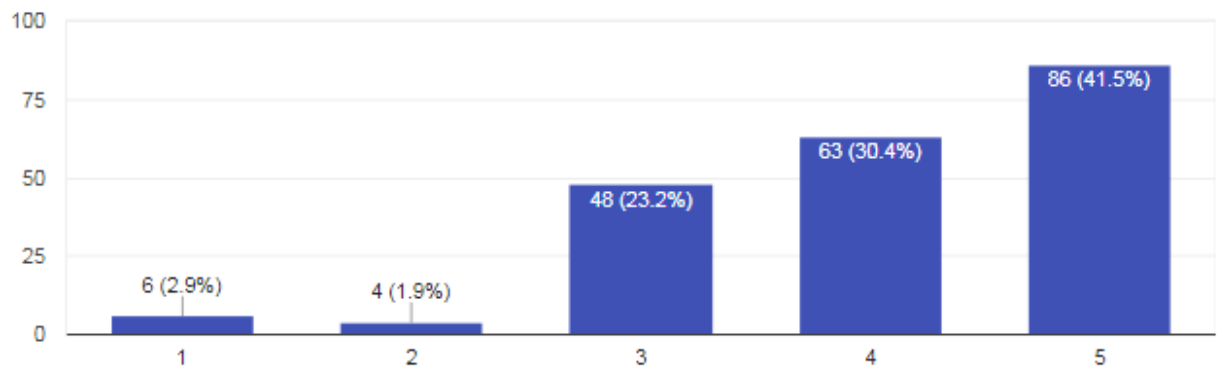
207 responses



Rate Student Skill Enrichment practices



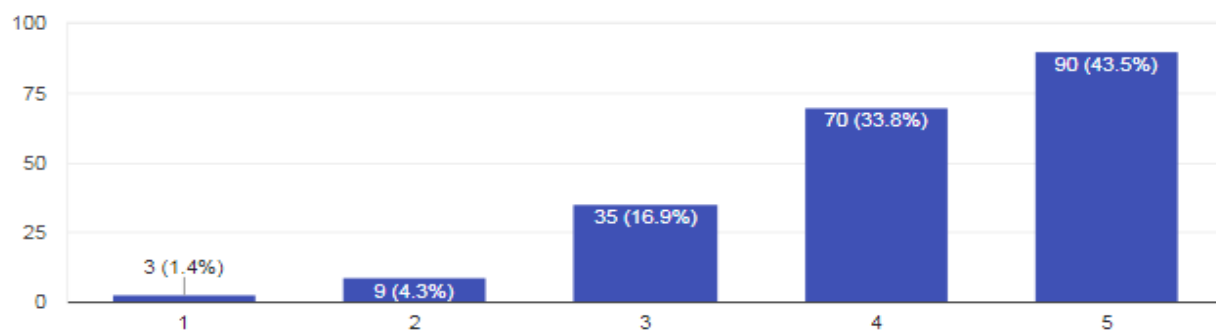
207 responses



### Rate effectiveness of Internal Counseling sessions



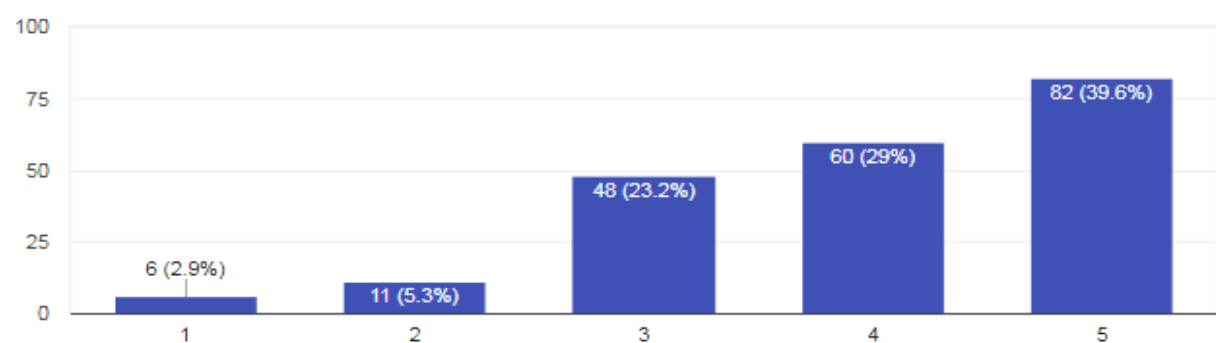
207 responses



### Rate provision of student feedback, suggestions system and its impact



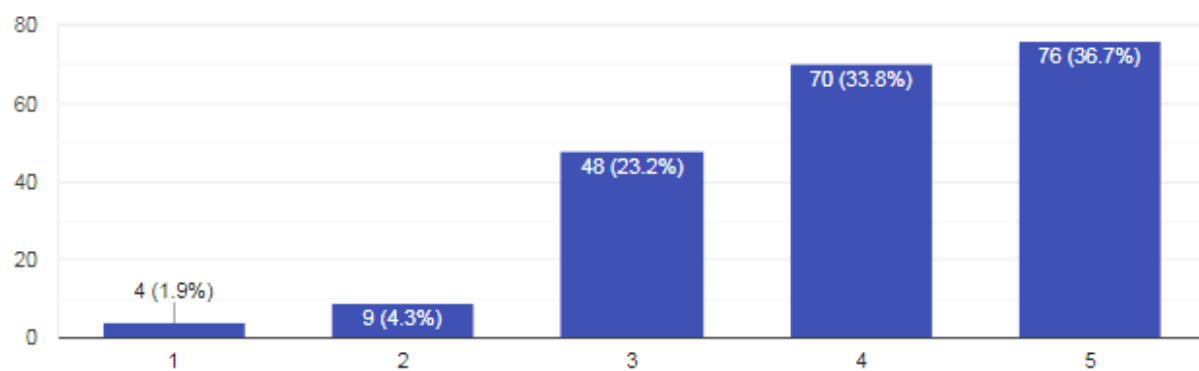
207 responses



### How do you rate assessment practices (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good, 5-Extremely Good)



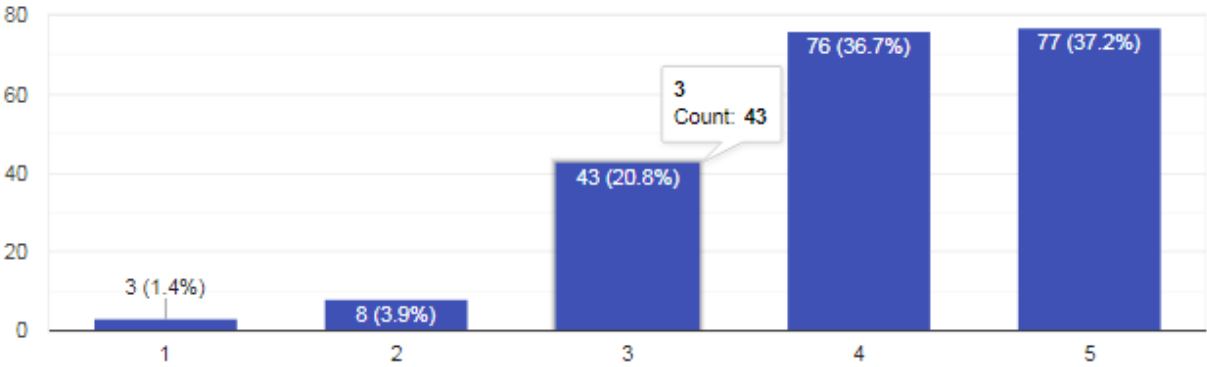
207 responses



Fairness and transparency of assessment & evaluation practices (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



207 responses





**ACADEMIC YEAR – 2020-21 (ODD sem)  
INTERNAL QUALITY ASSURANCE CELL**

**EXIT SURVEY REPORT  
(2016-20 BATCH)**

**QUESTIONNAIRE**

**About Infrastructural Facilities (5 being highest)**

1. How do you rate classroom ambience (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
2. How do you rate Lab facilities (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
3. How do you rate Library facilities (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
4. Transport Facility - if availed (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
5. Hostel facility - if availed (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

**About Teaching-Learning -Assessment practices (5 being highest)**

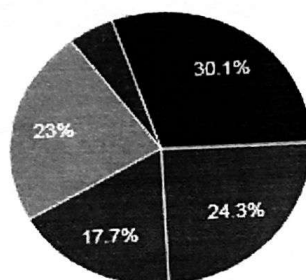
1. Question Bank structure, content & usage(1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
2. Lab Manual structure, content & usage (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
3. e-Material content & usage (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
4. Teaching methodology adopted by faculty members (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
5. Do you agree - Learning Outcome for the courses is met (Strongly agree, Agree, Neutral, Disagree, Strongly disagree)
6. Any specific recommendation / suggestions / appreciations related to Teaching-Learning practices
7. Any specific recommendation/ suggestions related to learning materials
8. How do you rate assessment practices (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)
9. Fairness and transparency of assessment & evaluation practices (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

## RESPONSES SUMMARY

### Branchwise Responses (226 /248)

Branch studied

226 responses



- CIVIL ENGINEERING
- COMPUTER SCIENCE AND ENGINEERING
- ELECTRONICS AND COMMUNICATION ENGINEERING
- ELECTRICAL AND ELECTRONICS ENGINEERING
- MECHANICAL ENGINEERING

CIVIL - 55/55  
CSE - 39/39  
ECE - 52/53  
EEE - 11/11  
MECH - 68/88

### About Infrastructural Facilities (5 being highest)

1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good

S.No	Question	1	2	3	4	5
1	How do you rate classroom ambience	5.3	4.4	29.2	27.9	33.2
2	How do you rate Lab facilities	12.4	8	25.2	23.5	31
3	How do you rate Library facilities	3.5	5.8%	19%	22.6%	29.1%
4	Transport Facility - if availed	20	24%	23%	26.5%	31%
5	Hostel facility - if availed	13.3	9.3	23.9	24.8	28.8
		10.9	10.3	24.06	25.06	30.62



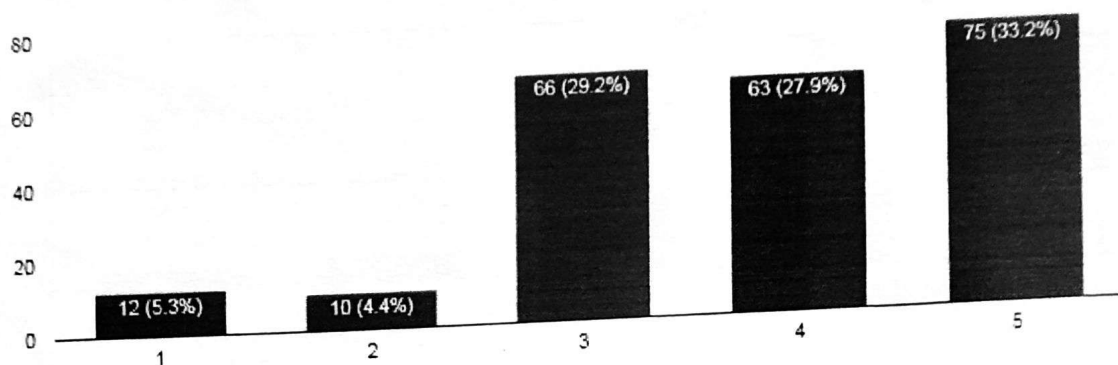
**About Teaching-Learning -Assessment practices (5 being highest)**

<b>Qn.</b>	<b>Feedback regarding</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1</b>	Question Bank structure, content & usage	<b>3.5</b>	<b>4.4</b>	<b>20.4</b>	<b>22.1</b>	<b>49.6</b>
<b>2</b>	Lab Manual structure, content & usage	<b>2.7</b>	<b>8</b>	<b>20.8</b>	<b>28.8</b>	<b>44.2</b>
<b>3</b>	e-Material content & usage	<b>6.2</b>	<b>6.2</b>	<b>24.8</b>	<b>23.9</b>	<b>38.9</b>
<b>4</b>	Teaching methodology adopted by faculty members	<b>6.2</b>	<b>4</b>	<b>18.6</b>	<b>30.1</b>	<b>41.2</b>
<b>5</b>	Do you agree - Learning Outcome for the courses is met	<b>3.1</b>	<b>2.7</b>	<b>29.6</b>	<b>45.6</b>	<b>19</b>
<b>6</b>	Any specific recommendation / suggestions / appreciations related to Teaching-Learning practices	<b>Attached</b>				
<b>7</b>	Any specific recommendation/ suggestions related to learning materials	<b>Attached</b>				
<b>8</b>	How do you rate assessment practices	<b>5.8</b>	<b>2.7</b>	<b>23.9</b>	<b>27.4</b>	<b>40.3</b>
<b>9</b>	Fairness and transparency of assessment & evaluation practices	<b>4.9</b>	<b>6.6</b>	<b>22.1</b>	<b>29.6</b>	<b>36.7</b>
		<b>4.6%</b>	<b>4.9%</b>	<b>22.88%</b>	<b>29.64%</b>	<b>38.55%</b>

## QUESTIONWISE RESPONSES

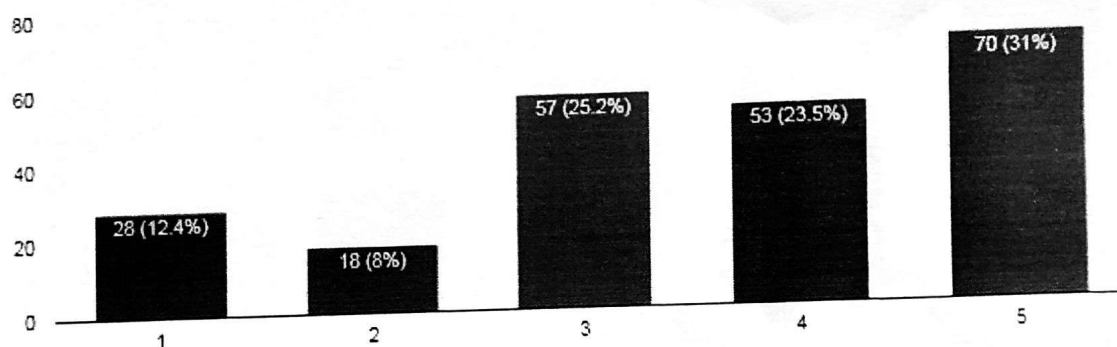
How do you rate classroom ambience (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

226 responses



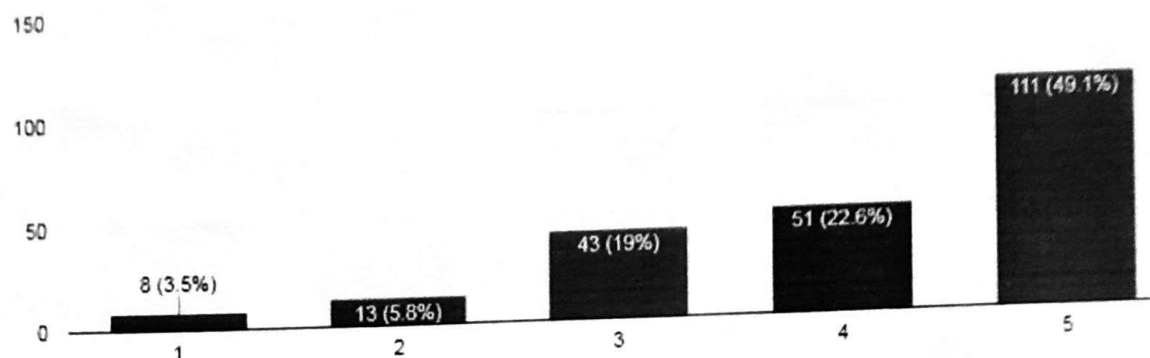
How do you rate Lab facilities (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

226 responses



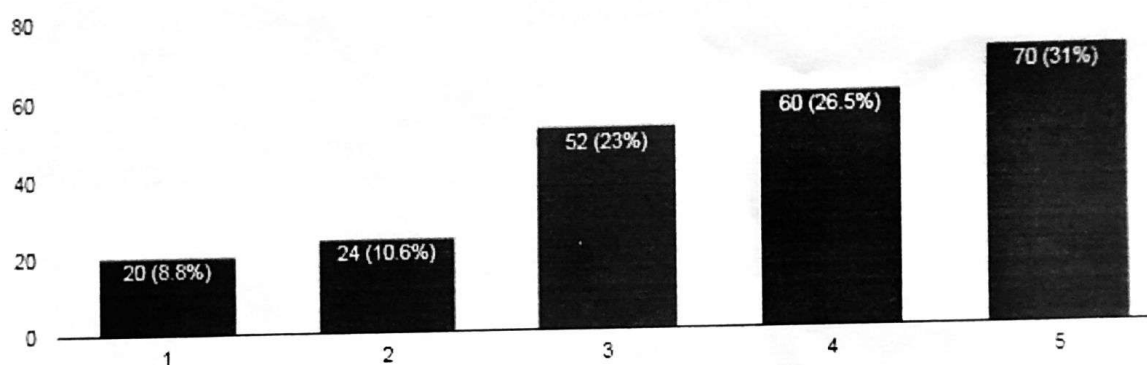
How do you rate Library facilities (1-Needs Improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

226 responses



Transport Facility - if availed (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

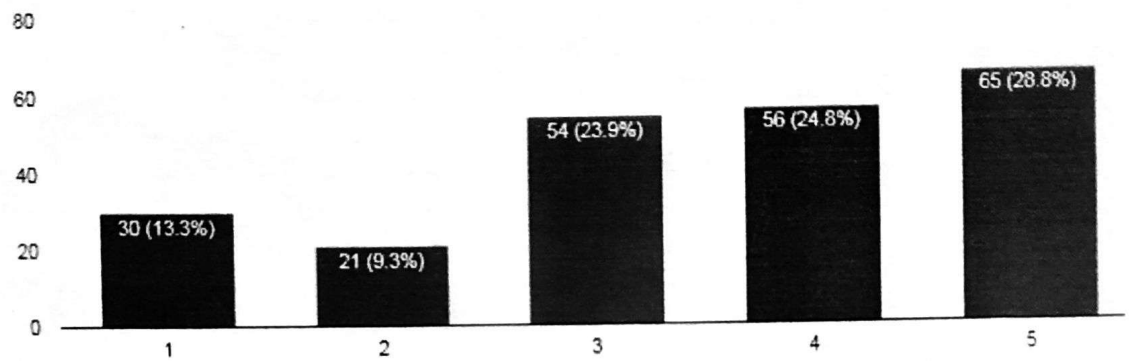
226 responses



Hostel facility - if availed (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



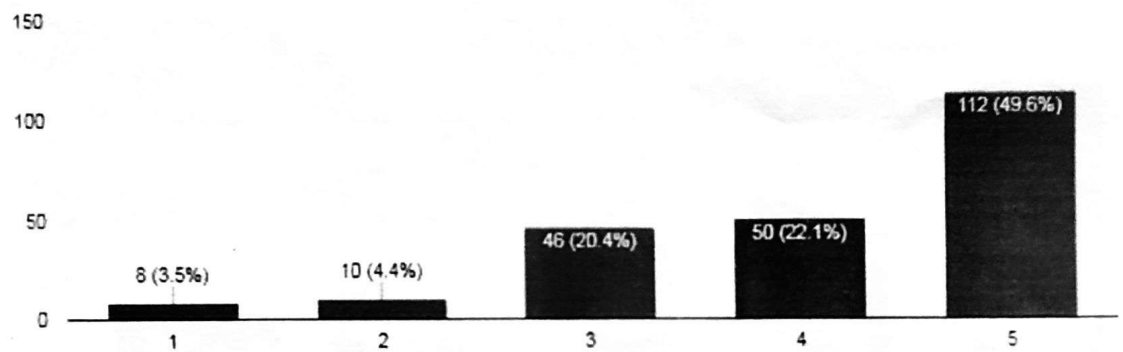
226 responses



Question Bank structure, content & usage(1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)



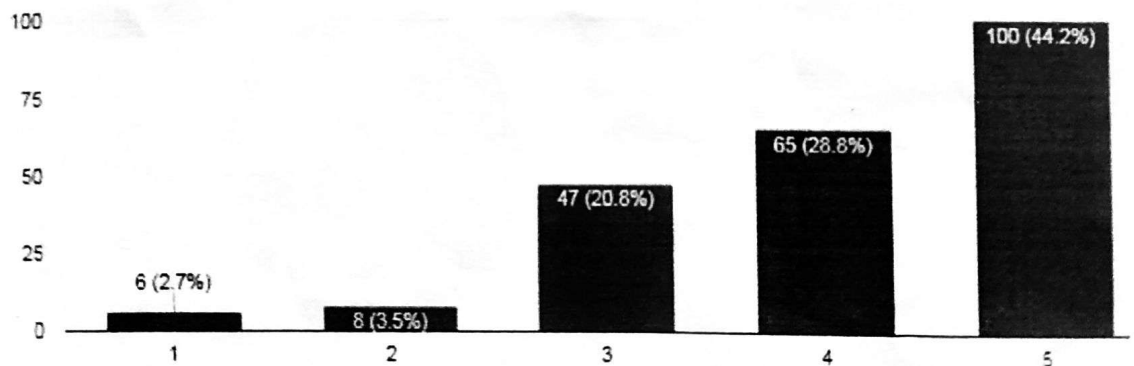
226 responses



Lab Manual structure, content & usage (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

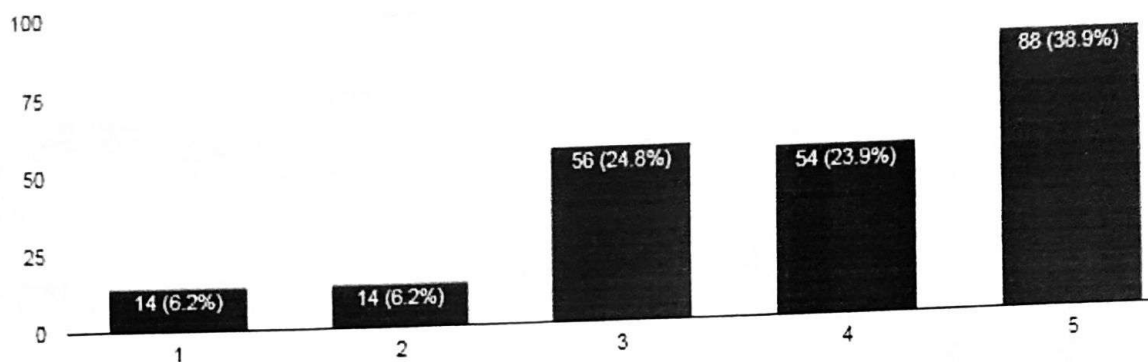


226 responses



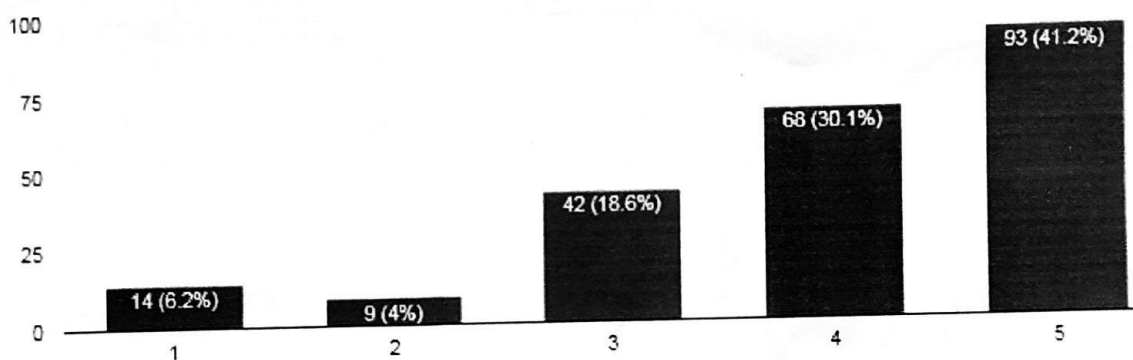
e-Material content & usage (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

226 responses



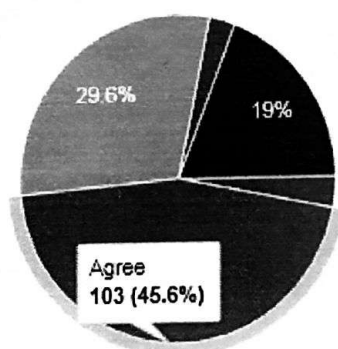
Teaching methodology adopted by faculty members (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

226 responses



Do you agree - Learning Outcome for the courses is met

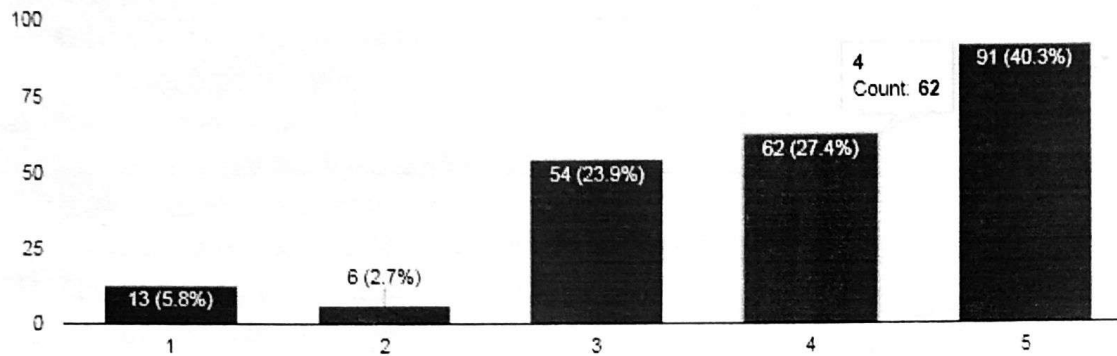
226 responses



- Strongly disagree
- Agree
- Neutral
- Disagree
- Strongly agree

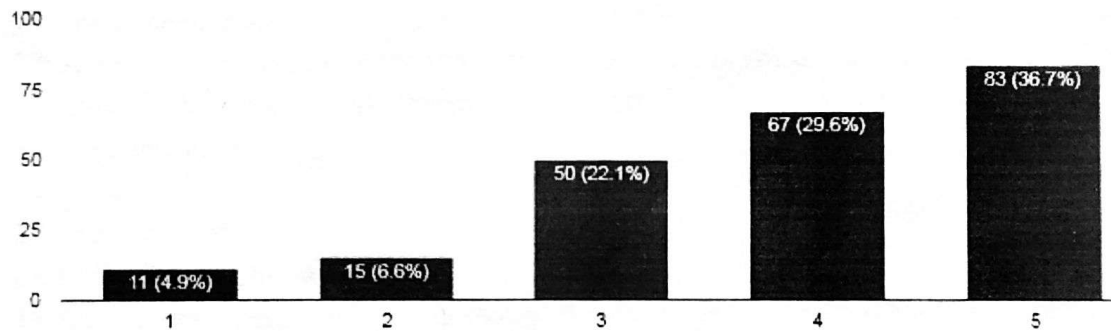
How do you rate assessment practices (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

226 responses



Fairness and transparency of assessment & evaluation practices (1-Needs improvement, 2-Fair, 3-Good, 4-Very Good 5-Extremely Good)

226 responses



*K. Adame* 9/12/20  
**IQAC COORDINATOR**

*J. Monte* 9/12/2020  
**PRINCIPAL**



**ACADEMIC YEAR 2018-19 (EVEN SEMESTER)**  
**Student Representative Meeting with Principal**

**05.03.19**

**Minutes of Meeting**

Principal convened meeting with IV year student representatives on 04.03.19 with the composition of 2 overall performers, 1 average and 1 slow learner from engineering branches. Students were given open platform to share their experiences at the campus for 4 years period. Students were also directed to share suggestions if any.

Branchwise student representations are as follows

**CIVIL**

- **Learning experience** was joyful.
- **Appreciated the practices** of Value Added courses, My Credit Course, Library resources, Competency Development classes
- **Structure of Question bank** and its content was appreciated.
- Student from Chennai based mentioned about the **usefulness of coaching classes**.
- **Syllabus coverage and Assessment practice** was appreciated.
- Representation for **Cultural programmes** to be continued was raised.
- Represented about their comfort for color dress over uniform.
- Sports – event participation other than zonal matches was represented.
- Placement opportunities was represented. (efforts are taken)

**CSE**

- **Coaching & Saturday classes** though found tough initially was effective and useful.
- **Google classroom practice** is good.
- **Question bank is good. Guidance by staff is good.**
- **Revision classes** are very useful.
- **Coding** by student can be encouraged more.
- **Initiatives for communication skills** improvement was represented.
- Training sessions / provision for **GMAT / GRE / IELTS / UPSC exams** shall be arranged.

- **Arrear students** to be motivated for external event participation. OD not to be sanctioned based on arrear.
- **Lab printout sheet** size can be set as the size of **A4**. Find difficulties in taking printout.

#### ECE

- **Care and guidance is good.**
- **College timing is comfortable.**
- Representation for **Assessment answer script** correction can be made by staff not handling class / course
- **Weekly test during T&P hours. Additional practice for aptitude skills.**
- **Library – Computing system issue** due to virus was mentioned. (Steps taken to resolve).
- **Students** represented for Dispensary facility. (Steps will be taken)

#### EEE

- **Need printout facility at Library**
- **Question bank** distribution can be made little earlier.
- **Student friendly approach is good.**

#### MECH

- **CNC Machine** utilization can be enhanced. Service pack alone utilized. Other labs are OK.
- **Overall development activities** was appreciated and found effective. Stage fear defeated. Motivations for overall growth at KINGS is good. 18<sup>th</sup> ISTE provided platform to stage and then continued with other events.
- **Assignment Presentation Hour (APH)** is useful. To be continued effectively,
- **Graduation Day** certificate by Parents is good.
- **Staff-Student relationship** is good. Staff members are motivating and supporting for overall growth of students.
- **ALUMNI** interaction sessions are useful.

**Principal & Vice-Principal insisted for** student preparation towards placement opportunities. **Examination** preparation guidelines was shared. Mathematics arrear coaching sessions to be utilized. Principal appreciated the batch for their performance, wished students for better performance in exams and successful career.

*Rat*

*J. Ramakrishna*  
05/3/19  
**PRINCIPAL**





**KINGS**  
COLLEGE OF ENGINEERING  
(NAAC Accredited Institution)  
(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai)



**ACADEMIC YEAR 2018-19**  
**STUDENT REPRESENTATIVE MEETING WITH PRINCIPAL**  
(Towards Quality improvement initiatives)  
**ATTENDANCE SHEET - IV Yr. classes**

Branch	Student	Signature
CIVIL	A. Neka	A. Neka
	S. Amar Selvan	S. Amar Selvan
	M. Srinidhi	M. Srinidhi
	S. Varanth	S. Varanth
CSE	S. Bhavaneshwari	S. Bhavaneshwari
	S. Yuvalakshmi Priya	S. Yuvalakshmi Priya
	Mohan Kumar S	Mohan Kumar S
	B. Jayaprakash	B. Jayaprakash
ECE	J. Tamil Selvan	J. Tamil Selvan
	N. Vigneshwar	N. Vigneshwar
	G. Anitha	G. Anitha
	K. GAYATHRY	K. GAYATHRY
EEE	K. Muthumana	K. Muthumana
	R. Baranika	R. Baranika
	J. Dhinesh	J. Dhinesh
	B. Rohith	B. Rohith
MECH	R.R. PRAVIN	R.R. PRAVIN
	M. B. Samir	M. B. Samir
	G. ALEXRAJA	G. ALEXRAJA
	R. SIYA PRASATH	R. SIYA PRASATH

J. Praveen  
4/3/19.



# **REVIEW PROCESS : II**

## **TLP PROCESS REVIEW**



# **SYLLABUS COMPLETION REVIEW**



**KINGS**  
COLLEGE OF ENGINEERING  
(NAAC Accredited Institution)  
(Approved by AICTE, New Delhi Affiliated to  
Anna University, Chennai)



TÜV Rheinland  
**CERT**  
ISO 9001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
ACADEMIC YEAR 2019-2020/ EVEN SEMESTER

Status of syllabus coverage as on – 17.03.2020

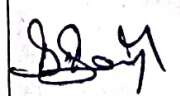

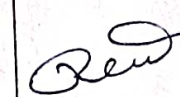
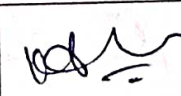

Department		FCE	Branch	Year			II		Sec	-
Class Co-ordinator		A. HERALD	Mentor	S. Sivakumar,			R. Ponn		K. Sudarsanar	
Sl. No.	Subject Code	Name of the Subject	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty
1.	MA8451	Probability and Random Processes	Mr. Jeyakrishnan	5	65	66	-	-	Yes	[Signature]
2.	EC8452	Electronic Circuits II	Mrs. U. Jeyamalar	5	50	52	-	-	Yes	[Signature]
3.	EC8491	Communication Theory	Mr. S. Ramarajan	5	50	50	-	-	Yes	[Signature]
4.	EC8451	Electromagnetic Fields	Mrs. P. Thirumagal	5	60	62	-	-	Yes	P. Thirumagal
5.	EC8453	Linear Integrated Circuits	Mr. A. Herald	5	50	51	-	-	Yes	[Signature]
6.	GE8291	Environmental Science and Engineering	Dr. V. Suresh kumar	5	50	50	-	-	Yes	[Signature]
Sl. No.	Lab Subject Code	Name of the Laboratory	Staff Name	Experiment completed	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of observation / Records	Signature of faculty
1.	EC8461	Circuits Design and Simulation Laboratory	Mr. S. Ramarajan/ Mrs. U. Jeyamalar	B1: 37 (07) B2: 42 (08)	B1: 37 B2: 42	B1: 37 B2: 42	-	-	Yes	[Signature]
2.	EC8462	Linear Integrated Circuits Laboratory	Mr. A. Herald	B1: 11 B2: 9	B1: 42 B2: 37	B1: 42 B2: 37	-	-	Yes	[Signature]

A. Herald  
Class Co-ordinator

[Signature]  
Head of the Department

J. Ponn  
17/3/2020  
Principal






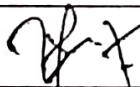
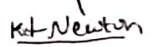
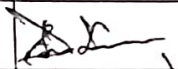
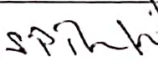


Status of syllabus coverage as on 13.03.2020										
Department		CIVIL ENGINEERING			Year	IV	Sec	---		
Class Co-ordinator		Mr.K.Arun			Mentor	1. K. Bhava Rohini		2. M. PRIYA	3. S. R. Elwin Gnanachand	
Sl. No	Code	Name of the Subject	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty
1.	MG6851	Principles of Management	Mr.B.Barankumar	05	50	56	-	6 hrs Revision	Yes	
2.	CE6016	Prefabricated Structures	Mr.K.Arun	05	50	59	-	9 hrs Revision	Yes	
3.	CE6021	Repair & Rehabilitation of Structures	Ms.R.Revathi	05	50	57	-	7 hrs. Revision	Yes	
<b>PRACTICAL</b>										
4.	CE6811	Project Work	Mr.K.Arun	Third review completed	180	142	-	More holidays & exam slots	Yes	
5	RFC	Refresher Course	Ms.R.Revathi Ms.T.Bhuvaneswari	-	14	14	-	-	Yes	

  
CLASS COORDINATOR

  
HOD/CIVIL

### Status of syllabus coverage as on - 08.10.19

Department		CSE				Year		II		Sec	A
Class Co-ordinator		Mr.S.Rajaraman				Mentor	Dr.D.Sivakumar			Ms.K.Abhirami	
Sl.No.	Name of the Subject / Code	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty		
1.	MA8351/Discrete Mathematics	Ms.S.Geetha	5	65	65	-	-	yes			
2.	CS8351/Digital Principles and System Design	Mr.S.Rajaraman	5	65	65	-	-	yes			
3.	CS8391/Data Structures	Ms.K.Abhirami	5	55	56	-	-	yes			
4.	CS8392/Object Oriented Programming	Dr.D.Sivakumar	5	50	50	-	-	yes			
5.	EC8395/Communication Engineering	Mr.T.Jeyaseelan	5	50	51	-	-	yes			
Sl.No.	Name of the Lab / Code	Staff Name	Experiment completed	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of observation / Records	Signature of faculty		
1.	CS8381/Data Structures Laboratory	Mr.S.Rajaraman & Ms.K.Abhirami	B1-12 B2-12	60	60	-	-	yes			
2.	CS8382/Digital Systems Laboratory	Mr.R.Sathyaraj / Mr. W. Newton David Raj	B1-10 B2-10	60	60	-	-	yes			
3.	CS8383/Object Oriented Programming Laboratory	Dr.D.Sivakumar & B.Sangeetha	B1-13 B2-13	60	62	-	-	yes			
4.	HS8381/Interpersonal Skills/ Listening & Speaking	Mr.P.Rajeshwaran	B1-13 B2-13	30	30	-	-	yes			

Class Co-ordinator 

HOD 





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2019-2020 /Odd SEMESTER

Status of syllabus coverage as on – 19.07.2019

Department		ECE	Branch	EEE	Year		IV		Sec	
Class Co-ordinator		R. THANDAYUTHAPAN	Mentor	Mrs. P. Thirumagal	Mrs. W. Newton		Mrs. D. Vennila	Mrs. T. Jeyanalar	Mr. A. Herald.	
Sl. No.	Subject Code	Name of the Subject	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty
1.	EC6701	RF & Microwave Engineering	R. Thandayuthapan	02	20	20	-	-	Yes	R. Thandayuthapan
2.	EC6702	OCN	K. Sudarshan	02	20	20	-	-	Yes	K. Sudarshan
3.	EC6703	E & RTS	Dr. T. Shanthi	02	20	20	-	-	Yes	Dr. T. Shanthi
4.	EC6004	Satellite communication	W. Newton David Ray	02	20	23	-	-	Yes.	W. Newton
5.	EC6011	EMIC	P. Thirumagal	02	20	20	-	-	Yes.	P. Thirumagal
6.	EC6016	OED	D. Vennila	02	20	20	-	-	Yes.	D. Vennila
Sl. No.	Lab Subject Code	Name of the Laboratory	Staff Name	Experiment completed	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of observation / Records	Signature of faculty
1.	EC6711	Embedded Lab	T. Prapathu S. Sudarshan	04	B1-12 B2-12	B1-12 B2-14	-	-	Yes	T. Prapathu
2.	EC6712	Om Lab.	R. Thandayuthapan	04	B1:12 B2:12	B1:14 B2:12	-	-	Yes	R. Thandayuthapan

*R. Thandayuthapan*  
19/7/19  
Class Co-ordinator

*T. Prapathu*  
19/7/19  
Head of the Department

*J. M. M. M.*  
25/7/19  
Principal





DEPARTMENT OF SCIENCE AND HUMANITIES  
ACADEMIC YEAR 2018-2019/ ODD SEMESTER

Status of syllabus coverage as on – 27.10.18									
Department	S&H	Year	I	Section					
Class Coordinator	Dr.AL.Kavitha / AP II /Chemistry			Mentor	Dr.V.Kumaran, Dr.R.Suresh, Mrs.S.Anuradha, Mr.R.Shankar				
S. No.	Name of the Subject/ Code	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty
1.	Communicative English/ HS8151	Dr.V.Kumaran	3.1	32	32	-	-	Yes	
2.	Engineering Mathematics-I/MA8151	Dr.R.Suresh	3	47	46	-	-	Yes	
3.	Engineering Physics / PH8151	Mrs.S.Anuradha	3.3	32	38	-	-	Yes	
4.	Engineering Chemistry / CY8151	Dr.AL.Kavitha	3.1	35	35	-	-	Yes	
5.	Problem Solving And Python Programming / GE8151	Mrs.K.Abirami	3	36	34	-	-	Yes	
6.	Engineering Graphics / GE8152	Mr.R.Shankar	2.9	54	52	-	Due to Pooja holidays	Yes	
S. No.	Name of the Lab/ Code	Staff Name	Experiment completed	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of observation / Records	Signature of faculty
1.	Physics and Chemistry Laboratory – /BS8161	Mrs.S.Anuradha/ Mr.S.Ambalatharasu Dr.AL.Kavitha / Dr. V.Sureshkumar	Batch-4 Batch-5 7	12+15 8, 82 3030	12+15 14+14	- -	- -	Yes Yes	 
2.	Problem Solving And Python Programming / GE8161	Mrs.K.Abirami/ Mrs.G.Chandrapraba	7	24	23	37	Friday labs cancelled due to holiday	Yes	

Class Coordinator 27/10/18

HOD/S&H 29/10/18





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2018-2019/ ODD SEMESTER

Status of syllabus coverage as on -15.10.2018

Department		ECE	PG	M.E-VLSI Design	Year		I	Sec	-	
Class Co-ordinator		A. HERALD	Mentor							
Sl. No.	Subject Code	Name of the Subject	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty
1.	MA5152	AMEE	G. RAMYA AROCKIA MARY	1.5	18	20	-	-	Yes	[Signature]
2.	AP5151	ADSD	S. SIVAKUMAR	1.5	16	16	-	-	Yes	[Signature]
3.	VL5101	CMOS Digital VLSI Design	R. SAGAYARAJ	1.5	16	16	-	-	Yes	[Signature]
4.	VL5191	DSP IC	R. BALAKRISHNAN	1.5	12	12	-	-	Yes	[Signature]
5.	VL5102	CAD FOR VLSI CIRCUITS	D. VENNILA	1.5	16	16	-	-	Yes	[Signature]
6.	VL5103	AJD	A. HERALD	1.5	18	19	-	-	Yes	[Signature]
Sl. No.	Lab Subject Code	Project phase / Name of the subject	Staff Name	Experiment completed	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of observation / Records	Signature of faculty
1.	VL5111	VLSI Design Lab-I	Mrs. V. Jayamalar	2	20	16	-	-	Yes	[Signature]

[Signature]  
Class Co-ordinator

[Signature]  
Head of the Department

[Signature] 10/10/18  
Principal





Status of syllabus coverage as on 31.8.18										
Department		CIVIL ENGINEERING			Year		IV		Sec	A
Class Co-ordinator		Mr.M.Manimuhilan			Mentor		1. Mr.K.Arun		2. Ms.D.Sharmila	
Sl. No.	Code	Name of the Subject	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty
1.	CE6701	Structural Dynamics & Earthquake Engineering	Mr.K.Arun	4	44	44	—	—	Yes	
2.	CE6702	Prestressed Concrete Structures	Ms.R.Revathi	3 1/4	41	41	—	—	Yes	
3.	CE6703	Water Resources and Irrigation Engineering	Ms.D.Sharmila	3-8	36	36	—	—	Yes	
4.	CE6704	Estimation and Quantity Surveying	Mr.S.R.Elwin Guru Chanth	3.5	34	34	—	—	Yes	
5.	CE6007	Housing Planning and Management	Mr.M.Manimuhilan	3.6	32	35	—	—	Yes	
6.	CE6011	Air Pollution management	Ms.T.Bhuvaneswari	3.5	37	37	—	—	Yes	
PRACTICAL										
7.	CE6711	Computer Aided Design and Drafting Laboratory	Ms.K.Aruna	B <sub>1</sub> - 8 B <sub>2</sub> - 8	B <sub>1</sub> - 27 B <sub>2</sub> - 27	25 27	— —	Ass-I - Test —	Yes	
8.	CE6712	Design Project	Mr.K.Arun	Second revised completed	B <sub>1</sub> - 30 B <sub>2</sub> - 30	B <sub>1</sub> - 30 B <sub>2</sub> - 30	— —	— —	Yes	

CLASS COORDINATOR

3/9/18  
HOD/CIVIL





Status of syllabus coverage as on : 31.8.18

Department		MECHANICAL			Year		III year.		Sec	B sec
Class Co-ordinator		V. VINOTH KANNAN			Mentor	1. Vinoth Kannan V		2. Arun R.		
Sl.No.	Name of the Subject / Code	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty	
1.	Professional Ethics in Engineering	Rasam Kumar B	3-2	34	39	-	-	yes		
2.	Computer aided Design	Prince J. Christopher	3	30	30	-	-	yes		
3.	Heat & Mass transfer	Vinoth Kannan V	3	30	39	-	more problems were solved.	yes		
4.	Design of machine Elements	Rajaparthiban J	3	30	33	-	Since the subject requires more solving	yes		
5.	Metrology & measurements	Rishyakanan V	3	30	31	-	-	yes		
6.	Dynamics of machines	Mathiyakannan V	3	30	35	-	more no of problem solved	yes		
7.										
Sl.No.	Name of the Lab / Code	Staff Name	Experiment completed	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of observation / Records	Signature of faculty	
1.	Dynamics lab	G. MATHI KANNAN	B1 - 9 B2 - 6	27 18	27 18	- -	Holiday on more Wednesday	yes		
2.	M.M lab	V. VINOTH KANNAN	B1: 07 B2: 08	27 27	24 27	3 -	Holiday on Monday	Yes.		
3.	Thermal Eng lab	S. RAJESH KUMAR	B1 - 8 B2 - 9	24 24	16 24	8 -	Holiday on Wednesday	Yes		

Class Co-ordinator

(V. Vinoth Kannan)

31/8/18  
HOD





Status of syllabus coverage as on - 29.3.18

Status of syllabus coverage as on - 29.3.18									
Department		CSE		Year		M.E I YR		Sec	II Sem
Class Co-ordinator		G. CHANDRA PRABA		Mentor	1. Hemalatha		2.		
Sl.No	Name of the Subject / Code	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty
1.	Network Design Technologies	Ms. S. Puraneswari	3 1/4	30	30	-	-	Yes	2. Puraneswari
2.	Security Practices	Mr. R. Rajarajan	3 1/2	32	32	-	-	Yes	2. Rajarajan
3.	Internet of Things	Mr. R. Srinivas Kumar	3 1/2	32	32	-	-	Yes	2. Srinivas Kumar
4.	Big data analytics	Ms. K. Abhirami	3	28	32	-	-	Yes	4. Abhirami
5.	Information Retrieval Techniques	Mr. J. Jagan	3 1/4	31	32	-	-	Yes	5. Jagan
6.	Cloud computing Technologies	Mr. G. Chandrasekhar	3	27	29	-	-	Yes	6. Chandrasekhar
Sl.No	Name of the Lab / Code	Staff Name	Experiment completed	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of observation / Records	Signature of faculty
1.	Big Data Analytics Lab	Mr. R. Panitha	8	36	35	-	-	Yes	1. Panitha
2.	Team Paper Writing	Ms. R. Suganthakalakshmi	9	36	36	-	-	Yes	2. Suganthakalakshmi
3.									

G. Ch  
Class Co-ordinator

J J  
HOD

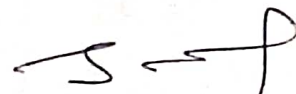


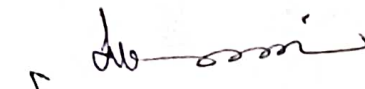
# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2017-2018/ EVEN SEMESTER

Status of syllabus coverage as on - 16.03.2018

Department		ECE		Branch	Year			IV	Sec	-
Class Co-ordinator		S. Ramarajan		Mentor	T. Jeyaseelan			R. Balakrishnan	K. Selvaraj	
Sl. No.	Subject Code	Name of the Subject	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty
1.	EC6801	Wireless Communication	K. SUDARSHAN	5	45	45	-	-	Yes	A
2.	EC6802	Wireless Networks	S. RAMARAJAN	5	45	50	-	-	Yes	S. R.
3.	EC6018	Multimedia Comp. Graph.	T. SHANTHI	5	45	44	-	-	Yes	S. R.
4.	EC6019	Data Conversion	S. SIVAKUMAR	5	45	50	-	-	Yes	S. R.
Sl. No.		Name of the My credit course	Staff Name	Portion completed	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of observation / Records	Signature of faculty
1.	MCC	Digital system design	T. Pasupathi	5	45	46	-	-	Yes	T. Pasupathi
2.	MCC	Verification using EDA Tools	P. Ramanathan	5	45	45	-	-	Yes	P. Ramanathan

  
Class Co-ordinator

  
Head of the Department

  
17/3/2018  
Principal





Status of syllabus coverage as on : 16/3/18

Department		MECHANICAL				Year		Sec	
Class Co-ordinator		ARUN.R				Mentor		1. SUPRIYAMURTHY.R	2. VINOTHKANNAN.V
Sl.No.	Name of the Subject / Code	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty
1.	ME6402 - SNM	G. Shankaraselidoss	5	60	70	-	-	Yes	[Signature]
2.	ME6401 - KOM	Kori Kalan.	5	45	55	-	-	Yes	[Signature]
3.	ME6402 - MT-II	J. Prubakaran	5	45	48	-	-	Yes	[Signature]
4.	ME6403 - EMM	Vinoth Kannan.	5	45	48	-	Lost 8 AT-3	Yes	[Signature]
5.	ME6404 - TE	R. Arun.	5	45	58	-	More problems	Yes	[Signature]
6.	CE6351 - EVS	Dr. S. Udagalam	5	45	53	-	-	Yes	[Signature]
7.									
Sl.No.	Name of the Lab / Code	Staff Name	Experiment completed	Hours planned	Hours taken	No. of Hrs Req. to complete remaining portions	Reasons for deviation	Verification of observation / Records	Signature of faculty
1.	ME6411 - MT Lab	Aswin.m	11	45	36	-	-	Yes	[Signature]
2.	ME6412 - TE Lab	Arun.R.	12	45	36	-	-	Yes	[Signature]
3.	CE6315 - SOM Lab.	Kori Kalan	10	45	33	-	-	Yes	[Signature]

[Signature]  
Class Co-ordinator

[Signature]  
HOD

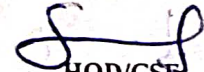


## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2017-2018/ EVEN SEMESTER

ACADEMIC YEAR 2017-2018/ EVEN SEMESTER									
Status of syllabus coverage as on - 23.2.18									
Department		CSE	Branch		CSE	Year	III	Sec	-
Class Coordinator		R. SUGANTHA LAKSHMI			Mentor	1. HS. P. NALAYINI 2. Mr. S. RAJARAJAN			
S. No.	Name of the Subject/ Code	Staff Name	Units Covered	Hours planned	Hours taken	No. of Hrs. Req. to complete remaining portions	Reasons for deviation	Verification of student notes	Signature of faculty
1.	CS6601 - DISTRIBUTED SYSTEMS	Ms. R. Sugantha Lakshmi	3 1/4	29	35	-	-	Yes	Sug
2.	IT6601 - MOBILE COMPUTING	Mr. J. Jegan	3 1/4	29	32	-	include class test from	Yes	S. Jegan
3.	CS6660 - COMPILER DESIGN	Ms. S. Puranavathi	3 3/4	32	32	-	-	Yes	S. Puranavathi
4.	IT6502 - DIGITAL SIGNAL PROCESSING	Mr. R. Balakrishnan	3 1/2	42	47	-	-	Yes	R. Balakrishnan
5.	CS6659 - ARTIFICIAL INTELLIGENCE	Ms. K. Abhirami	3 3/4	35	41	10	Unit I was very vast	Yes	K. Abhirami
6.	GE6757 - TOTAL QUALITY MGMT	Mr. D. Sivakumar	3 1/4	30	33	-	includes class test	Yes	D. Sivakumar
S. No.	Name of the Lab/ Code	Staff Name	Units Experiment completed	Hours planned	Hours taken	No. of Hrs. Req. to complete remaining portions	Reasons for deviation	Verification of observation / Records	Signature of faculty
1.	CS6611 - MOBILE APP Develp Lab	Mr. J. Jegan	B1: 08 B2: 08	27 27	27 27	-	-	Yes	S. Jegan
2.	CS6612 - Compiler Lab	Ms. S. Puranavathi	B1: 10 B2: 9	30 27	30 27	-	-	Yes	S. Puranavathi
3.	GE6674 - Communication Skills Lab	Mr. Albert Lawrence	7	21	21	-	-	Yes	Albert Lawrence

  
 Class Coordinator

  
 HOD/CSE



# **PCE REVIEW**





**KINGS**  
COLLEGE OF ENGINEERING  
(NAAC Accredited Institution)  
(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai)



ACADEMIC YEAR 2019-20

PCE SKILL FOR CONTINUOUS ASSESSMENT TEST-2

DEPARTMENT : CIVIL

YEAR/SEC : II

1 LA

CLASS STRENGTH : 28\*

Sub.Code & Title	Staff In-Charge	PCE SKILL ACTIVITY conducted (as per course plan)	Date of Execution	Outcome attained	Remarks
MA8491 Numerical Methods	Ms. S. Creetha highest problem	HW - 20 problems (1-4 Units) Formula - 3, 4 Units Submission	Regular 19.2.2020	Problem Solving Formula recalling	2 Activities 1* peer review (AB)
CE8401 Constr. Tech. & Practices	Mr. S. R. Elwin Gurunuchand	Crossword, poster, ppt Case study, BB presentation Images III, IV unit - Review session	15.2.2020 22.2.2020	AT2 performance increased (marks improved) no single digit	5 Activity / cover 1 Common group 2 / student group video based class open book test (Unit)
CE8402 Strength of Mat-II	Ms. K. Jaya Sankar	Model presentation, CATE Crack Case study, Seminar APH / Quiz	17.2.2020 20.2.2020	Prob. Solving skills Case study - useful Practical knowl.	5 Activities (PL) CATE - description
CE8403 Applied Hy. Engg.	Ms. V. Ishwarya	Case study, APH, Poster presentation	17.2.2020 21.2.2020	Application knowledge presentation skills (Airtels Award)	3 Activities 4 / student
CE8404 Concrete Tech	Ms. K. Bhavani	Concept Map, ppt, poster Quiz, CATE	17.2.2020 21.2.2020	Key point identification self learning presentation skills	5 Activities 2 Activity - slow learner
CE8491 Soil Mechanics	Ms. M. Priya	Material property identification CATE - paper solving Case study Poster, Quiz	17.2.2020 22.2.2020	Practical application problem solving skills Application	5 Activities J. room 28/2/2020

Verified by K. collu 28/2

Approved by



**KINGS**  
COLLEGE OF ENGINEERING  
(AACSB Accredited Institution)  
(Approved by AICTE, New Delhi, affiliated to Anna University, Chennai)



**ACADEMIC YEAR 2019-20**  
**PCE SKILL FOR CONTINUOUS ASSESSMENT TEST-2**

DEPARTMENT : CIVIL  
YEAR/SEC : III

CLASS STRENGTH : 39

Sub.Code & Title	Staff In-Charge	PCE SKILL ACTIVITY conducted (as per course plan)	Date of Execution	Outcome attained	Remarks
CE8601 Design of Steel structural Element	Ms. M. Priya	Material identification (6) Quiz (11) - CATE Concept Understanding - 14 Case study - 8	17.2.2020 22.2.2020	practical learning CATE - solve ability Case study - word- structure - knowledge	4 covered / 5 Mat. identification Unit - I
CE8602 Structural Analysis-II	Ms. T. Bhuvaneshwari	Quiz, APH, Case study Appln, Concept Map.	27.1.2020 20.2.2020	Case study useful - proj. initiation Quiz - Exam point Presentation skills	5 activities - Cpk 2 Activity/study
CE8603 Irrigation Engg.	Ms. K. Rajitha	Quiz, Case study Field visit, APH Quiz (50 marks)	17.2.2020 22.2.2020	sub-related field visit - useful Quiz - knowledge interest in field	3 Activities 2 Activity/study
CE8604 Highway Engg.	Ms. K. Jeya Sankari	Seminar, Case study Presentation, Quiz, CATE 50-10 Q. test - Quiz.	17.2.2020 20.2.2020	presentation skills Application Knowledge gain	5 Activities.
EN8592 Waste Water Engg.	Ms. V. Ishwarya	Quiz, Case study Picture presentation.	17.2.2020 21.2.2020	Picture - Design Knowledge Quiz - Fig. concept Appln. case study	
CE8005 Air Polln. Control Engg.	Mr. R. Suresh	Quiz, Ppt, poster Case study, Crossword	8.2.2020 20.2.2020	stage performance 2 marks ans. Coverage Presentation skills Case study - useful	As per course plan 5 activities done 2 Activity/study

Verified by

K. S. S. 28/2

Approved by

J. 100 28/2/2020



ACADEMIC YEAR 2019-20

PCE SKILL FOR CONTINUOUS ASSESSMENT TEST-2

DEPARTMENT : CIVIL  
YEAR/SEC : IV

CLASS STRENGTH :

Sub.Code & Title	Staff In-Charge	PCE SKILL ACTIVITY conducted (as per course plan)	Date of Execution	Outcome attained	Remarks
MG851 Principles of Mgmt.	Dr B. Balan Kumar	poster, Role play, APH Toppen - ASTE Qn.	Feb 10 noon 24.2.2020	leadership @ evaluation exposed. planning - knowledge Knowledge gain	3 Activity / student
CE6016 Pre fabrication Structure	Mr. K. Anu	Cross section, Qn2, poster Field visit Pn. Cont. (to be completed this month, Apr)	8.2.2020 27.2.2020	Part A @ Coverage Comp. Exam. poster practical skills stage team overcom	4/ activity per student 3 common. TV Reports - Voc Creativity - encourage
CE6021 Repair & Rehabilitation Structure	Ms. R. Revathy	case study poster, Seminar, APH Qn2 (20 Qns).	17.2.2020 21.2.2020	III Unit - Activity based learning Know. gain poster	2/ student 4 Activities - C plan

Verified by K. Anu 28/2

Approved by  
28/2/2020

**ACADEMIC YEAR 2019-20**

**PCE SKILL FOR CONTINUOUS ASSESSMENT TEST-2**

**DEPARTMENT : CSE**

**YEAR/SEC : II**

**CLASS STRENGTH : 45**

Sub.Code & Title	Staff In-Charge	PCE SKILL ACTIVITY conducted (as per course plan)	Date of Execution	Outcome attained	Remarks
MA8402 Probability & Queueing theory	Dr. R. Suresh	H/W - for all ppt - 15 students vide - 30 "	Regular 10.02.2020 21.02.2020	Reg. practice - problem solving self learning - Application - identification	video-based? activities - good initiative
CS8491 CA	Ms. P. Nalanyani	Case study poster Mindmap	15.2.2020 21.2.2020 15.2.2020	Learning - exercise Practitioner - skills	
CS8492 DBMS	Ms. R. Sugantha Lakshmi	Concept Map (tool based) Problem solving (GATE Qn) Quiz (5) - 10	01.2.2020 15.2.2020 14.2.2020	Concept Learning - exercise Prob. Solving skills In depth knowledge identified	As per course plan
CS8451 DAA	Mr. M. Arun	APH (10) Poster (10)	14.2.2020 24.2.2020	Application identification Understanding of concept made easier	
CS8493 OS	K. Abhirami	Application, GATE Qn. Case study, Roleplay picture prompt, Quiz (2, 6 - common)	13.2.2020 to 21.2.2020	Appln - of Concept Case study - real world utilization Concept learning made easier, comp	As per course plan 6 Activities / 2 per student
CS8494 SE	Mr. R. Rajasekar Dr. D. Sivakumar	APH (10) Quiz (5) Mindmap (5) - 2 titles	18.2.2020 20.2.2020 13.2.2020	Stage fear overcome Practitioner skills & learning - exercise Creativity	As per course plan

Verified by K. Arun 26/2

Approved by J. Prithvi 26/2/2020

ACADEMIC YEAR 2019-20

**PCE SKILL FOR CONTINUOUS ASSESSMENT TEST-2**

DEPARTMENT : CSE  
YEAR/SEC : III

CLASS STRENGTH : 45

Sub.Code & Title	Staff In-Charge	PCE SKILL ACTIVITY conducted (as per course plan)	Date of Execution	Outcome attained	Remarks
CS865/ <del>MA8402</del> PQT IP	Ms. R. Rani	MindMap (5) - Diff. titles <del>Basic</del> Acronym- Exposure APH (10) An.	14.2.2020 to 20.2.2020	Concept recalling easier presentation skills	As per course plan
<del>CS8497</del> CMA CS8691 AI	Ms. S. Puvaneswaran	Poster presentation (10) Quiz2 (5) - Online Mind map (5)	14.2.2020 17.2.2020 19.2.2020	Learning made easier Comp Exam exposure	3/ by all. As per course plan
CS8601 MC	Dr. S. M. Uma	Mindmap (5) APH (10) / Poster-3 Quiz2 (5)	15.2.2020 17.2.2020 20.2.2020	Concept learning - easier Quiz2 - obj. MCQ exposure presentation skills	3/ by all As per course plan
CS8603 DS	Ms. B. Sangeetha	Case study (10) Mindmap (5) Poster (5)	14.2.2020 to 21.2.2020	Creativity & Thought process Application know	
IT8076 ST	Mr. K. Rajesh	Mindmapping (5) - II Quiz2 (5) - Unit I, II Presentation	12.2.2020 to 21.2.2020	Self learning initiated learning made easier Recalling of concepts easier	As per course plan
CS8602 CD	Ms. A. Chandrasekhar	Mindmap (5) Quiz2 (5) Problem solving (10)	15.2.2020 20.2.2020 17.2.2020	Concept learning made easier ASTE & Exposure Uty Exam preparation	

Verified by K. V. 26/2

Approved by

J. M. 26/2/2020



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(Approved by AICTE, New Delhi Affiliated to Anna University, Chennai)



ACADEMIC YEAR 2019-20

PCE SKILL FOR CONTINUOUS ASSESSMENT TEST-2

DEPARTMENT : CSE

YEAR/SEC : 16

CLASS STRENGTH : 38

Sub.Code & Title	Staff In-Charge	PCE SKILL ACTIVITY conducted (as per course plan)	Date of Execution	Outcome attained	Remarks
MG6088 SPM	Mr. R. S. Sivan Kumar	Quiz (5) Mind mapping (5) APH (10)	21.2.2020 21.2.2020 20.2.2020 21.2.2020	Easy to learn Concepts Examination preparation easier	
IT6011 KM	Mr. S. Rajaraja	Quiz (5) Crossword (10) Mind map (5)	14.2.2020 19.2.2020	Knowledge mapping made easier Mind activities stimulate learning	
CS6501 MCA	Ms. P. Nalini	Quiz (5) Poster (10) Mind map (5)	19.2.2020 22.2.2020 19.2.2020	Knowledge expansion presentation skills	

Verified by K. S. Sivan 26/2/2020

J. Prasad  
26/2/2020  
Approved by



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Anna University, Chennai)



**ACADEMIC YEAR 2019-20 (EVEN SEM)**  
**PCE SKILL FOR CONTINUOUS ASSESSMENT TEST-2**

DEPARTMENT : EEE

YEAR/SEC : III

CLASS STRENGTH : 15

Sub.Code & Title	Staff In-Charge	PCE SKILL ACTIVITY conducted (as per course plan)	Date of Execution	Outcome attained	Remarks
EE8601 Solid state Drives ✓	Mr. R. Sundara muthu	Case study-3 APH-4 Poster-1 Internship-2 Field visit-3 3*	14.2.2020 20.2.2020	S/W simulation - (3) presentation skills Application (RT)	
EE8002 Design of Electrical Apparatus ✓	Dr. S. Sivakumar	Workshop-2 Field visit-3 prob. solving-3 Demo-4 3*	11.2.2020 21.2.2020	Industrial exposure prob. skills solving	
EE8602 Solid state Drives Protection & Switchgear ✓	Dr. A. Albert Martin Baban	Case study-4 Quiz-4 PPT-2 poster-1 Symp. paper-2 2*	18.2.2020 21.2.2020	presentation skills CS-Analysis, know. abt. recent trends	
EE8005 Special Electrical Machines ✓	Mr. J. Jockiamy	poster-2 case study-2 problem solving-3 Workshop-2 Field visit-3 3*	14.2.2020 21.2.2020	Bygga learning made easy. Field visit-RT exposure presentation skills	Diff. activities. covered. Application- good.
EE8691 Embedded Systems ✓	Dr. M. Meenabhanu	PPT-4, poster-4 case study-2 Quiz-2 3*	10.2.2020 15.2.2020	Effective use of Aids. Skills gaining Application Identify.	Coverage good.
EE888					

Verified by K. Udaya 26/2

Approved by J. Jockiamy 26/2/2020

**ACADEMIC YEAR 2019-20 (EVEN SEM)**  
**PCE SKILL FOR CONTINUOUS ASSESSMENT TEST-2**

1 LA

DEPARTMENT : EEE  
YEAR/SEC : II

CLASS STRENGTH : 16 \*

Sub.Code & Title	Staff In-Charge	PCE SKILL ACTIVITY conducted (as per course plan)	Date of Execution	Outcome attained	Remarks
1C8451 Control Systems	Mr. S. R. Karthikeyan	2 candidate- Workshop. 15- Field visit. AL(4) - 2-GATE Qns - 2- poster presentation	18.2.2020 22.2.2020	Industrial exposure Appln- practical skills AVL- prob. Sol. skills presentation skills	<u>Good efforts</u>
EE8403 Measurements & Instrumentation	Mr. S. Selenthir	APH-3, Case study-5 Quiz-4 poster-3 (sloca. learning)	13.2.2020 20.2.2020	Identification of instruments by all Theory - imp. ach.	Student category efforts taken <u>Good initiative</u>
EE8402 Transmission & Distribution	Ms. N. Anand mo zhi	Case study-2 Seminar-3 Poster-3 Quiz-4 problems-8 poster-1	13.2.2020 20.2.2020	Technical Exposure & presentation skills	Imp. activity few 2 activities done.
EE 8401 EM-II	Mr. C. John Selvaraj	Case study-7 poster-5 APH-1 Quiz-1	18.2.2020 22.2.2020	Skill widening process	Imp. activity - submitted
MA8491 Numerical Methods	Dr. G. Sankara Kalidoss	Homework (regularly) Quiz	17.2.2020	Part A - prepared useful. prob. Solving ability	
EE8451 LTC	Mr. Sudarshan	Case study-2 Quiz-8 Application-2 APH-2	18.2.2020 22.2.2020	presentation skills J. Ramani 26/4/2020	Diff activities <u>Good efforts</u>

Verified by Kedle 26/2

Approved by







# **STRUCTURE OF COURSE PLAN & VERIFICATION**



### COURSE PLAN STRUCTURE – REVISIONS

YEAR	INITIATIVES
2016-2017 (ODD)	<ul style="list-style-type: none"> <li>In Teaching Methodology atleast one PPT per unit was included.</li> <li>The topic that can be taught with NPTEL video was identified and the corresponding link was mentioned.</li> <li>Also included the Web resources for important topics and the book that covers each topic was specified along with page numbers .</li> <li>Unit wise learning outcome, Classification of students into three batches, Questions/Topics to each batch, 3 Assignments per batch, APH assignment topic, version of the courseplan for particular regulation, internal assessment and assignment topic coverage details and the topic for contend beyond the syllabus were also specified clearly.</li> </ul>
2017-2018 (ODD)	<ul style="list-style-type: none"> <li>Assignment deadline and the weightage of marks for assignments were included.</li> </ul>
2017-2018 (EVEN)	<ul style="list-style-type: none"> <li>The count of assignments was reduced by one and the pattern of assignment was changed into Part A and Part B.</li> <li>Assignments' mark was increased to 30.</li> <li>Presentation topics were included to particular batches. Each batch will get presentation topics for different subjects.</li> </ul>
2018-2019 (ODD)	<ul style="list-style-type: none"> <li>Revision hours were added at the end for all units.</li> </ul>
2018-2019 (EVEN)	<ul style="list-style-type: none"> <li>Extra hour added to each unit for more detailed coverage of topics.</li> </ul>
2019-2020 (ODD)	<ul style="list-style-type: none"> <li>PCE activities were given as assignment work for Assignment 2 and the weightage of marks for Assignments is 20. The activities were listed and assigned to the students based on their learning capacity.</li> <li>Syllabus -Subject order based page numbering</li> </ul>

2019-2020 (EVEN)	<ul style="list-style-type: none"> <li>Part - C was included in the Question Bank.</li> </ul>
2020-2021 (ODD)	<ul style="list-style-type: none"> <li>Course Assessment Plan, Course Outcome Alignment Matrix and Assessment Paper Quality Matrix were included.</li> <li>Teaching methodology was changed as BB/PPT for all topics because of online classes.</li> <li>Atleast two Video lectures were included for each unit.</li> </ul>
2020-2021 (EVEN)	<ul style="list-style-type: none"> <li>Atleast three Video lectures were included for each unit.</li> <li>Assignments were given the mark weightage of 50.</li> <li>Question Bank was modified by including the Bloom's Taxonomy level, Course Outcome covered and Performance Indicator mapped for each question.</li> </ul>

J. Anurag  
18/8/2021.

PRINCIPAL



## **DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**SUBJECT: POWER ELECTRONICS**

**SEMESTER: V**

**QUESTION BANK (EE 8552)**  
*(Version: 3)*

**PREPARED BY**

**Mr.S.R.KARTHIKEYAN AP/EEE**

EE8552

POWER ELECTRONICS

L T P C  
3 0 0 3**UNIT I****POWERSEMI-CONDUCTOR DEVICES****9**

Study of switching devices, SCR, TRIAC, GTO, BJT, MOSFET, IGBT and IGCT - Static characteristics: SCR, MOSFET and IGBT - Triggering and commutation circuit for SCR- Introduction to Driver and snubber circuits.

**UNIT II****PHASE-CONTROLLED CONVERTERS****9**

2-pulse,3-pulse and 6-pulseconverters– performance parameters –Effect of source inductance-- Firing Schemes for converter–Dual converters, Applications-light dimmer, Excitation system.

**UNIT III****DC TO DC CONVERTER****9**

Step-down and step-up chopper-control strategy – Introduction to types of choppers-A, B, C, D and E -Switched mode regulators- Buck, Boost, Buck- Boost regulator, Introduction to Resonant Converters, Applications-Battery operated vehicles, Solar PV systems.


**UNIT IV****INVERTERS****9**

Single phase and three phase voltage source inverters (both120° mode and 180° mode)– Voltage & harmonic control - PWM techniques: Multiple PWM, Sinusoidal PWM, modified sinusoidal PWM – Introduction to space vector modulation – Current source inverter, Applications-Induction heating, UPS.

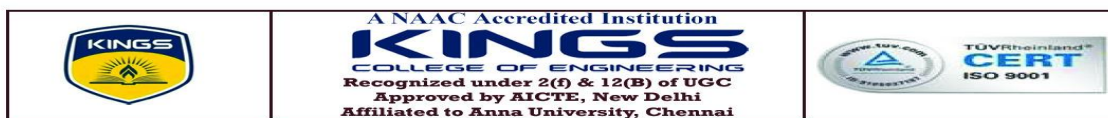
**UNIT V****AC TO AC CONVERTERS****9**

Single phase and Three phase AC voltage controllers – Control strategy - Power Factor Control – Multistage sequence control - single phase and three phase cyclo converters – Introduction to Matrix converters, Applications – welding.

**TOTAL: 45 PERIODS**

  
Faculty in-charge

  
HOD/ EEE



## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING COURSE PLAN

<b>Sub. Code</b> : EE8552	<b>Branch / Year / Sem</b> : B.E EEE / III / V
<b>Sub. Name</b> : Power Electronics	<b>Batch</b> : 2019-2023
<b>Staff Name</b> : Mr.S.R.Karthikeyan	<b>Academic Year</b> : 2021 - 22 (ODD)

### COURSE OBJECTIVE

1. To get an overview of different types of power semiconductor devices and their switching characteristics.
2. To understand the operation, characteristics and performance parameters of controlled rectifiers
3. To study the operation, switching techniques and basics topologies of DC-DC switching regulators.
4. To learn the different modulation techniques of pulse width modulated inverters and to understand harmonic reduction methods.
5. To study the operation of AC voltage controller and various configurations.

### TEXT BOOKS

- T1.** M.H.Rashid, 'Power Electronics: Circuits, Devices and Applications', Pearson Education, PHI Third Edition, New Delhi, 2004.
- T2.** P.S.Bimbra "Power Electronics" Khanna Publishers, third Edition, 2003.

### REFERENCE BOOKS

- R1.** M.D.Singh, K.B.Khanchandani, "Power Electronics", Tata McGraw-Hill, 1998.

### WEB RESOURCES

- W1.** <http://www.ijcee.org/papers/343-E919.pdf> (Topic.No:6)
- W2.** [http://www.nptel.ac.in/courses/Webcoursecontents/IIT%20Kharagpur/Power%20Electronics/PDF/L-17\(NKD\)\(PE\)%20\(\(EE\)NPTEL\)%20.pdf](http://www.nptel.ac.in/courses/Webcoursecontents/IIT%20Kharagpur/Power%20Electronics/PDF/L-17(NKD)(PE)%20((EE)NPTEL)%20.pdf) (NPTEL) (Topic.No:13)
- W3.** <https://www.lrc.rpi.edu/programs/solidstate/assist/pdf/AR-Dimming.pdf> (Topic.No:15)
- W4.** <http://www.circuitstoday.com/types-of-chopper-circuits> (Topic.No:18 & 19)
- W5.** <https://www.mdpi.com/1996-1073/11/9/2433/pdf> (Topic.No:23)
- W6.** [https://nptel.ac.in/courses/108105066/PDF/L-38\(DP\)\(PE\)%20\(\(EE\)NPTEL\).pdf](https://nptel.ac.in/courses/108105066/PDF/L-38(DP)(PE)%20((EE)NPTEL).pdf) (NPTEL) (Topic.No:27)
- W7.** <http://www.iitk.ac.in/npsc/Papers/NPSC2002/110.pdf> (Topic.No:31)
- W8.** [http://www.sa-japan.com/sa-japan/catalog/CEIA\\_InductionHeatingPrinciples\\_FC040K0068v1uk.pdf](http://www.sa-japan.com/sa-japan/catalog/CEIA_InductionHeatingPrinciples_FC040K0068v1uk.pdf) (Topic.No:33)
- W9.** [http://www.revototechnologies.net/uploads/1/6/0/7/16078520/unit\\_ii-\\_mt1.pdf](http://www.revototechnologies.net/uploads/1/6/0/7/16078520/unit_ii-_mt1.pdf) (Topic.No:41)



Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT I POWER SEMI-CONDUCTOR DEVICES (9)</b>						
1.	Study of switching devices	T2	1-5	BB / PPT	1	1
2.	Structure, Ton-TOFF, VI characteristics of Diode & SCR	T2	62-93	VIDEO	2	3
3.	Structure, Ton-TOFF, VI characteristics of TRIAC & GTO	T2	123-124 10-14	BB / PPT	2	5
4.	Structure, Ton-TOFF, VI characteristics of BJT & MOSFET	T2	15-19 20-23	VIDEO	1	6
5.	Structure, Ton-TOFF, VI characteristics of IGBT & IGCT	T2 R1	24-27 588	BB / PPT	1	7
6.	Triggering and Commutation circuits for SCR	T2, W1	160-174	BB / PPT	1	8
7.	Introduction to Driver and snubber circuit	T2	94-103	BB / PPT	1	9
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Describe the basic operations of power semiconductor switches used for power conversion.</li> <li>Explain the various gate triggering circuits.</li> <li>Understand the concepts of various semiconductor devices.</li> </ul>						
<b>UNIT II PHASE-CONTROLLED CONVERTERS (9)</b>						
8.	2-pulse converters	T2	175-201	BB / PPT	1	10
9.	3-pulse converters	T2,	214-220	BB / PPT	1	11
10.	6-pulse converters	T2	210-214	VIDEO	2	13
11.	Performance parameters	T2	225-227	VIDEO	1	14
12.	Effect of source inductance	T2	221-225	BB / PPT	1	15
13.	Firing Schemes for converter	W2	(NPTEL)	BB / PPT	1	16
14.	Dual converters	T2	228-235	BB / PPT	1	17
15.	Applications-light dimmer and Excitation system.	W3	-	BB / PPT	2	18
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Design 2-pulse, 3-pulse and 6-pulse AC to DC converter.</li> <li>Analyze different configurations of converters.</li> <li>Understand the operation of dual converter.</li> </ul>						
<b>UNIT III DC TO DC CONVERTER (9)</b>						
16.	Step-down and step-up chopper	T2	248-254	VIDEO	2	20
17.	control strategy	T1	170	VIDEO	1	21
18.	Introduction to types of choppers	W4	-	BB / PPT	2	23
19.	A, B, C, D and E					
20.	Switched mode regulators Buck & boost	T1	186-190	BB / PPT	1	24
21.	Buck- Boost regulator	T1	194-203	SIM/INTERN	1	25
22.	Introduction to Resonant Converters	T1	352	BB / PPT	1	26
23.	Applications-Battery operated vehicles and Solar PV systems.	W5	-	BB / PPT	1	27



**LEARNING OUTCOME**

At the end of unit, students should be able to

- Analyze of DC to DC converters.
- Design of DC to DC converters.
- Describe the performance parameters of controlled rectifiers.

**UNIT IV****INVERTERS****(9)**

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
24.	Single phase inverters	T2	309-336	BB / PPT	1	28
25.	Three phase inverters (both 120° mode and 180° mode)	R1	315-326	VIDEO	2	30
26.	Voltage and harmonic control	T2	347-349 359-362	BB / PPT	1	31
27.	PWM techniques	T2,W6	349 (NPTEL)	BB / PPT	1	32
28.	Multiple PWM	T2	351-354	BB / PPT	1	33
29.	Sinusoidal PWM	T2	354-356	BB / PPT		
30.	Modified sinusoidal PWM	T2	356-359	BB / PPT		
31.	Introduction to space vector modulations	W7	-	BB / PPT	1	34
32.	Current source inverter	T2	363-377	BB / PPT	1	35
33.	Applications - Induction heating, UPS.	W8	-	VIDEO	1	36

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Explain the working principle of single phase inverters.
- Explain the working principle of three phase inverters
- Describe the various pulse width modulation techniques in inverters

**UNIT V****AC TO AC CONVERTERS****(9)**

34.	Single phase and Three phase AC voltage controllers	T2	396-405	BB / PPT	1	37
35.	Control strategy & Power factor control	T2	405-408	BB / PPT	1	38
36.	Multistage sequence control	T2	409	BB / PPT	1	39
37.	Single cyclo-converters	T2	414-419	BB / PPT	1	40
38.	Three phase Cyclo-converters	T2	419-425	VIDEO	2	42
39.	Introduction to Integral cycle control,	T2	393-395	BB / PPT	1	43
40.	Introduction to Matrix converters,	T1	536-537	VIDEO	1	44
41.	Applications – welding.	W9	-	BB / PPT	1	45

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Understand the working principle of single phase ON-OFF type of ac voltage controller.
- Explain various types of cycloconverter.
- Draw the waveform for single phase and three phase cycloconverter.

**COURSE OUTCOME**

At the end of the course, the students will be able to

- Analyses AC-AC Converters
- Analyses DC-DC Converters.
- Analyses DC-AC converters.
- Analyses AC-DC converters.
- Choose the converters for real time applications.

**CONTENT BEYOND THE SYLLABUS**

1. Multilevel Inverter

**INTERNAL ASSESSMENT DETAILS**

ASST. NO.	I	II	MODEL
Topic Nos.	1 - 12	13-23	1-41
Date			

**ASSIGNMENT DETAILS**

ASSIGNMENT	I	II
Topic Nos. for reference / Activities	1-12	PCE
Deadline		

ASSIGNMENT I(20Marks) (Before CAT-I)	ASSIGNMENT II(20Marks) (Before CAT-II)
Topic no. for reference: 1-12	PCE Activity
<b>Part-A</b> <ol style="list-style-type: none"> <li>1. Why Triac is not popular?</li> <li>2. What are the advantages of GTO over SCR?</li> <li>3. Define Holding current and Latching current.</li> <li>4. What is the function of freewheeling diode?</li> <li>5. What is the effect of source impedance?</li> </ol> <b>Part-B</b> <ol style="list-style-type: none"> <li>1. Briefly discuss the principle of operation and V-I characteristics of SCR, MOSFET&amp; IGBT.</li> <li>2. With relevant waveforms, derive the expression for average and rms value of output voltage in a <math>1\Phi</math> fully controlled converter with RL load.</li> <li>3. Explain the operation of three phase 3-pulse converter with R-load.</li> </ol>	<b>Activity 1:Case Study Presentation</b> <ul style="list-style-type: none"> <li>➤ DC-DC Converter, Devices</li> </ul> <b>Activity 2:Poster Presentation</b> <ul style="list-style-type: none"> <li>➤ SCR, MOSFER, IGBT</li> <li>➤ Dual Converter, Inverter</li> </ul> <b>Activity 3:APH Presentation</b> <ul style="list-style-type: none"> <li>➤ Induction Heating, UPS</li> </ul> <b>Activity 4:MCQ</b> <ul style="list-style-type: none"> <li>➤ GATE Questions</li> </ul> <b>Activity 5: Virtual Lab</b> <ul style="list-style-type: none"> <li>➤ Buck- Boost regulator</li> </ul> <b>Activity 6: Comparative Performance Presentation</b> <ul style="list-style-type: none"> <li>➤ MOSFET Vs IGBT</li> </ul> <b>Activity 7:Debate</b> <ul style="list-style-type: none"> <li>➤ Inverter or Rectifier which play more important role in power electronics world.</li> </ul>

**COURSE ASSESSMENT PLAN**

CO	Co Description	Weightage	CAT1	CAT2	MODEL	Assign1.	PCE	AU
CO1	Ability to analyses AC-AC Converters	20%			√			
CO2	Ability to analyses DC-DC Converters	20 %		√	√			
CO3	Ability to analyses DC-AC converters	20 %			√			
CO4	Ability to analyses AC-DC converters	20 %	√	√	√	√	√	
CO5	Ability to choose the semiconductor devices and the converters for real time applications	20 %	√		√	√	√	

**COURSE OUTCOME ALIGNMENT MATRIX - MODEL EXAM SAMPLE QUESTION SET**

Q.No	Question	Marks	CO	BTL	PI
1.	Define latching and holding current	2	CO4	L1	1.1.1
2.	List the advantages of GTO over SCR?	2	CO4	L1	1.1.2
3.	What is meant by inversion mode of rectifier?	2	CO3	L1	1.3.2
4.	Why power factor of semi converter is better than full converter?	2	CO3	L2	1.3.1
5.	Mention the different control strategies in DC chopper?	2	CO2	L1	1.1.1
6.	Specify the function of PWM control in dc chopper?	2	CO2	L2	1.2.1
7.	Define Modulation Index	2	CO4	L1	1.3.4
8.	Give the use of resonant switching	2	CO4	L2	1.2.2
9.	Why is half wave AC voltage regulator not used?	2	CO1	L1	1.3.3
10.	What is matrix converter?	2	CO1	L1	1.3.1
11.a. (i)	Describe about driver circuit and snubber circuit for MOSFET.	7	CO1	L4	2.1.1
11.a. (ii)	Draw and explain the switching characteristic of thyristor	6	CO1	L2	2.2.1
11.b. (i)	Describe the current commutation technique to turn off the SCR with neat sketch and waveforms.	7	CO1	L4	3.2.1
11.b. (ii)	Draw the switching characteristics of Power MOSFET. Explain in detail.	6	CO1	L2	2.2.2
12.a.	Explain the operating principle of single phase Dual converter with necessary diagrams	13	CO2	L5	3.3.3.
12.b.	Determine the performance parameters of a phase controlled converter	13	CO2	L6	3.3.4

13.a. (i)	Describe the working of Buck-Boost converter with sketch and waveforms and also drive the expression.	7	C03	L5	2.3.3
13.a. (ii)	What is called resonant switching? Explain its concept with relevant circuit diagrams.	6	C03	L1	1.1.4
13.b. (i)	Explain the working principle of Load commutated chopper with aid of circuit diagram and necessary waveforms. Derive an expression for its output voltage	7	C03	L2	2.1.3
13.b. (ii)	Describe the working of four quadrant chopper	6	C03	L3	1.2.1
14.a.	Discuss the operation of operation of three phase inverter with 180° conduction mode with necessary waveforms and circuit.	13	C04	L3	2.1.2
14.b. (i)	What is PWM? List the various PWM techniques. With neat diagrams,	7	C04	L1	3.3.4
14.b. (ii)	Explain its working and applications.	6	C04	L6	3.3.1
15.a.	Discuss the working of a 3 phase to single phase cyclo converter with neat voltage and current waveforms.	13	C05	L4	3.1.2
15.b.	Explain operating principle of single phase to single phase cycloconverter with continuous and discontinuous load current with circuit and waveform.	13	C05	L2	3.1.2
16.a.	Explain the various methods to reduce the harmonic content in the inverter and Describe the principle of operation of space vector modulation.	15	C03	L3	3.1.3
16.b.	A 3-phase 6 pulse full converter is connected resistive and inductive load of 10 $\Omega$ and 1H respectively from 3-phase, 220V, 50Hz, Y- connected supply . for firing angle is 30 degree, determine (i) average output voltage (ii) average output current (iii) rms output current. Also derive the expression for its average output voltage.	15	C04	L6	3.1.4

Level	1	2	3	4	5	6
Part-A	1,2,3,4,5,7,9,10	6,8	-	-	-	-
Part-B & C	13.a(ii), 14.b(i)	11.a,b(ii), 13.b(i), 15(b)	13.b(ii), 14.a, 16.a	11.a,b(i), 15(a)	12.a, 13.a(i)	12.b, 14.b(ii), 16(b)
Total Marks	29	32	34	27	20	34
Total %	17%	18%	19%	15%	12%	19%
Distribution %	35		34		31	

Prepared by

S. R. Karthikeyan

Mr.S.R.Karthikeyan

Verified by -

A. Kumar

HOD/EEE

Approved by

S. R. Karthikeyan  
22/12/2022

Principal



**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**SUBJECT: CONTROL SYSTEMS**

**YEAR/SEMESTER: II/IV**

**QUESTION BANK (IC8451)**  
(Version :3)

**PREPARED BY**  
**Mr.S.R.KARTHIKEYAN / EEE**

L	T	P	C
3	2	0	4

9

9

9

9

9

**TOTAL (L:45+T:30): 75 PERIODS**

A. Mmm  
8/1/21  
HoD/EEE





## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### COURSE PLAN

Sub. Code	: IC8451	Branch / Year / Sem	: B.E EEE / II / IV
Sub. Name	: Control Systems	Batch	: 2019-2023
Staff Name	: Mr.S.R.Karthikeyan	Academic Year	: 2020-21 (Even)

### COURSE OBJECTIVES

1. To understand the use of transfer function models for analysis of physical systems and introduce the control system components.
2. To provide adequate knowledge in the time response of systems and steady state error analysis.
3. To accord basic knowledge in obtaining the open loop and closed-loop frequency responses of systems.
4. To introduce stability analysis and design of compensators.
5. To introduce state variable representation of physical systems.

### TEXT BOOKS

- T1.Nagrath, I.J. and Gopal.M., "Control Systems Engineering", New Age International Publishers, 2017.
- T2.Benjamin C. Kuo, Automatic Control systems, 7<sup>th</sup> Edition, PHI, 2014.

### REFERENCE BOOKS

- R1.Katsuhiko Ogata, 'Modern Control Engineering', 4<sup>th</sup> edition, PHI, 2015.
- R2.Richard C. Dorf and Bishop, R.H., "Modern Control Systems", 10<sup>th</sup> Edition, Pearson Education, 2009.
- R3.M. Gopal, 'Control Systems, Principles and Design', 2nd Edition, Tata McGraw Hill, New Delhi, 2012.
- R4.S.K.Bhattacharya, Control Systems Engineering, Pearson Education, 2005.

### WEB RESOURCES

- W1 <https://nptel.ac.in/courses/108101037/15> Mason's gain formula (Topic No.7)
- W2 [www.ece.uvic.ca/~agullive/trans/B\\_p1-38.pdf](http://www.ece.uvic.ca/~agullive/trans/B_p1-38.pdf) Time response analysis (Topic No.17)
- W3 <https://nptel.ac.in/courses/108101037/27> s-domain & t-domain (Topic No.23)
- W4 <https://nptel.ac.in/courses/108101037/39> Nyquist criterion (Topic No.27)
- W5 [http://www.electrical4u.com/compensation-in-control-system-lag-lead-compensation/Effect of Lag, lead and lag-lead compensation on frequency response.](http://www.electrical4u.com/compensation-in-control-system-lag-lead-compensation/Effect%20of%20Lag,%20lead%20and%20lag-lead%20compensation%20on%20frequency%20response) (Topic No.28)

Topic No.	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Periods Required	Cumulative No. of periods
<b>UNIT I                      SYSTEMS AND REPRESENTATION                      (9+6)</b>						
01	Basic elements in control systems	T2 R4	2-8 1-3	BB/PPT	1	1
02	Open and closed loop systems	T2 R4	9-11 3-5	BB/PPT		
03	Electrical analogy of mechanical and thermal systems	R4	11-22 24-25	BB/PPT	2	3
04	Transfer function	T1	46-54	BB/PPT	1	4
05	AC and DC servomotors	R4	421-423	BB/PPT	1	5
06	Block diagram reduction techniques	R4	50-53	BB/PPT	2	7
07	Signal flow graphs	R4 W1	112-115	BB/PPT NPTEL	2	9
08	Tutorial (Topic No. 3, 6 & 7)	R4	25-37 54-94 115-137	VIDEO	6	15

**LEARNING OUTCOMES**

At the end of unit, students should be able to

- Describe and compare the open & closed loop systems.
- Derive the transfer function of mechanical systems.
- Obtain the transfer function using block diagram reduction techniques and signal flow graphs.

<b>UNIT II                      TIME RESPONSE                      (9+6)</b>						
09	Time response	R4	180-181	BB/PPT	1	16
10	Time domain specifications	R4 T1	195-199 204-205			
11	Types of test input	R4 T1	160-161 195-197	BB/PPT	2	18
12	I and II order system response	R4	181-195			
13	Error coefficients, Generalized error series	R4	163-169	BB/PPT	1	19
14	Steady state error	R3 R4	366-371 162-163	BB/PPT	1	20
15	Root locus construction	R4	259-266	BB/PPT	2	22
16	Effects of P, PI, PID modes of feedback control	T1 R3 R4	215-221 237-241 213-218	BB/PPT	1	23
17	Time response analysis	R4 W2	180-371	BB/PPT	1	24



Topic No.	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Periods Required	Cumulative No. of periods
18	Tutorial (Topic Nos. 9-15&17)	R4	171-176 201-211 266-279	VIDEO	6	30
<b>LEARNING OUTCOMES</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Derive the expressions for time domain specifications.</li> <li>Obtain the response of I and II order systems.</li> <li>Construct the root locus technique.</li> </ul>						
<b>UNIT III FREQUENCY RESPONSE (9+6)</b>						
19	Frequency response	R3 T2	593-598 541-544	BB/PPT	1	31
20	Bode plot	R4	291-304	BB/PPT	3	34
21	Polar plot	R4 R1	290-291 523-527 529-531	BB/PPT	2	36
22	Determination of closed loop response from open loop response	R3	608-619	BB/PPT	2	38
23	Correlation between frequency domain and time domain specifications	T1 R3 R4 W3	347-352 598-601 288-290	BB/PPT NPTEL	1	39
24	Tutorial (Topic Nos. 20,21)	R4 R3 R1	304-315 526-544 527-528	VIDEO	6	45
<b>LEARNING OUTCOMES</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Sketch the bode plot and polar plot and comment on the stability of the system by computing the frequency domain specifications.</li> <li>Determine the closed loop response from open loop response.</li> <li>Correlate the frequency and time domain specifications.</li> </ul>						
<b>UNIT IV STABILITY AND COMPENSATOR DESIGN (9+6)</b>						
25	Characteristics equation	R4	239-240	BB/PPT	1	46
26	Routh Hurwitz criterion	R4	241-242	BB/PPT	2	48
27	Nyquist stability criterion	T1 R4 W4	381-383 316-318	BB/PPT NPTEL	2	50
28	Performance criteria - Effect of Lag, lead and lag-lead compensation on frequency response	R4 W5	325-332	SIM/INTERN	1	51
29	Design of lag,Lead and Lag-lead compensator using bode plots	R3	649-654 662-665 670-672	BB/PPT	3	54

Topic No.	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Periods Required	Cumulative No. of periods
30	Tutorial (Topic Nos. 25-27 & 29)	R4 R3	242-256 318-320 654-660 666-669 672-674	VIDEO	6	60

**LEARNING OUTCOMES**

At the end of unit, students should be able to

- Construct Routh array & Nyquist plot and determine the stability of the system.
- Describe the performance criteria of Lag, Lead, and Lag-lead networks.
- Design the Lag, Lead, Lag-Lead compensators using bode plots.

**UNIT V****STATE VARIABLE ANALYSIS****(9+6)**

31	Concept of state variables	T1 R4	571-574 365-367	BB/PPT	1	61
32	State models for linear and time invariant Systems	T1 R4	574-577 367-369	BB/PPT	3	64
33	Solution of state and output equation in controllable canonical form	R4	369-386	BB/PPT	3	67
34	Concepts of controllability and observability	R4 R2	386-391 660-666	BB/PPT	2	69
35	Tutorial (Topic Nos. 32-34)	R4	395-412	VIDEO	6	75

**LEARNING OUTCOMES**

At the end of unit, students should be able to

- Describe the concept of state variables.
- Obtain the state variable models for linear and time invariant systems and its solution of state and output equation.
- Explain the concepts of controllability and observability and its determination.

**COURSE OUTCOMES**

At the end of the course, the students should have the ability to

- Develop various representations of system based on the knowledge of Mathematics, Science and Engineering fundamentals.
- Do time domain and frequency domain analysis of various models of linear system..
- Interpret characteristics of the system to develop mathematical model.
- Design appropriate compensator for the given specifications.
- Come out with solution for complex control problem.
- Understand use of PID controller in closed loop system.

**CONTENT BEYOND THE SYLLABUS**

Compensator design using Root Locus technique

**INTERNAL ASSESSMENT DETAILS**

ASSESSMENTNUMBER	I	II	MODEL
Topic Nos.	1-13	14-24	1-35
Date			

**ASSIGNMENT DETAILS**

ASSIGNMENT	I	II
Topic Nos. for reference	1 - 13	PCE ACTIVITIES
Deadline		

**ASSIGNMENT I (50 Marks)**  
**(Before CAT-I)**

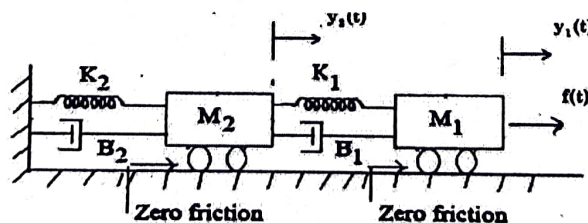
**Topics for reference : 1 to 13**

**Part - A**

1. Why negative feedback is preferred in control systems?
2. Define open loop and closed loop control systems.
3. What is block diagram? State its components.
4. List the time domain specifications.
5. Determine type and order of the following system,  $G(s)H(s) = \frac{10}{[s^3(s^2+2s+1)]}$ .

**Part - B**

1. For the mechanical system shown in figure : 1
  - (i) Draw the mechanical network diagram and hence write the differential equations describing the behaviour of the system.
  - (ii) Draw the force-voltage and force-current analogous electrical circuits.



**Figure 1**

2. Derive the transfer function for the mechanical system shown in figure : 1
3. Derive the expressions for second order system for under damped case and when the input is unit step.



### ASSIGNMENT II (50 Marks) (Before CAT - II)

#### PCE ACTIVITIES

**Activity 1: Case study presentation**

- Stability Analysis
- State Variable Analysis

**Activity 2: Poster presentation**

- Root Locus
- Bode Plot

**Activity 3: Circuit Design and Model making**

- Servo motor
- Transfer Function of Mechanical System

**Activity 4: Application of concept**

- Open Loop
- Closed Loop

**Activity 5: APH**

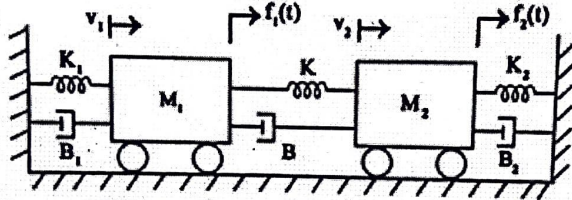
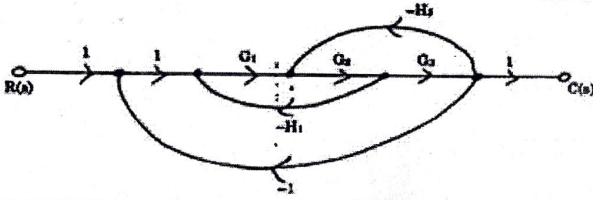
- PI & PID Controller
- P & PD Controller

### COURSE ASSESSMENT PLAN

CO	CO Description	Weightage	CAT 1	CAT 2	Model	Assignment 1	PCE	AU
CO1	Ability to develop various representations of system based on the knowledge of Mathematics, Science and Engineering fundamentals.	20%	x		x	x	x	
CO2	Ability to do time domain and frequency domain analysis of various models of linear system.	30%	x	x	x	x	x	
CO3	Ability to interpret characteristics of the system to develop mathematical model.	10%		x	x		x	
CO4	Ability to design appropriate compensator for the given specifications.	15%			x		x	
CO5	Ability to come out with solution for complex control problem.	20%			x			
CO6	Ability to understand use of PID controller in closed loop system.	5%			x		x	

### COURSE OUTCOME ALIGNMENT MATRIX - MODEL EXAM SAMPLE QUESTION SET

Q.No	Question	Marks	CO	BTL	PI
1	Write the expression for mason's gain formula.	2	CO1	L1	1.1.1
2	Summarize the parameters of the translational and rotational mechanical systems.	2	CO1	L2	1.3.1
3	What is the effect on system performance when a proportional controller is introduced in a system?	2	CO2	L1	1.2.1

4	Solve to find type and order of the following system $G(s)H(s) = \frac{10}{[s^3(s^2+2s+1)]}$	2	C02	L3	1.1.2
5	What is meant by frequency response?	2	C02	L1	1.3.1
6	Draw the approximate polar plot for a type 0 second order system.	2	C02	L2	2.3.2
7	Differentiate between gain margin and phase margin.	2	C02	L4	3.3.1
8	What are the necessary conditions for stability?	2	C04	L1	1.1.1
9	Write the advantages of state space analysis.	2	C05	L1	4.2.2
10	Write the homogenous and non-homogeneous state equation.	2	C05	L1	4.1.4
11.a.	Show the differential equations governing the system and draw the force-current and force-voltage analogous circuits.	13	C01	L2	2.1.3
					
11.b.	Find the transfer function using Mason's gain formula for the system given	13	C01	L1	2.2.1
					
12.a.	Find the static error coefficients for a system whose transfer function is, $G(s).H(s) = \frac{10}{s(1+s)(1+2s)}$ . Also find the steady state error for $r(t) = 1 + t + \frac{t^2}{2}$ .	13	C02	L1	2.1.1
12.b	(i)Develop the transfer function of P, PI & PD controllers.	7	C06	L3	2.2.2
	(ii)Develop the transfer function of PID controller.	6	C06	L3	2.2.2
13. a	Draw the bode diagram for the following transfer function.				
	$G(s) = \frac{75(1+0.2s)}{s(s^2+16s+100)}$				
	(i)Determine gain margin.	7	C02	L5	2.4.3
	(ii)Determine phase margin.	6	C02	L5	2.4.3
13. b	Construct the polar plot and determine the gain margin and phase margin of a unity feedback control system whose open loop transfer function is, $G(s) = \frac{(1+0.2s)(1+0.025s)}{s^3(1+0.005s)(1+0.001s)}$ .				
	(i)Determine gain margin.	7	C02	L5	2.4.3



	(ii) Determine phase margin.	6	C02	L5	2.4.3
14.a	Determine the stability of the given characteristic equation using Routh Hurwitz criterion.				
	(i) $S^5 + 4S^4 + 8S^3 + 8S^2 + 7S + 4 = 0$	7	C03	L3	2.4.1
	(ii) $S^6 + S^5 + 3S^4 + 3S^3 + 3S^2 + 2S + 1 = 0$	6	C03	L3	2.4.1
14.b	Apply the Nyquist plot rules and comment on closed loop stability of a system whose open loop transfer function is $G(s) = \frac{10}{s^2(s+2)}$ .	13	C04	L4	4.1.2
15.a	Find the canonical state model of the system, whose transfer function is, $T(s) = \frac{2(s+5)}{[(s+2)(s+3)(s+4)]}$	13	C04	L2	4.1.4
15.b	Obtain the state space representation for the block diagram shown in figure below and also examine controllability and observability.	13	C05	L4	4.2.2
16.a	Construct the root locus for a system is given by $G(s) = \frac{K(s+1)}{s(s^2+5s+20)}$ .	15	C02	L6	5.1.2
16.b	Draw the Nyquist plot for the system whose open loop transfer function $G(s)H(s) = \frac{K}{s(s+2)(s+10)}$ . Determine the range of $K$ for which closed loop system is stable.	15	C03	L5	3.2.2

## ASSESSMENT PAPER QUALITY MATRIX

Level	BTL 1	BTL 2	BTL 3	BTL 4	BTL 5	BTL 6
Part-A	1,3,5,8,9,10	2,6	4	7	-	-
Part-B & C	11(b),12(a)	11(a), 15(a)	12(b), 14(a)	14(b), 15(b)	16(b), 13(a)(b)	16(a)
Total Marks	38	30	28	28	41	15
Total %	21%	17%	16%	16%	22%	8%
Distribution %	38		32		30	

Prepared by

S. R. Karthikeyan 02/01/2021

Mr.S.R.Karthikeyan, AP/EEE

Verified by

A. M. M. 8/1/21  
HoD/ EEE

Approved by

J. R. M. 29/1/2021

Principal

Verified  
CS 6.10  
02/01/21



DEPARTMENT OF MECHANICAL ENGINEERING

SUBJECT: ENGINEERING MECHANICS

YEAR/SEMESTER: I/II

QUESTION BANK (GE8292)  
(Version: 3)

PREPARED BY  
Mr. M. ASWIN, AP/MECH

Verified  
D. Vignesh  
7/11/19

17/2 NOV 2019

KCE/MECH/QB/ I YR/EM

**GE8292 -ENGINEERING MECHANICS****L T PC  
3 2 04****OBJECTIVES:**

To develop capacity to predict the effect of force and motion in the course of carrying out the design functions of engineering.

**UNIT I STATICS OF PARTICLES****9+6**

Introduction – Units and Dimensions – Laws of Mechanics – Lami's theorem, Parallelogram and triangular Law of forces – Vectorial representation of forces – Vector operations of forces - additions, subtraction, dot product, cross product – Coplanar Forces – rectangular components – Equilibrium of a particle – Forces in space – Equilibrium of a particle in space – Equivalent systems of forces – Principle of transmissibility.

**UNIT II EQUILIBRIUM OF RIGID BODIES****9+6**

Free body diagram – Types of supports – Action and reaction forces – stable equilibrium – Moments and Couples – Moment of a force about a point and about an axis – Vectorial representation of moments and couples – Scalar components of a moment – Varignon's theorem – Single equivalent force – Equilibrium of Rigid bodies in two dimensions – Equilibrium of Rigid bodies in three dimensions

**UNIT III PROPERTIES OF SURFACES AND SOLIDS****9+6**

Centroids and centre of mass – Centroids of lines and areas - Rectangular, circular, triangular areas by integration – T section, I section, - Angle section, Hollow section by using standard formula – Theorems of Pappus - Area moments of inertia of plane areas – Rectangular, circular, triangular areas by integration – T section, I section, Angle section, Hollow section by using standard formula – Parallel axis theorem and perpendicular axis theorem – Principal moments of inertia of plane areas – Principal axes of inertia – Mass moment of inertia – mass moment of inertia for prismatic, cylindrical and spherical solids from first principle – Relation to area moments of inertia.

**UNIT IV DYNAMICS OF PARTICLES****9+6**


Displacements, Velocity and acceleration, their relationship – Relative motion – Curvilinear motion - Newton's laws of motion – Work Energy Equation – Impulse and Momentum – Impact of elastic bodies..

**UNIT V FRICTION AND RIGID BODY DYNAMICS****9+6**

Friction force – Laws of sliding friction – equilibrium analysis of simple systems with sliding friction – wedge friction-. Rolling resistance - Translation and Rotation of Rigid Bodies – Velocity and acceleration – General Plane motion of simple rigid bodies such as cylinder, disc/wheel and sphere.

**TOTAL PERIODS: 45+30=75**

  
STAFF IN-CHARGE

  
HOD/MECH





**DEPARTMENT OF MECHANICAL ENGINEERING  
COURSE PLAN**

<b>Sub.Code</b> : GE8292	<b>Branch / Year / SEM</b> : B.E Mech / I /II
<b>Sub. Name</b> : Engineering Mechanics	<b>Batch</b> : 2019-2023
<b>Staff Name</b> : Mr. M. Aswin	<b>Academic Year</b> : 2019-20 (EVEN)

**COURSE OBJECTIVE**

- ❖ To analyze frictional forces on rough surfaces.
- ❖ To enhance student's ability to design by requiring the solution of open ended problems.

**TEXT BOOKS**

- T1.** Beer, F.P and Johnston Jr. E.R., —Vector Mechanics for Engineers (In SI Units): Statics and Dynamics, 8th Edition, Tata McGraw-Hill Publishing Company, New Delhi (2004).
- T2.** Vela Murali, —Engineering Mechanics, Oxford University Press (2010)

**REFERENCE BOOKS**

- R1.** Bhavikatti, S.S and Rajashekarappa, K.G., —Engineering Mechanics, New Age International (P) Limited Publishers, 1998.
- R2.** Hibbeler, R.C and Ashok Gupta, —Engineering Mechanics: Statics and Dynamics, 11th Edition, Pearson Education 2010.
- R3.** Irving H. Shames and Krishna Mohana Rao. G., — Engineering Mechanics – Statics and Dynamics, 4th Edition, Pearson Education 2006.
- R4.** Meriam J.L. and Kraige L.G., — Engineering Mechanics- Statics - Volume 1, Dynamics- Volume 2, Third Edition, John Wiley & Sons, 1993.
- R5.** Rajasekaran S and Sankarasubramanian G., —Engineering Mechanics Statics and Dynamics, 3rd Edition, Vikas Publishing House Pvt. Ltd., 2005.

**WEB RESOURCES**

- W1.** <http://www.iitg.ernet.in/rkbc/me101/Presentation/L01-03.pdf> (Topic No 08)
- W2.** [http://nptel.iitg.ernet.in/Courses\(Video\).php#mech](http://nptel.iitg.ernet.in/Courses(Video).php#mech) (Topic No 19)
- W3.** [http://nptel.iitg.ernet.in/Mech\\_Engg/Mechanical.pdf](http://nptel.iitg.ernet.in/Mech_Engg/Mechanical.pdf) (Topic No 29)
- W4.** <https://www.oercommons.org/search?equilibrium+of+particles> (Topic.No 37)
- W5.** <http://www.iitg.ernet.in/rkbc/me101/Presentation/L09-12.pdf> (Topic.No 42)

22 NOV 2019

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods (9+6)
<b>UNIT I STATICS OF PARTICLES</b>						
1	Introduction, Units and Dimensions	T1	1-5	BB	1	1
2	Lami's theorem	T1	14-16	BB	1	2
3	Parallelogram and triangular Law of forces	T1	17-19	BB	1	3
4	Vectorial representation of forces	T1	88-90	BB	1	4
5	Vector operations	T1	17-20	BB	1	5
6	Coplanar Forces	T1	20-23	BB	1	6
7	Forces in space	T1	21-23	BB	1	7
8	Equilibrium in rectangular components	T1 W1	24, 25 --	BB PPT	1	8
9	Equivalent of forces	R1	1.31-1.35	BB	1	9
10	Tutorial On Unit 1	-	-	BB	6	15

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Analyze the concept of mechanics
- Understand the equilibrium of rigid bodies
- Knowledge about the forces

**UNIT II EQUILIBRIUM OF RIGID BODIES****(9+6)**

11	Free body diagram	T1	57-81	BB	1	16
12	Types of supports	T1	214-240	BB	1	17
13	Moments & Couples	T1	165-168	BB	1	18
14	Moment of a force about a point.	T1	317-324	BB	1	19
15	Vectorial representation of moments and couples	T1	325-333	BB	1	20
16	Varignon's theorem	T1	135-150	BB	1	21
17	Single equivalent force	T1	169-182	BB	1	22
18	Equilibrium of Rigid bodies in 2D	R2	1.93-2.05	BB	1	23
19	Equilibrium of Rigid bodies in 3D	T1 W2	339-340 -	BB NPTEL	1	24
20	Tutorial on Unit 2	-	-	BB	6	30

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Understand the free body diagram and moment and couple
- Analyze equilibrium of rigid bodies in two dimension and three dimension
- Identify the type of supports

11.2 NOV 2019



Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT III PROPERTIES OF SURFACES AND SOLIDS</b>						
<b>(9+6)</b>						
21	Centroids and centre of mass	T2	75-76	BB	1	31
22	T section, I section, Angle section	T2	70-72	BB	1	32
23	Hollow section by using standard formula	T2	71-73	BB	1	33
24	Theorems of Pappus	T2	74-75	BB	1	34
25	triangular areas by integration	T2	76-77	BB	1	35
26	Parallel axis theorem	T2	78-79	BB	1	36
27	perpendicular axis theorem	T2	79-80	BB	1	37
28	Principal axes of inertia- Mass moment of inertia	R3	2.80-2.85	BB	1	38
29	Relation to area moment of inertia	T2 W3	99-101 -	BB NPTEL	1	39
30	Tutorial on Unit 3	-	-	BB	6	45

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Understand the centroid and center of gravity
- Knowledge about the moment of inertia of rigid body
- Understand parallel axis theorem and perpendicular axis theorem

**UNIT IV DYNAMICS OF PARTICLES****(9+6)**

31	Displacements	T1	149-150	BB	1	46
32	Velocity and acceleration	T1	136-137	BB	1	47
33	Velocity and acceleration relationship	T1	138-140	BB	1	48
34	Relative motion	T1	170-178	BB	1	49
35	Curvilinear motion	T1	182-185	BB	1	50
36	Newton's laws of motion	T1	184-189	BB	1	51
37	Work Energy Equation	T1 W4	182-184 -	BB PPT	1	52
38	Impulse and Momentum	R4	185-188	BB	1	53
39	Impact of elastic bodies	T1	189-190	BB	1	54
40	Tutorial On Unit 4	-	-	BB	6	60

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Understand rectilinear motion and curvilinear motion
- Understand the relationship between velocity, acceleration and displacement
- Analyze momentum principle and their impacts

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Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT V FRICTION AND RIGID BODY DYNAMICS</b>						
<b>(9+6)</b>						
41	Friction force	T2	61-65	BB	1	61
42	Laws of sliding friction	T2 W5	66-68 --	BB PPT	1	62
43	equilibrium analysis of simple systems	T2	70 -72	BB	1	63
44	Wedge friction	T2	87-90	BB	1	64
45	Rolling resistance	R5	92-93	BB	1	65
46	Translation and Rotation of Rigid Bodies	T2	94-95	BB	1	66
47	Velocity and acceleration	T2	99-100	BB	1	67
48	General Plane motion of simple rigid bodies	T2	102-106	BB	1	68
49	Cylinder, disc/wheel and sphere.	T2	107-112	BB	1	69
50	Tutorial on Unit 5	-	-	BB	6	75
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Understand the various friction acting in rough surfaces</li> <li>Identify the roll of wedge friction.</li> </ul>						

### COURSE OUTCOME

- On successful completion of this course, the student will be able to
- Illustrate the vectorial and scalar representation of forces and moments
  - Analyze the rigid body in equilibrium
  - Evaluate the properties of surfaces and solids
  - Calculate dynamic forces exerted in rigid body
  - Determine the friction and the effects by the laws of friction

### CONTENT BEYOND THE SYLLABUS

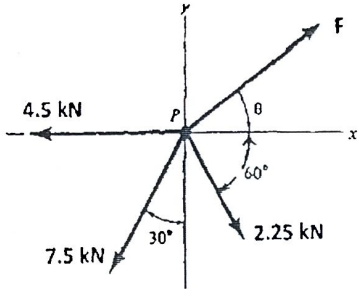
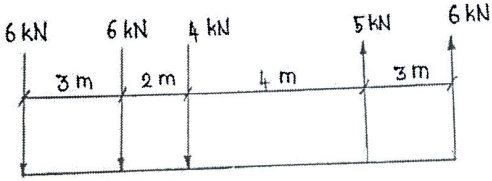
- Belt friction and ladder friction acting machinery equipment.

### INTERNAL ASSESSMENT DETAILS

TEST. NO.	I	II	MODEL
Topic Nos.	1-20	21-40	1-50
Date			

### ASSIGNMENT DETAILS

ASSIGNMENT	I	II
Topic Nos. for reference	1-20	PCE
Deadline		

ASSIGNMENT-I (20 Marks) before AT I	ASSIGNMENT II (20 Marks) before AT II
TOPICS FOR REFERENCE (1-20)	PCE ACTIVITIES
<p><b>PART A</b></p> <ol style="list-style-type: none"> <li>1. State Parallelogram law of forces.</li> <li>2. State Parallelogram of vector addition.</li> <li>3. Define principle of Transmissibility.</li> <li>4. What is a free body diagram?</li> <li>5. State and prove Varignon's theorem.</li> </ol> <p><b>PART B</b></p> <ol style="list-style-type: none"> <li>6. Determine the magnitude and angle <math>\theta</math> of <math>F</math> so that particle <math>P</math>, shown in Fig is in equilibrium.</li> </ol>  <ol style="list-style-type: none"> <li>7. Find the magnitude and position of the resultant of the system of forces shown in Fig.</li> </ol>  <ol style="list-style-type: none"> <li>8. State and prove Parallelogram Law of forces.</li> </ol>	<p><b>ACTIVITY 1: FREE BODY DIAGRAMS</b></p> <ul style="list-style-type: none"> <li>• Two roller body</li> <li>• Three roller body</li> </ul> <p><b>ACTIVITY 2: COG AND CENTROID</b></p> <ul style="list-style-type: none"> <li>• I SECTION</li> <li>• T SECTION</li> </ul> <p><b>ACTIVITY 3: MOI DIAGRAM DECODING</b></p> <ul style="list-style-type: none"> <li>• Addition of areas method</li> <li>• Removal of areas method</li> </ul> <p><b>ACTIVITY 4: TECHNICAL SEMINAR</b></p> <ul style="list-style-type: none"> <li>• Ladder Friction</li> <li>• Wedge Friction</li> </ul> <p><b>ACTIVITY 5: TECHNICAL QUIZ</b></p> <ul style="list-style-type: none"> <li>• Machine design</li> <li>• welding practices</li> </ul>

*A.P.P.*  
6/11/19

Prepared by  
Mr. M. ASWIN

*J. M. M.*  
12/11/19

Approved by  
PRINCIPAL

*T. P. M.*  
7/11/19

Verified by  
HOD/MECH

12 NOV 2019





## DEPARTMENT OF MECHANICAL ENGINEERING

**SUBJECT: ME6702 MECHATRONICS**

**SEMESTER: VII**

**QUESTION BANK (ME6702)**  
(Version: 4)

**PREPARED BY**  
**ASWIN.M/MECH**

*Handwritten signature and date: 8/2/19*

**ME6702****MECHATRONICS****L T P C  
3 0 0 3****UNIT I INTRODUCTION****12**

Introduction to Mechatronics – Systems – Concepts of Mechatronics approach – Need for Mechatronics – Emerging areas of Mechatronics – Classification of Mechatronics. Sensors and Transducers: Static and dynamic Characteristics of Sensor, Potentiometers – LVDT – Capacitance sensors – Strain gauges – Eddy current sensor – Hall effect sensor – Temperature sensors – Light sensors

**UNIT II 8085 MICROPROCESSOR AND 8051 MICROCONTROLLER****10**

Introduction – Architecture of 8085 – Pin Configuration – Addressing Modes – Instruction set, Timing diagram of 8085 – Concepts of 8051 microcontroller – Block diagram.

**UNIT III PROGRAMMABLE PERIPHERAL INTERFACE****8**

Introduction – Architecture of 8255, Keyboard interfacing, LED display – interfacing, ADC and DAC interface, Temperature Control – Stepper Motor Control – Traffic Control interface.

**UNIT IV PROGRAMMABLE LOGIC CONTROLLER****7**

Introduction – Basic structure – Input and output processing – Programming – Mnemonics – Timers, counters and internal relays – Data handling – Selection of PLC.

**UNIT V ACTUATORS AND MECHATRONIC SYSTEM DESIGN****8**

Types of Stepper and Servo motors – Construction – Working Principle – Advantages and Disadvantages. Design process-stages of design process – Traditional and Mechatronics design concepts – Case studies of Mechatronics systems – Pick and place Robot – Engine Management system – Automatic car park barrier.

**TOTAL: 45 PERIODS**  
**STAFF INCHARGE**  
**HOD/MECH**





## DEPARTMENT OF MECHANICAL ENGINEERING COURSE PLAN

<b>Sub. Code</b> : ME6702	<b>Branch / Year / SEM:</b> B.E MECH/IV /VII
<b>Sub.Name</b> : Mechatronics	<b>Batch</b> : 2016-2020
<b>Staff Name</b> : ASWIN.M	<b>Academic Year</b> : 2019-20 (ODD)

### COURSE OBJECTIVES

- To impart knowledge about the elements and techniques involved in Mechatronics systems which are very much essential to understand the emerging field of automation.
- Integrate the mechanical systems with electrical, electronics and computer systems
- To provide multidisciplinary approach to product development and manufacturing system design.
- To provide the knowledge of Programming Logic Controllers for automation
- To impart knowledge of actuators and mechatronics system of design

### TEXT BOOKS

- T1.**G.K.Vijayaraghavan, "Mechatronics", A.R.S. Publications, Sixth edition, 2014  
**T2.**Ramesh S Gaonkar, "Microprocessor Architecture, Programming, and Applications with 5th Edition, Prentice Hall, 2008.

### REFERENCE BOOKS

- R1.**Michael B.Histand and Davis G.Alciatore, "Introduction to Mechatronics and Measurement systems", McGraw Hill International edition, 2007.  
**R2.**Devadas Shetty and Richard A. Kolk, "Mechatronics Systems Design", PWS publishing company, 2007.  
**R3.**Clarence W, de Silva, "Mechatronics" CRC Press, First Indian Re-print, 2013

### WEB RESOURCES

- W1.** [http://ume.gatech.edu/mechatronics\\_course/Mechatronics\\_Systems.ppt](http://ume.gatech.edu/mechatronics_course/Mechatronics_Systems.ppt) (Topic.No:1)  
**W2.** <http://www.nptelvideos.in/2012/11/industrial-instrumentation.html> (Topic.No:8)  
**W3.** <http://www.nptelvideos.in/2012/11/embedded-systems.html> (Topic.No:18)  
**W4.** [http://www.slideshare.net/revanth\\_nrr/microprocessor-based-temperature-controller](http://www.slideshare.net/revanth_nrr/microprocessor-based-temperature-controller) (Topic.No:20)  
**W5.** [www.engr.sjsu.edu/bjfurman/courses/ME106/lectures/lecture\\_stepping\\_motors.ppt](http://www.engr.sjsu.edu/bjfurman/courses/ME106/lectures/lecture_stepping_motors.ppt) (Topic.No:31)  
**W6.** <http://me.emu.edu.tr/majid/IENG447/IE%20447/PLC%20ppt.pdf> (Topic.No:36)  
**W7.** <http://seminarprojects.org/q/pick-and-place-robot-in-mechatronics-ppt> (Topic.No:47)

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT I INTRODUCTION (13)</b>						
01	Introduction to Mechatronics	T1 W1	1.1-1.2 ---	PPT	1	01
02	Mechatronics approach	R3	4-6	BB	1	02
03	Need for Mechatronics	T1	1.6-1.7	BB	1	03
04	Emerging areas of Mechatronics	R3	8-9	BB	1	04
05	Classification of Mechatronics	T1	1.13-1.19	BB	1	05
06	Sensors and Transducers	T1	1.36-1.39	BB	1	06
07	Characteristics of Sensor	T1	1.40-1.43	BB	1	07
08	Potentiometers - LVDT	T1 W2	1.44-1.47 ---	NPTEL	1	08
09	Capacitance sensors - Strain gauges	T1	1.48-1.50	SEM	1	09
10	Eddy current sensor	T1	1.61-1.71	BB	1	10
11	Hall effect sensor	T1	1.58-1.61	BB	1	11
12	Temperature sensors	T1	1.98-1.109	BB	1	12
13	Light sensors	T1	1.98-1.109	BB	1	13
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Analyze the concept of measurement system</li> <li>Realize the selection of sensors</li> <li>Ability to model and build mechatronic systems and implement these systems.</li> </ul>						
<b>UNIT II MICROPROCESSOR AND MICROCONTROLLER (11)</b>						
14	Introduction	T2	32-34	BB	1	14
15	Architecture of 8085	T2	58-63	BB	1	15
16	Pin Configuration	T2	662-666	BB	1	16
17	Addressing Modes	T2	101-104	BB	1	17
18	Instruction set	T2 W3	34-38 ---	NPTEL	1	18

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
19	Timing diagram of 8085	T2	105-108	BB	1	19
20	Concepts of 8051 microcontroller	T2 W4	633-634 ----	PPT	1	20
21	Block diagram	T2	635-636	BB	1	21
22	Block diagram decoding	T2	635-636	BB	1	22
23	8085 block diagram	T2	58-63	BB	1	23
24	8051 block diagram	T2	633-634	BB	1	24

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Analyze the concept of 8051 microcontroller
- Describe the recent technological changes.
- Realize the interfacing applications.
- Ability to programming model of the 8085 processor and its instruction set

<b>UNIT III</b>	<b>PROGRAMMABLE PERIPHERAL INTERFACE</b>	<b>(9)</b>
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25	Introduction	T2	459-460	BB	1	25
26	Architecture of 8255	T2	461-466	BB	1	26
27	Keyboard interfacing	T2	479-482	BB	1	27
28	LED display	T2	483-485	BB	1	28
29	interfacing, ADC and DAC interface	T2	404-416	SEM	1	29
30	Temperature Control	R2	210-213	BB	1	30
31	Stepper Motor Control	T1 W5	2.102-2.107 ---	PPT	1	31
32	Traffic Control interface.	R2	214-216	BB	1	32
33	Temperature Interface	R2	214-216	BB	1	33

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Analyze the concept of Architecture of 8255
- Describe Keyboard interfacing
- Realize the ADC and DAC interface



Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT IV PROGRAMMING LOGIC CONTROLLERS</b>						<b>(8)</b>
34	Introduction and Basic structure	T1	4.1-4.2	BB	1	34
35	Input and output processing	T1	4.3-4.8	BB	1	35
36	Programming	T1 W6	4.10-4.13 ----	PPT	1	36
37	Mnemonics	T1	4.14-4.16	BB	1	37
38	Timers	T1	4.17-4.22	SEM	1	38
39	Data handling	T1	4.25-4.30	BB	1	39
40	Selection of PLC	R3	976-983	BB	1	40
41	Counters	T1	4.25-4.30	BB	1	41
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Analyze the concept of Programmable Logic Controllers</li> <li>Realize the Data Handling Analogs Input / Output</li> </ul>						
<b>UNIT V ACTUATORS AND MECHATRONIC SYSTEM DESIGN</b>						<b>(9)</b>
42	Types of Stepper motors	R1	453-456	BB	1	42
43	Construction – Working Principle	R1	457-463	BB	1	43
44	Design process- stages of design	T1	5.1-5.3	BB	1	44
45	Traditional and Mechatronics design concepts	T1	5.4-5.6	BB	1	45
46	Case studies of Mechatronics systems	T1	5.24-5.25	BB	1	46
47	Pick and place Robot	T1 W7	5.26-5.29 ---	PPT	1	47

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
48	Automatic car park barrier	T1	5.44-5.46	SEM	1	48
49	Types of Servo motors	R1	453-456	BB	1	49
50	Merits and limitations of Mechatronics design	R1	457-463	BB	1	50

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Analyze the concept of Wireless surveillance balloon
- Describe various Stages in designing Mechatronics Systems
- Realize the Possible Design Solutions.
- Recognize the Traditional and Mechatronic Design

**COURSE OUTCOME**

At the end of the course, Students will be able to

- ❖ Ability to model and build mechatronic systems and implement these systems.
- ❖ Analyze the concept of 8051 microcontroller.
- ❖ Describe Keyboard interfacing.
- ❖ Realize the Data Handling Analogs Input / Output.
- ❖ The various Stages in designing Mechatronics Systems.

**CONTENT BEYOND THE SYLLABUS**

- ❖ Design mechanical devices, sensors and actuators

**INTERNAL ASSESSMENT DETAILS**

ASST. NO.	I	II	MODEL
Topic Nos.	1-16	17-31	1-50
Date			

**ASSIGNMENT DETAILS**

ASSIGNMENT	I	II
Topic Nos. for reference/Activity	1-16	PCE
Deadline		

ASSIGNMENT I (20 Marks) (Before AT-I)	ASSIGNMENT II (20 Marks)(Before AT-II)
Topics for reference	
1-16	PCE activity:
<p><b>Part - A</b></p> <ol style="list-style-type: none"> <li>1. Write about the bimetallic strips.</li> <li>2. Write about the static characteristics.</li> <li>3. Define 'Hysteresis'.</li> <li>4. List down the type of proximity sensor.</li> <li>5. Mention the functions of a Mechatronics system.</li> </ol> <p><b>Part - B</b></p> <ol style="list-style-type: none"> <li>1. Explain the principles and working of Hall Effect Sensor and explain the basic elements of a closed loop system.</li> <li>2. Discuss how displacement is sensed by LVDT. With neat sketch show how it can be made phase sensitive.</li> <li>3. Expand various merging areas of Mechatronics.</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>Technical seminar:</b> <ul style="list-style-type: none"> <li>✓ Latest Mechatronic applications.</li> <li>✓ Satellite imaging.</li> </ul> </li> <li>2. <b>Discussions:</b> <ul style="list-style-type: none"> <li>✓ Neural network and Fuzzy logics.</li> <li>✓ Automatic light control</li> </ul> </li> <li>3. <b>APH topics:</b> <ul style="list-style-type: none"> <li>✓ Addressing 8085 microprocessor</li> <li>✓ Role of CALL and RET instructions</li> </ul> </li> <li>4. <b>Poster presentation:</b> <ul style="list-style-type: none"> <li>✓ Engine management system.</li> <li>✓ Mnemonics and timers</li> </ul> </li> <li>5. <b>Technical Quiz on:</b> <ul style="list-style-type: none"> <li>✓ PLC</li> <li>✓ Microprocessors</li> </ul> </li> <li>6. <b>Identification of components:</b> <ul style="list-style-type: none"> <li>✓ PLC</li> <li>✓ Stepper motor Interface</li> </ul> </li> </ol>

*A. Srinivas*  
8/11/19.

Prepared by  
**ASWIN.M**  
**AP/MECH**

*S. Ramesh*  
23/4/19.

Approved by  
**PRINCIPAL**

*T. Gokulraj*  
8/2/19

Verified By  
**HOD/MECH**



## DEPARTMENT OF CIVIL ENGINEERING

**SUBJECT: REMOTE SENSING TECHNIQUES AND GIS**

**SEMESTER:VI**

**QUESTION BANK (CE6003)**

***Version-2***

**PREPARED BY**  
**Mr.K.ARUN/AP CIVIL**



CE6003

REMOTE SENSING TECHNIQUES AND GIS

LT P C

3 0 0 3

**OBJECTIVES:**

To introduce the students to the basic concepts and principles of various components of remote sensing.

To provide an exposure to GIS and its practical applications in civil engineering.

**UNIT I EMR AND ITS INTERACTION WITH ATMOSPHERE & EARTH MATERIAL 9**

Definition of remote sensing and its components – Electromagnetic spectrum – wavelength regions important to remote sensing – Wave theory, Particle theory, Stefan-Boltzman and Wein's Displacement Law – Atmospheric scattering, absorption – Atmospheric windows – spectral signature concepts – typical spectral reflective characteristics of water, vegetation and soil.

**UNIT II PLATFORMS AND SENSORS 9**

Types of platforms – orbit types, Sun-synchronous and Geosynchronous – Passive and Active sensors – resolution concept – Pay load description of important Earth Resources and Meteorological satellites – Airborne and spaceborne TIR and microwave sensors.

**UNIT III IMAGE INTERPRETATION AND ANALYSIS 9**

Types of Data Products – types of image interpretation – basic elements of image interpretation - visual interpretation keys – Digital Image Processing – Pre-processing – image enhancement techniques – multispectral image classification – Supervised and unsupervised.

**UNIT IV GEOGRAPHIC INFORMATION SYSTEM 9**

Introduction – Maps – Definitions – Map projections – types of map projections – map analysis – GIS definition – basic components of GIS – standard GIS software's – Data type – Spatial and non-spatial (attribute) data – measurement scales – Data Base Management Systems (DBMS).

**UNIT V DATA ENTRY, STORAGE AND ANALYSIS 9**

Data models – vector and raster data – data compression – data input by digitization and scanning – attribute data analysis – integrated data analysis – Modeling in GIS Highway alignment studies – Land Information System.

**TOTAL: 45 PERIODS**

  
STAFF INCHARGE  
(Mr.K.ARUN)

  
HOD/CIVIL  
(Mrs.R.REVATHI)



**DEPARTMENT OF CIVIL ENGINEERING  
COURSE PLAN**

<b>Sub. Code</b>	: CE6003	<b>Branch / Year / Sem</b>	: B.E.CIVIL / III /VI
<b>Sub.Name</b>	: REMOTE SENSING TECHNIQUES AND GIS	<b>Batch</b>	: 2016-2020
<b>Staff Name</b>	: Mr.K.ARUN	<b>Academic Year</b>	: 2018-19 (EVEN)

**COURSE OBJECTIVE**

1. To introduce the students to the basic concepts of remote sensing.
2. To establish the principles of various components of remote sensing to the students.
3. To study about the various realistic applications of remote sensing.
4. To provide an exposure to Geographic Information System.
5. To know about the practical applications of GIS in civil engineering.

**TEXT BOOKS**

- T1.** Lillesand, T.M., Kiefer, R.W. and J.W. Chipman. "Remote Sensing and Image Interpretation" 5<sup>th</sup> Edition., John Wiley and Sons Asia Pvt. Ltd., New Delhi, 2004.
- T2.** Anji Reddy, M. "Textbook of Remote Sensing and Geographical Information System" 2<sup>nd</sup> edition. BS Publications, Hyderabad, 2001.

**REFERENCE BOOKS**

- R1.** Lo.C.P. and A.K.W. Yeung, "Concepts and Techniques of Geographic Information Systems", Prentice Hall of India Pvt. Ltd., New Delhi, 2002
- R2.** Peter A. Burrough, Rachael A. McDonnell, "Principles of GIS", Oxford University Press, 2000.
- R3.** Ian Heywood "An Introduction to GIS", Pearson Education Asia, 2000.
- R4.** Shunlin Liang, Xiaowen Li, Jindi Wang, "Advanced Remote Sensing: Terrestrial Information Extraction and Applications", Academic Press, 2012.

**WEB RESOURCES**

- W1.** <http://nature.berkeley.edu/~penggong/textbook/chapter2/html/sect24>. (Topic.No: 5)
- W2.** <https://nptel.ac.in/courses/121107009/12> (Topic.No: 6)
- W3.** <https://auhippo.com/tag/ce6003-remote-sensing-and-gis-notes/> (Topic.No: 8)
- W4.** <https://nptel.ac.in/courses/105108077/module1/lecture1.pdf> (Topic.No: 10)
- W5.** <http://engg3year.blogspot.com/2017/05/ce6003-remote-sensing-techniques-and.html> (Topic.No: 14)
- W6.** <https://www.e-education.psu.edu/geog883/node/11> (Topic.No: 19)
- W7.** <http://gisgeography.com/image-classification-techniques-remote-sensing> (Topic.No: 22)
- W8.** <http://www.nptelvideos.com/lecture.php?id=4491> (Topic.No: 27)
- W9.** [http://www.gitta.info/DataCompress/en/html/rastercomp\\_chain.html](http://www.gitta.info/DataCompress/en/html/rastercomp_chain.html) (Topic.No: 28)
- W10.** [https://en.wikipedia.org/wiki/Land\\_information\\_system](https://en.wikipedia.org/wiki/Land_information_system) (Topic.No: 32)
- W11.** <https://easyengineering.net/ce6003-remote-sensing-techniques-and/> (Topic.No: 37)

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT I EMR AND ITS INTERACTION WITH ATMOSPHERE &amp; EARTH MATERIAL</b>						<b>(9+1)</b>
1.	Definition of remote sensing and its components	T2	65-67	BB	1	1
2.	Electromagnetic spectrum	T2	70-72	PPT	1	2
3.	Wavelength regions important to remote sensing	T2 T1	76-78 5-7	PPT	1	3
4.	Wave theory, Particle theory, Stefan-Boltzman and Wein's Displacement Law	T1	4 - 9	BB	2	5
5.	Atmospheric scattering, absorption	T2 W1	80-83	PPT	1	6
6.	Atmospheric windows	T2 W2	84-86	NPTEL	1	7
7.	Spectral signature concepts	T1	20-21	BB	1	8
8.	Typical spectral reflective characteristics of water, vegetation and soil.	T2 T1 W3	87-89 17 - 20	PPT	2	10
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to understand the <ul style="list-style-type: none"> <li>• Basic components of Remote sensing</li> <li>• Wavelength region of electromagnetic spectrum</li> <li>• Fundamental concepts of wavelength theory</li> </ul>						
<b>UNIT II PLATFORMS AND SENSORS</b>						<b>(9+1)</b>
9.	Types of platforms	T1 R4	23-24 2 - 5	PPT	1	11
10.	Orbit types, Sun-synchronous and Geosynchronous	T2 W4	116 - 117	PPT	2	13
11.	Passive and Active sensors	T2 T1	120 -127 617, 697	PPT	1	14
12.	Resolution Concept	T1	38-39	BB	2	16
13.	Pay load description of important Earth Resources and Meteorological satellites	T2	132 - 135	BB	2	18
14.	Airborne and spaceborne TIR and microwave sensors.	T1 W5	667-619	PPT	2	20

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Get knowledge about the Different types of satellites.
- Understand about the different types of sensors.
- Gather knowledge about payload description.

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT III IMAGE INTERPRETATION AND ANALYSIS (9+1)</b>						
15.	Types of Data Products	T1	190 - 192	BB	1	21
16.	Types of image interpretation	T1	194 - 195	BB	1	22
17.	Basic elements of image interpretation	T1	192 - 193	PPT	1	23
18.	Visual interpretation keys	T1	195-197	BB	2	25
19.	Digital Image Processing	T1 W6	470 - 471	PPT	1	26
20.	Pre-processing – image enhancement techniques	T2	488 - 489	PPT	1	27
21.	Multispectral image classification	T2	532 - 533	BB	1	28
22.	Supervised and unsupervised	T2 W7	555 - 559	PPT	2	30

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Get knowledge of data products and image interpretation techniques.
- Realize the techniques in visual interpretation.
- Understand the multispectral image classifications.

<b>UNIT IV GEOGRAPHIC INFORMATION SYSTEM (9+1)</b>						
23.	Introduction – Maps – Definitions	T1 R3	47 - 48 32 - 40	BB	1	31
24.	Map projections – types of map projections	T1	48 - 49	PPT	1	32
25.	Map analysis – GIS definition	T1 R1	46 - 47 9 - 14	BB	1	33
26.	Basic components of GIS	T1	44 - 51	PPT	2	35
27.	Standard GIS softwares	W8	---	NPTEL	1	36
28.	Data type – Spatial and non-spatial (attribute) data	T1 R2 W9	38, 45 - 47 32 - 34	PPT	2	38
29.	Measurement scales	T1	127 - 128	BB	1	39
30.	Data Base Management Systems (DBMS)	T1 T2 R2	45 - 47 357 - 358 47 - 48	BB	1	40

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Recognize Basic components of Geographic Information system.
- Identify the Definition and types of map projection.
- Know the Data Base Management Systems (DBMS).

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT V WATER DISTRIBUTION AND SUPPLY TO BUILDINGS (9+1)</b>						
31.	Data models – vector and raster data	T1 T2 R3	49 – 51 333 -345 72 - 79	PPT	2	42
32.	Data compression	T1 W10	119 –120	PPT	1	43
33.	Data input by digitization and scanning	T2	388 - 393	PPT	2	45
34.	Attribute data analysis	T2	410-411	BB	1	46
35.	Integrated data analysis	T1	45 - 47	BB	1	47
36.	Modeling in GIS Highway alignment studies	R2	247 -248	PPT	2	49
37.	Land Information System	T2 W11	203 –205	PPT	1	50

#### LEARNING OUTCOME

At the end of unit, students should be able to

- Classify the Data Models.
- Understand the Types of data compression.
- Explain the Highway alignment using GIS.

#### COURSE OUTCOME

At the end of the course, the students will be able to

- Know the Basics of Remote Sensing
- Gathers Knowledge about the Sensors, Platforms used for Remote Sensing.
- Understand the Basic Image processing and its Techniques.
- Understand the basics in GIS and Data Base Management System.
- Classify the data types and Analysis the data for GIS Processing.

#### CONTENT BEYOND THE SYLLABUS

- Real time applications of Remote Sensing and GIS.
- Comprehend the Land Information System using GIS.

#### INTERNAL ASSESSMENT DETAILS

ASST. NO.	I	II	MODEL
Topic Nos.	1-11	12-22	1-37
Date			

#### ASSIGNMENT DETAILS


ASST. NO.	I	II
Topic Nos.	1-11	12-22
Date		

**ASSIGNMENT DETAILS**

ASSIGNMENT I BEFORE AT-I	ASSIGNMENT II BEFORE AT-II
Topic Nos. for reference	
1-11	12-22
<b><u>PART - A</u></b> <ol style="list-style-type: none"> <li>1. Write the expression of Stefan-Boltzmann law.</li> <li>2. What is called atmospheric windows?</li> <li>3. Define remote sensing.</li> <li>4. What do you mean by atmospheric scattering?</li> <li>5. Define particle theory.</li> </ol> <b><u>PART - B</u></b> <ol style="list-style-type: none"> <li>1. Discuss on the spectral reflectance characteristics of water and vegetation in different spectral bands.</li> <li>2. Explain briefly about the atmospheric scattering phenomenon.</li> </ol>	<b><u>PART - A</u></b> <ol style="list-style-type: none"> <li>1. Define the terms orbit and orbital plane.</li> <li>2. Distinguish between active and passive remote sensing.</li> <li>3. What is geo-synchronous orbit used for weather satellites?</li> <li>4. What are the different types of platforms?</li> <li>5. What do you mean by sun-synchronous satellite?</li> </ol> <b><u>PART - B</u></b> <ol style="list-style-type: none"> <li>1. Discuss the classification of remote sensing based on platform.</li> <li>2. What is resolution of a sensor? Describe all sensor resolution.</li> </ol>
<b><u>PRESENTATION TOPICS</u></b> <b>(B6 - Roll No: 49-57) BEFORE AT-II</b> <ol style="list-style-type: none"> <li>1. Remote sensing and its componenets.</li> <li>2. Atmospheric scattering and Windows.</li> <li>3. Platforms and its types.</li> <li>4. Different types of Sensors.</li> <li>5. Digital image processing.</li> <li>6. Types of image interpretation.</li> <li>7. Maps and types of map projections.</li> <li>8. GIS, its basic components and softwares.</li> <li>9. Vector data and Raster data.</li> <li>10. Real time applications in remote sensing &amp; GIS.</li> </ol>	

  
 Prepared by  
 Mr.K.ARUN

  
 Verified By  
 HOD/CIVIL

  
 Approved by  
 PRINCIPAL





## **DEPARTMENT OF CIVIL ENGINEERING**

### **SUBJECT: STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING**

#### **SEMESTER: VII**

#### **QUESTION BANK (CE6701)**

*(Version: 3)*

#### **PREPARED BY**

**Mr.K.ARUN/AP CIVIL**

**CE6701****STRUCTURAL DYNAMICS AND  
EARTHQUAKE ENGINEERING****L T P C  
3 0 0 3****OBJECTIVES:**

The main objective of the course is to introduce dynamic loading and the dynamic performance of the structures to the students. Different types of dynamic loading are also to be discussed. The detailed study on the performance of structures under earthquake loading is also one of the focuses of the course.

**UNIT I - THEORY OF VIBRATIONS****9**

Difference between static loading and dynamic loading – Degree of freedom – idealisation of structure as single degree of freedom system – Formulation of Equations of motion of SDOF system - D'Alemberts principles – effect of damping – free and forced vibration of damped and undamped structures – Response to harmonic and periodic forces.

**UNIT II - MULTIPLE DEGREE OF FREEDOM SYSTEM****9**

Two degree of freedom system – modes of vibrations – formulation of equations of motion of multi degree of freedom (MDOF) system - Eigen values and Eigen vectors – Response to free and forced vibrations - damped and undamped MDOF system – Modal superposition methods.

**UNIT III - ELEMENTS OF SEISMOLOGY****9**

Elements of Engineering Seismology - Causes of Earthquake – Plate Tectonic theory – Elastic rebound Theory – Characteristic of earthquake – Estimation of earthquake parameters - Magnitude and intensity of earthquakes – Spectral Acceleration.

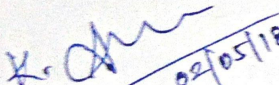
**UNIT IV - RESPONSE OF STRUCTURES TO EARTHQUAKE****9**

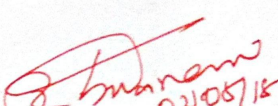
Effect of earthquake on different type of structures – Behaviour of Reinforced Cement Concrete, Steel and Prestressed Concrete Structure under earthquake loading – Pinching effect – Bouchinger Effects – Evaluation of earthquake forces as per IS:1893 – 2002 - Response Spectra – Lessons learnt from past earthquakes.

**UNIT V - DESIGN METHODOLOGY****9**

Causes of damage – Planning considerations / Architectural concepts as per IS:4326 – 1993 – Guidelines for Earthquake resistant design – Earthquake resistant design for masonry and Reinforced Cement Concrete buildings – Later load analysis – Design and detailing as per IS:13920 – 1993.

**TOTAL: 45 PERIODS**

  
SIGNATURE OF STAFF INCHARGE

  
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## DEPARTMENT OF CIVIL ENGINEERING COURSE PLAN

<b>Sub. Code</b>	:CE6701	<b>Branch / Year / Sem:</b>	B.E Civil / IV /VII
<b>Sub Name</b>	:Structural Dynamics and Earthquake Engineering	<b>Batch</b>	: 2015-2019
<b>Staff Name</b>	:Mr.K.Arun	<b>Academic Year</b>	: 2018-19 (ODD)

### COURSE OBJECTIVE

- To introduce dynamic loading and assess the dynamic performance of the structures.
- To know about the theory of vibrations and learn the elements of Seismology..
- To analyze the multiple degree of freedom system.
- To learn the different types of dynamic loadings in detail.
- To study the performance of structures under earthquake loading.

### TEXT BOOKS

**T1.**Chopra, A.K., “Dynamics of Structures – Theory and Applications to EarthquakeEngineering”, 4<sup>th</sup> Edition, Pearson Education, 2011.

**T2.**Agarwal.P and Shrikhande. M., "Earthquake Resistant Design of Structures", Prentice Hall of India Pvt. Ltd. 2007.

### REFERENCE BOOKS

**R1.**S.R.Damodarasamy and S.Kavitha., “Basics of Structural Dynamics and Aseismic Design”, PHI Learning Private Limited, Delhi, 2015.

**R2.**S.Elavenil., “Structural Dynamics and Earthquake Engineering”, AR Publications, Chennai.

**R3.**Biggs, J.M., “Introduction to Structural Dynamics”, McGraw Hill Book Co., New York, 1964

**R4.** Dowrick, D.J., “Earthquake Resistant Design”, John Wiley & Sons, London, 2009

**R5.** Paz, M. and Leigh.W. “Structural Dynamics – Theory & Computation”, 4<sup>th</sup> Edition, CBS Publishers & Distributors, Shahdara, Delhi, 2006.

### WEB RESOURCES

**W1.** <http://nptel.ac.in/courses/105106151/3> (Topic.No:1-2)

**W2.** <http://nptel.ac.in/courses/105106151/48> (Topic.No:14-15)

**W3.** <http://nptel.ac.in/courses/105101004/downloads/01%20Chapter.pdf> (Topic.No:16-23)

**W4.** <http://nptel.ac.in/courses/105101004/downloads/04%20Chapter.pdf> (Topic.No:28)

**W5.** <http://nptel.ac.in/courses/105105104/pdf/m16l39.pdf> (Topic. No:32)

**W6.** <http://www.rejinpaul.com/2016/10/ce6701-structural-dynamics-and-earthquake-engineering-syllabus-notes-question-bank-with-answers.html> (Topic. No:3-8)

**W7.** [www.dce.edu.in/question-bank/ce6701-sdee-civil-viis-au.pdf](http://www.dce.edu.in/question-bank/ce6701-sdee-civil-viis-au.pdf) (Topic.No:30-35)

**W8.** [https://www.ct.upt.ro/users/AurelStratan/sdee/en-curs04\\_sdee.pdf](https://www.ct.upt.ro/users/AurelStratan/sdee/en-curs04_sdee.pdf) (Topic.No:24-27)

**W9.** <https://www.vidyarthiplus.com/vp/thread-35768.html> (Topic.No:9-13)

**W10.** [studentskey.in/structural-dynamics-and-earthquake-engineering-notes/](http://studentskey.in/structural-dynamics-and-earthquake-engineering-notes/) (Topic.No:29)

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT I THEORY OF VIBRATIONS (9+2)</b>						
1.	Difference between static loading and dynamic loading	R1 , W1	3-4	BB	1	1
2.	Degree of freedom	R1 , W1	7-9	NPTEL	1	2
3.	Idealisation of structure as single degree of freedom system	R1 , W6	16-19	BB	1	3
4.	Formulation of equation of motions for single degree of freedom system	R1 , W6	23-26	BB	1	4
5.	D'Alemberts principle	R1 , W6	22-23	BB	1	5
6.	Effect of Damping	R1 , W6	42-43	PPT	1	6
7.	Free and Forced vibration of damped and undamped structures.	R1 , W6	43-56	BB	1	7
8.	Response to harmonic and periodic forces.	R1 , W6	65-90 98-108	BB	2	9
-	Revision	-	-	BB	2	11
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>• Know the difference between static and dynamic loading.</li> <li>• Formulate the equation of motions for single degree of freedom system.</li> <li>• Understand the effects of damping.</li> </ul>						
<b>UNIT II MULTIPLE DEGREE OF FREEDOM SYSTEM (9+2)</b>						
9.	Two degree of freedom system	R1 , W9	126-127	BB	2	13
10.	Modes of vibration	R1 , W9	127-137	PPT	1	14
11.	Formulation of equations of motion of MDOF	R1 , W9	165-174	BB	2	16
12.	Eigen values and Eigen Vectors.	R1 , W9	130-131	BB	1	17
13.	Response to free and forced vibrations.	R1 , W9	159, 165	BB	1	18
14.	Damped and Undamped MDOF system.	R1 , W2	159- 160, 162-163	NPTEL	1	19
15.	Modal superposition methods.	R1 , W2	163-164	PPT	1	20
-	Revision	-	-	BB	2	22
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>• Solve the equations of motion of multi degree of freedom system.</li> <li>• Explain about Eigen values and Eigen Vectors.</li> <li>• Describe the response to free and forced vibrations.</li> </ul>						

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT III ELEMENTS OF SEISMOLOGY (9+2)</b>						
16.	Elements of Engineering Seismology	R1 , W3	175	BB	1	23
17.	Causes of Earthquake	R1 , W3	175-176	PPT	1	24
18.	Plate Tectonic theory	R1 , W3	176-180	NPTEL	1	25
19.	Elastic rebound Theory	R1 , W3	180-181	BB	1	26
20.	Characteristic of earthquake	R2 , W3	3.9-3.13	BB	2	28
21.	Estimation of earthquake parameters	R2 , W3	3.13-3.16	BB	1	29
22.	Magnitude and intensity of earthquakes	R2 , W3	3.16-3.22	BB	1	30
23.	Spectral Acceleration	R2 , W3	3.23	BB	1	31
-	Revision	-	-	BB	2	33

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Understand the causes of earthquake.
- Estimate the earthquake parameters.
- Describe the magnitude and intensity of earthquakes.

<b>UNIT IV RESPONSE OF STRUCTURES TO EARTHQUAKE (9+2)</b>						
24.	Effect of earthquake on different type of structures	R2 , W8	4.2-4.5	PPT	1	34
25.	Behavior of Reinforced Cement Concrete, Steel and Prestressed Concrete Structure under earthquake loading	R2 , W8	4.5-4.14	BB	3	37
26.	Pinching effect, Bouchinger Effects	R2 , W8	4.15-4.18	BB	1	38
27.	Evaluation of earthquake forces as per IS:1893 – 2002	R2 , W8	4.18-4.21	BB	1	39
28.	Response Spectra	R2 , W4	4.22-4.27	NPTEL	1	40
29.	Lessons learnt from past earthquakes	R2 , W10	4.27-4.36	BB	2	42
-	Revision	-	-	BB	2	44

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Understand the behavior of Reinforced Cement Concrete, Steel and Prestressed Concrete Structure under earthquake loading.
- Learn the lessons from the past earthquakes.
- Evaluate the earthquake forces as per IS 1893-2002

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT V</b>		<b>DESIGN METHODOLOGY</b>				<b>(9+2)</b>
30.	Causes of damage	R2 , W7	5.1-5.12	BB	1	45
31.	Planning considerations/ Architectural concepts as per IS:4326 – 1993	R2 , W7	5.13-5.30	PPT	2	47
32.	Guidelines for Earthquake resistant design	R2 , W5	5.30-5.42	NPTEL	1	48
33.	Earthquake resistant design for masonry and Reinforced Cement Concrete buildings	R2 , W7	5.42-5.52	BB	1	49
34.	Later load analysis	R2 , W7	5.52-5.75	BB	2	51
35.	Design and detailing as per IS:13920 – 1993	R2 , W7	5.76-5.85	BB	2	53
-	Revision	-	-	BB	2	55
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Know the guidelines for earthquake resistant design.</li> <li>Design and detail as per IS:13920-1993.</li> <li>Understand the causes of damage in buildings.</li> </ul>						

### COURSE OUTCOME

At the end of the course, the students will be able to

- Have the knowledge to analyse structures subjected to dynamic loading.
- Design the structures for seismic loading as per code provisions.
- Solve structures using the multiple degree of freedom system.
- Know Ductility design concepts and detailing as per IS:13920-1993.
- Describe the basic concepts of seismology.

### CONTENT BEYOND THE SYLLABUS

- Overview of buildings with base isolation technique.

### INTERNAL ASSESSMENT DETAILS

ASST. NO.	I	II	MODEL
Topic Nos.	1-12	13-23	1-35
Date			


### ASSIGNMENT DETAILS

ASST. NO.	I	II
Topic Nos.	1-12	13-23
Date		

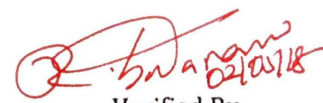


**ASSIGNMENT DETAILS**

<b>ASSIGNMENT I (30 MARKS)</b> <b>BEFORE AT-I</b>	<b>ASSIGNMENT II (30 MARKS)</b> <b>BEFORE AT-II</b>
<b>Topic Nos. for reference</b>	
<b>1-12</b>	<b>13-23</b>
<p><b><u>PART - A</u></b></p> <ol style="list-style-type: none"> <li>1. Write D'Alembert's principle on dynamic equilibrium.</li> <li>2. State the Newton's second law of motion.</li> <li>3. Distinguish between free and forced vibrations.</li> <li>4. What are eigen values and eigen vectors?</li> <li>5. What are the two degrees of freedom system?</li> </ol> <p><b><u>PART - B</u></b></p> <ol style="list-style-type: none"> <li>1. Derive the equation of motion of SDOF system for free vibration and hence find the solution for (i) Under damped system (ii) Critically damped system (iii) Over Damped system</li> <li>2. Derive the equation of motion of a two degree of freedom system for free vibration.</li> </ol>	<p><b><u>PART - A</u></b></p> <ol style="list-style-type: none"> <li>1. Write any two assumptions that are made in the idealization of a shear building.</li> <li>2. Enumerate dynamic equilibrium.</li> <li>3. What is a seismogram? Write its uses.</li> <li>4. Compare magnitude and intensity of an earthquake.</li> <li>5. What is elastic rebound theory?</li> </ol> <p><b><u>PART - B</u></b></p> <ol style="list-style-type: none"> <li>1. Derive the orthogonality relation between the modal shape of a two degree of freedom</li> <li>2. Write in detail about seismograph with neat diagram and their classification</li> </ol>
<p style="text-align: center;"><b><u>PRESENTATION TOPICS</u></b></p> <p style="text-align: center;"><b>B1 (R.NO:1- 10)</b></p> <ol style="list-style-type: none"> <li>1. Degrees of freedom.</li> <li>2. Effects of Damping.</li> <li>3. Modes of Vibration.</li> <li>4. Eigen values and Eigen Vectors.</li> <li>5. Characteristics of earthquake.</li> <li>6. Plate tectonic and Elastic Rebound theory.</li> <li>7. Evaluation of earthquake forces.</li> <li>8. Case study on past earthquakes.</li> <li>9. Later load analysis.</li> <li>10. Earthquake resistant design.</li> </ol>	

  
 Prepared by  
 Mr. KARUN

  
 Approved by  
 PRINCIPAL

  
 Verified By  
 HOD/CIVIL



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

**SUBJECT: DESIGN AND ANALYSIS OF ALGORITHM**

**SEMESTER: IV**

**QUESTION BANK (CS6402)**

*(Version: 4)*

**PREPARED BY**

**Mr.R.SRIRAMKUMAR/CSE**

CS6402

## DESIGN AND ANALYSIS OF ALGORITHMS

LTPC  
3003

## UNIT I

## INTRODUCTION

9

Notion of an Algorithm – Fundamentals of Algorithmic Problem Solving – Important Problem Types – Fundamentals of the Analysis of Algorithm Efficiency – Analysis Framework – Asymptotic Notations and its properties – Mathematical analysis for Recursive and Non-recursive algorithms.

## UNIT II

## BRUTE FORCE AND DIVIDE-AND-CONQUER

9

Brute Force - Closest-Pair and Convex-Hull Problems-Exhaustive Search - Traveling Salesman Problem - Knapsack Problem - Assignment problem.Divide and conquer methodology – Merge sort – Quick sort – Binary search – Multiplication of Large Integers – Strassen's Matrix Multiplication-Closest-Pair and Convex-Hull Problems.

## UNIT III

## DYNAMIC PROGRAMMING AND GREEDY TECHNIQUE

9

Computing a Binomial Coefficient – Warshall's and Floyd' algorithm – Optimal Binary SearchTrees – Knapsack Problem and Memory functions. Greedy Technique– Prim's algorithm- Kruskal Algorithm- Dijkstra's Algorithm-Huffman Trees.

## UNIT IV

## ITERATIVE IMPROVEMENT

9

The Simplex Method-The Maximum-Flow Problem – Maxim Matching in Bipartite Graphs- TheStable marriage Problem.

## UNIT V

## COPING WITH THE LIMITATIONS OF ALGORITHM POWER

9

Limitations of Algorithm Power-Lower-Bound Arguments-Decision Trees-P, NP and NP-CompleteProblems--Coping with the Limitations - Backtracking – n-Queens problem – Hamiltonian CircuitProblem – Subset Sum Problem-Branch and Bound – Assignment problem – Knapsack Problem – Traveling Salesman Problem- Approximation Algorithms for NP – Hard Problems – TravelingSalesman problem – Knapsack problem.

TOTAL: 45 PERIODS

## TEXT BOOKS

T1. Anany Levitin, "Introduction to the Design and Analysis of Algorithms", Third Edition, Pearson Education, 2012.

## REFERENCE BOOKS

R1.Thomas H.Cormen, Charles E.Leiserson, Ronald L. Rivest and Clifford Stein, "Introduction to Algorithms", Third Edition, PHI Learning Private Limited, 2012.

R2. Alfred V. Aho, John E. Hopcroft and Jeffrey D. Ullman, "Data Structures and Algorithms", Pearson Education, Reprint 2006.

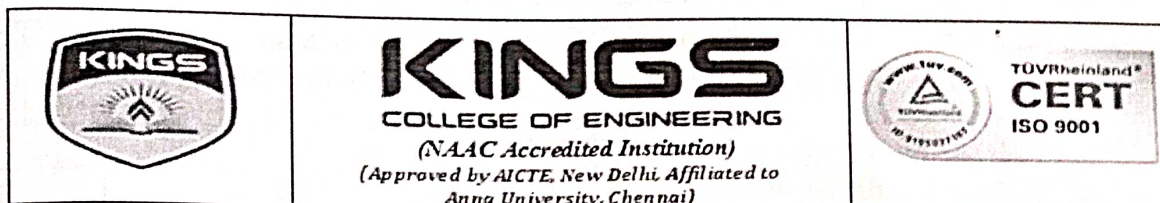
R3. Donald E. Knuth, "The Art of Computer Programming", Volumes 1& 3 Pearson Education, 2009.

Steven S. Skiena, "The Algorithm Design Manual", Second Edition, Springer, 2008.

  
SIGNATURE OF STAFF INCHARGE

  
SIGNATURE OF HOD





## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

<b>Sub. Code</b> : CS6402	<b>Branch / Year / Sem</b> : B.E CSE /II/ IV
<b>Sub.Name</b> : Design and Analysis of Algorithm	<b>Batch</b> : 2016-2020
<b>Staff Name</b> : R.Sriramkumar	<b>Academic Year</b> : 2017-18 (EVEN)

### COURSE OBJECTIVE

The student should be made to:

- Learn the algorithm analysis techniques.
- Become familiar with the different algorithm design techniques.
- Understand the limitations of Algorithm power.

### TEXT BOOKS

**T1.** Anany Levitin, "Introduction to the Design and Analysis of Algorithms", Third Edition, Pearson Education, 2012.

### REFERENCE BOOKS

- R1.** Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest and Clifford Stein, "Introduction to Algorithms", Third Edition, PHI Learning Private Limited, 2012.
- R2.** Alfred V. Aho, John E. Hopcroft and Jeffrey D. Ullman, "Data Structures and Algorithms", Pearson Education, Reprint 2006.
- R3.** Donald E. Knuth, "The Art of Computer Programming", Volumes 1 & 3 Pearson Education, 2009. Steven S. Skiena, "The Algorithm Design Manual", Second Edition, Springer, 2008.

### WEB RESOURCES

- W1.** <http://people.cs.clemson.edu/~pargas/courses/common/notes/ppt/AnalysisFramework.ppt> (**Topic No.05**)
- W2.** <http://people.cs.clemson.edu/~pargas/courses/common/notes/ppt/PrimKruskal.ppt> (**Topic No.21**)
- W3.** <http://people.cs.clemson.edu/~pargas/courses/cs212/common/notes/ppt/theSimplexMethod.ppt> (**Topic.No:24**)
- W4.** <http://www.cs.utsa.edu/~bylander/cs3343/BipartiteGraphs.pdf> (**Topic No: 26, 27**)
- W5.** <http://www.nptel.ac.in/courses/106101060/ApproximationAlgorithmsforNP> (**Topic No: 34**)



Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT I INTRODUCTION (9)</b>						
1.	Notion of an Algorithm	T1	3-8	BB	1	1
2.	Fundamentals of Algorithmic Problem Solving	R3	9-15	BB	1	2
3.	Important Problem Types	T1	18-22	BB	1	3
4.	Fundamentals of the Analysis of Algorithm Efficiency	T1	41-42	BB	1	4
5.	Analysis Framework	T1,W1	42-50	PPT, BB	1	5
6.	Asymptotic Notations and its properties	R2	107-110	BB	2	7
7.	Mathematical analysis for Recursive and Non-recursive algorithms	T1	61-70	BB	2	9
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Analyze the efficiency of algorithm</li> <li>Understand the important problem types</li> </ul>						
<b>UNIT II BRUTE FORCE AND DIVIDE-AND-CONQUER (9)</b>						
8.	Brute Force - Closest-Pair and Convex-Hull Problems	T1	97-108	BB	1	10
9.	Exhaustive Search - Traveling Salesman Problem - Knapsack Problem -	T1	115-116	BB	1	11
10.	Assignment problem.	T1	119-124	BB	1	12
11.	Divide and conquer methodology	T1	169-172	BB	1	13
12.	Merge sort - Quick sort - Binary search	T1	150-176	BB	1	14
13.	Multiplication of Large Integers	T1	187-188	BB	2	16
14.	Strassen's Matrix Multiplication-	T1	189-190	BB	1	17
15.	Closest-Pair and Convex-Hull Problems.	T1	192-195	BB, SEMINAR-1	1	18
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Understand the brute force approach for sorting problem.</li> <li>Understand the concept of assignment problems</li> </ul>						
<b>UNIT III DYNAMIC PROGRAMMING AND GREEDY TECHNIQUE (9)</b>						
16.	Computing a Binomial Coefficient	T1	283-285	BB	1	19
17.	Warshall's and Floyd' algorithm	T1	304-308	BB	1	20



Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
18.	Optimal Binary Search Trees	T1	297-300	BB	1	21
19.	Knapsack Problem and Memory functions.	T1	292-295	BB	1	22
20.	Greedy Technique Prim's algorithm	T1	315-320	BB	2	24
21.	Kruskal's Algorithm	W2	22-41	PPT	1	25
22.	Dijkstra's Algorithm	T1	333-337	BB	1	26
23.	Huffman Trees	R1	329-337	BB	1	27

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Describe and use major algorithmic techniques (Greedy technique etc.,).
- Know a variety of greedy algorithms; know the basic ingredients of a greedy algorithm, and how to approach arguing the correctness of such algorithms

**UNIT IV****ITERATIVE IMPROVEMENT****(9)**

24.	The Simplex Method	W3	1-19	PPT, BB	2	29
25.	The Maximum-flow problem	T1	361-371	BB	2	31
26.	Maximum Matching in Bipartite Graphs	T1, W4	11-14	BB, PPT	2	33
27.	The Stable marriage Problem	T1, W4	15-19	BB, SEMINAR-2	3	36

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Solve the optimization problems.
- Solve the Bipartite graph problems.

**UNIT V****COPING WITH THE LIMITATIONS OF ALGORITHM POWER****(9)**

28.	Limitations of Algorithm Power-Lower-Bound Arguments	T1	387-390	BB	1	37
29.	-Decision Trees-P, NP and NP-Complete Problems	T1	397-406	BB	1	38
30.	Coping with the Limitations	T1	424-425	BB	1	39
31.	Backtracking – n-Queens problem – Hamiltonian Circuit Problem	T1	425-426	BB	1	40
32.	Subset Sum Problem- Branch and Bound – Assignment problem	T1	427-433	BB	1	41
33.	Knapsack Problem – Traveling Salesman Problem	T1	463-438	BB	1	42



Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
34.	Approximation Algorithms for NP	W5	NPTEL	PPT	1	43
35.	Hard Problems – Traveling Salesman problem	T1	443-451	BB	1	44
36.	Knapsack problem.	T1	453-456	BB	1	45

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Know some standard NP-Complete problems and know the basics of an NP-hardness
- Understand the concept of shortest path problems.

**COURSE OUTCOME**

At the end of the course, the students will be able to

- Design algorithms for various computing problems.
- Analyze the time and space complexity of algorithms.
- Critically analyze the different algorithm design techniques for a given problem.
- Modify existing algorithms to improve efficiency.

**CONTENT BEYOND THE SYLLABUS**

- RED – BLACK TREE

**INTERNAL ASSESSMENT DETAILS**

ASST. NO.	I	II	MODEL
Topic Nos.	1-11	12-23	1-36
Date			

**INTERNAL ASSIGNMENT DETAILS**

ASSIGNMENT	I	II
Topic Nos. for reference	1-11	12-23
Deadline		

**Assignment I (30 Marks)**  
**(Before AT - I)**
**Part A**

1. What is an algorithm
2. What are the components of fixed and variable part in space complexity?
3. Differentiate Time Complexity from Space complexity.
4. What is closest-pair problem?
5. What do you mean by divide and conquer strategy?

**Part B**

1. Briefly explain the mathematical analysis of recursive and non-recursive algorithm.
2. Explain the convex hull problem and the solution involved behind it.

**Assignment II (30 Marks)**  
**(Before AT - II)**
**Part A**

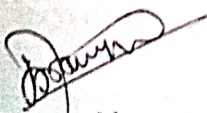
1. Define Assignment Problem?
2. What is traveling salesman problem?
3. Define the single source shortest path problem
4. List out the advantages of dynamic programming
5. What is meant by principle of optimality?

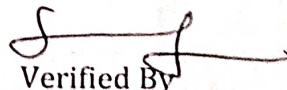
**Part B**

1. Distinguish between Quick sort and Merge sort, and arrange the following numbers in increasing order using merge sort. (18, 29, 68, 32, 43, 37, 87, 24, 47, 50)
2. Describe all pairs shortest path problem and write procedure to compute length of shortest paths

**Presentation Topics**
**Batch I (Roll No : 16 - 30)**

1. Applications of B-Tree
2. Emerging trends in virtual reality applications
3. Role of Huffman -codes in algorithm
4. Case Study about Bellman-Ford algorithm
5. Role of bubble sort with computational complexity

  
 Prepared by  
 Mr.R.Sriramkumar

  
 Verified By  
 HOD/CSE

  
 Approved by  
 PRINCIPAL





**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**SUBJECT: CRYPTOGRAPHY AND NETWORK SECURITY**

**SEMESTER: VII**

**QUESTION BANK (CS6701)**

*(Version: 2)*

**PREPARED BY**  
**R.SRIRAMKUMAR, AP / CSE**

FORMAT : QP09

KCE/DEPT. OF CSE

CS6701

## CRYPTOGRAPHY AND NETWORK SECURITY

L	T	P	C
3	0	0	3

## UNIT I

## INTRODUCTION &amp; NUMBER THEORY

10

Services, Mechanisms and attacks-the OSI security architecture-Network security model- Classical Encryption techniques (Symmetric cipher model, substitution techniques, transposition techniques, steganography). FINITE FIELDS AND NUMBER THEORY: Groups, Rings, Fields-Modular arithmetic-Euclid's algorithm-Finite fields- Polynomial Arithmetic -Prime numbers-Fermat's and Euler's theorem-Testing for primality -The Chinese remainder theorem- Discrete logarithms.

## UNIT II

## BLOCK CIPHERS &amp; PUBLIC KEY CRYPTOGRAPHY

10

Data Encryption Standard-Block cipher principles-block cipher modes of operation- Advanced Encryption Standard (AES)-Triple DES-Blowfish-RC5 algorithm. **Public key cryptography:** Principles of public key cryptosystems-The RSA algorithm-Key management - Diffie Hellman Key exchange-Elliptic curve arithmetic-Elliptic curve cryptography.

## UNIT III

## HASH FUNCTIONS AND DIGITAL SIGNATURES

8

Authentication requirement - Authentication function - MAC - Hash function - Security of hash function and MAC -MD5 - SHA - HMAC - CMAC - Digital signature and authentication protocols -DSS - El Gamal - Schnorr.

## UNIT IV

## SECURITY PRACTICE &amp; SYSTEM SECURITY

8

Authentication applications - Kerberos - X.509 Authentication services - Internet Firewalls for Trusted System: Roles of Firewalls - Firewall related terminology- Types of Firewalls - Firewall designs - SET for E-Commerce Transactions. Intruder - Intrusion detection system - Virus and related threats -Countermeasures - Firewalls design principles - Trusted systems - Practical implementation of cryptography and security.

## UNIT V

## E-MAIL, IP &amp; WEB SECURITY

9

E-mail Security: Security Services for E-mail-attacks possible through E-mail - establishing keys privacy-authentication of the source-Message Integrity-Non-repudiation-Pretty Good Privacy-S/MIME. IP Security: Overview of IPsec - IP and IPv6- Authentication Header-Encapsulation Security Payload (ESP)-Internet Key Exchange (Phases of IKE, ISAKMP/IKE Encoding). Web Security: SSL/TLS Basic Protocol-computing the keys- client authentication-PKI as deployed by SSL Attacks fixed in v3- Exportability-Encoding-Secure Electronic Transaction (SET).

TOTAL: 45 PERIODS

SIGNATURE OF STAFF INCHARGE

HOD/CSE

CNS 2

KCE/CSE/QB/IV YR/CNS



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING COURSE PLAN

**Sub. Code** : CS6701

**Sub.Name** : Cryptography and Network Security

**Staff Name** : Mr. R.Sriramkumar

**Branch / Year / Sem** : B.E CSE / IV / VII

**Batch** : 2014-2018

**Academic Year** : 2017-18 (ODD)

### COURSE OBJECTIVE

1. Understand OSI security architecture and classical encryption techniques.
2. Acquire fundamental knowledge on the concepts of finite fields and number theory.
3. Understand various block cipher and stream cipher models.
4. Describe the principles of public key cryptosystems, hash functions and digital signature.

### TEXT BOOKS

- T1.** William Stallings, Cryptography and Network Security, 6th Edition, Pearson Education, March 2013

### REFERENCE BOOKS

- R1.** Behrouz A. Ferouzan, "Cryptography & Network Security", Tata Mc Graw Hill, 2007.  
**R2.** Man Young Rhee, "Internet Security: Cryptographic Principles", "Algorithms and Protocols", Wiley Publications, 2003.

### WEB RESOURCES

- W1.** [www.cs.nthu.edu.tw/~cchen/CS4351/ch7.ppt](http://www.cs.nthu.edu.tw/~cchen/CS4351/ch7.ppt) (**Topic.No:11**)  
**W2.** [www.fi.muni.cz/usr/.../CHAPTER%2005%20-%20Public-key%20cryptography.ppt](http://www.fi.muni.cz/usr/.../CHAPTER%2005%20-%20Public-key%20cryptography.ppt) (**Topic.No:17**)  
**W3.** [www.cs.sjsu.edu/~stamp/CS265/projects/papersSpr03/MD5.ppt](http://www.cs.sjsu.edu/~stamp/CS265/projects/papersSpr03/MD5.ppt) (**Topic.No:26**)  
**W4.** [www.letu.edu/people/jaytevis/Network-Security/Stallings.../chapter-11-firewalls.ppt](http://www.letu.edu/people/jaytevis/Network-Security/Stallings.../chapter-11-firewalls.ppt) (**Topic.No:36**)  
**W5.** <https://www.purdue.edu/securepurdue/docs/training/Cryptography.ppt> (**Topic.No:40**)  
**W6.** <http://nptel.ac.in/courses/106105031/33> (**Topic.No:23**)



Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT I INTRODUCTION &amp; NUMBER THEORY</b>						<b>(10)</b>
1.	Services, Mechanisms and attacks	R1 T1	6-8 17-20	BB	1	1
2.	the OSI security architecture Network security model	T1	14-17	BB	1	2
3.	Classical Encryption techniques (Symmetric cipher model, substitution techniques, transposition techniques, steganography).	T1	27-54	BB	1	3
4.	FINITE FIELDS AND NUMBER THEORY Groups Rings, Fields	T1	99-102	BB	1	4
5.	Modular arithmetic	T1	91-99	BB	1	5
6.	Euclid's algorithm-Finite fields	T1	88-90	BB	1	6
7.	Polynomial Arithmetic	T1	106-111	BB	1	7
8.	Prime numbers	T1	232-235			
9.	Fermat's and Euler's theorem- Testing for primality	T1	236-241	BB	1	8
10.	The Chinese remainder theorem	T1	242-243	BB	1	9
11.	Discrete logarithms.	T1 W1	244-247	PPT	1	10
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>• Learn the need for computer security.</li> <li>• Understand the different types of attacks and services</li> </ul>						
<b>UNIT II BLOCK CIPHERS &amp; PUBLIC KEY CRYPTOGRAPHY</b>						<b>(10)</b>
12.	Data Encryption Standard-	T1	72-74	BB	1	11
13.	Block cipher principles- block cipher modes of operation	T1	78-80	BB	1	12
14.	Advanced Encryption Standard (AES)	T1	129-155	BB	1	13



Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
15.	Triple DES-Blowfish	T1	71-73	BB	1	14
16.	RC5 algorithm. Public key cryptography	R2	84-92	BB	1	15
17.	Principles of public key cryptosystems	T1 W2	256-263	PPT	1	16
18.	The RSA algorithm, Key management	T1	264-277	BB	1	17
19.	Diffie Hellman Key exchange	T1	287-292	BB	1	18
20.	Elliptic curve arithmetic-	T1	295-302	BB	1	19
21.	Elliptic curve cryptography.	T1	303-305	BB	1	20

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Implement the Data Encryption Standard
- Gain knowledge of Advanced Encryption Standard
- Identify the various Security algorithm

**UNIT III HASH FUNCTIONS AND DIGITAL SIGNATURES****(8)**

22.	Authentication requirement	T1	357-364	BB	1	21
23.	Authentication function	T1 W6	315-320	NPTEL	1	22
24.	MAC, Hash function	T1	340-344	BB	1	23
25.	Security of hash function and MAC	T1	329-350	BB	1	24
26.	MD5 - SHA	T1 W3	368-375	PPT	1	25
27.	HMAC - CMAC	T1	368-375	BB	1	26
28.	Digital signature and authentication protocols	T1	395-397	BB	1	27
29.	DSS - El Gamal - Schnorr.	T1	398-401	BB	1	28

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
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### LEARNING OUTCOME

At the end of unit, students should be able to

- Compare various versions of Hash functions.
- Manage the concepts of Digital signature.

### UNIT IV SECURITY PRACTICE & SYSTEM SECURITY (8)

30.	Authentication applications, Kerberos	T1	454-475	BB	1	29
31.	X.509 Authentication services	T1	435-442	BB	1	30
32.	Internet Firewalls for Trusted System	T1	339-343	BB	1	31
33.	Types of Firewalls – Firewall designs, SET for E-Commerce Transactions.	T1	344-352	BB	1	32
34.	Intruder – Intrusion detection system	T1	565-581	BB	1	33
35.	Virus and related threats – Countermeasures –	T1	599-613	BB	1	34
36.	Firewalls design principles Trusted systems	T1 W4	622-639	PPT	1	35
37.	Practical implementation of cryptography and security	T1	653-656	BB	1	36

### LEARNING OUTCOME

At the end of unit, students should be able to

- Analyze & Compare of various authentication applications
- Learn the technology of virus and antivirus.
- Classify the various types of firewalls

### UNIT V E-MAIL, IP & WEB SECURITY (9)

38.	E-mail Security: Security Services for E-mail-attacks possible through E-mail	R2	51-53	BB	1	37
39.	establishing keys privacy-authentication of the source	T1	319-330	BB	1	38
40.	Message Integrity-Non-repudiation	W5	WEB	PPT	1	39



Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
41.	Pretty Good Privacy-S/MIME	T1	591-614	BB	1	40
42.	IP Security: Overview of IPSec – IP and IPv6-Authentication Header	T1 R2	626-637 243-	BB	1	41
43.	Encapsulation Security Payload (ESP)-Internet Key Exchange (Phases of IKE, ISAKMP/IKE Encoding)	T1 R1	638-657 552-557	BB	1	42
44.	Web Security: SSL/TLS Basic Protocol-computing the keys	R2	277-302	BB	1	43
45.	client authentication-PKI as deployed by SSLAttacks fixed in v3	T1	428-430	BB	1	44
46.	Exportability-Encoding-Secure Electronic Transaction (SET)	T1	549-560	BB	1	45

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Create the Password and protection
- Describe the concepts of Transport layer security

**COURSE OUTCOME**

At the end of the course, the students will be able to

- Outline knowledge on basics of security
- Describe various security algorithms
- Possess knowledge on hash algorithm and digital signature
- Understand applications implementing security technology
- Gain knowledge on intrusion detection, security attacks and firewalls.

**CONTENT BEYOND THE SYLLABUS**

1. Case study on cryptography as an operating system.

**INTERNAL ASSESSMENT DETAILS**

ASST. NO.	I	II	MODEL
Topic Nos.	1-16	17-29	1-46
Date			

FORMAT: QP09

KCE/DEPT. OF CSE

## ASSIGNMENT DETAILS

ASSIGNMENT	I	II	III
Topic Nos. for reference	1-16	17-29	1-46
Deadline	10.07.17	14.08.17	11.09.17

BATCH	ASSIGNMENT I (10) BEFORE AT-I	ASSIGNMENT II (10) BEFORE AT-II	ASSIGNMENT III (10) BEFORE MODEL
B1 Roll No. (1-11)	<b>Presentation Topics</b> 1. Explain briefly about Fermat's theorems. Roll No(1-6) 2. Explain briefly about Euler's Theorem Roll No(7-11)	Explain the Miller-Rabin Algorithm	Elaborately explain Kerberos authentication mechanism with suitable diagrams.
B2 Roll No. (12-22)	Explain in detail about OSI Security Architecture?	Describe HMAC algorithm in detail	Explain the types of intrusion Detection Systems.
B3 Roll No. (23-34)	Describe about RC4 algorithm	Explain Digital Signature with ElGamal public key cryptosystem	Describe the Secure Socket Layer Architecture in detail

Prepared by  
Mr.R.Sriramkumar

Verified By  
HOD/CSE

Approved by  
PRINCIPAL

CNS 8

KCE/CSE/QB/IV YR/CNS

CNS 8

KCE/CSE/QB/IV YR/CNS



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**SUBJECT : DIGITAL PRINCIPLES AND SYSTEM DESIGN**

(version:3)

**SEMESTER : II**

**PREPARED BY**

**Mrs. D. VENNILA / ECE**

CS 6201

## DIGITAL PRINCIPLES AND SYSTEM DESIGN

L T P C  
3 0 0 3

## UNIT I

## BOOLEAN ALGEBRA AND LOGIC GATES

9

Review of Number Systems-Arithmetic Operations -Binary Codes -Boolean Algebra and Theorems -Boolean Functions -Simplification of Boolean Functions using Karnaugh Map and Tabulation Methods -Logic Gates -NAND and NOR Implementations.

## UNIT II

## COMBINATIONAL LOGIC

9

Combinational Circuits -Analysis and Design Procedures -Circuits for Arithmetic Operations, Code Conversion -Decoders and Encoders -Multiplexers and Demultiplexers -Introduction to HDL -HDL Models of Combinational circuits.

## UNIT III

## SYNCHRONOUS SEQUENTIAL LOGIC

9

Sequential Circuits -Latches and Flip Flops -Analysis and Design Procedures -State Reduction and State Assignment -Shift Registers -Counters -HDL for Sequential Logic Circuits.

## UNIT IV

## ASYNCHRONOUS SEQUENTIAL LOGIC

9

Analysis and Design of Asynchronous Sequential Circuits -Reduction of State and Flow Tables -Race-free State Assignment -Hazards.

## UNIT V

## MEMORY AND PROGRAMMABLE LOGIC

9

RAM and ROM -Memory Decoding -Error Detection and Correction -Programmable Logic Array Programmable Array Logic -Sequential Programmable Devices -Application Specific Integrated Circuits.

TOTAL: 45 PERIODS

*D. Vennila*  
13/11/16

SIGNATURE OF STAFF INCHARGE

Mrs. D. Vennila

*J. Mani*  
18/11/16

HOD/ECE





**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**COURSE PLAN (THEORY)**

<b>Sub. Code</b>	: CS 6201	<b>Branch / Year / Sem</b>	: B.E CSE / I / II
<b>Sub.Name</b>	: Digital Principles and System Design	<b>Batch</b>	: 2016-2020
<b>Staff Name</b>	: Mrs. D.Vennila	<b>Academic Year</b>	: 2016-17 (EVEN)

**COURSE OBJECTIVE**

The student should be made to:

- Learn the various number systems.
- Learn Boolean Algebra
- Understand the various logic gates.
- Be familiar with various combinational circuits.
- Be familiar with designing synchronous and asynchronous sequential circuits.
- Be exposed to designing using PLD

**TEXT BOOKS**

**T1:** Morris Mano M. and Michael D. Ciletti, "Digital Design", IV Edition, Pearson Education, 2008.

**REFERENCE BOOKS**

**R1:** John F. Wakerly, "Digital Design Principles and Practices", Fourth Edition, Pearson Education, 2007.

**R2:** Charles H. Roth Jr, "Fundamentals of Logic Design", Fifth Edition – Jaico Publishing House, Mumbai, 2003.

**R3:** Donald D. Givone, "Digital Principles and Design", Tata Mcgraw Hill, 2003.

**WEB RESOURCES**

**W1.** [www.cse.yorku.ca/~mack/1011/01.NumberSystems.ppt](http://www.cse.yorku.ca/~mack/1011/01.NumberSystems.ppt) (**Topic. No: 1**)

**W2.** <http://www.slideshare.net/jayanshugundaniya9/digital-electronics-multiplexers-demultiplexers> (**Topic.No:15**)

**W3.** [nptel.ac.in/video.php?subjectId=117106086](http://nptel.ac.in/video.php?subjectId=117106086) (**Topic.No:19**)

**W4.** <http://freevideolectures.com/Course/2310/Digital-Circuits-and-Systems/24> (**Topic.No:20**)

**W5.** [onlinevideolecture.com/index.php?course\\_id=366&lecture\\_no=20](http://onlinevideolecture.com/index.php?course_id=366&lecture_no=20) (**Topic.No:24**)

**W6.** [www.cs.uwec.edu/~ernstdj/courses/cs278/.../cs278\\_implementation.ppt](http://www.cs.uwec.edu/~ernstdj/courses/cs278/.../cs278_implementation.ppt) (**Topic.No:31, 32**)

**W7.** [www.comp.nus.edu.sg/~cs1104/oldlect/cs1104-13.ppt](http://www.comp.nus.edu.sg/~cs1104/oldlect/cs1104-13.ppt) (**Topic.No:35,36**)

**W8.** [https://pg024ec.files.wordpress.com/2013/09/02\\_fpga-based-system-design1.ppt](https://pg024ec.files.wordpress.com/2013/09/02_fpga-based-system-design1.ppt) (**Topic.No:38**)

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT I</b>						<b>(9)</b>
<b>BOOLEAN ALGEBRA AND LOGIC GATES</b>						
1.	Review of number systems	T1 W1	3-8	PPT	1	1
2.	Arithmetic operations	T1	14-17	BB	1	2
3.	Binary Codes	T1	17-24	BB	1	3
4.	Boolean Algebra and Theorems	T1 R2	34-41 37-52	BB	1	4
5.	Boolean functions	T1	42-45	BB	1	5
6.	Simplification of Boolean functions using Karnaugh map	T1 R2	46-53 67-86 134-151	BB	1	6
7.	Tabulation methods (or) Quine McClusky Method.	R2 R3	167-183 166-173	BB	1	7
8.	Logic gates	T1	55-60	BB	1	8
9.	NAND and NOR Implementations.	T1	87-98	PPT	1	9

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Use various number conversions and arithmetic operations.
- Demonstrate the Logic gates using NAND NOR implementation.
- Realize Quine - Mc Cluskey method of minimization
- Identify the minimum boolean expressions using Karnaugh map.

**UNIT II****COMBINATIONAL LOGIC****(9)**

10.	Combinational Circuits – Analysis Procedures.	T1	135-138	BB	1	10
11.	Combinational Circuits – Design Procedures.	T1	139-143	BB	1	11
12.	Circuits for Arithmetic Operations	T1	143-159	BB	1	12
13.	Code Conversion	R1	140-148	BB	2	14
14.	Decoders and Encoders	T1	162-167	BB	1	15
15.	Multiplexers and Demultiplexers	T1 W2	168-173	PPT	1	16
16.	Introduction to HDL	T1	174-175	BB	1	17
17.	HDL Models of Combinational circuits.	T1	175-188	BB	1	18

**LEARNING OUTCOME**

At the end of unit, students should be able to

- State the working of combinational circuits such as adder, subtractor etc.,
- Gain knowledge on multiplexer & demultiplexer
- Explain the conversions behind code converters
- Develop VHDL coding for combinational circuits.

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT III SYNCHRONOUS SEQUENTIAL LOGIC</b>						<b>(9)</b>
18.	Sequential Circuits	T1	197-198	BB	2	20
19.	Latches and Flip Flops	T1 R2 W3	199-209 331-351	NPTEL	1	21
20.	Sequential Circuits Analysis Procedures	T1 W4	210-220	PPT	1	22
21.	Sequential Circuits Design Procedures	T1	238-247	BB	1	23
22.	State Reduction and State Assignment	T1	233-246	BB	1	24
23.	Shift Registers	T1	253-267	BB	1	25
24.	Counters	T1 R2 W5	268-292 389-395	NPTEL	1	26
25.	HDL for Sequential Logic Circuits.	T1	221-232	BB	1	27

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Design sequential circuits using various flip flops.
- Describe and compare the shift registers.
- Analyze the functioning of synchronous Mod counters.
- Compare combinational and sequential circuits.

<b>UNIT IV ASYNCHRONOUS SEQUENTIAL LOGIC</b>						<b>(9)</b>
26.	Analysis of Asynchronous Sequential Circuits	T1 R3	435-450 371-381	PPT	2	29
27.	Design of Asynchronous Sequential Circuits	T1	451-456	PPT	2	31
28.	Reduction of State and Flow Tables	T1	457-464	BB	2	33
29.	Race-free State Assignment	T1 R3	464-468 468-477	BB	2	36
30.	Hazards.	T1	469-474	BB	1	36

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Design the fundamental mode and pulse mode circuits.
- Compare synchronous and asynchronous sequential circuits.
- Understand the concept of hazard free switching circuits.
- Write the VERILOG coding for combinational circuits and sequential circuits

<b>UNIT V MEMORY AND PROGRAMMABLE LOGIC</b>						<b>(9)</b>
31.	RAM Organization	T1 W6	308-313	PPT	1	37
32.	ROM Organization	T1 W6	322-327	PPT	1	38

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT III SYNCHRONOUS SEQUENTIAL LOGIC (9)</b>						
18.	Sequential Circuits	T1	197-198	BB	2	20
19.	Latches and Flip Flops	T1 R2 W3	199-209 331-351	NPTEL	1	21
20.	Sequential Circuits Analysis Procedures	T1 W4	210-220	PPT	1	22
21.	Sequential Circuits Design Procedures	T1	238-247	BB	1	23
22.	State Reduction and State Assignment	T1	233-246	BB	1	24
23.	Shift Registers	T1	253-267	BB	1	25
24.	Counters	T1 R2 W5	268-292 389-395	NPTEL	1	26
25.	HDL for Sequential Logic Circuits.	T1	221-232	BB	1	27

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Design sequential circuits using various flip flops.
- Describe and compare the shift registers.
- Analyze the functioning of synchronous Mod counters.
- Compare combinational and sequential circuits.

<b>UNIT IV ASYNCHRONOUS SEQUENTIAL LOGIC (9)</b>						
26.	Analysis of Asynchronous Sequential Circuits	T1 R3	435-450 371-381	PPT	2	29
27.	Design of Asynchronous Sequential Circuits	T1	451-456	PPT	2	31
28.	Reduction of State and Flow Tables	T1	457-464	BB	2	33
29.	Race-free State Assignment	T1 R3	464-468 468-477	BB	2	36
30.	Hazards.	T1	469-474	BB	1	36

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Design the fundamental mode and pulse mode circuits.
- Compare synchronous and asynchronous sequential circuits.
- Understand the concept of hazard free switching circuits.
- Write the VERILOG coding for combinational circuits and sequential circuits

<b>UNIT V MEMORY AND PROGRAMMABLE LOGIC (9)</b>						
31.	RAM Organization	T1 W6	308-313	PPT	1	37
32.	ROM Organization	T1 W6	322-327	PPT	1	38

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
33.	Memory Decoding	T1	314-318	BB	1	39
34.	Error Detection and Correction	T1	319-322	BB	1	40
35.	Programmable Logic Array	T1 W7	328-332	BB	1	41
36.	Programmable Array Logic	T1 W7	332-335	BB	1	42
37.	Sequential Programmable Devices	T1	336-350	BB	2	44
38.	Application Specific Integrated Circuits.	R1 W8	440-445	PPT	1	45

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Analyze and compare the functioning of memories.
- Explain the concept of memory decoding.
- Outline knowledge on Programmable Logic devices.
- Describe the developments of Application specific integrated circuits (ASIC)

**COURSE OUTCOME**

At the end of the course, the students will be able to

- Perform arithmetic operations in any number system.
- Simplify the Boolean expression using K-Map and Tabulation techniques.
- Use boolean simplification techniques to design a combinational hardware circuit.
- Design and Analysis of a given digital circuit – combinational and sequential.
- Design using PLD.

**CONTENT BEYOND THE SYLLABUS**

1. Study of Field Programmable Gate Array system.

**INTERNAL ASSESSMENT DETAILS**

ASST. NO.	I	II	III	MODEL
Topic Nos.	1-13	14-25	26-38	1-38
Date				

**ASSIGNMENT DETAILS**

ASSIGNMENT	I	II	III
Topic Nos. for reference	1-13	14-25	26-38
Deadline			



B1 - (Roll.no:01 to 14) - (Theory Assignments)

B2 - (Roll.no:15 to 28) - (Theory Assignments)

B3 - (Roll.no:29 to 42) - (Assignment-I & II -Theory Assignments & Assignment -III-APH)

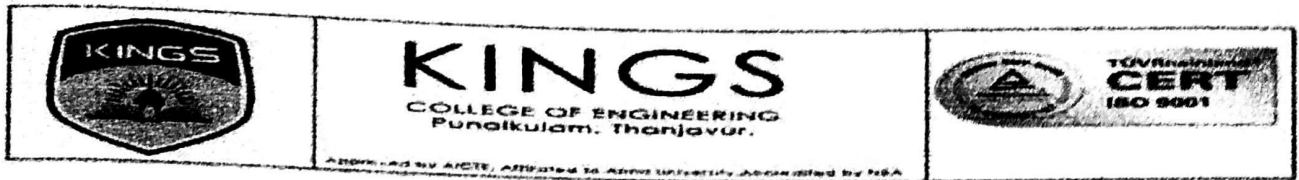
BATCH	ASSIGNMENT I	ASSIGNMENT II	ASSIGNMENT III
<b>Descriptive Questions</b>			
<b>B1</b>	<p>1. (i) Minimize the following logic function using K-map and realize using NAND and NOR gates. <math>F(A,B, C, D) = \sum m(1, 3, 5, 8, 9, 11, 15) + d(2,13)</math>.</p> <p>(ii) Using Quine - Mc Cluskey method simplify the given Boolean function.  <math>F(A,B,C,D)=\sum m(0,2,3,5,7, 11,13,14)</math>.</p>	<p>1.(i)Implement the following function using suitable multiplexer:  <math>F(A,B,C,D)=\sum m(1,3,4,11,12,13,14,15)</math></p> <p>(ii) Implement the following function using 8 : 1 multiplexer.  <math>F(A,B,C,D)=A'BD' + ACD + B'CD + A'C'D</math>.</p> <p>(iii) Write the VHDL coding for a Mux &amp; Demux.</p>	<p>1.(i) Explain the steps for the design of asynchronous sequential circuits with an example.</p> <p>(ii) Explain in detail about the types of hazards in digital circuits.</p>
<b>B2</b>	<p>2. (i) Simplify the following Boolean function using Quine-McClusky method  <math>F = (A, B, C, D, E, F)= \sum m(0, 5, 7, 8,9, 12, 13, 23, 24, 25, 28, 29, 37, 40, 42, 44, 46, 55, 56, 57, 60, 61)</math>.</p> <p>(ii) Simplify the Boolean function using SOP and POS: <math>F(w,x,y,z) = \sum m(0,1,2,5,8,9,10)</math>  Implement using gates.</p>	<p>2.(i) Implement the following Boolean function using multiplexers:  <math>F(A,B,C,D)=\sum m(0,1,3,4,8,9, 15)</math>.</p> <p>(ii) Design a 3 bit synchronous counter using RS flip-flops.</p> <p>(ii) Design a synchronous MOD-6 counter using any Flip flop.</p>	<p>2. (i) Discuss in detail about the races and cycles.</p> <p>(ii) Implement the following function using PLA:  <math>A(x,y,z)=\sum m(1,2,4,6)</math>;  <math>B(x,y,z) = \sum m(0,1,6,7)</math>;  <math>C(x,y,z)=\sum m(2,6)</math></p>
<b>B3</b>	<p>3. (i) Explain the operation of half Adder, full adder , half subtractor &amp; full subtractor.</p> <p>(ii) Design a code converter that converts a binary code to GRAY code.</p>	<p>3. (i) Design a MOD-10 / decade synchronous counter using JK flip-flop. Write excitation table and state table.</p> <p>(ii) Design a synchronous counter which counts in the sequence 000, 001, 010, 011, 100, 101, 110, 111,000 using D flip-flop .</p>	<p>3.(i) Write explanatory notes on RAM organization.</p> <p>(ii) Design a BCD to Excess 3 code converter and implement using suitable PLA .</p> <p>(iii) Explain in detail about hazards. (APH)</p>

*C. Vennila*  
18/11/16  
Prepared by  
Mrs.D.Vennila

*[Signature]*  
21/11  
Approved by  
PRINCIPAL

*J. [Signature]*  
18/11/16  
Verified by  
HOD/ECE





**DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**

**SUBJECT : DIGITAL ELECTRONICS**

*(version:2)*

**SEMESTER : III**

**PREPARED BY**

**Mr. R.THANDAYUTHAPANI / ECE**

**Mrs. D. VENNILA / ECE**

**EC6302****DIGITAL ELECTRONICS****L T P C  
3 0 0 3****UNIT I MINIMIZATION TECHNIQUES AND LOGIC GATES****9**

Minimization Techniques: Boolean postulates and laws - De-Morgan's Theorem - Principle of Duality - Boolean expression - Minimization of Boolean expressions -- Minterm - Maxterm - Sum of Products (SOP) - Product of Sums (POS) - Karnaugh map Minimization - Don't care conditions - Quine - Mc Cluskey method of minimization. Logic Gates: AND, OR, NOT, NAND, NOR, Exclusive-OR and Exclusive-NOR Implementations of Logic Functions using gates, NAND-NOR implementations - Multi level gate implementations- Multi output gate implementations. TTL and CMOS Logic and their characteristics - Tristate gates

**UNIT II COMBINATIONAL CIRCUITS****9**

Design procedure - Half adder - Full Adder - Half subtractor - Full subtractor - Parallel binary adder, parallel binary Subtractor - Fast Adder - Carry Look Ahead adder - Serial Adder/Subtractor - BCD adder - Binary Multiplier - Binary Divider - Multiplexer/ Demultiplexer - decoder - encoder - parity checker - parity generators - code converters - Magnitude Comparator.

**UNIT III SEQUENTIAL CIRCUITS****9**

Latches, Flip-flops - SR, JK, D, T, and Master-Slave - Characteristic table and equation -Application table - Edge triggering - Level Triggering - Realization of one flip flop using other flip flops - serial adder/subtractor- Asynchronous Ripple or serial counter - Asynchronous Up/Down counter - Synchronous counters - Synchronous Up/Down counters - Programmable counters - Design of Synchronous counters: state diagram- State table -State minimization -State assignment - Excitation table and maps-Circuit implementation - Modulo-n counter, Registers - shift registers - Universal shift registers - Shift register counters - Ring counter - Shift counters - Sequence generators.

**UNIT IV MEMORY DEVICES****9**

Classification of memories - ROM - ROM organization - PROM - EPROM - EEPROM -EAPROM, RAM - RAM organization - Write operation - Read operation - Memory cycle - Timing wave forms -

Memory decoding – memory expansion – Static RAM Cell- Bipolar RAM cell – MOSFET RAM cell – Dynamic RAM cell – Programmable Logic Devices – Programmable Logic Array (PLA) – Programmable Array Logic (PAL) – Field Programmable Gate Arrays (FPGA) – Implementation of combinational logic circuits using ROM, PLA, PAL

**UNIT V      SYNCHRONOUS AND ASYNCHRONOUS SEQUENTIAL CIRCUITS      9**

Synchronous Sequential Circuits: General Model – Classification – Design – Use of Algorithmic State Machine – Analysis of Synchronous Sequential Circuits, Asynchronous Sequential Circuits: Design of fundamental mode and pulse mode circuits – Incompletely specified State Machines – Problems in Asynchronous Circuits – Design of Hazard Free Switching circuits. Design of Combinational and Sequential circuits using VERILOG.

**TOTAL: 45 PERIODS**

1. 
2. 

**SIGNATURE OF STAFF INCHARGE**

1. **Mr.R.Thandayuthapani**
2. **Mrs. D. Vennila**

  
**HOD/ECE**



**KINGS**  
COLLEGE OF ENGINEERING  
Pudukulam, Thanjavur.



**CERT**  
ISO 9001

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**COURSE PLAN**

<b>Sub. Code</b>	: EC6302	<b>Branch / Year / Sem</b>	: B.E ECE / II / III
<b>Sub.Name</b>	: Digital Electronics	<b>Batch</b>	: 2015-2019
<b>Staff Name</b>	: Mr. R.Thandayuthapani Mrs. D.Vennila	<b>Academic Year</b>	: 2016-17 (ODD)

**COURSE OBJECTIVE**

1. To introduce basic postulates of Boolean algebra and shows the correlation between Boolean expressions.
2. To introduce the methods for simplifying Boolean expressions.
3. To outline the formal procedures for the analysis and design of combinational circuits and sequential circuits.
4. To introduce the concept of memories and programmable logic devices.
5. To illustrate the concept of synchronous and asynchronous sequential circuits.

**TEXT BOOKS**

**T1:** M. Morris Mano, "Digital Design", 4th Edition, Prentice Hall of India Pvt. Ltd., 2008 / Pearson Education (Singapore) Pvt. Ltd., New Delhi, 2003..

**REFERENCE BOOKS**

- R1:** J.S Katre and G.C.Patil, "Digital electronics", Macmillan Publishers India Ltd, 2011.  
**R2:** John.M Yarbrough, "Digital Logic Applications and Design", Thomson Learning, 2006.  
**R3:** Charles H.Roth. "Fundamentals of Logic Design", 6th Edition, Thomson Learning, 2013.

**WEB RESOURCES**

- W1.** <http://www.ee.surrey.ac.uk/Projects/Labview/minimisation/tabular.html>  
(Topic. No: 05)  
**W2.** [www.circuitstoday.com/half-adder-and-full-adder](http://www.circuitstoday.com/half-adder-and-full-adder) (Topic.No:10)  
**W3.** [www.cs.uwec.edu/~ernstdj/courses/cs278/.../cs278\\_implementation.ppt](http://www.cs.uwec.edu/~ernstdj/courses/cs278/.../cs278_implementation.ppt)  
(Topic.No:26, 27)  
**W4.** [www.comp.nus.edu.sg/~cs1104/oldlect/cs1104-13.ppt](http://www.comp.nus.edu.sg/~cs1104/oldlect/cs1104-13.ppt)  
(Topic.No:31)  
**W5.** [www-inst.eecs.berkeley.edu/~cs150/sp06/Lectures/FPGA\\_Lec.ppt](http://www-inst.eecs.berkeley.edu/~cs150/sp06/Lectures/FPGA_Lec.ppt)  
(Topic.No:32)  
**W6.** [nptel.ac.in/video.php?subjectId=117106086](http://nptel.ac.in/video.php?subjectId=117106086) (Topic.No:19)  
**W7.** [onlinevideolecture.com/index.php?course\\_id=366&lecture\\_no=20](http://onlinevideolecture.com/index.php?course_id=366&lecture_no=20) (Topic.No:23)  
**W8.** <http://freevideolectures.com/Course/2310/Digital-Circuits-and-Systems/24>  
(Topic.No:35)

*Verified  
19/08/16*

FORMAT : QP09

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>UNIT I MINIMIZATION TECHNIQUES AND LOGIC GATES (9)</b>						
1.	Boolean postulates and laws, De-Morgan's Theorem, Principle of Duality	R1 T1	2.1-2.13 33-40	BB	1	1
2.	Boolean expression, Minimization of Boolean expressions	T1	98-100	BB	1	2
3.	Minterm, Maxterm, Sum of Products (SOP), Product of Sums (POS)	T1	46-50	BB	1	3
4.	Karnaugh map Minimization, Don't care conditions.	T1	67-80	BB	1	4
5.	Quine - Mc Cluskey method of minimization	R1 W1	3.82- 3.111	BB	1	5
6.	AND, OR, NOT, NAND, NOR, Exclusive-OR and Exclusive-NOR Implementations of Logic Functions using gate	R1	2.32- 2.65 3.62- 3.67	BB	1	6
7.	NAND-NOR implementations.	R1	3.79- 3.82	BB	1	7
8.	Multi level gate & Multi output gate implementations.	R1	3.111- 3.116	BB	1	8
9.	TTL and CMOS Logic and their characteristics, Tristate gates	T1 R1	496-518 4.1-4.67	PPT	1	9
<b>LEARNING OUTCOME</b>						
At the end of unit, students should be able to						
<ul style="list-style-type: none"> <li>Describe TTL and CMOS Logic characteristics.</li> <li>Realize Quine - Mc Cluskey method of minimization.</li> <li>Identify the Minimum Boolean expressions using Karnaugh map.</li> </ul>						
<b>UNIT II COMBINATIONAL CIRCUITS (9)</b>						
10.	Design procedure - Half adder, Full Adder	T1 W2	143-146	BB	1	10
11.	Half subtractor, Full subtractor	T1	150-152	BB	1	11
12.	Parallel binary adder	R1	5.21- 5.23	BB	1	12
13.	Parallel binary Subtractor	R1	5.28- 5.30	BB	1	13
14.	Fast Adder, Carry Look Ahead adder, Serial Adder/Subtractor	R1	5.23- 5.28	PPT	1	14

Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
15.	BCD adder, Binary Multiplier & Divider	R1	5.30-5.35	BB	1	15
16.	Multiplexer & Demultiplexer, Decoder, Encoder	T1	131-132			
		R1	5.40-5.119	BB	1	16
		R3	223-227			
17.	Parity checker, Parity generators	R1	5.119-5.126	BB	1	17
18.	Code Converters, Magnitude Comparator	T1	140-142	BB	1	18

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Outline knowledge on Multiplexer & Demultiplexer
- Explain the conversions behind Code converters
- State the working of Parity checker & Parity generators

**UNIT III****SEQUENTIAL CIRCUITS****(9)**

19.	Latches, Flip-flops - SR, JK, D, T, and Master-Slave, Characteristic table and equation, Application table	R3 W6	269-284	BB NPTEL (VIDEO)	2	20
20.	Edge triggering - Level Triggering	T1	203-206	PPT	1	21
21.	Realization of one flip flop using other flip flops	R1	6.43-6.53	BB	1	22
22.	serial adder/subtractor, Asynchronous Ripple or serial counter, Asynchronous Up/Down counter	R1	7.1-7.14, 7.25-7.29	BB	2	24
23.	Synchronous counters, Synchronous Up/Down counters, Programmable counters	R1 W7	7.29-7.80	BB NPTEL (VIDEO)	1	25
24.	Design of Synchronous counters: state diagram- State table, State minimization, State assignment, Excitation table and maps	R1	6.64-6.85	BB	1	26
25.	Circuit implementation, Modulo-n counter, Registers, shift registers, Universal shift registers, Shift register counters, Ring counter, Shift counters, Sequence generators.	R1	7.14-7.25	BB	1	27



Topic No	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Design sequential circuits using various flip flops.</li> <li>Describe and Compare the shift registers.</li> <li>Analyze &amp; Compare the functioning of Synchronous counters with Asynchronous counters</li> </ul>						
<b>UNIT IV MEMORY DEVICES (9)</b>						
26.	Classification of memories, ROM, ROM organization, PROM, EPROM, EEPROM, EAPROM	T1 R2 W3	270-276 485-491	PPT	1	28
27.	RAM, RAM organization, Write operation, Read operation	T1 W3	255-267	PPT	1	29
28.	Memory cycle, Timing wave forms, Memory decoding, memory expansion	T1		BB	1	30
29.	Static RAM Cell, Bipolar RAM cell, MOSFET RAM cell, Dynamic RAM cell	R1	9.29-9.35	BB	2	32
30.	Programmable Logic Devices, Programmable Logic Array (PLA)	T1 R2	276-280 495-498	BB	1	33
31.	Programmable Array Logic (PAL), Implementation of combinational logic circuits using ROM, PLA, PAL	T1 R1	280-283 10.34-10.56	BB	2	35
32.	Field Programmable Gate Arrays (FPGA)	R2 W4	534-543	BB	1	36
<b>LEARNING OUTCOME</b> At the end of unit, students should be able to <ul style="list-style-type: none"> <li>Analyze &amp; Compare the functioning of memories</li> <li>Outline knowledge on Programmable Logic devices.</li> <li>Describe the developments of Field Programmable Gate Arrays (FPGA)</li> </ul>						
<b>UNIT V SYNCHRONOUS AND ASYNCHRONOUS SEQUENTIAL CIRCUITS (9)</b>						
33.	General Model, Classification	R1	11.1-11.1	PPT	1	37
34.	Design, Use of Algorithmic State Machine	T1	299-310	BB	1	38
35.	Analysis of Synchronous Sequential Circuits	R1 W8	11.11-11.34	BB	1	39
36.	Design of fundamental mode and pulse mode circuits	R1	12.1-12.44	BB	1	40

Topic No.	Topic	Books for Reference	Page No.	Teaching Methodology	No. of Hours Required	Cumulative No. of periods
37.	Incompletely specified State Machines, Problems in Asynchronous Circuits	T1	342-379	BB	2	42
38.	Design of Hazard Free Switching circuits	T1	342-379	BB	1	43
39.	Design of Combinational and Sequential circuits using VERILOG.	R1	13.1-13.22	BB	2	45

**LEARNING OUTCOME**

At the end of unit, students should be able to

- Write the VERILOG coding for Combinational circuits and Sequential circuits
- Design the fundamental mode and pulse mode circuits
- Describe the technology behind Hazard Free Switching circuits

**COURSE OUTCOME**

At the end of the course, the students will be able to

- Analyze the working of various memory devices like RAM, ROM, EPROM and EEPROM.
- Outline knowledge on Digital integrated circuits
- Describe and Compare various counters
- State and Explain the design of sequential circuits

**CONTENT BEYOND THE SYLLABUS**

1. Study of Advanced Field Programmable Gate Array system.

**INTERNAL ASSESSMENT DETAILS**

ASST. NO.	I	II	MODEL
Topic Nos.	1-14	15-25	1-39
Date			

**ASSIGNMENT DETAILS**

ASSIGNMENT	I	II	III
Topic Nos. for reference	1-14	1-39	1-39
Deadline			

B1 - (Roll.no:01 to 15) - (Theory Assignments)

B2 - (Roll.no:16 to 30) - (Assignment-I &amp; III - Theory Assignments &amp; Assignment -II-APH)

B3 - (Roll.no:31 to 46) - (Theory Assignments)

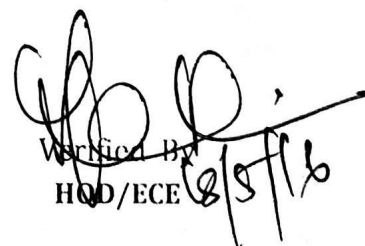
BATCH	ASSIGNMENT I	ASSIGNMENT II	ASSIGNMENT III
<b>Descriptive Questions</b>			
B1	<p>1. (i) Minimize the following logic function using K-maps and realize using NAND and NOR gates. <math>F(A,B, C, D) = \sum m(1, 3, 5, 8, 9, 11, 15) + d(2,13)</math>.</p> <p>(ii) Using quine mcclusky method simplify the given function. <math>F(A,B,C,D)=\sum m(0, 2,3,5,7,11,13,14)</math>.</p>	<p>1.(i) Implement the following function using suitable multiplexer. <math>F(A,B,C,D)=\sum(1,3,4,11,12,13,14,15)</math></p> <p>(ii) Draw the block schematic of Magnitude Comparator and explain its operations.</p> <p>(iii) Design a 3:8 decoder using basic gates.</p>	<p>1. (i) Explain the read and write cycle timing parameters of RAM cell with the help of timing diagram.</p> <p>(ii) Draw the static &amp; Dynamic RAM cell and explain its operation.</p>
B2	<p>2. (i) Explain in detail about Schottky TTL.</p> <p>(ii) Explain the operation of a CMOS inverter. Also explain its characteristics.</p>	<p>2.(i) Design a 3 bit synchronous counter using various flip-flops.</p> <p>(ii) Explain the operation of synchronous MOD-6 counter using Flip flop. (APH)</p>	<p>2. (i) Design a BCD to Excess 3 Converter using PLA.</p> <p>(ii) Describe about the implementation of Boolean function using PAL.</p>
B3	<p>3. (i) Explain the operation of Full Adder &amp; Full subtractor.</p> <p>(ii) Describe about carry look ahead adder with necessary diagrams.</p> <p>(iii) Explain the block diagram of a 4-bit parallel adder / Subtractor</p>	<p>3. (i) Explain in detail about the operation of a 4 bit binary ripple counter.</p> <p>(ii) Design a synchronous counter for 4-&gt;6-&gt;7-&gt;3-&gt;1-&gt;-----4 avoid lockout condition, use JK type design.</p> <p>(iii) Explain in detail about the minimization procedure of state diagram.</p>	<p>3.(i) Write Explanatory notes on Algorithmic State Machines.</p> <p>(ii) Design a T flip flop using logic gates and Derive the state table, state diagram, primitive flow table, transition table and Merger graph. Draw the logic circuit</p> <p>(iii) Explain in detail about hazards?</p>

1. R. 2. D. Vennila  
18/5/16

Prepared by

Mr.R.Thandayuthapani

Mrs.D.Vennila

Approved by  
PRINCIPAL  
Verified By  
HOD/ECE 18/5/16



**PROMOTION OF ICT  
(VIRTUAL LAB SESSIONS,  
NPTEL SESSIONS FOR  
COURSES)**



## INTERNAL QUALITY ASSURANCE CELL

### 6.5.2 VIRTUAL LAB SESSION EXECUTION REPORT



### VIRTUAL LAB SESSION EXECUTION SUMMARY

S.No	Name of the Department	2020-2021	2019-2020	2018-2019	2017-2018
		No.of Courses	No.of Courses	No.of Courses	No.of Courses
1.	CIVIL	07	05	05	02
2.	CSE	02	04	03	02
3.	ECE	04	04	04	02
4.	EEE	01	02	00	01
5.	MECH	02	02	00	01
TOTAL		16	17	12	08

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S NO	DESCRIPTION	Page No
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2	Academic Year : 2019-2020	24-42
3	Academic Year : 2018-2019	43-57
4	Academic Year : 2017-2018	58-68



# **ACADEMIC YEAR 2020-2021**



**DEPARTMENT OF CIVIL ENGINEERING  
ACADEMIC YEAR 2020-2021 (ODD SEMESTER)  
VIRTUAL LAB SESSIONS**

**25.01.2021**

**Background & Objective:**

Department of Civil Engineering has conducted Virtual lab sessions for II year, III year & IV Year civil students during the academic year 2020-21 (Odd Semester). Laboratories are the important environment for students learning, where students get hands on training. During the pandemic period, Virtual labs play a major role in providing remote-access to the laboratories for the students. This would help in learning basic and advanced concepts through remote experimentation even during the pandemic situation as well as the teaching learning process can be excelled.

**Virtual Lab Sessions:**

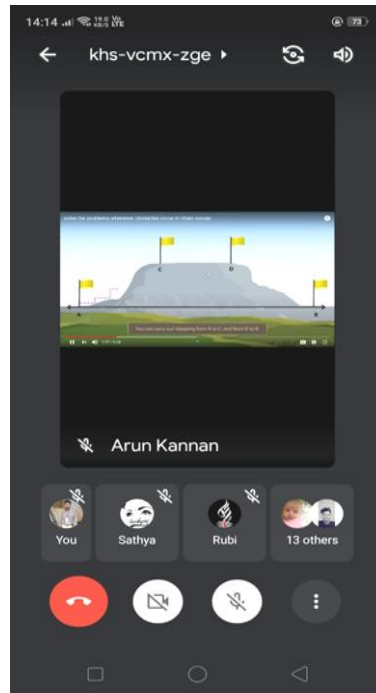
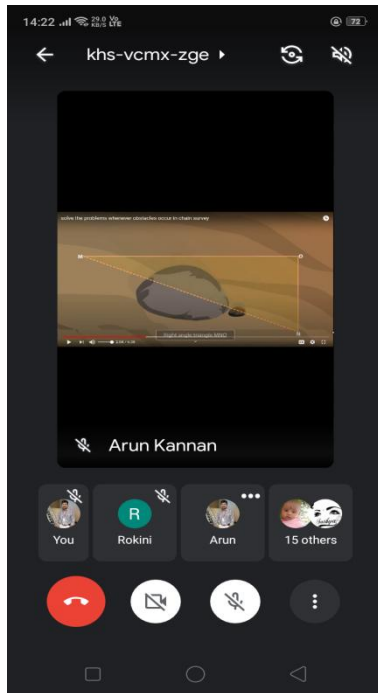
For II Year civil students virtual lab sessions were conducted on Construction Materials laboratory and Surveying Laboratory. It presents the laboratory aspects of this subject, in an imaginary way. Students have an opportunity to view before and after doing the experiment to gauge whether his or her understanding has increased, and to make the student more comfortable while doing experiments.

For III Year civil students virtual lab sessions were conducted on Soil Mechanics Laboratory and Water & Waste Water Analysis Laboratory. Soil properties are required to decide the building foundation. It is critical to quantify the various properties of water in order to predict its behaviour under different conditions for the safe design of treatment plants.

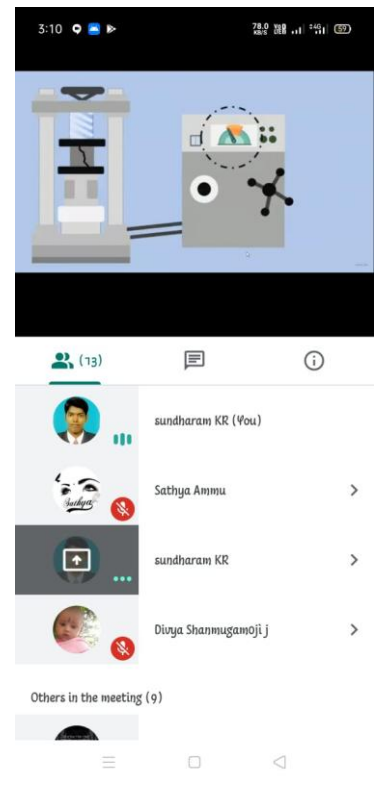
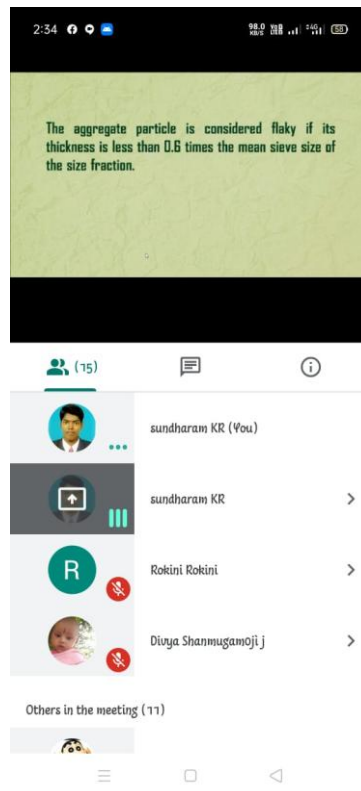
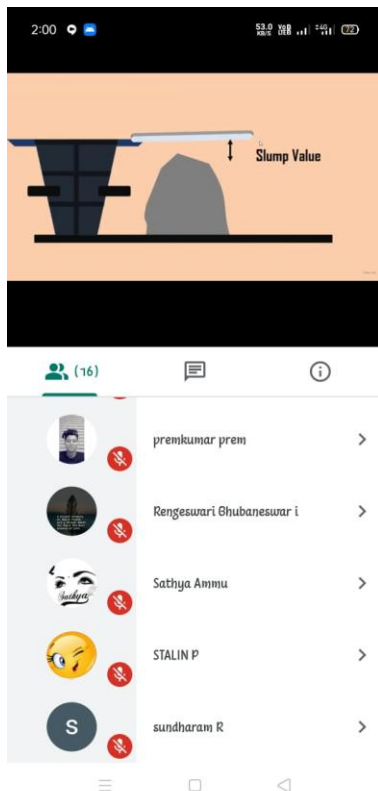
For IV Year civil students, in curriculum we have only project work. But virtual lab sessions were also conducted for them in order to enhance their laboratory skills. Virtual lab sessions were conducted on Strength of Materials Laboratory, Structural Dynamics laboratory and Transportation Engineering Laboratory.

S.NO	YEAR/SEM	LAB NAME	STAFF INCHARGE
1	II/III	Surveying Laboratory	Mr.K.Arun, AP/Civil
2	II/III	Construction Material Laboratory	Mr.R.Sundharam, AP/Civil
3	III/V	Waste Water Engineering laboratory	Ms.V.Ishwarya, AP/Civil
4	III/V	Soil Mechanics laboratory	Ms.M.Priya, AP/Civil
5	IV/VII	Structural Dynamics Lab	Mr.S.R.Elwin Guru Chanth, AP/Civil
6	IV/VII	Strength of Material lab	Ms.R.Revathi, HoD/Civil
7	IV/VII	Transportation Engineering Lab	Ms.K.Jeyashankari, AP/Civil

## II Yr Virtual Lab Sessions

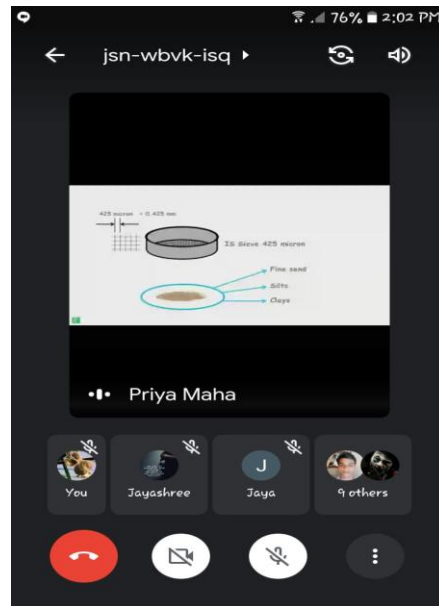
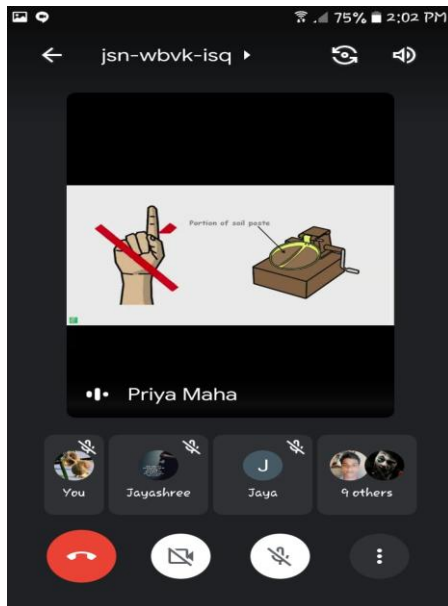


## Surveying Laboratory by Mr.K.Arun, AP/Civil

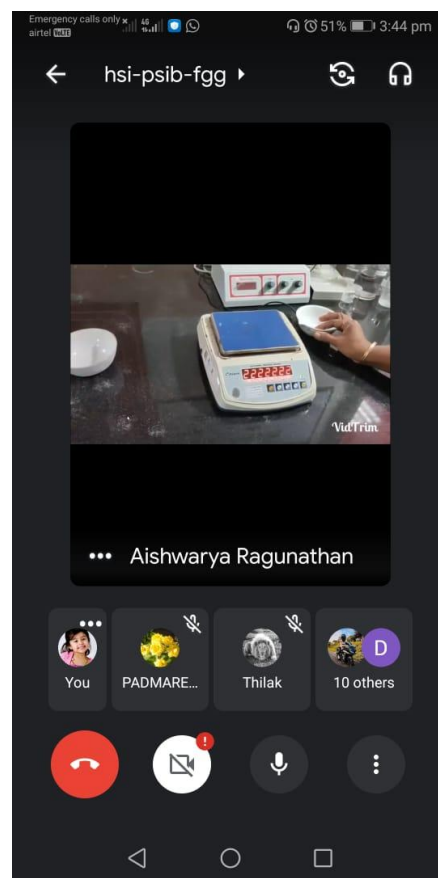
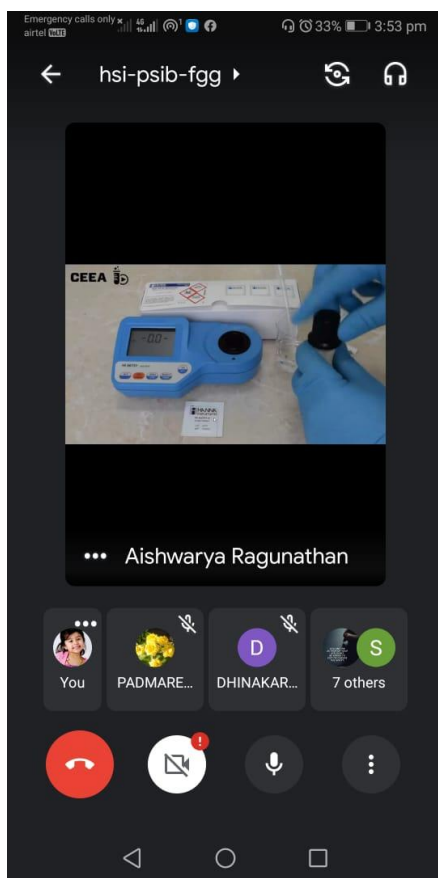


## Construction Materials Laboratory by Mr.R.Sundharam, AP/Civil

### III Yr Virtual Lab Sessions

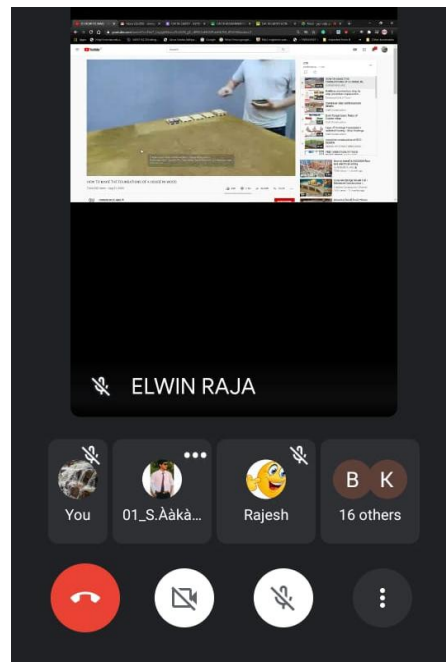
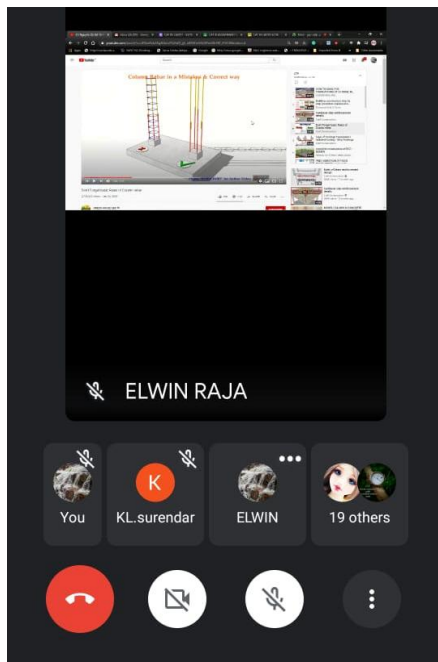


### **Soil Mechanics Laboratory by Ms.M.Priya, AP/Civil**

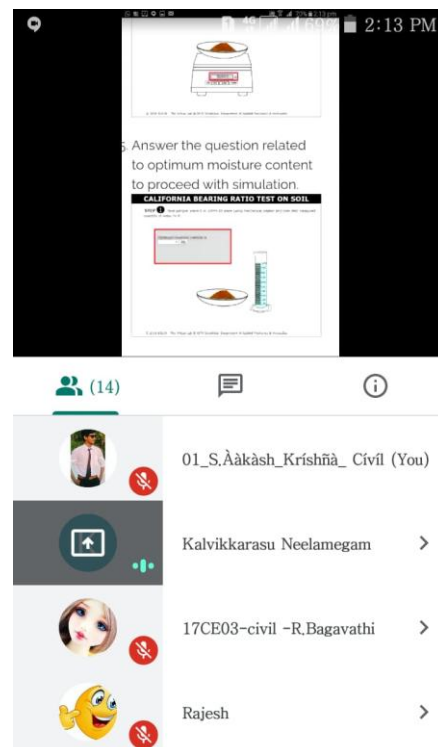
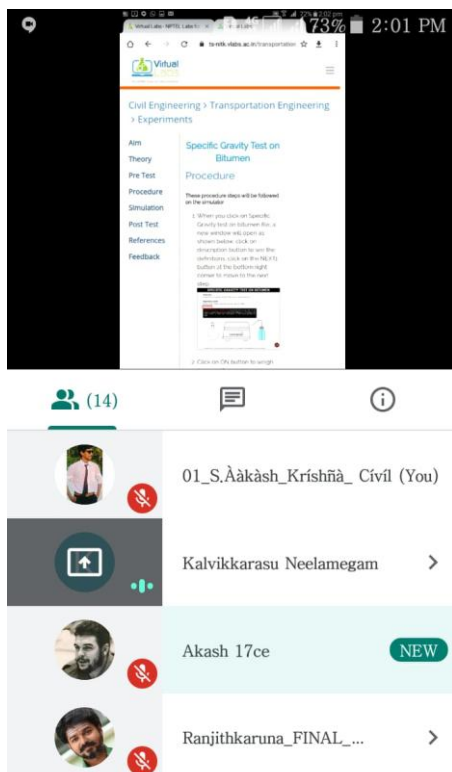


### **Water & Waste Water Analysis Laboratory by Ms.V.Ishwarya, AP/Civil**

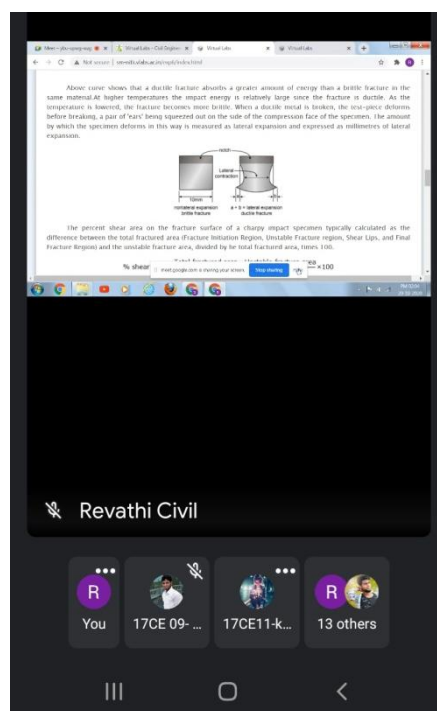
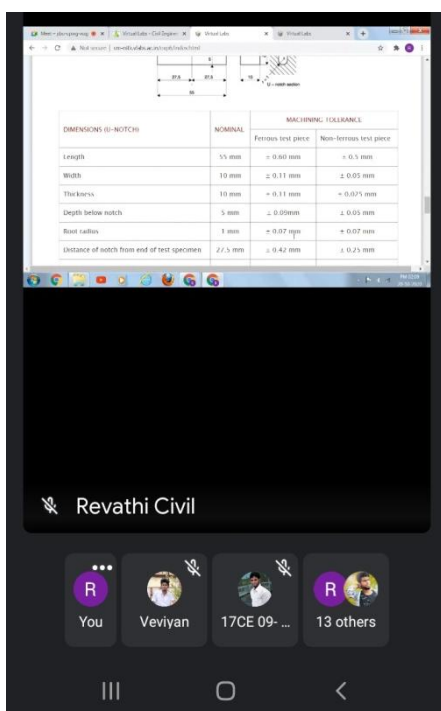
## IV Yr Virtual Lab Sessions



**Structural Dynamics Laboratory by Mr.S.R.Elwin Guru Chanth, AP/Civil**



**Transportation Engineering Laboratory by Ms.K.Jeyashankari, AP/Civil**



## Strength of Materials Laboratory by Ms.R.Revathi, HoD/Civil

### Outcome

- ❖ Virtual lab allows flexibility for the teacher who is not limited by using resources within a strict timeframe.
- ❖ Virtual Labs will be more effective and realistic because of providing additional inputs to the students like accompanying audio and video streaming of an actual lab experiment and equipment.
- ❖ The students can explore the experimental procedures prior to actually performing it in the laboratory, and are therefore being much more informed on what is to be done in the laboratory and what results to expect.
- ❖ The use of the virtual laboratory allows the students to exercise the same in numerous ways in the web which is not easily experimented in the traditional laboratory.
- ❖ Virtual lab showcase the content being taught, which will keep students interested, and provides a form of interaction that could not normally be easily conducted in the classroom.
- ❖ Students will easily understand the concepts and methods by virtually seeing the experiments instead of listening to lectures.
- ❖ Around 19 - II year, 28-III year & 39-IV Year civil students were benefited using virtual lab sessions.



12.05.2021

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**ACADEMIC YEAR 2020-21 (EVEN SEM)**  
**VIRTUAL LAB REPORT**  
**Inter process Communication**

**Objective**

- To enthuse students to conduct experiments by arousing their curiosity.
- To help them in learning basic and advanced concepts through remote experimentation
- To provide a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.

**Background & Objective:**

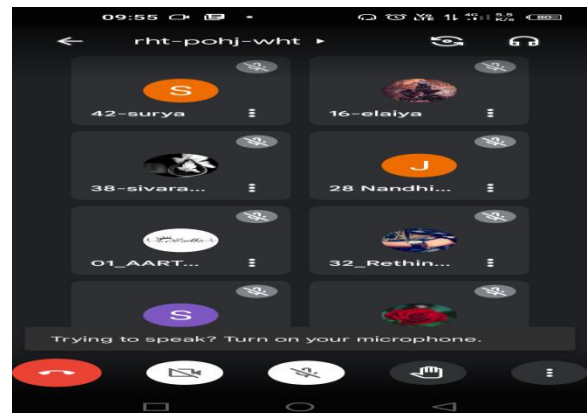
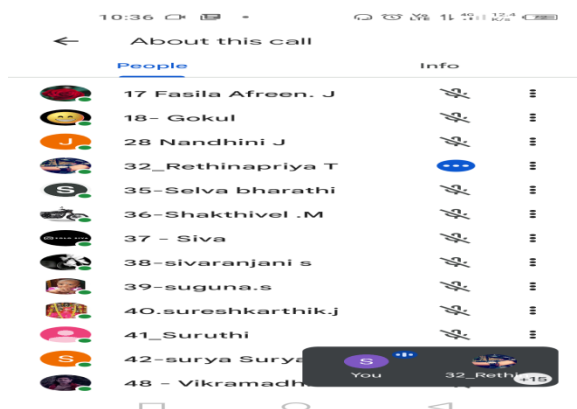
Department of CSE has conducted Virtual lab sessions for II year during the academic year 2020-21 (EVEN Semester). Laboratories are the important environment for students learning, where students get hands on training. During the pandemic period, Virtual labs play a major role in providing remote-access to the laboratories for the students.

**Date : 12.05.21 for CSE (No. of participants: 45)**

**Session coverage:**

- Processes-Process Concept ,
- Process Scheduling,
- Inter process Communication

**Photos**



**Virtual Lab Session on Inter process Communication for IV Year – 45 students were attended**

11.01.2021

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING ACADEMIC YEAR 2020-21 (ODD SEM) VIRTUAL LAB REPORT Sorting Techniques

### Background & Objective:

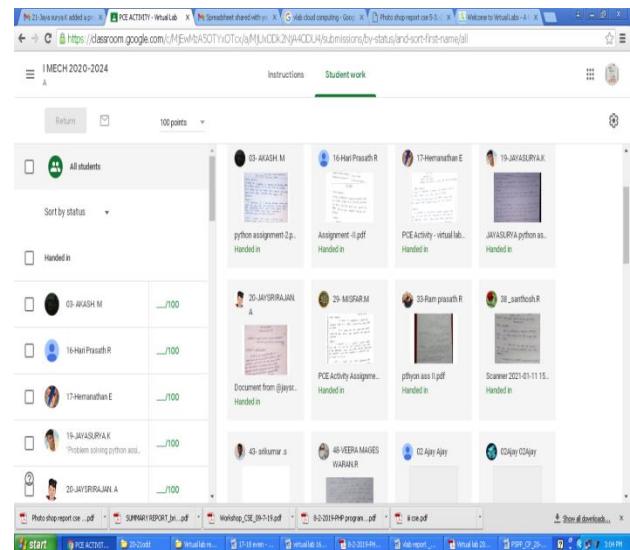
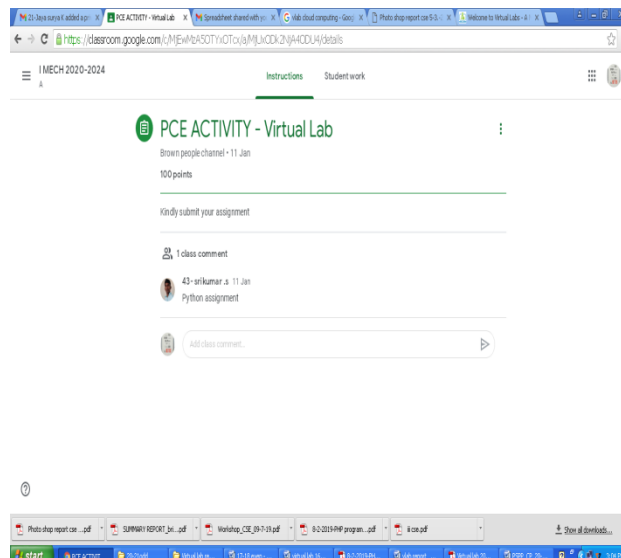
Department of CSE has conducted Virtual lab sessions for I year during the academic year 2020-21 (Odd Semester). Laboratories are the important environment for students learning, where students get hands on training. During the pandemic period, Virtual labs play a major role in providing remote-access to the laboratories for the students. This would help in learning basic and advanced concepts through remote experimentation even during the pandemic situation as well as the teaching learning process can be excelled.

**Date : 31.08.19 for I Year MECH (No. of participants: 45)**

### Session coverage:

- Selection sort
- Insertion sort
- Merge sort, Histogram

### Photos





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**KINGS**  
COLLEGE OF ENGINEERING  
Recognized under 2(f) & 12(B) of UGC  
Approved by AICTE, New Delhi  
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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**ACADEMIC YEAR (2020-2021) EVEN SEM**

# **REPORT ON VIRTUAL LAB SESSIONS**



## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING ACADEMIC YEAR (2020-2021) EVEN SEMESTER

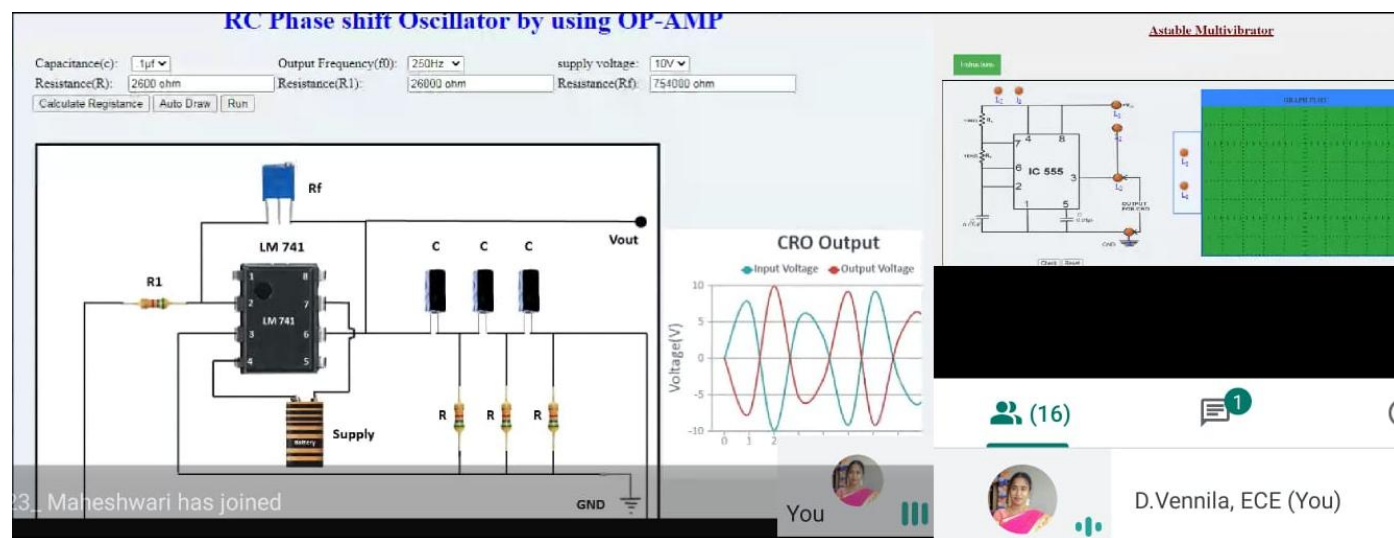
### REPORT ON VIRTUAL LAB SESSION

In KCE, department of Electronics and Communication Engineering, has organized a Virtual lab session for second and third year B.E-ECE students on 10-05-2021 (Monday) through Online mode.

The main objective of this lab session is to enrich our student learning by teaching them courses by implementation and performance features of a virtual lab environment for an electronic circuit's course. The primary purpose of the tool is to provide an environment that mimics some of the failure modes of a real lab, which aids the student in learning debugging techniques and to get familiarized with the usage of the tool for Electronic circuits applications.

**For second year students**, the virtual lab session was conducted in the title of “**Circuit design and simulation lab**” on **10-05-21 Afternoon session**. The topics covered under this title are RC phase shift oscillator, Wien bridge Oscillator, Hartley Oscillator, Colpitts Oscillator, Astable and Monostable multivibrators, Schmitt trigger circuit, Twin T Oscillator, Analysis of Power Amplifiers, Tuned collector Oscillator

Totally 40 students from II ECE have attended this lab session.





## BJT- CE INPUT CHARACTERISTICS

## INSTRUCTION

## EXPERIMENTAL TABLE

Serial No.	Collector-Emitter Voltage 2.500 V	Base-Emmitter Voltage V	Base Current( $\mu$ A)
1	0.02000	2.058	
2	0.2000	2.661	
3	0.1000	2.307	
4	0.5800	4.580	

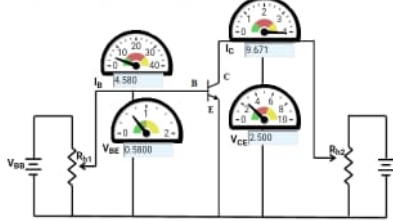
## CONTROLS

$R_{B1}$  Ohms 99  
 $R_{B2}$  Ohms 25

Add to Table Plot Clear

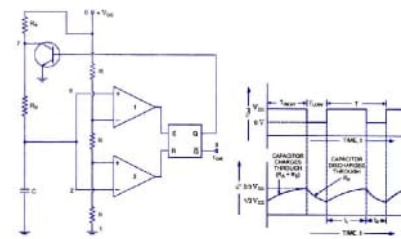
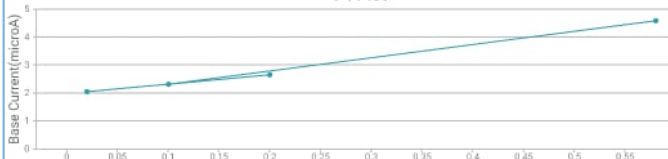
Print It

Take another sets of  
and Base Current reading  
another Collector-Em



## GRAPH PLOT

## V-I Plot



(16)

1

i



D.Vennila, ECE (You)



09\_Gayathri K

**Mrs. D.Vennila, AP/ECE handling the virtual lab session for II ECE students**

The screenshot shows a virtual lab session for a Wein bridge oscillator using an operational amplifier. The interface includes a circuit diagram, a graph plot, and a list of participants. The graph plot shows the output voltage (mV) versus time (t). The list of participants includes names like D.Vennila, ECE (You), 09\_Gayathri K, and others.

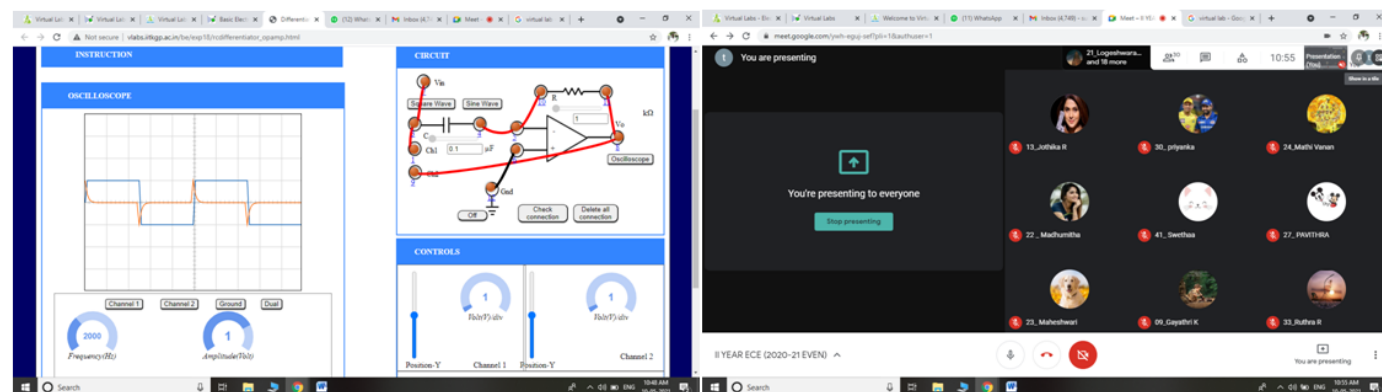
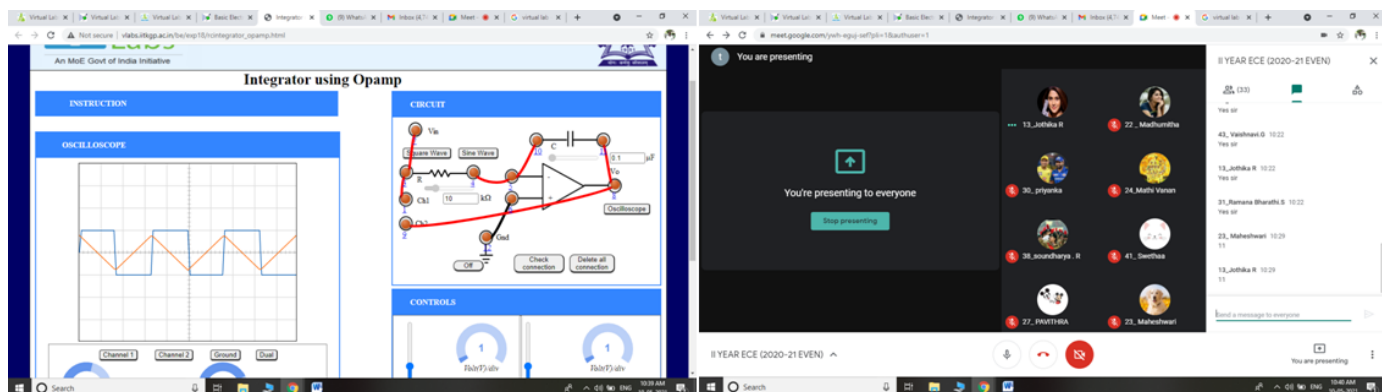
The screenshot shows a virtual lab session for a Wein bridge oscillator. The interface includes a circuit diagram, a graph plot, and an experimental table. The graph plot shows the output voltage (mV) versus time (t). The experimental table lists parameters like Resistance (K), Capacitance (F), and Frequency (Hz).

**Mrs.U. Jeyamalar, AP/ECE handling the virtual lab session for II ECE students**

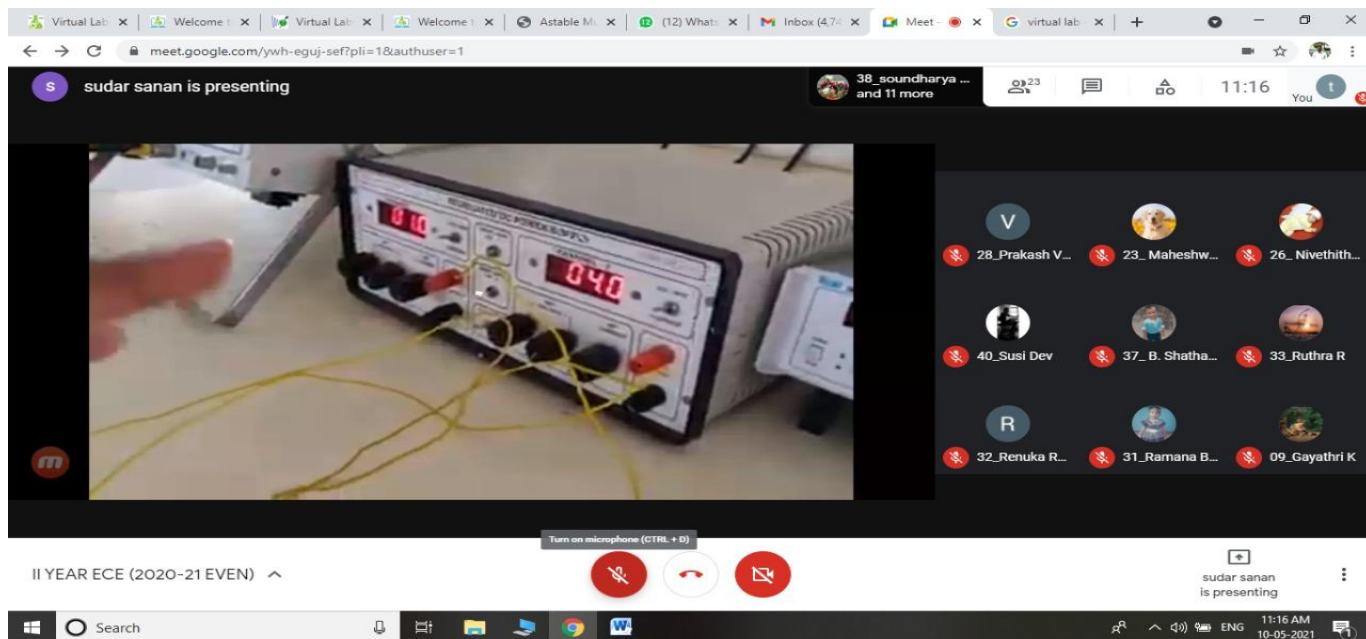


**For second year students**, the virtual lab session was conducted in the title of “**LIC lab**” on **10-05-21 Forenoon session**. The topics covered under this title are Inverting and Non inverting differential amplifiers, Integrator and Differentiator, Astable & Monostable Multivibrators using Op-amp, Frequency multiplier and Schmitt trigger circuit.

Totally 40 students from II ECE have attended this lab session.



*Mr. R.Thandayuthapani, AP/ECE handling the virtual lab session for II ECE students*

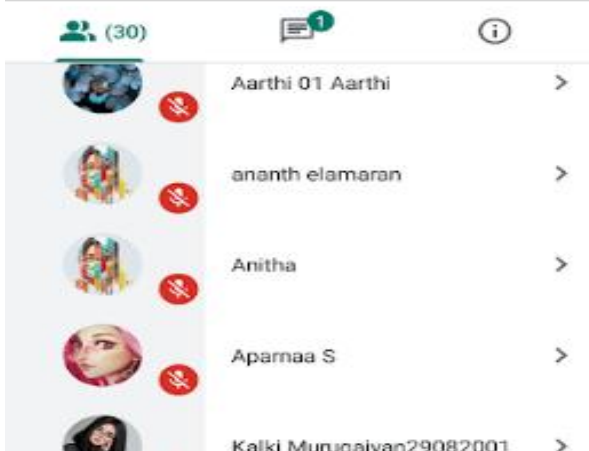
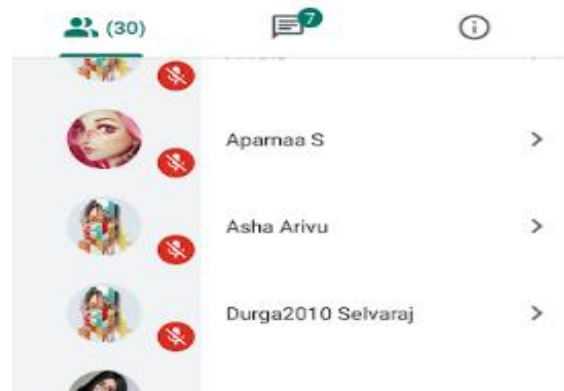
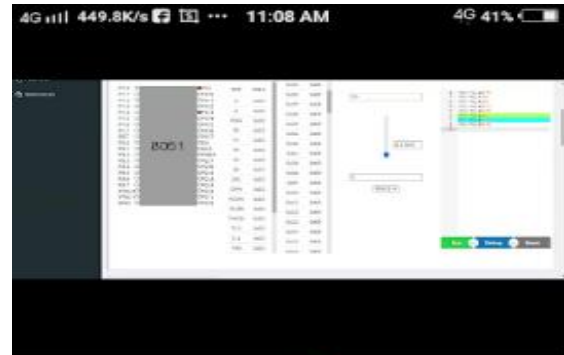
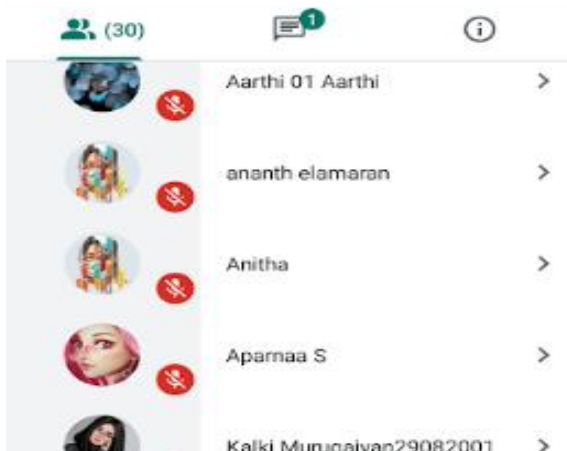
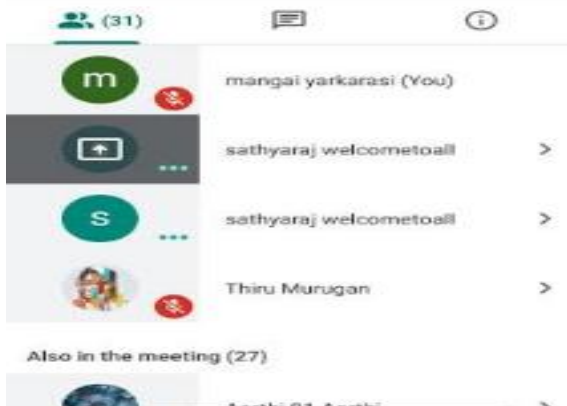


*Mr. K.Sudarsanan, AP/ECE handling the virtual lab session for II ECE students*



**For third year students**, the virtual lab session was conducted in the title of “**Microprocessor and Microcontroller lab**” on **10-05-21 Forenoon session**. The topics covered under this title are Basic Arithmetic and logical operations, Traffic Light Controller, Stepper motor control, Digital clock, Keyboard display, Printer status, Serial and Parallel Interface.

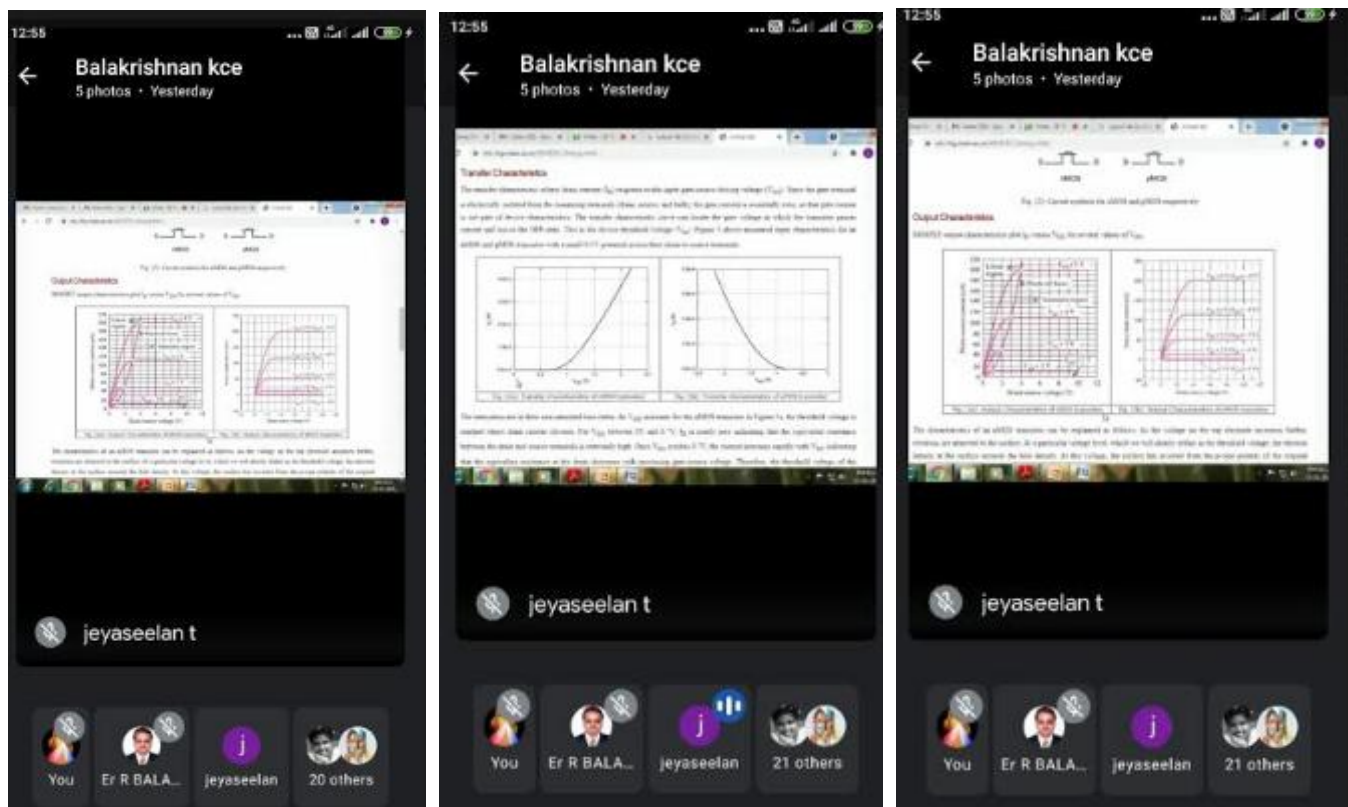
Totally 36 students from III ECE have attended this lab session.



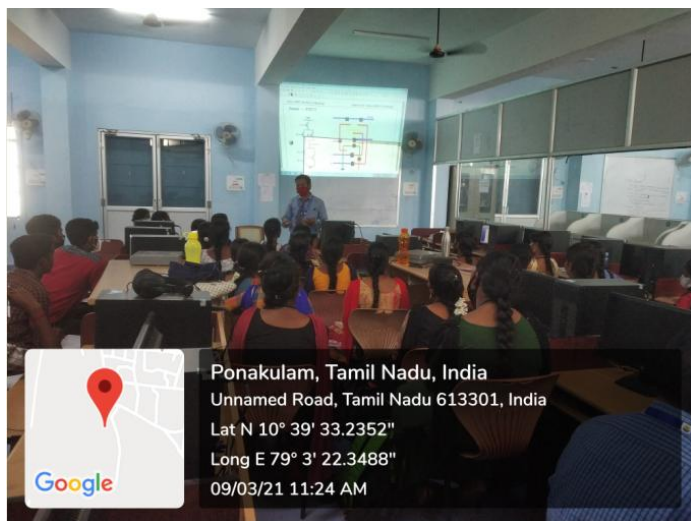
*Mr.R.Sathyaraj, AP/ECE handled the virtual lab session for III ECE students.*

**For third year students**, the virtual lab session was conducted in the title of “**VLSI Design lab**” on **10-05-21 Afternoon session**. The topics covered under this title are Design of an Adder using HDL, Design of an Multiplier using HDL, Design of an Arithmetic Logic Unit, Finite state machine design using HDL, Universal Shift register Design using HDL, CMOS Inverter & Inverting Amplifier, CMOS Basic gates & Flip-flops and Synchronous counter using Flip-flops.

Totally 36 students from III ECE have attended this lab session.



***Mr. T. Jeyaseelan, AP/ECE & Mr.R.Balakrishnan, AP/ECE handling the virtual lab session for III ECE students.***



***Mr.T. Jeyaseelan, AP/ECE handled the virtual lab session Phase-I on 09-03-21 for III year students.***

Totally 35 students from III ECE have attended this lab session and gained knowledge.



## Department of Electrical & Electronics Engineering

### Academic year 2020-21 (ODD)

### Virtual Lab Report

### Objective

1. To provide remote-access to Labs in various disciplines of Science and Engineering. These Virtual Labs would cater to students at the undergraduate level, post graduate level as well as to research scholars.
2. To enthuse students to conduct experiments by arousing their curiosity. This would help them in learning basic and advanced concepts through remote experimentation.
3. To provide a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.
4. To share costly equipment and resources, which are otherwise available to limited number of users due to constraints on time and geographical distances.

### Electrical Machines Lab

In this lab we will perform load test and speed control on separately excited DC motor.

Electrical Machines → List Of Experiments

#### Load Test On Separately Excited DC Motor

1. A DC shunt motor works on the AC mains
  - ☐ a) unsatisfactorily
  - ☐ b) satisfactorily
  - ☐ c) not at all
  - ☐ d) none of the above
- 2) In a DC Motor, unidirectional torque is generated with the help of
  - ☐ a) brushes
  - ☐ b) commutator
  - ☐ c) end plates
  - ☐ d) both(a) & (b)
- 3) The counter emf of a DC motor
  - ☐ a) Often exceeds the supply voltage
  - ☐ b) aids the applied voltage
  - ☐ c) helps in energy conservation (by controlling current input)
  - ☐ d) regulates the armature voltage
- 4) If pole flux of DC motor approaches to zero its speed will
  - ☐ a) approach a stable value between zero and infinity
  - ☐ b) approach infinity
  - ☐ c) no change due to corresponding change in back emf
  - ☐ d) approach zero

#### Instant Test Results

No. of questions you got right:	4 out of 4
The questions you didn't get right:	
Grade in percentage:	100%

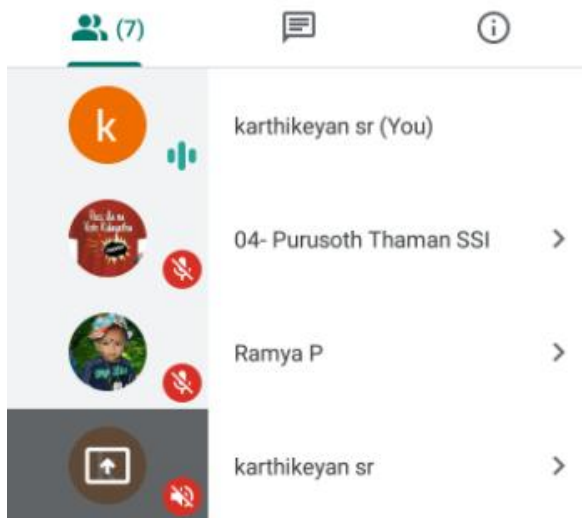
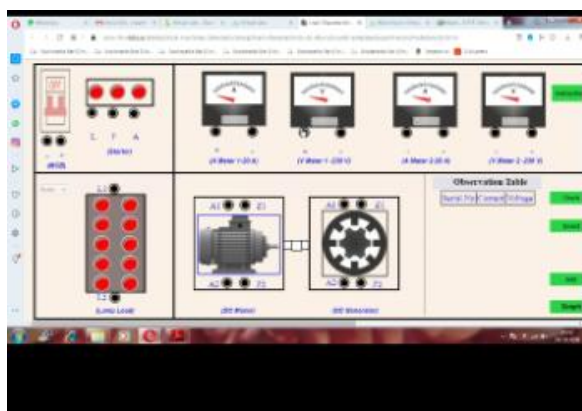
Solution - Google Chrome

about:blank

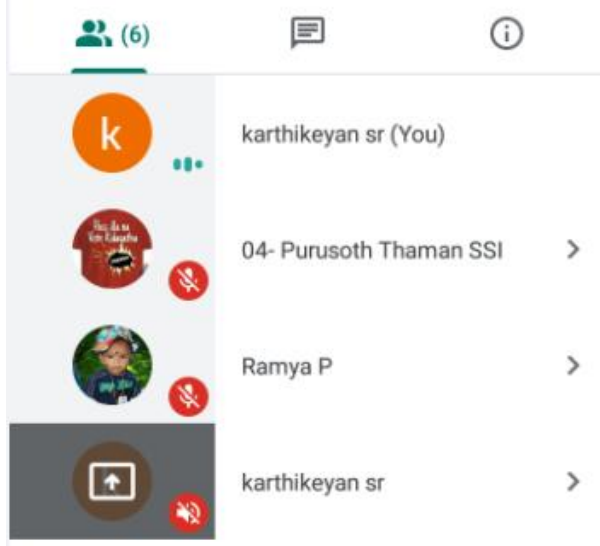
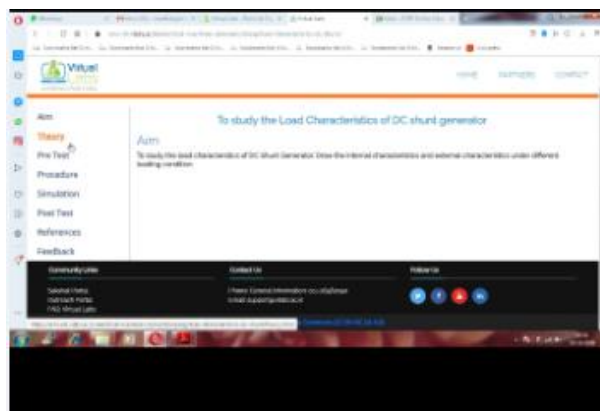
#### Test Solution

Question 1=a  
 Question 2=d  
 Question 3=c  
 Question 4=b

Note: The solutions in red are the ones to the questions you had incorrectly answered.



Snapshot from Virtual lab



Snapshot from Virtual lab class

### Evaluation from Quiz

SNo	Name of the Student	Mark / 100
1	Bharanitharan.S	60
2	Krishna .M.E	100
3	Pandidevi.P	100
4	Purusothaman.R	80
5	Ragul.V	100
6	Regina.R	100
7	Yugeshwaran.B	60
8	SarathKumar.A	60

Date: 15.10.2020

Students: II EEE – 8 Members





## Department of Mechanical Engineering Academic year 2020-21 (EVEN)

Department of Mechanical Engineering has conducted Virtual lab sessions for I year students of EEE during the academic year 2020-21 even. The main objective of the Virtual laboratory is to provide remote-access to Labs in various disciplines of Engineering. In the Thematic Session, Mr.M.ASWIN, AP/MECH, explained the theme of the virtual lab sessions. This would help in learning basic and advanced concepts through remote experimentation.

### Virtual Lab Session:

For I Year EEE students virtual lab sessions were conducted on vibration and machining process by IIT, Kharagpur, on 24-4-2021

**Moment Of Inertia-Connecting Rod**

College of Engineering, Pune  
(An Autonomous Institute of Government of Maharashtra)

Mass Of Connecting Rod(M): 1.5 kg  
Length(L): 0.3 m

Click Here to set the connecting rod into Oscillations

	Period of 10 Oscillations	Period of 1 Oscillations(t/10)
Trial 1	<input type="text"/>	<input type="text"/>
Trial 2	<input type="text"/>	<input type="text"/>
Trial 3	<input type="text"/>	<input type="text"/>

Average Time Period T:  (t1+t2+t3) / 3

Calculate Moment Of Inertia,  $J_G$ :   $mgL^2 / 4\pi^2$

Moment of Inertia about the CG,  $J_G$ :   $J - mL^2$

Reload

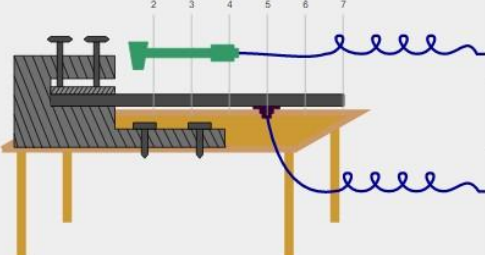
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Copyright ©2011, COEP Virtual Lab.

← → ↻ Not secure | va-coep.vlabs.ac.in/ImpactTestCantilever/ImpactTestCantilever.html

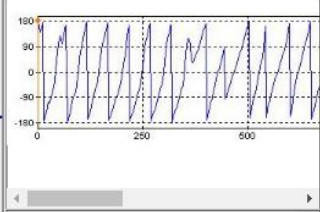
Apps Reading list

### Modal Analysis On A Cantilever

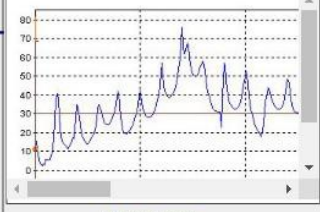
College of Engineering, Pune  
(An Autonomous Institute of Government of Maharashtra)



Observations from the plot(Frequency Response Function,FRF)  
Record the frequencies corresponding to peaks in the graph and discuss with your teacher about the reasons for differences observed,if any:



Vibration Analyzer



**CONTROL PANEL**

Cross Section

Width(b) :  m  m  m Calculate

Height(d) :  m Formula

Cross Section Area :  m<sup>2</sup> Formula

Moment of Inertia :  m<sup>4</sup>

Material of Cantilever: stainless Steel

Density :  kg/m<sup>3</sup>

Young's Modulus :  x 10<sup>9</sup> N/m<sup>2</sup>

Select the node before press "Hit The Hammer" button

Hit the Hammer at Node : Select

Observe FRF Reset

Give all the Values then Click the Hammer button

Calculate

f<sub>n1</sub> :  Hz

Snapshots of the session



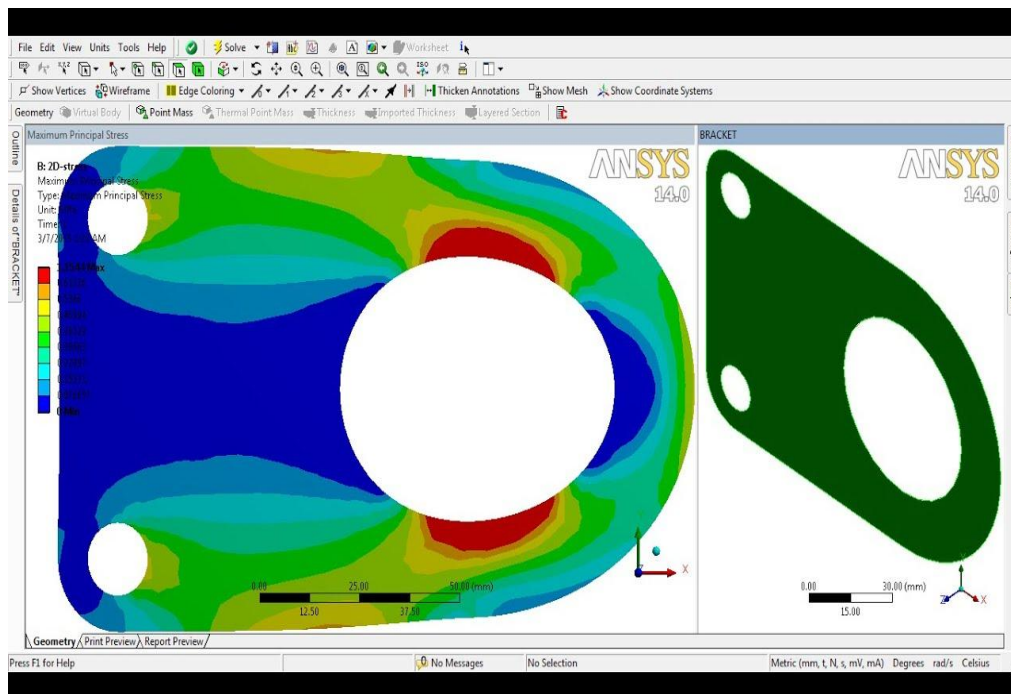


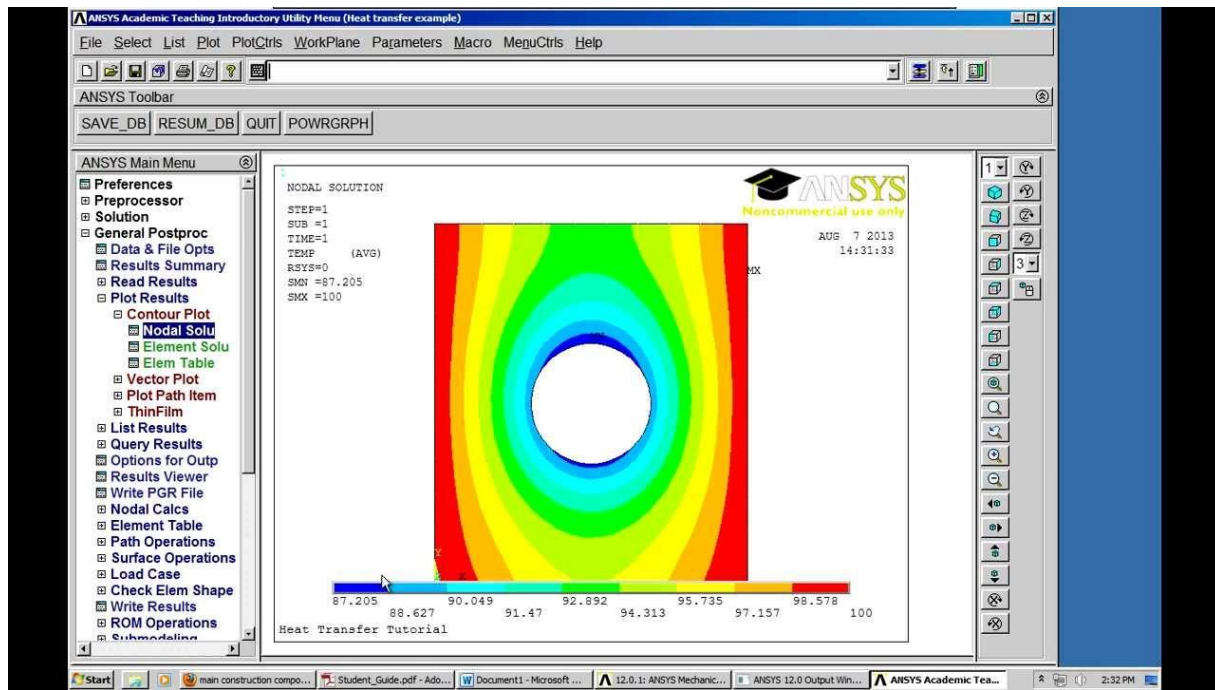
## Department of Mechanical Engineering Academic year 2020-21 (Odd)

Department of Mechanical Engineering has conducted Virtual lab sessions for IV year students of Mechanical Engineering during the academic year 2020-21 Odd through Online mode (Google meet). The main objective of the Virtual laboratory is to provide remote-access to Labs in various disciplines of Engineering. In the Thematic Session, Mr.M.ASWIN, AP/MECH, explained the theme of the virtual lab sessions. This would help in learning basic and advanced concepts through remote experimentation.

### Virtual Lab Session:

For IV Year Mech students virtual lab sessions were conducted on ANSYS Simulation by Mr.M.Aswin,Ap/Mech on 20-9-2021 through Google Meet online platform.





Snapshots of the session

**ACADEMIC YEAR 2019-2020**



**DEPARTMENT OF CIVIL ENGINEERING**  
**ACADEMIC YEAR 2019-2020 (ODD SEMESTER)**  
**VIRTUAL LAB SESSIONS**

**22.08.2019**

**Background & Objective:**

Department of Civil Engineering has conducted Virtual lab sessions for II year, III year & IV Year civil students during the academic year 2019-20 (Odd Semester). Laboratories are the important environment for students learning where students get hands on training. The main objective of the Virtual laboratory is to provide remote-access to Labs in various disciplines of Engineering. These Virtual Labs would cater to students at the undergraduate level, as well as to research scholars. In the Thematic Session, Mr.K.Arun, AP/Civil, explained the theme of the virtual lab sessions. This would help in learning basic and advanced concepts through remote experimentation.

**Virtual Lab Sessions:**

For IV Year civil students virtual lab sessions were conducted on Computer Aided design and Drafting laboratory. AUTOCAD is the important Civil Engineering software where you can give shape to your dream buildings. It is necessary for each and every Civil Engineer to draft their ideas and AUTOCAD plays a major role in drafting.

For III Year civil students virtual lab sessions were conducted on Soil Mechanics Laboratory and Water & Waste Water Analysis Laboratory. Soil properties are required to decide the building foundation. It is critical to quantify the various properties of water in order to predict its behaviour under different conditions for the safe design of treatment plants.

For II Year civil students virtual lab sessions were conducted on Construction Materials laboratory and Surveying Laboratory. It presents the laboratory aspects of this subject, in an imaginary way. Students have an opportunity to view before and after doing the experiment to gauge whether his or her understanding has increased, and to make the student more comfortable while doing experiments.

S No	YEAR / SEM	LAB NAME	STAFF INCHARGE
1	IV/VII	CE6711 – COMPUTER AIDED DESIGN AND DRAFTING LABORATORY	Mrs.T.Bhuvaneswari Mrs.M.Priya
2	III/V	CE8511 – SOIL MECHANICS LABORATORY	Mr.K.Ranjith
3	III/V	CE8512 – WATER & WASTE WATER ANALYSIS LABORATORY	Mrs.V.Ishwarya
4	II/III	CE8311 – CONSTRUCTION MATERIALS LABORATORY	Mr.R.Sundharam
5	II/III	CE8361 – SURVEYING LABORATORY	Mr.M.Mohamed Ilyas





**Virtual lab sessions - Computer Aided Design and Drafting Laboratory**



**Virtual lab sessions – Soil Mechanics Laboratory**



**Virtual lab sessions - Water & Waste Water Analysis Laboratory**



**Virtual lab sessions - Construction Materials Laboratory**



### **Virtual lab sessions - Surveying Laboratory**

#### **Outcome**

- ❖ Virtual lab showcase the content being taught, which will keep students interested, and provides a form of interaction that could not normally be easily conducted in the classroom.
- ❖ Virtual lab allows flexibility for the teacher who is not limited by using resources within a strict timeframe. Virtual Labs will be more effective and realistic because of providing additional inputs to the students like accompanying audio and video streaming of an actual lab experiment and equipment.
- ❖ The students can explore the experimental procedures prior to actually performing it in the laboratory, and are therefore being much more informed on what is to be done in the laboratory and what results to expect.
- ❖ The use of the virtual laboratory allows the students to exercise the same in numerous ways in the web which is not easily experimented in the traditional laboratory.
- ❖ Students will easily understand the concepts and methods by virtually seeing the experiments instead of listening to lectures. For the 'touch and feel' part, the students can possibly visit an actual laboratory for a short duration.
- ❖ Around 25 - II year, 35-III year & 50-IV Year civil students were benefited using virtual lab sessions.



12.03.2020

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**ACADEMIC YEAR 2019-20 (EVEN SEM)**  
**VIRTUAL LAB REPORT**  
**COSMIC Full function points**

**Objective**

- To enthuse students to conduct experiments by arousing their curiosity.
- To help them in learning basic and advanced concepts through remote experimentation
- To provide a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.

**Virtual Lab Sessions:**

For IV Year CSE students virtual lab sessions were conducted on COSMIC Full Function Points.

It presents the laboratory aspects of this subject, in an imaginary way. Students have an opportunity to view before and after doing the Cocomo model whether his or her understanding has increased, and to make the student more comfortable while doing experiments.

**Photos**



**Virtual Lab Session on Image Processing Lab for IV Year – 36 students were attended**

11.03.2020

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
ACADEMIC YEAR 2019-20 (EVEN SEM)  
VIRTUAL LAB REPORT  
Image Processing Lab**

**Objective**

- To provide remote- access to labs in various disciplines of Science and Engineering
- To cater the students at UG level, PG level as well as to research scholars
- To enable the students to learn at their own place and to arouse their curiosity
- To provide a complete learning management system that includes web resources, video lectures, animated demonstrations and self evaluation

**Date : 11.03.2020 for II Year CSE (No. of participants: 45)**

**Session coverage:**

**Image Processing Lab**

- Distance and Connectivity
- Image Arithmetic
- Affine Transformation
- Point Operations
- Image Histogram
- Fourier Transform
- Color Image Processing
- Morphological Operations
- Image Segmentation

**Photos**



**Virtual Lab Session on Image Processing Lab for II Year – 45 students were attended**

22.08.2019

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
ACADEMIC YEAR 2019-20 (ODD SEM)**

**VIRTUAL LAB REPORT  
Soft Computing Tools in Engineering Lab**

**Objective**

- To provide remote- access to labs in various disciplines of Science and Engineering
- To cater the students at UG level, PG level as well as to research scholars
- To enable the students to learn at their own place and to arouse their curiosity
- To provide a complete learning management system that includes web resources, video lectures, animated demonstrations and self evaluation

**Date: 22.08.19 for II Year CSE (No. of participants: 45)**

**Session coverage:**

**Artificial Neural Networks**

- Neural Networks and Perceptron
- Multilayer Perceptron
- Radial Basis Function
- Probabilistic Neural Networks

**Evolutionary Algorithms (EA)**

- Introduction to EA
- Binary and Real Coded genetic Algorithms
- Genetic Expression Programming

**Photos**



**Virtual Lab Session on Soft Computing Tools in Engineering Lab for II Year – 45 students  
were attended**

28.08.2019

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
ACADEMIC YEAR 2019-20 (ODD SEM)**

**VIRTUAL LAB REPORT  
Internet Firewalls for Trusted System, Roles of Firewalls**

**About Program**

In KCE, department of CSE has organized a Virtual lab session for third year B.E-CSE students on 28.08.2019 at CSE lab. The main objective of this lab session is to enrich our student learning by teaching them courses by implementation and performance features of a virtual lab environment for the Internet firewalls for trusted system and role of firewalls. The Internet programming course involves a firewall is a device or group of devices that controls access between networks. It is a security gateway that controls access between the public Internet and an intranet and is a secure computer system placed between a trusted network and an un trusted Internet. Firewalls can be classified into packet filters, circuit-level gateways, and application-level gateways. The primary step in designing a secure firewall is obviously to prevent the firewall devices from being compromised by threats.

**Photos**



**Virtual Lab Session on Internet Firewalls for Trusted System, Roles of Firewalls for IV Year – 35 students were attended**



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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**ACADEMIC YEAR (2019-2020) EVEN SEM**

# **REPORT ON VIRTUAL LAB SESSIONS**







## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING ACADEMIC YEAR (2019-2020) EVEN SEMESTER

### REPORT ON VIRTUAL LAB SESSION

In KCE, department of Electronics and Communication Engineering, has organized a Virtual lab session for second and third year B.E-ECE students in the month of February, at Digital lab & Microwave lab.

The main objective of this lab session is to enrich our student learning by teaching them courses by implementation and performance features of a virtual lab environment for an electronic circuit's course and Microwave course. The primary purpose of the tool is to provide an environment that mimics some of the failure modes of a real lab, which aids the student in learning debugging techniques and to get familiarized with the usage of the tool for Electronic circuit applications.

For second year students, the virtual lab session was conducted in the title of "Hybrid electronics". The topics covered under this title are Code converters, Registers, Arithmetic logic unit, Multiplexer & demultiplexer, Monostable and Astable Oscillators.

Totally 36 students from II ECE have attended this lab session.



**Mr. P.Rajapirian, AP/ECE handling the virtual lab session for II ECE students**

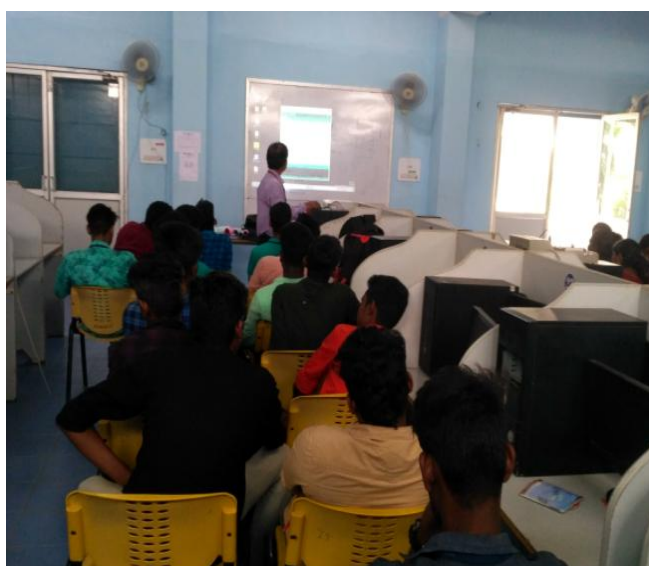


For third year students, the virtual lab session was conducted in the title of “RF and microwave characterization lab”. The topics covered under this title are

- Study of field pattern of various modes inside a rectangular waveguide & waveguide cavity.
- Measurement of the dielectric constant and loss tangent of materials in microwave frequency band using a rectangular waveguide cavity.
- Introduction to Smith chart and its application for the unknown impedance measurement.
- Study the behavior of impedance matching for passive networks using Smith chart.
- Concept of generalized n-port scattering parameters, and formulation of these parameters into 2-port reflection and transmission coefficients.
- Introduce the concept of ratio meter, and its significance for the scalar network analyzer.



**Mr. T.Jeyaseelan, AP/ECE handling the virtual lab session for III ECE students.**



**The students eagerly listening the session.**

Totally 44 students from III ECE have attended this lab session and gained knowledge.

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**ACADEMIC YEAR (2019-2020) ODD SEM**

**REPORT**  
**ON**  
**VIRTUAL LAB SESSIONS**





**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
ACADEMIC YEAR (2019-2020) ODD SEMESTER**

**REPORT ON VIRTUAL LAB SESSION**

In KCE, department of Electronics and Communication Engineering, has organized a Virtual lab session for second and third year B.E-ECE students in the month of August, at Electronic Circuits lab & VLSI lab.

The main objective of this lab session is to enrich our student learning by teaching them courses by implementation and performance features of a virtual lab environment for an electronic circuit's course. The primary purpose of the tool is to provide an environment that mimics some of the failure modes of a real lab, which aids the student in learning debugging techniques and to get familiarized with the usage of the tool for Electronic circuits applications.

For second year students, the virtual lab session was conducted in the title of "Virtual electric circuits lab". The topics covered under this title are Parallel RC & LC circuits, Thevenin's theorem, Series RL circuits, Norton's Theorem, Series LCR circuits and Kirchoff's law.

Totally 35 students from II ECE have attended this lab session.

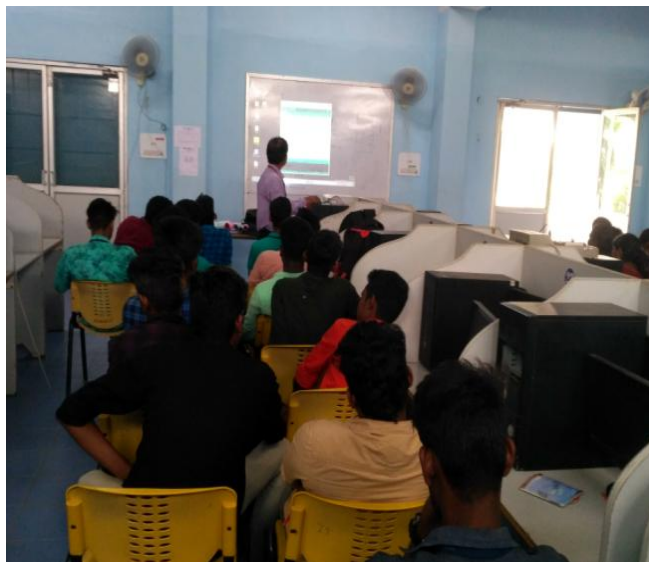


***Mrs. D.Vennila, AP/ECE handling the virtual lab session for II ECE students***

For third year students, the virtual lab session was conducted in the title of “Hybrid electronics lab”. The topics covered under this title are Code converters, Registers, ADC and DAC, Arithmetic logic unit, Multiplexer & Demultiplexer, Monostable and Astable Oscillators.



***Mr. T.Jeyaseelan, AP/ECE handling the virtual lab session for III ECE students.***



***The students eagerly listening the session.***

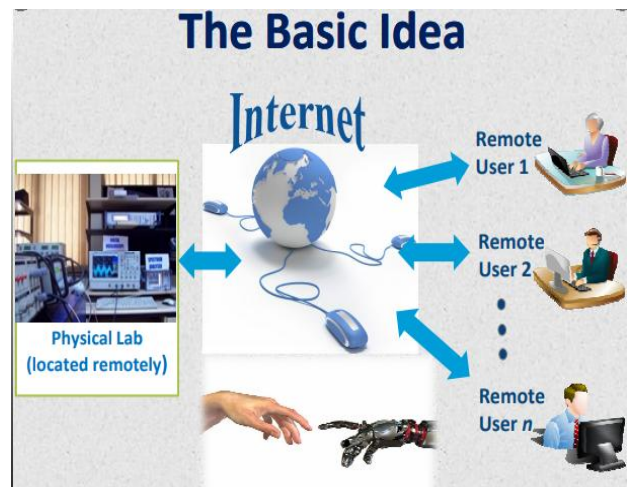
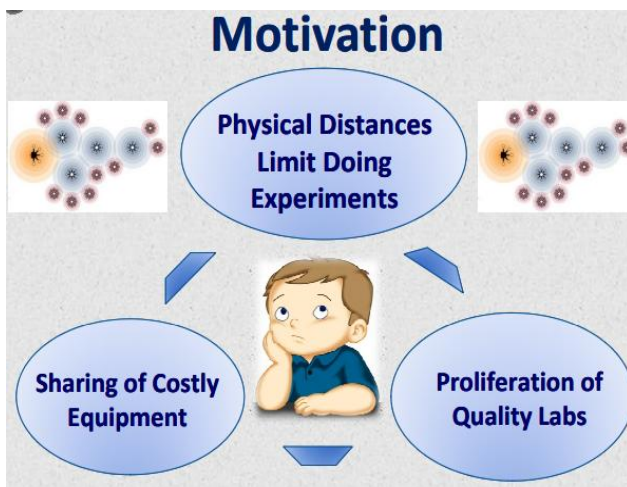
Totally 44 students from III ECE have attended this lab session and gained knowledge.



**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**  
**ACADEMIC YEAR 2019-20 (ODD SEM)**  
**VIRTUAL LAB REPORT**

### Objective

- To provide remote- access to labs in various disciplines of Science and Engineering
- To cater the students at UG level, PG level as well as to research scholars
- To enable the students to learn at their own place and to arouse their curiosity
- To provide a complete learning management system that includes web resources, video lectures, animated demonstrations and self evaluation



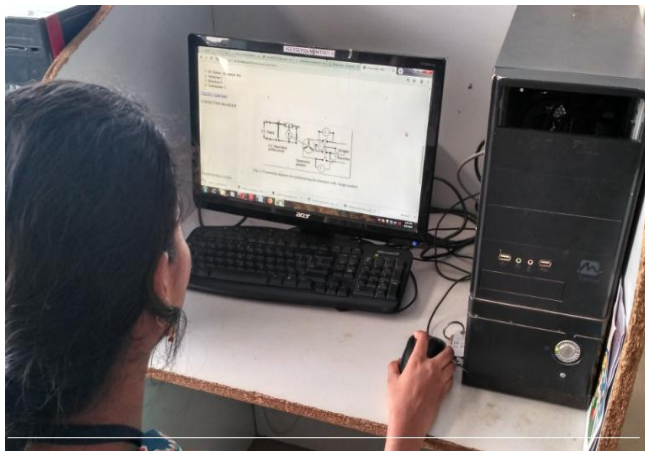
### Virtual Power Laboratory, Prof D.K.Chaturvedi by IIT, Kharagpur

Date: 27.08.19 for IV Year EEE (No. of participants: 12)

#### Session coverage:

- Synchronization of alternator with infinite bus bar.
- Positive sequence, negative sequence and zero sequence reactance of an alternator.
- The dielectric Strength of transformer oil.
- The effect of different shape of electrodes on dielectric (air) breakdown.
- The sub-transient ( $x_d''$ ), transient ( $x_d'$ ) and steady state reactance ( $x_d$ ) of a synchronous machine.





## Electrical Machines Laboratory offered by IIT ROORKEE

**Date : 14.08.19 for II Year EEE (No. of participants: 15)**

**Session coverage:**

- Speed Control of DC motor by varying armature and field resistance
- Load Characteristics of DC shunt generator
- Speed control of DC motor by using Ward- Leonard Method of speed control
- Speed control of slipring Induction Motor
- Transformer equivalent circuit from Open Circuit and Short Circuit Test





**DEPARTMENT OF MECHANICAL ENGINEERING  
ACADEMIC YEAR 2019-20 (ODD SEM)  
VIRTUAL LAB REPORT**

**Objective**

- To enthuse students to conduct experiments by arousing their curiosity.
- To help them in learning basic and advanced concepts through remote experimentation
- To provide a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.

**Background & Objective:**

Department of Mechanical Engineering has conducted Virtual lab sessions for II year & IV Year students during the academic year 2019-20 (Odd Semester).. The main objective of the Virtual laboratory is to provide remote-access to Labs in various disciplines of Engineering. In the Thematic Session, Mr.M.ASWIN, AP/MECH, explained the theme of the virtual lab sessions. This would help in learning basic and advanced concepts through remote experimentation.

**Virtual Lab Sessions:**

For IV Year civil students virtual lab sessions were conducted on FABRICATION LABORATORY.

For II Year civil students virtual lab sessions were conducted on Metal forming Simulation Laboratory. It presents the laboratory aspects of this subject, in an imaginary way. Students have an opportunity to view before and after doing the experiment to gauge whether his or her understanding has increased, and to make the student more comfortable while doing experiments.

**Metal Forming Virtual Simulation lab, offered by IIT, Kharagpur**

**Date : 10.09.19 for II Year MECH (No. of participants: 64 )**

**Session coverage:**

- UPSETTING PROCESS
- EXTRUSION PROCESS



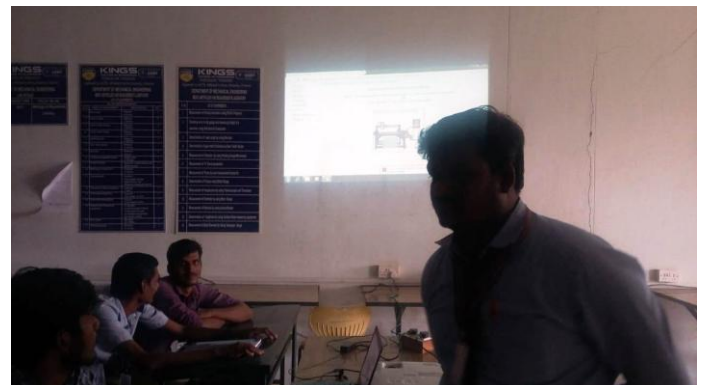
**Virtual lab session on Metal forming by Mr.M.Aswin, AP/MECH**

**FAB Laboratory (Simulator based) offered by IIT, Kharagpur**

**Date : 31.08.19 for IV Year MECH (No. of participants: 88)**

**Session coverage:**

- 3D Scanning
- Computer Controlled Cutting of wooden object
- 3D Machining
- PCB design & fabrication
- Interface & Application Programming
- Digital Fabrication of Flexible Circuit board



**Virtual lab session on FAB laboratory by Mr.J.Rajaparthiban, AP/MECH**

## **Outcome**

Virtual lab showcase the content being taught, which will keep students interested, and provides a form of interaction that could not normally be easily conducted in the classroom.

Virtual lab allows flexibility for the teacher who is not limited by using resources within a strict timeframe. Virtual Labs will be more effective and realistic because of providing additional inputs to the students like accompanying audio and video streaming of an actual lab experiment and equipment.

The students can explore the experimental procedures prior to actually performing it in the laboratory, and are therefore being much more informed on what is to be done in the laboratory and what results to expect.

The use of the virtual laboratory allows the students to exercise the same in numerous ways in the web which is not easily experimented in the traditional laboratory.

Students will easily understand the concepts and methods by virtually seeing the experiments instead of listening to lectures. For the 'touch and feel' part, the students can possibly visit an actual laboratory for a short duration.

**IQAC Coordinator**

**HOD/MECH**

# **ACADEMIC YEAR 2018-2019**





**DEPARTMENT OF CIVIL ENGINEERING  
ACADEMIC YEAR 2018-2019 (EVEN SEMESTER)  
VIRTUAL LAB SESSIONS**

**Background & Objective:**

Department of Civil Engineering has conducted Virtual lab sessions for II year & III year civil students during the academic year 2018-19 (Even Semester). Laboratories are the important environment for students learning where students get hands on training. The main objective of the Virtual laboratory is to provide remote-access to Labs in various disciplines of Engineering. These Virtual Labs would cater to students at the undergraduate level, as well as to research scholars.

**Thematic Session:**

In this Thematic Session, Mr.K.Arun, AP/Civil, explained the theme of the virtual lab sessions, which is most appropriate theme in today's environment. Virtual Labs are recreations of actual scientific experiments. Students are given background information on a topic, an explanation of the researcher's observations, and an overview of how they set up their experiment. This would help in learning basic and advanced concepts through remote experimentation.

**Virtual Lab Sessions:**

For III Year civil students virtual lab sessions were conducted on Environmental Engineering laboratory and Concrete & Highway Engineering Laboratory. Concrete is one of the very important engineering materials. It is critical to quantify the various properties of water in order to predict its behaviour under different conditions for the safe design of treatment plants.

For II Year civil students virtual lab sessions were conducted on strength of materials laboratory and Hydraulic Engineering Laboratory. It presents the laboratory aspects of this subject, in an imaginary way. Students have an opportunity to view before and after doing the experiment to gauge whether his or her understanding has increased, and to make the student more comfortable while doing experiments.

S No	YEAR / SEM	LAB NAME	STAFF INCHARGE
1	II/IV	CE8481 – STRENGTH OF MATERIALS LABORATORY	Mrs.M.Priya
2	II/IV	CE8461 – HYDRAULICS ENGINEERING LABORATORY	Mr.S.Kamaraj
3	III/VI	CE6611 – ENVIRONMENTAL ENGINEERING LABORATORY	Mrs.V.Ishwarya
4	III/VI	CE6612 – CONCRETE AND HIGHWAY ENGG. LABORATORY	Mr.S.R.Elwin Guru Chanth



**Virtual lab sessions - Strength of Materials Laboratory**



**Virtual lab sessions - Hydraulics Engineering Laboratory**



**Virtual lab sessions - Concrete & Highway Engineering Laboratory**



**Virtual lab sessions - Environmental Engineering Laboratory**

## **Outcome**

- ❖ Virtual lab allows flexibility for the teacher who is not limited by using resources within a strict timeframe. Virtual Labs will be more effective and realistic because of providing additional inputs to the students like accompanying audio and video streaming of an actual lab experiment and equipment.
- ❖ Virtual lab showcase the content being taught, which will keep students interested, and provides a form of interaction that could not normally be easily conducted in the classroom.
- ❖ The students can explore the experimental procedures prior to actually performing it in the laboratory, and are therefore being much more informed on what is to be done in the laboratory and what results to expect.
- ❖ Students will easily understand the concepts and methods by virtually seeing the experiments instead of listening to lectures. For the 'touch and feel' part, the students can possibly visit an actual laboratory for a short duration.
- ❖ The use of the virtual laboratory allows the students to exercise the same in numerous ways in the web which is not easily experimented in the traditional laboratory.



**DEPARTMENT OF CIVIL ENGINEERING  
ACADEMIC YEAR 2018-2019 (ODD SEMESTER)  
VIRTUAL LAB SESSIONS REPORT**

**Venue: CADD LAB**

**Date: 7<sup>th</sup> & 8<sup>th</sup> OCT, 2018**

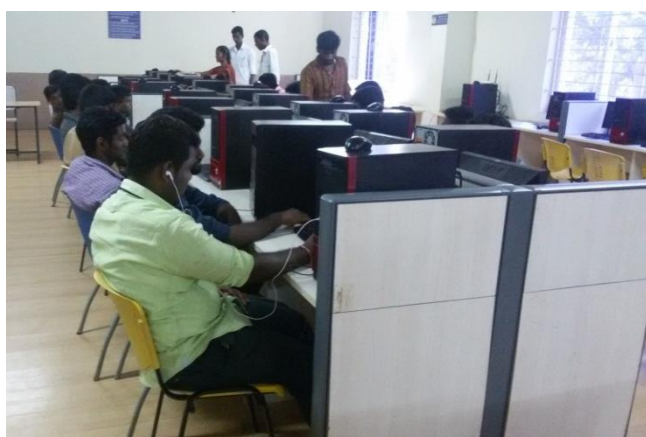
**Time: 3:00 – 4:30pm**

**Background & Objective**

Department of Civil Engineering has conducted Virtual lab sessions on 7<sup>th</sup> & 8<sup>th</sup> OCT, 2018 for II year and III year civil students at Kings College of Engineering. Virtual Labs would cater to students at the undergraduate level, post graduate level as well as to research scholars. Mr.K.Arun, AP/Civil organized the virtual lab sessions for the respective classes

**Thematic Session**

In this Thematic Session, Mr.K.Arun, AP/Civil, explained the theme of the virtual lab sessions, which is most appropriate theme in today's environment. Web enabled experiments can be designed for remote operation and viewing so as to enthuse the curiosity and innovation into students. This would help in learning basic and advanced concepts through remote experimentation. Internet-based experimentation further permits use of resources, knowledge, software, and data available on the web, apart from encouraging skillful experiments being simultaneously performed at points separated in space (and possibly, time). For III Year civil students virtual lab sessions were conducted for soil mechanics laboratory. For II year civil students virtual lab sessions were conducted for CADD laboratory.



**Virtual lab Sessions**

## **Outcome**

Virtual Labs will be more effective and realistic because of providing additional inputs to the students like accompanying audio and video streaming of an actual lab experiment and equipment. Students will easily understand the concepts and methods by virtually seeing the experiments instead of listening to lectures. For the 'touch and feel' part, the students can possibly visit an actual laboratory for a short duration. With in the virtualization of the laboratory experiments, the students can explore the experimental procedures prior to actually performing it in the laboratory, and are therefore being much more informed on what is to be done in the laboratory and what results to expect.



11.02.2019

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
ACADEMIC YEAR 2018-19 (EVEN SEM)**

**VIRTUAL LAB REPORT**  
**ARTIFICIAL NEURAL NETWORK**

**About Program**

In KCE, department of CSE has organized a Virtual lab session for third year B.E-CSE students on 11.02.2019 at CSE lab. The main objective of this lab session is to enrich our student learning by teaching them courses by implementation and performance features of a virtual lab environment for the Artificial neural network course. The AI course involves Learn the methods of solving problems using Artificial Intelligence.

**For III year students**, the virtual lab session was conducted in the title of “Artificial Neural Network **(Simulation Based)**”. The topics covered under this title are An Artificial Neural Network (ANN) is a computational model inspired by networks of biological neurons, wherein the neurons compute output values from inputs.

**Photos**



**Virtual Lab Session on Artificial Neural Network for III Year - 40 students were attended**

11.02.2019

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
ACADEMIC YEAR 2018-19 (EVEN SEM)**

**VIRTUAL LAB REPORT  
AGILE PROCESS**

**Objective**

- To Understand the phases in a software project
- To Understand fundamental concepts of requirements engineering and Analysis Modeling.
- To Understand the various software design methodologies.
- To Learn various testing and maintenance measures

**Benefits of the Agile**

- A [dictionary](#) defines Agile as the ability to move quickly. In the equally conventional world of IT & Project Management,
- Agile refers to a methodology that is based on continuous development and deployment.
- It promotes periodic inspection and proficient adaptation of new changes that are beneficial for an organization.

**Photos**



**Virtual Lab Session on Cloud Computing for III Year - 39 students were attended**

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING ACADEMIC YEAR 2018-19 (ODD SEM)

### VIRTUAL LAB REPORT Cloud Computing

#### Objective

- To Gain knowledge on the concept of virtualization that is fundamental to cloud computing.
- To Learn how to program the grid and the cloud.
- To Understand the security issues in the grid and the cloud environment.

#### Benefits of the Virtual Lab

- Connect from a web browser or app on nearly any Windows, MacOS, Android or iOS device
- Access the most popular lab software, without having to load it on your devices
- Secure your work with cloud-based services and storage behind Pitt Passport sign-on and Duo multifactor authentication
- Work online, with no need to use PittNet VPN

#### Download the Client

1. Navigate to <https://docs.microsoft.com/en-us/azure/virtual-desktop>.
2. From the Connect to Windows Virtual Desktop section, click on the link for the type of device you are using.
3. Follow the directions on the page to install the client and connect to the Virtual Lab.
4. To add a workspace, in the Remote Desktop client select the Workspaces tab. Click the "+" sign and choose Add Workspace.

#### Photos



**Virtual Lab Session on Cloud Computing for IV Year**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**ACADEMIC YEAR (2018-2019) EVEN SEM**

**REPORT**  
**ON**  
**VIRTUAL LAB SESSIONS**







**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
ACADEMIC YEAR (2018-2019) EVEN SEMESTER**

**REPORT ON VIRTUAL LAB SESSION**

In KCE, department of Electronics and Communication Engineering, has organized a Virtual lab session for second and third year B.E-ECE students on 07-02-19 and 11-02-19 at DSP lab & VLSI lab.

The main objective of this lab session is to enrich our student learning by teaching them courses by implementation and performance features of a virtual lab environment for the basic electronic circuit's course. The primary purpose of the tool is to provide an environment that mimics some of the failure modes of a real lab, which aids the student in learning debugging techniques and to get familiarized with the usage of the tool for Electronic circuits applications.

The Digital signal processing course involves taking an input signal, performing some action on the signal to generate a new waveform as the output. The action may be amplification, filtering or any other function applied on the signal. All signals in nature are continuous.

**For second year students**, the virtual lab session was conducted in the title of “**Basic Electronics lab (Simulation Based)**”. The topics covered under this title are BIT common emitter characteristics, BIT common Base characteristics, Zener diode voltage regulator, Study of BIT CE amplifier & RC differentiator and Integrator circuits.



***Mr. S.Ramarajan, AP/ECE handling the virtual lab session for II ECE students.***



***The students eagerly listening the session.***

Totally 49 students from II ECE have attended this lab session.



**For third year students,** the virtual lab session was conducted in the title of “**Digital VLSI design virtual lab (simulation Based)**”. The topics covered under this title are :

To plot the characteristics of MOSFET

To design the characteristics of CMOS inverter

To design a ring oscillator

To design the latches and registers.

These experiments enable a student to learn how to view the real life analog signal with an oscilloscope. How to set the amplitude, frequency and phase of the signal source. How to set the sampling frequency of the source. etc..



***Mr.T.Jeyaseelan, AP/ECE handling the virtual lab session for III ECE students.***

Totally 53 students from III ECE have attended this lab session and gained knowledge.

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**ACADEMIC YEAR (2018-2019) ODD SEM**

# **REPORT ON VIRTUAL LAB SESSIONS**



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
ACADEMIC YEAR (2018-2019) ODD SEM**

**REPORT ON VIRTUAL LAB SESSION**

In KCE, department of Electronics and Communication Engineering, has organized a **Virtual lab session** for second and third year B.E-ECE students from 27-08-18 to 30-08-18, at **Electronic Circuits lab & VLSI lab**.

The **main objective** of this lab session is to enrich our student learning by teaching them courses by implementation and performance features of a virtual lab environment for an electronic circuit's course. The primary purpose of the tool is to provide an environment that mimics some of the failure modes of a real lab, which aids the student in learning debugging techniques and to get familiarized with the usage of the tool for Electronic circuits applications.

**For second year students**, the virtual lab session was conducted in the title of “**Virtual electric circuits lab**”. The topics covered under this title are Parallel RC & LC circuits, Thevenin's theorem, Series RL circuits, Norton's Theorem, Series LCR circuits and Kirchoff's law.

Totally 49 students from II ECE have attended this lab session.



***Mrs. D.Vennila, AP/ECE handling the virtual lab session for II ECE students***

**For third year students**, the virtual lab session was conducted in the title of “**Hybrid electronics lab**”. The topics covered under this title are Code converters, Registers, ADC and DAC, Arithmetic logic unit, Multiplexer & Demultiplexer, Monostable and Astable Oscillators.



***Mr. T.Jeyaseelan, AP/ECE handling the virtual lab session for III ECE students.***



***The students eagerly listening the session.***

Totally 56 students from III ECE have attended this lab session and gained knowledge.

# **ACADEMIC YEAR 2017-2018**





**DEPARTMENT OF CIVIL ENGINEERING  
ACADEMIC YEAR 2017-2018 (EVEN SEMESTER)  
VIRTUAL LAB SESSIONS**

**Venue: CADD LAB**

**Date: 8<sup>th</sup> & 9<sup>th</sup> MAR 2018**

**Time: 3:00 – 4:30pm**

**Background & Objective**

Department of Civil Engineering has conducted Virtual lab sessions on 8<sup>th</sup> & 9<sup>th</sup> MAR, 2017 for III year & II year civil students at Kings College of Engineering. It aims to provide remote-access to Labs in various disciplines of Science and Engineering. These Virtual Labs would cater to students at the undergraduate level, post graduate level as well as to research scholars. To enthuse students to conduct experiments, by arousing their curiosity.

**Thematic Session**

In this Thematic Session, Mr.K.Arun, AP/Civil, explained the theme of the virtual lab sessions, which is most appropriate theme in today's environment. Web enabled experiments can be designed for remote operation and viewing so as to initiate the curiosity and innovation into students. This would help in learning basic and advanced concepts through remote experimentation. Virtual Labs are recreations of actual scientific experiments. Students are given background information on a topic, an explanation of the researcher's observations, and an overview of how they set up their experiment. Students have an opportunity to view before and after doing the experiment to gauge whether his or her understanding has increased, and to make the student more comfortable while doing experiments.

**General Notes**

For III Year civil students virtual lab sessions were conducted on soil mechanics laboratory. Soil is one of the very important engineering materials. Properties of the soil can be determined by both field and laboratory test methods. It is critical to quantify the various properties of soil in order to predict its behaviour under different loading conditions for the safe design of soil structures.

For II Year civil students virtual lab sessions were conducted on strength of materials laboratory. It presents the laboratory aspects of this subject, in an imaginary way. It is intended to give an experimental understanding and verification of the coursework covered in Strength of Materials. Students will have the opportunity to review the theory, appreciate the fundamental concepts through these virtual labs.



**Virtual lab sessions**

### **Outcome**

- ❖ Virtual Labs will be more effective and realistic because of providing additional inputs to the students like accompanying audio and video streaming of an actual lab experiment and equipment.
- ❖ Students will easily understand the concepts and methods by virtually seeing the experiments instead of listening to lectures. For the 'touch and feel' part, the students can possibly visit an actual laboratory for a short duration.
- ❖ With in the virtualization of the laboratory experiments, the students can explore the experimental procedures prior to actually performing it in the laboratory, and are therefore being much more informed on what is to be done in the laboratory and what results to expect.
- ❖ The use of the virtual laboratory allows the students to understand the complexity in the information associated with the laboratory experiments and also to exercise the same in numerous ways in the web which is not easily experimented in the traditional laboratory.



**DEPARTMENT OF CIVIL ENGINEERING  
ACADEMIC YEAR 2017-2018 (ODD SEMESTER)  
VIRTUAL LAB SESSIONS**

**Venue: CADD LAB**

**Date: 5<sup>th</sup> & 6<sup>th</sup> SEP, 2017**

**Time: 3:00 – 4:30pm**

**Background & Objective**

Department of Civil Engineering has conducted Virtual lab sessions on 5<sup>th</sup> & 6<sup>th</sup> SEP, 2017 for III year civil students at Kings College of Engineering.

It aims to provide remote-access to Labs in various disciplines of Science and Engineering. These Virtual Labs would cater to students at the undergraduate level, post graduate level as well as to research scholars. In view to it, Mr.K.Arun, AP/Civil is made incharge for conducting virtual lab sessions in the selected topics.

**Thematic Session**

In this Thematic Session, Mr.K.Arun, AP/Civil, explained the theme of the virtual lab sessions, which is most appropriate theme in today's environment. Web enabled experiments can be designed for remote operation and viewing so as to enthuse the curiosity and innovation into students. This would help in learning basic and advanced concepts through remote experimentation. Today most equipment has a computer interface for control and data storage. It is possible to design good experiments around some of this equipment which would enhance the learning of a student. Internet-based experimentation further permits use of resources, knowledge, software, and data available on the web, apart from encouraging skillful experiments being simultaneously performed at points separated in space (and possibly, time).

**General Notes**

For III Year civil students virtual lab sessions were conducted on soil mechanics laboratory. Soil is one of the very important engineering materials. Properties of the soil can be determined by both field and laboratory test methods. The soil mechanics and foundation engineering laboratory is a compulsory and basic undergraduate course where introduction to Geotechnical Engineering will be provided and also for graduate level research students. The use of the virtual laboratory allows the students to understand the complexity in the information associated with the laboratory experiments and also to exercise the same in numerous ways in the web which is not easily experimented in the traditional laboratory.



## **Virtual lab sessions**

### **Salient Features**

- ❖ Virtual Labs will provide to the students the result of an experiment by one of the following methods (or possibly a combination)
- ❖ Modeling the physical phenomenon by a set of equations and carrying out simulations to yield the result of the particular experiment. This can, at-the-best, provide an approximate version of the 'real-world' experiment.
- ❖ Providing measured data for virtual lab experiments corresponding to the data previously obtained by measurements on an actual system.
- ❖ Remotely triggering an experiment in an actual lab and providing the student the result of the experiment through the computer interface. This would entail carrying out the actual lab experiment remotely.

### **Outcome**

Virtual Labs will be more effective and realistic because of providing additional inputs to the students like accompanying audio and video streaming of an actual lab experiment and equipment. Students will easily understand the concepts and methods by virtually seeing the experiments instead of listening to lectures. For the 'touch and feel' part, the students can possibly visit an actual laboratory for a short duration. With in the virtualization of the laboratory experiments, the students can explore the experimental procedures prior to actually performing it in the laboratory, and are therefore being much more informed on what is to be done in the laboratory and what results to expect.



17.02.18

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
ACADEMIC YEAR 2017-18 (EVEN SEM)  
VIRTUAL LAB REPORT**

**Objective**

- To enthuse students to conduct experiments by arousing their curiosity.
- To help them in learning basic and advanced concepts through remote experimentation
- To provide a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.

**Software Engineering Lab (Simulation based), offered by IIT, Kharagpur**

**Date : 06.02.18 for II Year CSE (No. of participants:        )**

**Session coverage:**

- Identifying the requirements from problem statement
- Estimation of project metrics
- Modeling UML use case diagrams
- E-R modeling from the problem statement
- Identifying domain classes from the problem statement.

**Softcomputing tools in Engineering (Simulation based) offered by IIT, Kharagpur**

**Date : 15.02.18 for III Year CSE (No. of participants:        )**

**Session coverage:**

- Introduction to fundamental of fuzzy logic and basic operations
- Fuzzy inference system
- Fuzzy weighted average and application
- Fuzzy control and application
- Introduction to neural network and Perceptron and application
- Multilayer perceptron and application





**Virtual Lab Session on Soft Computing Tools in Engineering for III Year**

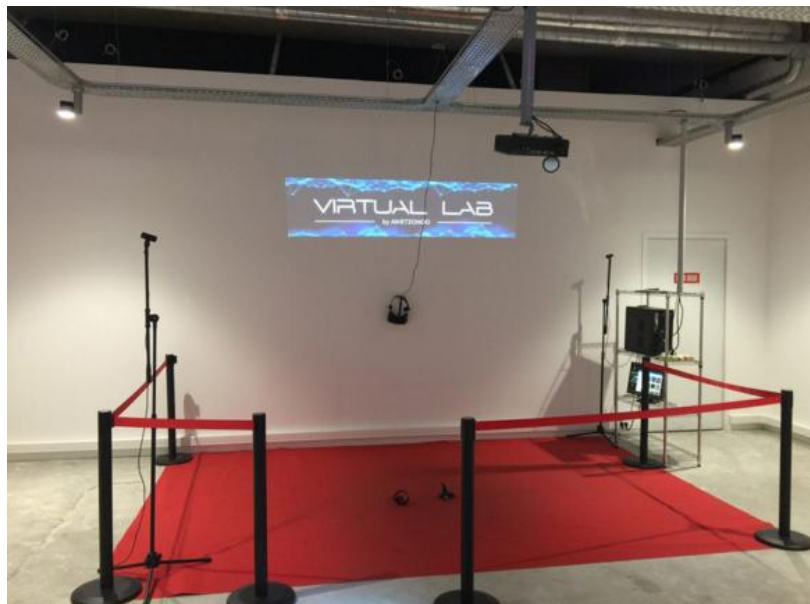


**Virtual Lab Session on Software Engineering for II Year**

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2017-2018 / EVEN SEMESTER

### VIRTUAL LAB SESSION





**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
ACADEMIC YEAR (2017-2018) EVEN SEM**

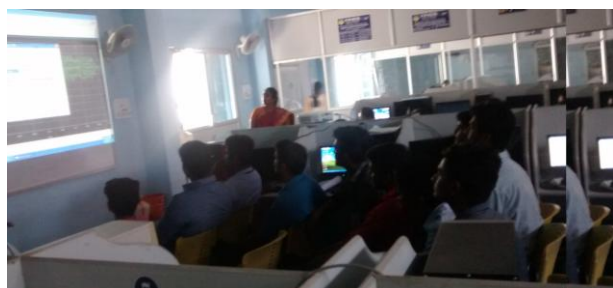
**REPORT ON VIRTUAL LAB SESSION**

In KCE, department of Electronics and Communication Engineering, has organized a Virtual lab session for second and third year B.E-ECE students on 15-02-18 and 21-02-18 at pallava hall & VLSI lab.

The main objective of this lab session is to enrich our student learning by teaching them courses by implementation and performance features of a virtual lab environment for the basic electronic circuit's course. The primary purpose of the tool is to provide an environment that mimics some of the failure modes of a real lab, which aids the student in learning debugging techniques and to get familiarized with the usage of the tool for Electronic circuit applications.

The Digital signal processing course involves taking an input signal, performing some action on the signal to generate a new waveform as the output. The action may be amplification, filtering or any other function applied on the signal. All signals in nature are continuous.

**For second year students**, the virtual lab session was conducted in the title of “**Basic Electronics lab (Simulation Based)**”. The topics covered under this title are BIT common emitter characteristics, BIT common Base characteristics, Zener diode voltage regulator, Study of BIT CE amplifier & RC differentiator and Integrator circuits.



***Mrs. D.Vennila, AP/ECE handling the virtual lab session for II ECE students.***

***The students eagerly listening the session.***



Totally 56 students from II ECE have attended this lab session.

**For third year students**, the virtual lab session was conducted in the title of “**Digital Signal processing lab (simulation Based)**”. The topics covered under this title are Study of sampling theorem, effect of under sampling, Study of DFT and its inverse, Study of FIR filter design using Window method: Low pass, high pass, band pass & band stop filter& Study of infinite impulse response (IIR) filters. These experiments enable a student to learn how to view the real life analog signal with an oscilloscope. How to set the amplitude, frequency and phase of the signal source. How to set the sampling frequency of the source. etc..



***Mr.S.Ramarajan, AP/ECE handling the virtual lab session for III ECE students.***

Totally 95 students from III ECE have attended this lab session and gained knowledge.



## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

**ACADEMIC YEAR 2017-18 (EVEN)**

### VIRTUAL LAB – SENSOR MODELING & SIMULATION LAB

#### OBJECTIVE OF VIRTUAL LAB:

- To provide remote-access to Labs in various disciplines of Science and Engineering. These Virtual Labs would cater to students at the undergraduate level, post graduate level as well as to research scholars.
- To enthuse students to conduct experiments by arousing their curiosity. This would help them in learning basic and advanced concepts through remote experimentation.
- To provide a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.
- To share costly equipment and resources, which are otherwise available to limited number of users due to constraints on time and geographical distance.

This project is an initiative of ministry of Human Resource Department under national mission on education through ICT. These experiments and labs will be hosted for open access through the main project website <http://sl-coep.vlabs.ac.in/>

#### PROGRAM CONDUCTED:

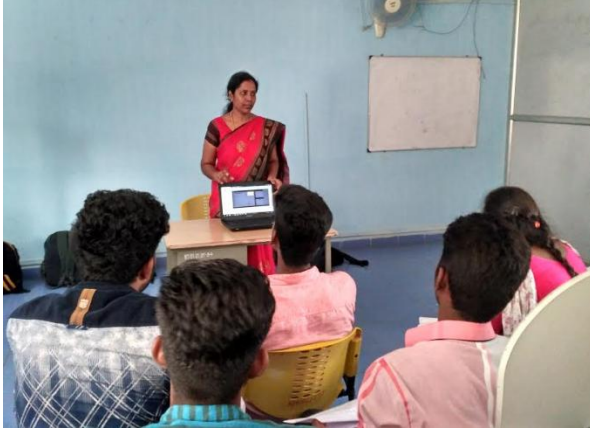
Department of Electrical & Electronics Engineering conducted virtual lab session for the course sensor modeling & simulation lab.

Venue: Power Simulation Lab

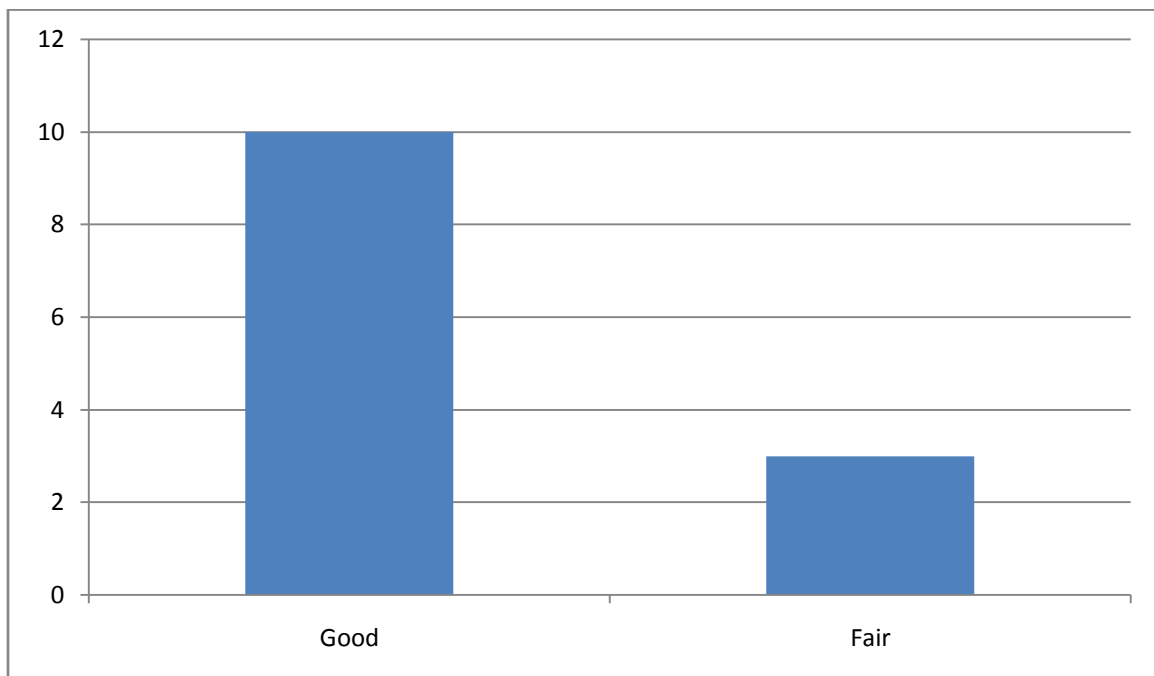
Date: 12.04.18

The session was attended by students of first year EEE. 13 students were attended this program. Feedback also collected for this spoken tutorial workshop, 10 students marked well out of 13 students.





**Feedback:**



## DEPARTMENT OF MECHANICAL ENGINEERING

### ACADEMIC YEAR 2017-18 (ODD SEMESTER)

#### VIRTUAL LAB – PSYCHROMETRY AND ITS PROPERTIES

##### OBJECTIVE OF VIRTUAL LAB:

A virtual laboratory is a tool for distance learning and/or experimentation that allows people to share knowledge, data, voice, video, tools, and many other resources. It provides a suitable environment to extend, improve, integrate, refine, and assist the learning and/or experimentation process of many subjects, thus contributing to an increase of the effectiveness of scientific research and widening the use of scarce or costly equipments.

Lab courses richly rely upon new up-to-date content and various techniques that require a new synergy of knowledge and experimental implementation.

This project is an initiative of Ministry of Human Resource Department under National Mission on Education through ICT. These experiments and labs will be hosted for open access through the main project website <http://vem-iitg.vlabs.ac.in/>

##### PROGRAM CONDUCTED:

Department of Mechanical Engineering conducted Virtual Lab Session for the course Psychrometry and its properties.

Venue: Drawing Hall

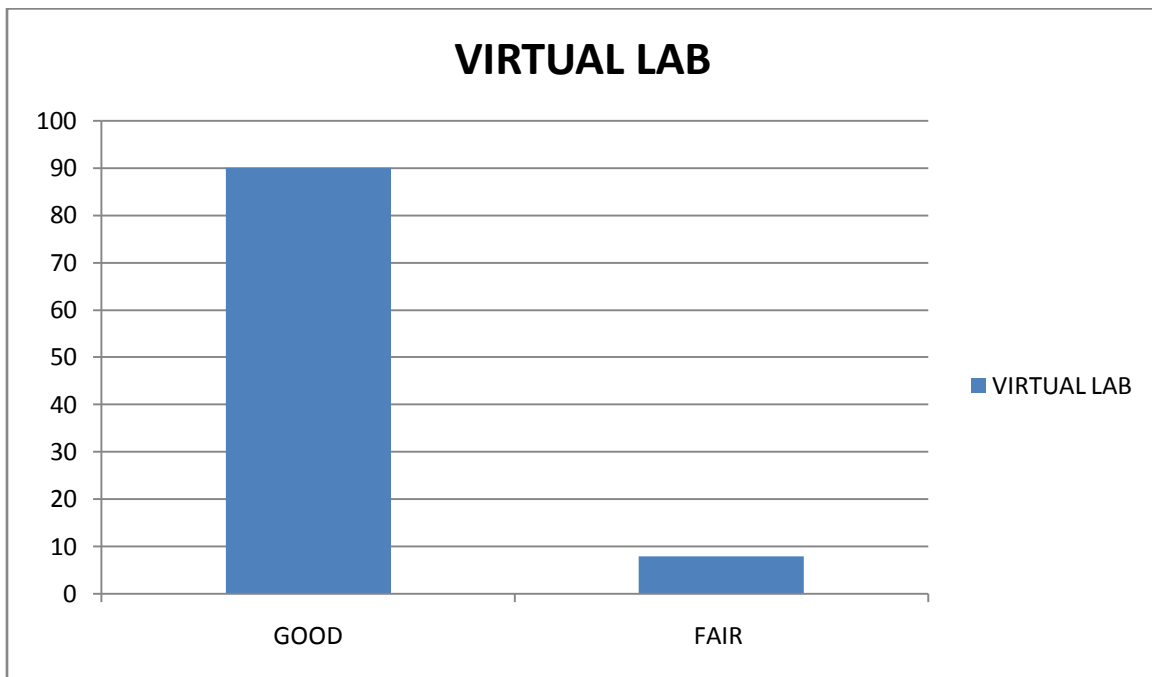
Date: 04.08.17

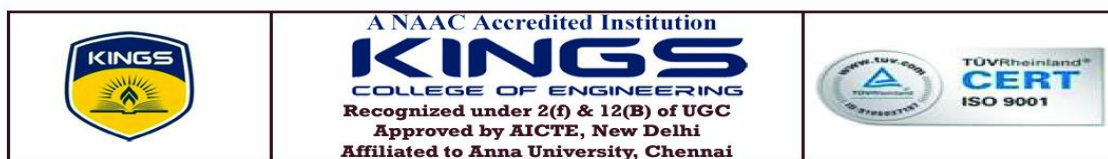
The session was attended by third year Mechanical students. 98 students were attended this program.



## FEEDBACK:

Feedback also collected for this virtual lab session, 90 students marked well out of 98.





## INTERNAL QUALITY ASSURANCE CELL

### 6.5.2 NPTEL SESSION EXECUTION REPORT



### NPTEL SESSION EXECUTION SUMMARY

S.No	Name of the Department	2020-2021	2019-2020	2018-2019	2017-2018
		No.of Courses	No.of Courses	No.of Courses	No.of Courses
1.	CIVIL	31	34	42	54
2.	CSE	32	32	30	16
3.	ECE	32	34	43	56
4.	EEE	31	32	33	32
5.	MECH	38	46	47	66
6.	S&H	60	60	66	-
TOTAL		224	238	261	224

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2	Academic Year : 2019-2020	23-43
3	Academic Year : 2018-2019	44-67
4	Academic Year : 2017-2018	68-84



# **ACADEMIC YEAR 2020-2021**



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2020-2021 / EVEN SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : CIVIL**

II yr CIVIL					
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8491	Numerical Methods	Poisson's Eqn Unit - I	29.4.21	Dr.S.Geetha	[Signature]
CE8401	Construction Techniques & Practices	Turning Techniques Unit - III	10.4.21	Ms.T.Bhuvaneswari	[Signature]
CE8402	Strength of Materials II	Euler's column theory Unit - II	27/03/21	Mr.K.Arun	[Signature]
CE8403	Applied Hydraulic Engineering	Impulse Turbine Unit - IV	10/03/21	Dr.R.Saravanan	[Signature]
CE8404	Concrete Technology	Properties Related Unit - 3 to mix design	03/04/21	Ms.R.Revathi	[Signature]
CE8491	Soil Mechanics	Direct Shear, Triaxial Compression Test	26.4.21	Ms.D.Shrividhya	[Signature]
III yr CIVIL					
CE8601	Design of Steel Structural Elements	Connection & its Types	13.3.21	Mr.M.Balaji	[Signature]
CE8602	Structural Analysis II	Plastic hinge and mechanism collapse load Unit - 5	4.5.21	Ms.T.Bhuvaneswari	[Signature]
CE8603	Irrigation Engineering	Method of Irrigation Unit - II	27.3.21	Dr.R.Saravanan	[Signature]
CE8604	Highway Engineering	Typical cross section of Urban & Rural roads	10.3.21	Ms.D.Shrividhya	[Signature]
EN8592	Wastewater Engineering	UASB & Unit - 3	27/3/21	Ms.V.Ishwarya	[Signature]
CE8005	Air pollution & Control Engineering	Control & Preventive measures of noise Pollution Unit - 5	18/05/21	Mr.R.Sundharam	[Signature]
IV yr CIVIL					
GE8076	Professional Ethics in Engineering	Moral Leadership Unit 4	27/3/21	Dr.K.Sudhakar	[Signature]
CE8022	Prefabricated Structures	modular coordination Unit - 1	16.12.20	Mr.K.Ranjith	[Signature]

**IQAC MEMBER**  
**(K.ARUN)**






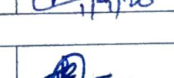
**HOD/CIVIL**  
**(Ms.R.REVATHI)**

**PRINCIPAL**  
**(Dr.J.ARPUTHA VIJAYA SELVI)**


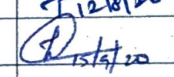
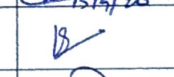



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2020-2021 / ODD SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : CIVIL**


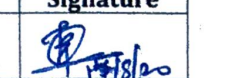
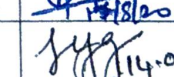
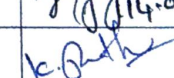

**CLASS: II CIVIL**


Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8353	Transforms and Partial Differential Equations	one dimensional wave equation	06.10.2020	Ms.S.Revathi	
CE8301	Strength of Materials I	UNIT-I Introduction Simple Stress and Strain	14/8/20	Mr.K.Arun	
CE8302	Fluid Mechanics	Pipe Materials - Unit 5	28.8.2020	Ms.V.Ishwarya	
CE8351	Surveying	Horizontal and Vertical angles Unit-2	26/8/20	Ms.K.Bhavarohini	
CE8391	Construction Materials	Compaction of concrete Unit-3	18/9/2020	Mr. R.Sundharam	
CE8392	Engineering Geology	Analysis of continuous Beam - UNIT-7	1/9/20	Ms.T.Bhuvaneswari	

**CLASS: III CIVIL**

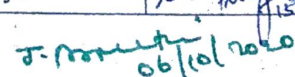
CE8501	Design of Reinforced Concrete elements	Objectives of structural design - Unit-1	12/8/20	Mr. S.R.Elwin Guru Chanth	
CE8502	Structural Analysis I	classification of Rocks - UNIT-11	15/9/20	Ms.T.Bhuvaneswari	
EN8491	Water Supply Engineering	Payleight's method - Unit 11	18/9/2020	Ms.V.Ishwarya	
CE8591	Foundation Engineering	Types of footings Unit-3	18/9/2020	Ms.M.Priya	
OAI551	Environment and Agriculture	Global Warming Unit-3	03/9/20	Ms.K.Bhavarohini	
GI8014	Geographic Information System	ER Diagram Unit-11	7.09.20	Ms.K.Jeyashankari	

**CLASS: IV CIVIL**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
CE8701	Estimation, Costing and Valuation	Estimation of quantities for buildings - Unit-2	15/8/20	Mr. S.R.Elwin Guru Chanth	
CE8702	Railways, Airports, Docks and Harbour	Airport Planning Unit-11	14.09.20	Ms.K.Jeyashankari	
CE8703	Structural Design and Drawing	R.C.C. Water tanks Unit-3	12/9/20	Mr.K.Ranjith	
CE8011	Design of Prestressed Concrete Structures	Design of anchorage zone UNIT-11	21/9/20	Ms.R.Revathi	
OEN751	Green Building design	Incidence of solar radiation buildings - Unit-3	15.9.20	Ms.M.Priya	

  
**IQAC MEMBER** 06/10/2020  
**(K.ARUN)**

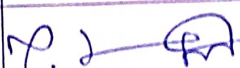




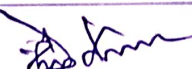
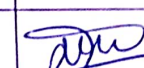
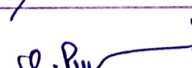


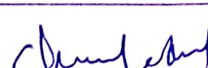
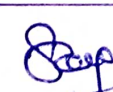


  
**HOD/CIVIL**  
**(Ms.R.REVATHI)**


  
**PRINCIPAL**  
**(Dr.J.ARPUTHA VIJAYA SELVI)**




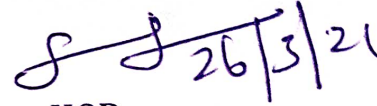
**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2020-21 (Even Sem)**  
**NPTEL SESSION EXECUTION STATUS**

DEPT: CSE

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff incharge	Signature
<b>YEAR : SEM : SEC: II/ IV</b>				
MA8402 - Probability & Queuing Theory	Single & Multiple Server Queuing	15.3.21	Mrs.T.Gnanajeya	
CS8491 - Computer Architecture	Memory Hierarchy	20.4.21	Mrs.S.Puvaneswari	
CS8492 - Database Management Systems	ODMG Model, ODL, OQL	17.2.21	Ms.J.Chandra Priya	
CS8451 - Design & Analysis of Algorithm	Approximation Algorithm for NP	18.2.21	Mr.S.Rajaraman	
CS8493 - Operating Systems	Process Concept Process Scheduling	23/3/21	Ms.K.Abhirami	
CS8494 - Software Engineering	Agile Process	9/2/21	Dr.D.Sivakumar	
<b>YEAR : SEM : SEC:III/VI</b>				
CS8651 - Internet Programming	Animation	24.3.21	Mr.R.Sriramkumar	
CS8691 - Artificial Intelligence	Constraint Satisfaction Problem	22.3.21	Mrs.S.Puvaneswari	
CS8601 - Mobile Computing	GSM & Service Architecture	25.3.21	Dr.S.M.Uma	
CS8602 - Compiler Design	Stack allocation space	23.3.21	Mrs.G.Chandrababu	
CS8603 - Distributed Systems	Synchronizing physical clock	21.3.21	Ms.J.Chandra Priya	
IT8076 - Software Testing	Ad hoc testing Alpha Beta Test	16.3.21	Ms.R.Suganthalakshmi	
CS8651 - Internet Programming	Animation	24.3.21	Mr.R.Sriramkumar	
<b>YEAR : SEM : SEC: IV / VIII</b>				
CS6801 - Multicore architectures and programming	MPI - derived datatypes	21.3.21	Ms.P.Nalayini	

IT6011 - Knowledge management	Vocabulary Control	23.3.21	Mr.S.Rajarajan	
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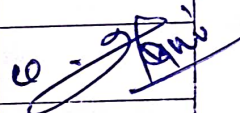
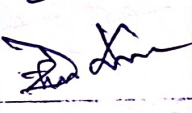


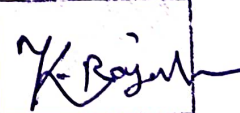
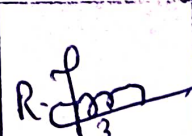
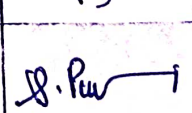
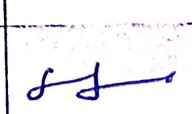
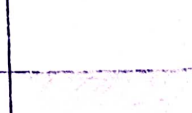
  
26/3/21  
IQAC Member

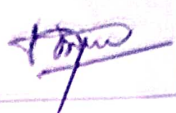

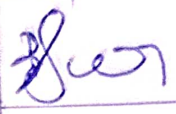
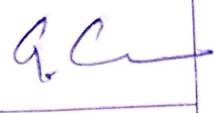
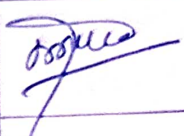

  
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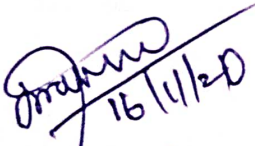


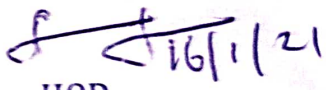
**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2020-21 (Odd Sem)**  
**NPTEL SESSION EXECUTION STATUS**

**DEPT: CSE**

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff incharge	Signature
<b>YEAR : SEM : SEC: II/ IV</b>				
MA8351- Discrete Mathematics	Proportional Logic Rules of inference	12.9.20	Dr.R.Suresh	
CS8351- Digital Principles and System Design	Synchronous Sequential Circuits	15/11/20	Ms.D.Vennila	
CS8391- Data Structures	Sorting	4/11/20	Mr.M.Arun	
CS8392 - Object Oriented Programming	AWT	6/11/20	Dr.D.Sivakumar	
EC8395 - Communication Engineering	VSB-PSB-Modulators	6/11/20	Mr.R.Balakrishnan	
<b>YEAR : SEM : SEC: III/VI</b>				
MA8551 - Algebra and Number Theory	Integral domains	4.11.20	Dr.G.Shankara kalidoss	
CS8591 - Computer Networks	IPv6, IPV4	5-11-20	Mr.K.Rajesh	
EC8691 - Microprocessor & Microcontroller	Architecture of 8051 microcontroller	14.9.20	Mr.R.Thandayuthapani	
CS8501 - Theory of Computation	Equivalence of PDA & CFG	11.9.20	Ms.S.Puvaneswari	
CS8592 - Object Oriented Analysis & Design	Aggregation & composition	12/9/2020	Dr.S.M.Uma	
OMF551 - Product Design and Development	Case study on Value Engineering	11.11.20	Ms.R.Suganthalakshmi	

MG8591 - Principles of Management	Effective Communication	24.8.20	Mr.B.Barankumar	
CS8792 - Cryptography and Network Security	Blockchain	21.8.20	Mr.S.Rajarajan	
CS8791 - Cloud Computing	IAM	23.8.20	Ms.B.Sangeetha	
OME752 -Supply Chain Management	Role of network design in Supply chain	8/9/20	Ms.G.Chandraprabha	
IT8075 - Software Project Management	Risk Evaluation - Strategic Program	20.8.20	Mr.R.Sriramkumar	
CS8088 - Wireless Adhoc & Sensor Network	WASN - Applications and challenges	18.9.20	Ms.K.Abhirami	

  
16/11/20  
IQAC Member

  
16/11/21  
HOD




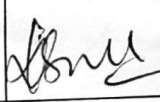


**INTERNAL QUALITY ASSURANCE CELL**

**ACADEMIC YEAR 2020-2021 / EVEN SEMESTER**



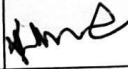

**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : ECE**

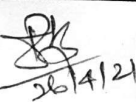
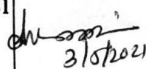
**CLASS: II ECE / 4<sup>th</sup> sem**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8451	Probability and Random Processes	Unit - 1 Discrete and continuous random variables.	20.04.21	Dr.D.Samundeeswari	
EC8452	Electronic Circuits II	Unit - 2 Oscillator amplitude stabilization	22.3.21	Mrs.U.Jeyamalar	
EC8491	Communication Theory	Unit - 1 DSBSC, SSB, VSB	20.2.21	Mrs. D. Vennila	
EC8451	Electromagnetic Fields	Unit - 5 Group velocity, EM power flow and pointing vector	1.5.21	Mr. K. Sudarsanan	
EC8453	Linear Integrated Circuits	Unit - 2 Logarithmic and Antilogarithmic amplifier.	17.3.21	Mr.R.Thandayuthapani	
GE8291	Environmental science and Engineering	Unit - 1 Aquatic Eco systems Unit - 2 Nuclear hazards - soil waste management.	1.3.21 19.3.21	Dr.V.Sureshkumar	



**CLASS: III ECE/ 6<sup>th</sup> sem**

EC8691	Microprocessors and Microcontrollers	Unit - 5 ADC and DAC Interfacing	05-5-21	Dr. T. Shanthi	
EC8095	VLSI Design	Unit - 4 Arithmetic building blocks: Data paths, Adders	28.4.21	Mr. T. Jeyaseelan	
EC8652	Wireless Communication	Unit - 5 MIMO Systems	30.04.21	Mr. R. Sathyaraj	
MG8591	Principles of Management	Unit - 1 Evolution of Management Unit - 5 Budgetary and non budgetary control techniques.	1-3-21 1-5-21	Dr.K.Sudhakar	



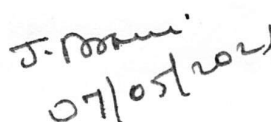
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
EC8651	Transmission Lines and RF Systems	Unit -4 TM and TE waves in circular waveguides	26.4.21	Mr.R.Balakrishnan	 26/4/21
EC8002	Multimedia Compression and Communication	Unit - 5 Media levity, Media synchronization, Models for temporal specifications	3/5/2021	Mrs.N.Mangaiyarkarasi	 3/5/2021

**CLASS: IV ECE /8th sem**

EC8072	Electro Magnetic Interference and Compatibility	Unit - 1 Sources and Victims of EMI	15.12.20	Mrs.R.Ponni	
EC8094	Satellite Communication	Unit - 2 Spacecraft Technology- Structure, Primary power.	28/12/20	Mr.P.Rajapirian	

  
5/5/21

**IQAC Member  
(D.Vennila)**

  
07/05/2021

  
7/5/2021

**HOD / ECE**



**INTERNAL QUALITY ASSURANCE CELL**

**ACADEMIC YEAR 2020-2021 / ODD SEMESTER**

**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : ECE**

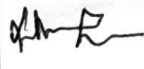

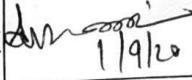
**CLASS: II ECE /3<sup>rd</sup> sem**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8352	Linear Algebra and Partial Differential Equations	Unit - 4 Classification of partial differential equations Unit-2 Matrix representation of a linear transformations	10.10.20 2.9.20	Mrs.T.Gnanajeya	
EC8393	Fundamentals of Data Structures In C	Unit - 5 Bubble sort and Insertion Sort	17-10-20	Mrs. S.Puvaneswari	
EC8351	Electronic Circuits- I	Unit - 5 Power supply performance and testing	16.10.20	Mr.S.Sivakumar	
EC8352	Signals and Systems	Unit - 1 Linear & Non linear Time variant & Time invariant Causal & Non causal Stable & Unstable	21.8.20	Mr.K.Sudarsanan	
EC8392	Digital Electronics	Unit - 3 Flip-flops- SR, JK,D,T and master slave operation and excitation tables	23.9.20	Mrs.R.Ponni	
EC8391	Control Systems Engineering	Unit - 1 Analytical design for PD, PI and PID control systems	24.9.20	Mrs.U.Jeyamalar	

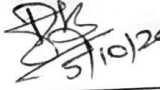


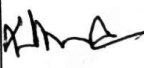

**CLASS: III ECE/ 5<sup>th</sup> sem**

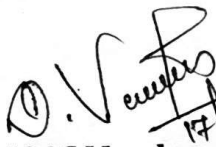
EC8501	Digital Communication	Unit-5 Hamming codes	8/10/20	Mr.A.Herald	
EC8553	Discrete-Time Signal Processing	Unit-2 Impulse invariance method, Bilinear transformation	17.9.20	Mr.S.Ramarajan	

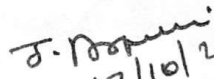



Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
EC8552	Computer Architecture and Organization	Unit-1 Addressing and addressing modes	25.08.20	Mr.R.Sathyaraj	
EC8551	Communication Networks	Unit-2 IPv4 address	21.9.20	Mrs.P.Thirumagal	P. Thirumagal
EC8073	Medical Electronics	Unit-1 Sources of bio medical signals, Bio potentials, Biopotential electrodes	27-8-20	Dr.T.Shanthi	
ORO551	Renewable Energy Source	Unit - 1 Flat plate collector	01/9/2020	Mrs. N.Mangaiyarkarasi	 17/9/20

**CLASS: IV ECE / 7<sup>th</sup> sem**

EC8701	Antennas & microwave Engineering	Unit - 5 Smart Antennas	5.10.20	Mr.R.Balakrishnan	 5/10/20
EC8751	Optical communication	Unit - 1 Transverse electric and transverse magnetic modes	21-08-2020	Mr.T.Pasupathi	T. Pasupathi
EC8791	Embedded and real time Systems	Unit - 1 Embedded system design process	27.8.20	Mr.T.Jeyaseelan	
EC 8702	Ad-hoc and wireless sensor networks	Unit - 3 IEEE 802.15.4 MAC protocol	29/09/20	Mr.P.Rajapirian	
EC 8092	Advanced-Wireless communication	Unit - 1 Frequency selective channels	27.08.20	Mr.R.Sathyaraj	
OIC751	Transducer Engineering	Unit - 5 Smart Sensors	8.10.20	Mrs.U.Jeyamalar	

  
17/10/20  
**IQAC Member  
(D.Vennila)**

  
17/10/2020

  
17/10/2020  
**HOD / ECE**



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2020-2021(EVEN SEMESTER)**  
**NPTEL SESSION EXECUTION STATUS**

DEPT:EEE

Sub.code & sub.Name	Name of the Staff	NPTEL session topic & Unit mapped to	Date of execution	Staff in charge sign
<b>II YEAR</b>				
MA8491- Numerical methods	Dr.S.Revathi	Finite difference technique for the solution of 2D Laplace eqns	08.1.21	S. Revathi
EE8401- Electrical Machines-II	Mr.C.John Selvaraj	Testing of Transformers	3.09.21 9/3/21	for
EE8402-Transmission & Distribution	Dr.P.Narasimman	Real and Reactive Power flow in Lines	22.02.21	P. Narasimman
EE8403- Measurement & Instrumentation	Mrs.P.Thirumagal	Static and dynamic characteristics	10.3.21	P. Thirumagal
EE8451- Linear Integrated & circuits	Mr.T.Pasupathi	Summers, differentiator and integrators	12.3.21	T. Pasupathi
IC8451-Control Systems	Mr.S.R.Karthikeyan	Signal flow graphs	08/03/21	S. R. Karthikeyan
<b>III YEAR</b>				
EE8601-Solid States Drives	Mr.R.Sundaramoorthi	4 Quadrant operation of Converter & chopper fed drive and applications	18/03/2021	R. Sundaramoorthi
EE8602-Protection and Switchgears	Dr.A.Albert Martin Ruban	Over current relays.	1/2/21	A. Albert Martin
EE8691-Embedded Systems	Mrs.P.Thirumagal	Serial bus communication protocols	15/3/21	P. Thirumagal

EE8002-Design of Electrical Apparatus	Dr.S.Sivakumar	Design of transformer - construction.	01.02.21	f. abbas
EE8005-Special Electrical Machines	Mr.J.Arokiaraj	Drive Circuits.	25.1.21	667
IV YEAR				
EE8015- Electric Energy Generation, Utilization and Conservation	Mrs.N.Rajeswari	motor life cycle	8/3/21	N.R.S.
EE8018- Microcontroller Based System Design	Dr.M.Meenalochani	ARM Architecture	21.1.21	el. elbe

*S. N. Senthil Kumar*  
15/4/21

*S. N. Senthil Kumar*  
15/4/21



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2020-2021(ODD SEMESTER)**  
**NPTEL SESSION EXECUTION STATUS**

**DEPT:EEE**

Sub.code & sub.Name	Name of the Staff	NPTEL session topic &Unit mapped to	Date of execution	Staff in charge sign
<b>II YEAR</b>				
MA8353 -Transforms and Partial Differential Equations	Mr.G.Jeyakrishnan	Parseval's identity	10.9.20	<i>[Signature]</i>
EE8351- Digital Logic Circuits	Mrs.D.Vennila	MOSFET SR, JK, D, T flip flop	15.9.20	<i>[Signature]</i>
EE8391- Electromagnetic Theory	Mrs.N.Rajeswari	Gauss's law and application.	25.08.20	<i>[Signature]</i>
EE8301- Electrical Machines - I	Mr.C.John Selvaraj	Testing of transformer	14/10/20	<i>[Signature]</i>
EC8353- Electron Devices and Circuits	Mr.W.Newton David Raj	MOSFET	11/09/2020	<i>[Signature]</i>
ME8792- Power Plant Engineering	Mr.J.Arokiaraj	Diesel-cycle	31-08-20	<i>[Signature]</i>
<b>III YEAR</b>				
EE8501- Power System Analysis	Dr.S.Sivakumar	single line diagram	24-08-20	<i>[Signature]</i>
EE8551- Microprocessors and Microcontrollers	Dr.M.Meenalochani	Programming : Loop structure with counting and indexing	16.9.2020	<i>[Signature]</i>
EE8552- Power Electronics	Mr.S.R.Karthikeyan	Firing schemes for converter	11/9/2020	<i>[Signature]</i>

EE8591- Digital Signal Processing	Mr.K.Sudharsan	IIR filter design	17/10/2020	<i>[Signature]</i>
CS8392- Object Oriented Programming	Mrs.R.Ranitha	Exceptions - Exception Hierarchy JAVA APPLICATIONS	10.8.2020	<i>[Signature]</i>
OMD551- Basics of Biomedical Instrumentation	Mr.R.Sundaramoorthi	Rightleg driven ECG amplifier	25/08/20	<i>[Signature]</i>
IV YEAR				
EE8701- High Voltage Engineering	Mr.S.Sakthivel	Insulation Coordination & Testing of cables	24/10/20	<i>[Signature]</i>
EE8702- Power System Operation and Control	Mrs.N.Arulmozhi	Statement of economic dispatch problem	25/08/20	<i>[Signature]</i>
EE8703- Renewable Energy Systems	Dr.A.Albert Martin Ruban	Introduction of Bio mass resources	11/9/20	<i>[Signature]</i>
OCS752- Introduction to C Programming	Mr.S.Rajarajan	Pointer Operators	17/10/2020	<i>[Signature]</i>
GE8071- Disaster Management	Mr.B.Sureshbabu	Role of social media in disaster management	14/10/20	<i>[Signature]</i>
EE8010- Power Systems Transients	Mr.S.R.Karthikeyan	Qualitative application EMTP	13/11/2020	<i>[Signature]</i>

*S.R. Karthikeyan*  
4/1/21

*[Signature]*  
4/1/21



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2020-2021 / EVEN SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT: MECHANICAL**

**CLASS: II MECH**

SUBJ CODE	NAME OF THE SUBJECT	NPTEL TOPIC	PROPOSED DATE OF EXECUTION
MA8452	Statistics and Numerical Methods	Power & Method	15.3.21.
ME8492	Kinematics of Machinery	Quick return Mechanism	15.03.21
ME8451	Manufacturing Technology - II	Mechanics cycle	11-03-21
ME8491	Engineering Metallurgy	Fibre reinforced polymer	30.03.21
CE8395	Strength of Materials for Mechanical Engineers	Normal stress SFD, BMD Calculations	30.03.21
ME8493	Thermal Engineering- I	MULTI STAGE AIR COMPRESSOR	26-03-21.

**CLASS: III MECH**

SUBJ CODE	NAME OF THE SUBJECT	NPTEL TOPIC	PROPOSED DATE OF EXECUTION
ME8651	Design of Transmission Systems	Sliding Mesh Gear Box	05-04-21
ME8691	Computer Aided Design and Manufacturing	Computer graphics	10.03.21
ME8693	Heat and Mass Transfer	Quiz, Flow chart, Seminar	12.3.2021
ME8692	Finite Element Analysis	1D shape function.	11-3-21.
ME8694	Hydraulics and Pneumatics	BASICS of hydraulics	30.3.21
ME8091	Automobile Engineering (E)	Types engine auxiliary	25-3.21

**CLASS: IV MECH A**

SUBJ CODE	NAME OF THE SUBJECT	NPTEL TOPIC	PROPOSED DATE OF EXECUTION
MG8591	Principles of Management	Budgetary tech	23/3/21
ME8094	Computer Integrated Manufacturing Systems	Flexible Manufacturing System	17/3/21

**CLASS: IV MECH B**

SUBJ CODE	NAME OF THE SUBJECT	NPTEL TOPIC	PROPOSED DATE OF EXECUTION
MG8591	Principles of Management	Budgetary Tech.	23/3/21
ME8094	Computer Integrated Manufacturing Systems	Flexible Manufacturing System	17/3/21

*A. P. R.*  
IQAC Member  
(ASWIN.M)

*S. S. R.*  
HOD / MECH



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2020-2021 / ODD SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT: MECHANICAL**

**CLASS: II MECH**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
MA8353	Transforms and Partial Differential Eqns	Dr.G.Ramya Arockia Mary	Discrete Mathematics	23.8.20	GPR
ME8391	Engineering Thermodynamics	Mr.H.Agilan	Carnot's cycle	16.7.20	H
CE8394	Fluid Mechanics and machinery	Mr.M.Melwin J Sridhar	Reciprocating pump	16.9.20	M
ME8351	Manufacturing Technology-I	Mr.S.Karthi	Investment casting	19.8.20	S
EE8353	Electrical Drives and Controls	Mr.C.John selvaraj	DC compound motors	18.9.20	J

**CLASS: III MECH**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
ME8595	Thermal Engineering II	Mr.S.Desikan	Boilers Accessories	22.8.20	S
ME8593	Design Of Machine Elements	Mr.V.Vijayakumar	Factors influencing Machine design	24.8.20	V
ME8501	Metrology & Measurements	Mr.N.Magesh	CMM and its types	19.8.20	N
ME8594	Dynamics Of Machines	Mr.J.Rajaparthiban	Forced vibrations and damping	14.8.20	J
OAT552	Internal Combustion Engines	Dr.P.P.Shantharaman	Engine cooling system	20.8.20	P




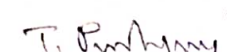
**CLASS: IV MECH A**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
ME8792	Power Plant Engineering	Dr.T.Pushparaj	Nuclear power plant	22.8.20	T. Pushparaj
ME8793	Process Planning & Cost Estimation	Mr.S.Sabanayagam	CAPP and its types	13.8.20	S. Sabanayagam
ME8791	Mechatronics	Mr.R.Shankar	Proximity sensors	11.9.20	R. Shankar
OIE751	Robotics	Mr.B.Ram Vignesh	Robot Kinetics	24.8.20	B. Ram Vignesh
GE8077	Total Quality Management	Mr.K.Sudhakar	5S and its principles	23.8.20	K. Sudhakar
ME8097	Non Destructive Testing and evaluation	Mr.V.Vijayakumar	Ultrasonic testing	9.9.20	V. Vijayakumar

**CLASS: IV MECH B**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
ME8792	Power Plant Engineering	Dr.P.P.Shantharaman	Steam power plant	23.8.20	P. P. Shantharaman
ME8793	Process Planning & Cost Estimation	Mr.S.Sabanayagam	FMEA & its types	14.8.20	S. Sabanayagam
ME8791	Mechatronics	Mr.M.Sakthivel	Sensors & Transducers	10.9.20	M. Sakthivel
OIE751	Robotics	Mr.B.Ram Vignesh	Robot sensors and grippers	22.8.20	B. Ram Vignesh
GE8077	Total Quality Management	Mr.K.Sudhakar	5S and its principles	17.8.20	K. Sudhakar
ME8097	Non Destructive Testing and evaluation	Mr.N.Magesh	RT testing	10.9.20	N. Magesh

  
IQAC Member

  
HOD/MECH

**DEPARTMENT OF SCIENCE AND HUMANITIES**  
**NPTEL SESSION EXECUTION STATUS**  
**ACADEMIC YEAR 2020-21 (EVEN)**

I CIVIL					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Mr.K.Anandharaj	Sequence words misspelled words	25.6.21	[Signature]
MA8251	Engineering Mathematics - II	Dr.D.Samundeeswari	C-H theorem	25.6.21	[Signature]
PH8201	Physics for Civil Engineering	Mr.S.Ambalatharasu	Chilled water plant	02/6/2021	[Signature]
BE8251	Basic Electrical and Electronics Engineering	Mr.S.Sivakumar	Transforms	7.6.21	[Signature]
GE8291	Environmental Science and Engineering	Dr.S.Udayakumar	Nuclear Hazards Solid waste management	9/6/2021	[Signature]
GE8292	Engineering Mechanics	Mr. M.Balaji	lanipheron	24/6/21	[Signature]
I CSE					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Mr.P.Raajeshwaran	Sequence words misspelled words	26/6/21	[Signature]
MA8251	Engineering Mathematics - II	Dr.S.Revathi	Cayley-Hamilton 1 Theorem	3.5.2021	[Signature]
PH8252	Physics for Information Science	Mrs.S.Anuradha	Thermal conductivity Wiedemann Franz law	25/6.21	[Signature]
BE8255	Basic Electrical, Electronics and Measurement Engineering	Mr.S.Sivakumar	Transforms	25.6.21	[Signature]
GE8291	Environmental Science and Engineering	Dr. S.Udhayakumar	Nuclear Hazards Solid waste management	11/6/2021	[Signature]
CS8251	Programming in C	Dr.D.Sivakumar	Pointer - pointer operators	25/6/21	[Signature]



**I ECE**

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXCECUTION	SIGNATURE
HS8251	Technical English	Mr.J.Radhakrishnan	Sequence of misspelled words	26.6.21	[Signature]
MA8251	Engineering Mathematics - II	Dr.G.Jeyakrishnan	Cayley Hamilton theorem	3.5.21	[Signature]
PH8253	Physics for Electronics Engineering	New Staff Ms. T. Abimalaiaarasi	Energy bands in Solids	27.4.21	[Signature]
BE8254	Basic Electrical and Instrumentation Engineering	Mr.T.Pasupathi	Three phase transforms	27.4.21	T. Pass
EC8251	Circuit Analysis	Mr..S.Ramarajan	Norton's theorem	25.5.21	[Signature]
EC8252	Electronic Devices	Mr.W. Newton David Raj	Unit 4	27.4.21	W. Newton

**I EEE**

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXCECUTION	SIGNATURE
HS8251	Technical English	Mr.J.Radhakrishnan	Sequence of misspelled words	26.6.21	[Signature]
MA8251	Engineering Mathematics - II	Dr.S.Geetha	C-H theorem	25.5.21	[Signature]
PH8253	Physics for Electronics Engineering	New Staff Mrs. S. Anusadha	Thermal conductivity Wiedemann Franz law	29.6.21	[Signature]
BE8252	Basic Civil and Mechanical Engineering	Mr.M.Aswin	Nuclear power & Applications	16.6.21	[Signature]
EE8251	Circuit Theory	Mr.T.Jeyaseelan	Norton's theorem	16.6.21	[Signature]
GE8291	Environmental Science and Engineering	Dr. P.Saravanan	Nuclear Hazardous Solid waste management	25/6/21	[Signature]

**I MECH**

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXCECUTION	SIGNATURE
HS8251	Technical English	Mr.P.Raajeshwari	Sequence of misspelled words	26/6/21	[Signature]
MA8251	Engineering Mathematics - II	Dr.G.Sankarakalidos	Cayley Hamilton theorem	26.6.21	[Signature]
PH8251	Materials Science	Mr.S.Ambalatharau	Fracture - Griffiths Criterion	29/06/21	[Signature]
BE8253	Basic Electrical, Electronics and Instrumentation Engineering	Mr.R.Thandayuthapani	Transformer	26/06/21	[Signature]
GE8291	Environmental Science and Engineering	Dr.P.Saravanan	Nuclear Hazardous Solid waste management	29/6/21	[Signature]
GE8292	Engineering Mechanics	Mr.M.Aswin	Lami's theorem & Applications	24/6/21	[Signature]

**GEP**  
(IQAC member)

**US**  
(HOD/SGH)



**DEPARTMENT OF SCIENCE AND HUMANITIES**  
**NPTEL SESSION EXECUTION STATUS**  
**ACADEMIC YEAR 2020-21(ODD)**

CIVIL					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mrs.C.Jansirani	Asking about asking & expressing opinions	7.12.20	C. Jansirani
MA8151	Engineering Mathematics-I	Dr.G. Ramya Arockia Mary	Volume of Solids	8.12.20	G. Ramya
PH8151	Engineering Physics	Mr.S.Ambalatharasu	Elasticity - Stress - Strain Diagram.	8-12-20	S. Ambalatharasu
CY8151	Engineering Chemistry	Dr.S.Udhayakumar	Light water nuclear reactor	8/12/20	S. Udhayakumar
GE8151	Problem Solving And Python Programming	Mrs.R.Ranitha	Selection sort	8-12-20	R. Ranitha
GE8152	Engineering Graphics	Mr. S. Aswin	Cycloids & involutes	9/12/20	S. Aswin
CSE					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mr.K.Anandharaj	Asking about asking & expressing opinions	9.12.20	K. Anandharaj
MA8151	Engineering Mathematics-I	Mrs.S.Geetha	Volume of Solids	9.12.20	S. Geetha
PH8151	Engineering Physics	Mrs.S.Anuratha	Elasticity, Stress Strain diagram	9/12/20	S. Anuratha
CY8151	Engineering Chemistry	Dr.S.Udhayakumar	Solar cell	15/12/20	S. Udhayakumar
GE8151	Problem Solving And Python Programming	Mr.M.Arun	Selection sort	8/12/20	M. Arun
GE8152	Engineering Graphics	Mr.M.Aswin	Cycloids & involutes	16/12/20	M. Aswin



ECE					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mr.P.Rajeshwaran	Asking about activities & opinions	17-12-20	[Signature]
MA8151	Engineering Mathematics-I	Mr.G.Jeyakrishnan	Volume of Solids	17-12-20	[Signature]
PH8151	Engineering Physics	Mr.S.Ambalatharasu	Elasticity - Stress - Strain Diagram	15/12/20	[Signature]
CY8151	Engineering Chemistry	Dr.P.Saravanan	Light water Power Plant	23/12/20	[Signature]
GE8151	Problem Solving And Python Programming	Mrs.R.Suganthalakshmi	Selection sort, Insertion sort, Merge sort, Histogram	30.1.21	[Signature]
GE8152	Engineering Graphics	Mr.M.Aswin	Cycloids & involutes	18/12/20	[Signature]

EEE					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mr.P.Rajeshwaran	Asking about activities & opinions	17-12-20	[Signature]
MA8151	Engineering Mathematics-I	Mrs.S.Revathi	Volume of Solids	15.12.2020	[Signature]
PH8151	Engineering Physics	Mrs.S.Anuratha	Elasticity Stress, Strain	10/12/20	[Signature]
CY8151	Engineering Chemistry	Dr.P.Saravanan	Light water Power Plant	28/12/20	[Signature]
GE8151	Problem Solving And Python Programming	Mrs.G.Chandraprabha	Selection sort, Insertion sort, Merge sort, Histogram	22/1/21	[Signature]
GE8152	Engineering Graphics	Mr.N.Agilan	Cycloids & involutes	18/12/20	[Signature]

MECH					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mr.K.Anandharaj	Asking about activities & opinions	9.12.20	[Signature]
MA8151	Engineering Mathematics-I	Dr.G.Shankarakalidoss	Volume of Solids	9.12.20	[Signature]
PH8151	Engineering Physics	Mr.S.Ambalatharasu	Elasticity - Stress - Strain Diagram	8/12/20	[Signature]
CY8151	Engineering Chemistry	Dr.V.SureshKumar	Light water nuclear power plant	4/12/20	[Signature]
GE8151	Problem Solving And Python Programming	Mr.R.Sriramkumar	Selection sort	8/12/20	[Signature]
GE8152	Engineering Graphics	Mr.S.Karthi	Cycloids & involutes	11/12/20	[Signature]

GDP  
(IBAC Member)

[Signature]  
HOD/S & H

**ACADEMIC YEAR 2019-2020**





**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2019-2020 / EVEN SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : CIVIL**

II yr CIVIL					
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8491	Numerical Methods	Unit IV - Poisson's eqn	3.3.20	Ms.S.Geetha	[Signature]
CE8401	Construction Techniques & Practices	Pipe Jacking - Unit 3	27.01.20	Mr.S.R.Elwin Guru Chanth	[Signature]
CE8402	Strength of Materials II	Euler's column theory Unit-3	22/1/20	Ms.K.Jeyashankari	[Signature]
CE8403	Applied Hydraulic Engineering	Francis turbine Unit-II	18/2/20	Ms.V.Iswarya	[Signature]
CE8404	Concrete Technology	BIS method of mix design	4.2.20	Ms.K.Bhavarohini	[Signature]
CE8491	Soil Mechanics	Boussinesq theory Unit-3	31.1.20	Ms.M.Priya	[Signature]
III yr CIVIL					
CE8601	Design of Steel Structural Elements	Slenderness Ratio Unit-4	22.2.20	Ms.M.Priya	[Signature]
CE8602	Structural Analysis II	plastic hinge and mechanism (UNIT-2)	3/3/20	Ms.T.Bhuvaneswari	[Signature]
CE8603	Irrigation Engineering	gravity dam Unit-3	25/1/20	Mr.K.Ranjith	[Signature]
CE8604	Highway Engineering	site distance Unit-2, 11/1/20	11/1/20	Ms.K.Jeyashankari	[Signature]
EN8592	Wastewater Engineering	Disposal methods - Unit-IV	14/2/20	Ms.V.Iswarya	[Signature]
CE8005	Air pollution & Control Engineering	Control & Preventive measures of noise Pollution Unit-5	11/3/2020	Mr.R.Sundharam	[Signature]
IV yr CIVIL					
MA6851	Principles of Management	Creativity and Innovation Unit-4	19/2/20	Mr.B.Barankumar	[Signature]
CE6016	Prefabricated Structures	Types and concepts of Prestress system - UNIT-VII	01/01/2020	Mr.K.Arun	[Signature]
CE6021	Repair & Rehabilitation of Structures	UNIT-VII Shoring	19/02/2020	Ms.R.Revathi	[Signature]

**IQAC MEMBER**  
(K.ARUN)

**PRINCIPAL**  
(Dr.J.ARPUTHA VIJAYA SELVI)


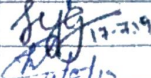



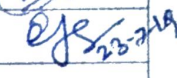
**HOD/CIVIL**  
(Ms.R.REVATHI)



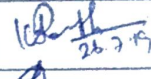
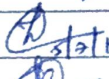

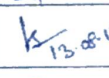
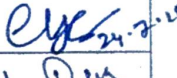

**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2019-2020 / ODD SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : CIVIL**






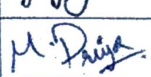

**CLASS: II CIVIL**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8353	Transforms and Partial Differential Equations	one dimensional wave equation and heat eqn Unit-1	24.7.19	Dr.G.Shankarakalidoss	
CE8301	Strength of Materials I	Bolted beam Unit-2	17.7.19	Ms.K.Jeyashankari	
CE8302	Fluid Mechanics	Drag and lift Unit-2	28.8.19	Ms.T.Bhuvaneswari	
CE8351	Surveying	Tacheometric Surveying	10.7.19	Mr.S.Kamaraj	
CE8391	Construction Materials	Patching Parts-Unit-1	27.7.19	Ms.K.Bhavarohini	
CE8392	Engineering Geology	classification of rocks Unit-3	23.7.19	Mr.M.Mohamed Ilyas	

**CLASS: III CIVIL**

CE8501	Design of Reinforced Concrete elements	Two way slab Unit-3	26.7.19	Mr.K.Ranjith	
CE8502	Structural Analysis I	Analysis of continuous beam SDNS Unit-2	5/2/2019	Ms.T.Bhuvaneswari	
EN8491	Water Supply Engineering	Sand filter, Unit 3	07.08.19	Mr.S.R.Elwin Guru Chanth	
CE8591	Foundation Engineering	Capacity for in-situ test Unit-1	13.08.19	Ms.V.Ishwarya	
OAI551	Environment and Agriculture	Global warming. Unit-3	24.7.19.	Mr.M.Mohamed Ilyas	
GI8014	Geographic Information System	Data model- Unit-2	12/7/19	Ms.M.Priya	

**CLASS: IV CIVIL**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
CE6701	SDEE	Unit-1 Elements of Engineering Science	17/7/19	Mr.K.Arun	
CE6702	Prestressed Concrete Structures	Unit-1 Design of anchorage zone	24/7/19	Ms.R.Revathi	
CE6703	Water Resources and Irrigation Engineering	Duty, Delta and Base period Unit-3	24.7.19	Ms.K.Bhavarohini	
CE6704	Estimation and Quantity Surveying	Estimating of Joak pit Unit-2	09.07.19	Mr.S.R.Elwin Guru Chanth	
CE6007	Housing Planning and Management	Building Byelaws and Rules & development	17.7.19	Ms.K.Jeyashankari	
CE6008	Groundwater Engineering	Image well theory Unit-2	18/7/19	Ms.M.Priya	
CE6011	Air Pollution Management	Control measures of noise pollution Unit-5	24/8/19	Mr.R.Sundharam	

**IQAC MEMBER**

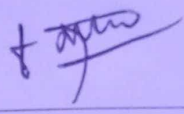
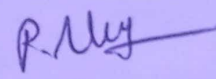

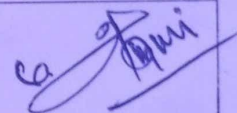
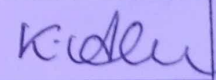

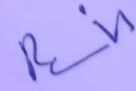
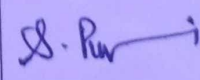
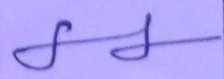
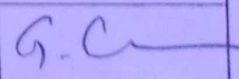
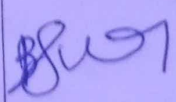
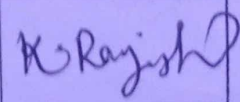
**HOD/CIVIL**

**PRINCIPAL**




**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2019-20 (Even Sem)**  
**NPTEL SESSION EXECUTION STATUS**

DEPT: CSE

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff incharge	Signature
<b>YEAR : SEM : SEC: II/ IV</b>				
MA8402 - Probability & Queuing Theory	Single & Multiple Server queueing models - Little's formulae & var	18.2.20	Dr.R.Suresh	
CS8491 - Computer Architecture	Memory Hierarchy	10/2/20	Ms.P.Nalayini	
CS8492 - Database Management Systems	Object based DB's, ODBC	10/2/20	Ms.R.Suganthalakshmi	
CS8451 - Design & Analysis of Algorithm	Stable Marriage Problem	9/2/20	Mr.M.Arun	
CS8493 - Operating Systems	Process, Concepts, Data process communication	9/1/20	Ms.K.Abhirami	
CS8494 - Software Engineering	Cost estimation	12/2/20	Dr.D.Sivakumar	
<b>YEAR : SEM : SEC:III/VI</b>				
CS8651 - Internet Programming	Animation	18.2.20	Ms.R.Ranitha	
CS8691 - Artificial Intelligence	Constraint Satisfaction Problems	14.2.20	Ms.S.Puvaneswari	
CS8601 - Mobile Computing	Cellular System	14.2.20	Dr.S.M.Uma	
CS8602 - Compiler Design	Stack Allocation Space	13.2.20	Ms.G.Chandraprabha	
CS8603 - Distributed Systems	Issue in failure recovery	18.2.20	Ms.B.Sangeetha	
IT8076 - Software Testing	Adhoc testing, Alpha Beta testing	19.2.20	Mr.K.Rajesh	

YEAR : SEM : SEC: IV / VIII

CS6801 - Multicore architectures and programming	MPI - Derived DT	24-2-20	Ms.P.Nalayini	P. N. S.
IT6011 - Knowledge management	Decision support systems	21.2.20	Mr.S.Rajarajan	S. R. J.
MG6088 - Software Project Management	Risk Evaluation	10.2.20	Mr.R.Sriramkumar	R. S. R.

  
25/2/20  
IQAC Member

  
25/2/20  
HOD




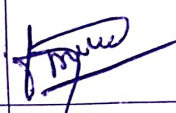
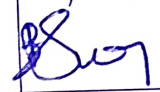

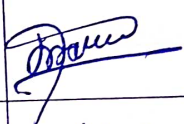
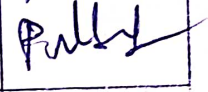
**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2019-20 (Odd Sem)**

**NPTEL SESSION EXECUTION STATUS**


**DEPT: CSE**

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff incharge	Signature
<b>YEAR : SEM : SEC: II/ IV</b>				
MA8351- Discrete Mathematics	Rules of inference Rings & Fields	14-8-19	Ms.S.Geetha	<i>Geetha</i>
CS8351- Digital Principles and System Design	Latches & Flipflops	13-8-19	Mr.S.Rajaraman	<i>[Signature]</i>
CS8391- Data Structures	Tree traversals Expression tree	23/7/19	Ms.K.Abhirami	<i>K. Abhirami</i>
CS8392 - Object Oriented Programming	Exceptions- Hierarchy	16/8/19	Dr.D.Sivakumar	<i>[Signature]</i>
EC8395 - Communication Engineering	VSF-PSD- Modulators & demodulators	18/8/19	Mr.T.Jeyaseelan	<i>[Signature]</i>
<b>YEAR : SEM : SEC:III/VI</b>				
MA8551 - Algebra and Number Theory	Fermat's little theorem	13.9.19	Mr.G.Jeyakrishna n	<i>G. Jeyakrishna</i>
CS8591 - Computer Networks	SNMP	19.7.19	Mr.K.Rajesh	<i>K. Rajesh</i>
EC8691 - Microprocessor & Microcontroller	Architecture of 8085 Micro Controller, Special Function Registers (SFRs)	21.8.19	Dr.S.M.Uma	<i>[Signature]</i>
CS8501 - Theory of Computation	Equivalence of Pushdown Automata & CFL	23.8.19	Ms.S.Puvaneswar i	<i>S. Puvaneswari</i>
CS8592 - Object Oriented Analysis & Design	Aggregation & Composition	19.7.19	Ms.R.Ranitha	<i>R. Ranitha</i>
OMF551 - Product Design and Development	Case study on value engineering	13.9.19	Ms.R.Suganthala kshmi	<i>[Signature]</i>

YEAR : SEM : SEC: IV / VIII

CS6701 - Cryptography and Network Security	Authentication Function	5/9/19	Dr.D.Sivakumar	
CS6702 - Graph Theory and Applications	Tree, Properties of tree	6/9/19	Dr.R.Suresh	
CS6703 - Grid and Cloud Computing	Command line & Java interface	26.8.19	Ms.B.Sangeetha	
CS6704 - Resource Management Techniques	Kuhn - Tucker Conditions	5.9.19	Dr.G.Shankara Kalidoss	
CS6004 - Cyber Forensics	Network Forensics	5.9.19	Mr.R.Sriramkumar	
CS6007- Information Retrieval	IR versus Web Search	7/9/19	Ms.P.Nalayini	

  
20/9/19  
IQAC Member

  
20/9/19  
HOD




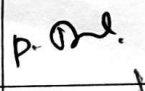
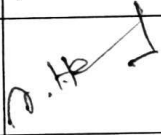

**INTERNAL QUALITY ASSURANCE CELL**

**ACADEMIC YEAR 2019-2020 / EVEN SEMESTER**


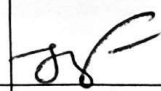


**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : ECE**


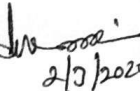
**CLASS: II ECE /4<sup>th</sup> sem**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8451	Probability and Random Processes	Unit - 1 Discrete and continuous random variables.	19.12.19	Mr.G.Jeyakrishnan	
EC8452	Electronic Circuits II	Unit - 2 Oscillator amplitude stabilization	24.1.20	Mrs.U.Jeyamalar	
EC8491	Communication Theory	Unit - 1 DSBSC, SSB, VSB	19.12.19	Mr.S.Ramarajan	
EC8451	Electromagnetic Fields	Unit - 5 Group velocity, EM power flow and pointing vector	11.3.20	Mrs.P.Thirumagal	
EC8453	Linear Integrated Circuits	Unit - 2 Logarithmic and Antilogarithmic amplifier.	13/1/20	Mr.A.Herald	
GE8291	Environmental science and Engineering	Unit - 1 Aquatic Eco systems Unit - 2 Nuclear hazards - soil waste management.	05.01.20 29.01.20	Dr.V.Sureshkumar	

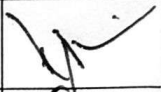


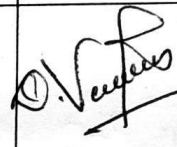
**CLASS: III ECE/ 6<sup>th</sup> sem**

EC8691	Microprocessors and Microcontrollers	Unit - 5 ADC and DAC Interfacing	06/03/20	Mr.P.Rajapirian	
EC8095	VLSI Design	Unit - 4 Arithmetic building blocks: Data paths, Adders	20.2.20	Mr. T. Jeyaseelan	
EC8652	Wireless Communication	Unit - 5 MIMO Systems	24/2/20	Mr.R.Sathyaraj	
MG8591	Principles of Management	Unit - 1 Evolution of Management Unit - 5 Budgetary and non budgetary control techniques.	08.01.20 05.03.20	Mr.B.Barankumar	

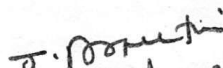


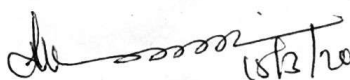
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
EC8651	Transmission Lines and RF Systems	Unit -4 TM and TE waves in circular waveguides	26.2.20	Mr.R.Balakrishnan	
EC8002	Multimedia Compression and Communication	Unit - 5 Media levity, Media synchronization, Models for temporal specifications	02/03/2020	Mrs.N.Mangaiyarkarasi	

**CLASS: IV ECE /8th sem**

EC6801	Wireless Communication	Unit - 5 MIMO systems	2.3.20	Mrs.R.Ponni	
EC6802	Wireless networks	Unit - 2 Mobile IP session initiation protocol	29-01-20	Dr.T.Shanthi	
EC6018	Multimedia Compression and Communication	Unit - 4 CODEC methods Unit- 5 Streamed stored and audio-making the best effort service	25/2/20 3/3/20	Mr.R.Thandayuthapani	
EC6019	Data Converters	Unit - 1 & 5 Switched capacitor architecture. Calibration techniques.	6-01-20 5-03-20	Mrs.D.Vennila	

  
15/3/20.  
**IQAC Member**  
**(D.Vennila)**

  
15/3/2020

  
15/3/2020  
**HOD / ECE**



**INTERNAL QUALITY ASSURANCE CELL**

**ACADEMIC YEAR 2019-2020 / ODD SEMESTER**

**NPTEL SESSION EXECUTION STATUS**


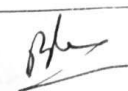

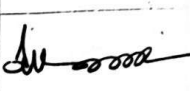
**DEPARTMENT : ECE**

**CLASS: II ECE / 3<sup>rd</sup> sem**






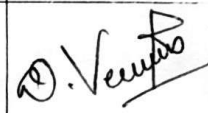
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8352	Linear Algebra and Partial Differential Equations	Unit - 4 Classification of partial differential equations Unit-2 Matrix representation of a linear transformations	12.7.19 4 20.8.19	Mrs.S.Revathi	
EC8393	Fundamentals of Data Structures In C	Unit - 5 Bubble sort and Insertion Sort	4.9.19	Mrs.G.Chandra prabha	
EC8351	Electronic Circuits- I	Unit - 5 Power supply performance and testing	13.9.19	Mr.S.Sivakumar	
EC8352	Signals and Systems	Unit - 1 Linear & Non linear Time variant & Time invariant Causal & Non causal Stable & Unstable	03-07-19	Mr.T.Pasupathi	
EC8392	Digital Electronics	Unit - 3 Flip-flops- SR, JK, D, T and master slave operation and excitation tables	29.7.19	Mr.A.Herald	
EC8391	Control Systems Engineering	Unit - 1 Analytical design for PD, PI and PID control systems	19.7.19	Mrs.U.Jeyamalar	

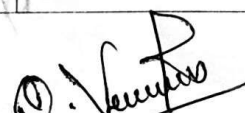
**CLASS: III ECE / 5<sup>th</sup> sem**

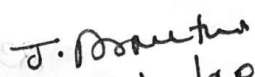
EC8501	Digital Communication	Unit-5 Hamming codes	3/9/19	Mrs.R.Ponni	
EC8553	Discrete-Time Signal Processing	Unit-2 Impulse invariance method, Bilinear transformation	23/7/19	Mr.R.Balakrishnan	

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
EC8552	Computer Architecture and Organization	Unit-1 Addressing and addressing modes	01.07.19	Mr.R.Sathyaraj	
EC8551	Communication Networks	Unit-2 IPV4 address	29/7/19	Mr.P.Rajapirian	
EC8073	Medical Electronics	Unit-1 Sources of bio medical signals, Bio potentials, Biopotential electrodes	25.06.19	Mr.S.Ramarajan	
ORO551	Renewable Energy Source	Unit - 2 Flat plate collector	13.7.19	Mrs.N.Mangaiyarkarasi	

**CLASS: IV ECE / 7<sup>th</sup> sem**

EC6701	RF and Microwave Engineering	Unit-5 Spectrum analyzer, Network analyzer	22.8.19	Mr.R.Thandayuthapani	
EC6702	Optical Communication and Networks	Unit-1 Mode theory of circular wave guides	27.6.19	Mr.K.Sudarsanan	
EC6703	Embedded and Real Time Systems	Unit-3 Example of real time operating systems- POSIX- Windows CE	2/8/19	Dr.T.Shanthi	
EC6004	Satellite Communication	Unit-2 Space craft technology- structure, primary power. Unit-5 INTELSAT Series, INSAT , VSAT	08/07/19 21/08/19	Mr.W.Newton David Raj	
EC6011	Electro Magnetic Interference and Compatibility	Unit-2 Ground loop coupling Unit-3 Choice of materials for H,E and free space solids	16.07.19	Mrs,P,Thirumagal	
EC6016	Opto Electronic Devices	Unit-1 Review of solid state physics	28.6.19	Mrs.D.Vennila	

  
**IQAC Member**  
**(D.Vennila)**

  
 10/10/2019

  
**HOD / ECE** 10/10/19

**KINGS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF EEE**  
**ACADEMIC YEAR 2019-20 EVEN**

Sub Code / Name	Name of the Faculty	NPTEL session topic	Date of Execution	Faculty Sign
MAB491 NM	Dr. G. Shankar Kaliyandoss	RD - Poisson's equations on rectangular domain - 5	8.1.20	<i>[Signature]</i>
EE401 EM-2	Mr. C. John Selvaraj	Spaul control of 3P Induction Motor - IV	6.3.2020	<i>John C</i>
EES402 TRD	Mrs. N. Anulmoghini	Real and Reactive Power flow lines - II	18.01.20	<i>[Signature]</i>
EES403 M&I	Mr. S. Sakthivel	Static & dynamic characteristics unit - I	17/12/19	<i>S. Suf</i>
EES401 LIC	Mr. K. Sudharsan	Summation & Difficulties of Induction - II	13/1/2020	<i>[Signature]</i>
IC8451 CS	Mr. S. R. Karthikeyan	Correlation between frequency - unit - III	4.2.2020	<i>S. R. Karthikeyan</i>
EES601 SSD	Mr. R. Sundaramoorthy	Four quadrant operation of converter & chopper drive applications (unit-2)	20/01/2020	<i>[Signature]</i>
EE8602 DSG	Dr. A. Albert Martin Ruban	Over current relays	14.01.2020	<i>[Signature]</i>
EE8691 ES	Dr. M. Meenakshisundaram	Serial bus communication protocols - III	8.1.20	<i>clp. clp</i>
EE8002 DEP	Dr. S. Sivakumari	Output equation of 3P transformer - unit - II	11/1/20	<i>[Signature]</i>
EE8005 SEM	Mr. J. Anukumaraj	Drive circuits	22/1/20	<i>[Signature]</i>
EE6801 ELUC	Mrs. N. Rajeswari	Classification of light sources - Incandescent lamp	9.1.20	<i>[Signature]</i>
EE6009 PERES	Mr. C. John Selvaraj	Maximum power Point Tracking unit - 5	5.3.20	<i>John C</i>
GE6757 TBM	Mr. B. Suresh Babu	FMEA	6/3/20	<i>B. Suresh Babu</i>

*S. R. Karthikeyan*  
06/03/2020

*[Signature]*



**KINGS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF EEE**  
**ACADEMIC YEAR 2019-20 ODD**

Sub Code / Name	Name of the Faculty	NPTEL session topic	Date of Execution	Faculty Sign
MA8353 TPDE	Mrs. N. Latha	1D equation of heat unit - B	1.7.19	<i>[Signature]</i>
EE8351 DLC	Mrs. D. Vennila	sequential logic unit - II	07.08.19	<i>D. Vennila</i>
EE8391 FMT	Mr. S. Sakthivel	Clauss law & application - unit - I	01.07.19	<i>S. Sakthivel</i>
EE8301 EM-I	Mr. C. Johnselvaraj	Transformer testing - II	25.7.19	<i>John C</i>
EC8353 EDC	Mr. P. Rajapiraman	MOSFET - II	2/8/2019	<i>[Signature]</i>
ME8792 PPE	Mrs. S. R. Karthikeyan	Diesel power cycle	9/7/2019	<i>S. R. Karthikeyan</i>
EE8501 PSA	Dr. S. Sivakumar	Network Graph - Unit - I	1/7/19	<i>[Signature]</i>
EE8551 MPL MC	Mrs. N. Anulmozhi	Memory organization Architecture (General) unit - III	1/8/2019	<i>[Signature]</i>
EE8552 PE	Mr. J. Arokia Raj	PWM - TECHNIQUES - UNIT - IV	22/8/19	<i>[Signature]</i>
EE8591 DSP	Mr. R. Balakrishnan	FILTERS unit - IV	26/8/19	<i>[Signature]</i>
CS8392 OOPS	Mrs. B. Sangeetha	Exceptions hierarchy	7.8.19	<i>[Signature]</i>
OMDES1 BBMI	Mr. C. Johnselvaraj	ECG - Unit - 2	19.7.19	<i>John C</i>
EE6701 HVE	Mr. C. Balaji	Insulation Co-ordination unit - V	30.8.19	<i>[Signature]</i>
EE6702 PSG	Dr. A. Albert Martin Ruban	CT, over current relay (unit - 2)	9.7.19	<i>[Signature]</i>
EE6703 SEM	Mrs. N. Rajeswari	unit - I Driver circuits of machine	2.7.19	<i>[Signature]</i>
MG6851 POM	Mr. B. Suresh Babu	Budgetary control Techniques	30/07/19	<i>B. Suresh Babu</i>
EI6764 BMT	Mr. R. Sundara Moorthy	ECG lead systems and recording methods Typical wave	26/07/19	<i>[Signature]</i>
EE6008 MCSD	Mrs. M. Meenolochani	ARM Architecture	31.7.19	<i>[Signature]</i>

*S. R. Karthikeyan*  
30/8/2019

*[Signature]*  
30/8/19





**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2019-2020 / EVEN SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT: MECHANICAL**

**CLASS: II MECH**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
MA8452	Statistics and Numerical Methods	Dr. G. Shankara Kalidoss	Taylor's series	6.1.20	G. Shankar
ME8492	Kinematics of Machinery	Mr. M. Melwin J Sridhar	Types of cam	20.1.20	M. Melwin J Sridhar
ME8451	Manufacturing Technology - II	Mr. S. Desikan	Gear cutting terminology	3.2.20	S. Desikan
ME8491	Engineering Metallurgy	Mr. J. Rajaparthiban	Fatigue test	21.1.20	J. Rajaparthiban
CE8395	Strength of Materials for Mechanical Engineers	Mr. S. Sabanayagam	Principle stress	20.2.20	S. Sabanayagam
ME8493	Thermal Engineering- I	Mr. B. Adhichelvan	IC engine cooling system	5.2.20	B. Adhichelvan

**CLASS: III MECH A**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
ME8651	Design of Transmission Systems	Mr. J. Rajaparthiban	Design of cone clutches	7.1.20	J. Rajaparthiban
ME8691	Computer Aided Design and Manufacturing	Mr. S. Sabanayagam	AUTOCAD animation	4.2.20	S. Sabanayagam
ME8693	Heat and Mass Transfer	Mr. H. Agilan	2D heat transfer	17.2.20	H. Agilan
ME8692	Finite Element Analysis	Dr. P. P. Shantharaman	Jacobian coordinates	22.1.20	P. P. Shantharaman
ME8694	Hydraulics and Pneumatics	Mr. S. Karthi	Hydraulic circuits	6.2.20	S. Karthi
ME8091	Automobile Engineering (E)	Mr. R. Shankar	Types of chassis	20.2.20	R. Shankar

**CLASS: III MECH B**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
ME8651	Design of Transmission Systems	Mr.S.Desikan	Design of brakes	17.2.20	SD
ME8691	Computer Aided Design and Manufacturing	Mr. S.Karthi	AUTOCAD animation	8.1.20	SK
ME8693	Heat and Mass Transfer	Mr. H.Agilan	2D fins	7.2.20	HA
ME8692	Finite Element Analysis	Dr.P.P.Shantharaman	Gaussian iterations	23.1.20	P.P.
ME8694	Hydraulics and Pneumatics	Mr. M.Sakthivel	Introduction to Pneumatics	19.2.20	MS
ME8091	Automobile Engineering (E)	Mr. B.Ram Vignesh	Automobile body types	8.2.20	B.R.V.

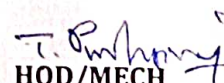
**CLASS: IV MECH A**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
MG6863	Engineering Economics	Mr. K. Sudhakar	Statistics tables usage	18.2.20	K. Sudhakar
IE6605	Production Planning and Control (E)	Mr. N. Magesh	Heisker charts	9.1.20	N. Magesh
ME6016	Advanced I.C. Engines (E)	Mr. B. Adhichelvan	Fuel system	24.1.20	B. Adhichelvan

**CLASS: IV MECH B**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
MG6863	Engineering Economics	Mr. K. Sudhakar	Statistics tables usage	19.2.20	K. Sudhakar
IE6605	Production Planning and Control (E)	Mr. V.Vijayakumar	Break event analysis	25.1.20	V.V.
ME6016	Advanced I.C. Engines (E)	Dr.T.Pushparaj	Firing order of an engine	10.1.20	T. Pushparaj

  
**IQAC Member**

  
**HOD/MECH**





**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2019-2020 / ODD SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT: MECHANICAL**

**CLASS: II MECH**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
MA8353	Transforms and Partial Differential Eqns	Mr.GJeyakrishnan	Discrete Mathematics	23.8.19	
ME8391	Engineering Thermodynamics	Mr.B.Ram Vignesh	First law of thermodynamics	16.7.19	
CE8394	Fluid Mechanics and machinery	Mr.M.Melwin	Centrifugal pump	16.9.19	
ME8351	Manufacturing Technology-I	Mr.S.Karthi	Investment casting	17.7.19	
EE8353	Electrical Drives and Controls	Mr.S.Sakthivel	Electrical generators	18.9.19	

**CLASS: III MECH**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
ME8595	Thermal Engineering II	Mr.H.Agilan	Boilers & Mountings	22.7.19	
ME8593	Design Of Machine Elements	Mr.J.Rajaparthiban	Factors influencing Machine design	24.7.19	
ME8501	Metrology & Measurements	Mr.S.Sabanayagam	Angular measurement	6.8.19	
ME8594	Dynamics Of Machines	Mr.R.Shankar	Forced vibrations	12.8.19	
OAT552	Internal Combustion Engines	Mr.P.P.Shantharaman	Engine auxiliaries	8.8.19	

**CLASS: IV MECH A**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
ME6701	Power Plant Engineering	Mr.P.P.Shantharaman	Steam power plant	22/7/19	
ME6702	Mechatronics	Mr.S.Sabanayagam	Sensors & Transducers	13/8/19	

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
ME6703	Computer Integrated Manufacturing Systems	Mr.B.Ram Vignesh	JIT - An introduction	11.9.19	<i>[Signature]</i>
GE6757	Total Quality Management	Mr.K.Sudhakar	FMEA & its types	24.7.19	<i>K. Swamy</i>
ME6005	Process Planning & Cost Estimation	Mr.N.Magesh	Estimation of jobs	16.8.19	<i>[Signature]</i>
ME6012	Maintenance Engineering	Dr.T.Pushparaj	Maintenance economics	9.9.19	<i>T. Pushparaj</i>

**CLASS: IV MECH B**

SUBJ CODE	NAME OF THE SUBJECT	NAME OF THE STAFF	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
ME6701	Power Plant Engineering	Mr.H.Agilan	Steam power plant	23.7.19	<i>[Signature]</i>
ME6702	Mechatronics	Mr.M.Aswin	Sensors & Transducers	14.8.19	<i>[Signature]</i>
ME6703	Computer Integrated Manufacturing Systems	Mr.V.Vijayakumar	JIT - An introduction	10.9.19	<i>[Signature]</i>
GE6757	Total Quality Management	Mr.B.Baran Kumar	FMEA & its types	22.7.19	<i>B. Baran Kumar</i>
ME6005	Process Planning & Cost Estimation	Mr.S.Karthi	Estimation of jobs	17.8.19	<i>[Signature]</i>
ME6012	Maintenance Engineering	Mr.J.Rajaparthiban	Maintenance economics	10.9.19	<i>[Signature]</i>

*[Signature]*  
IQAC Member

*[Signature]*  
HOD/MECH



**DEPARTMENT OF SCIENCE AND HUMANITIES**  
**NPTEL SESSION EXECUTION STATUS**  
**ACADEMIC YEAR 2019-20(EVEN)**

I CIVIL					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Mr.K.Anandharaj	Sequence words misspelled words	25-01-20	K. An
MA8251	Engineering Mathematics - II	Mr.G.Jeyakrishnan	Diagonalization of Matrices	23.1.20	G. Jey
PH8201	Physics for Civil Engineering	Mrs. R.Umamaheswari	child water plant	24.1.20	R. Uma
BE8251	Basic Electrical and Electronics Engineering	Mrs.P.Thirumahal	Kirchoff's current law and voltage law	18.1.20	P. Thir
GE8291	Environmental Science and Engineering	Dr.S.Udayakumar	Aquatic ecosystem solid waste management	24/1/20	S. Uday
GE8292	Engineering Mechanics	Mr. S.R. Elwin Guru Chanth	Force in 3-D	13.1.20	S. R. Elwin

I CSE					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Dr..R.Senguttuvan	Sequence words misspelled words	25.01.20	Dr. R. Seng
MA8251	Engineering Mathematics - II	Dr.G.Ramya Arokia Mary	Diagonalization of Matrices	20.1.20	G. Ramya
PH8252	Physics for Information Science	Mrs.S.Anuradha	Thermal conductivity Wiedemann Franz law	15-2-20	S. Anur
BE8255	Basic Electrical, Electronics and Measurement Engineering	Mr.W. Newton David Raj	Kirchoff's current law	24.1.20	W. Newton
GE8291	Environmental Science and Engineering	Dr. P.Saravanan	Aquatic Ecosystem solid waste man	24/1/20	P. Sarava
CS8251	Programming in C	Mrs.G.Chandra Praba	Pointers, Pointer operators and arithmetic	24/2/20	G. Chandra



**I ECE**

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Mrs. C.Jansi Rani	Seamless words misspelled words	25.01.20	C Jansi
MA8251	Engineering Mathematics - II	Mrs.S.Revathi	Diagonalization of Matrices	30.01.2020	S. Revathi
PH8253	Physics for Electronics Engineering	Mr.S.Ambalatharasu	Semiconductors	12.2.2020	S. Ambalatharasu
BE8254	Basic Electrical and Instrumentation Engineering	Mr.S.Sivakumar	Three phase transformers	14.2.2020	S. Sivakumar
EC8251	Circuit Analysis	Mr.T.Pasupathi	Thevenin's & Norton's theorem	22-01-2020	T. Pasupathi
EC8252	Electronic Devices	Mr.W. Newton David Raj	Conductivity of 4	12.2.20	W. Newton

**I EEE**

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Mr.K.Anandharaj	Seamless words misspelled words	25-01-20	K. Anandharaj
MA8251	Engineering Mathematics - II	Mrs.S.Revathi	Diagonalization of Matrices	30.01.2020	S. Revathi
PH8253	Physics for Electronics Engineering	Mr.S.Ambalatharasu	Semiconductors	13.2.2020	S. Ambalatharasu
BE8252	Basic Civil and Mechanical Engineering	Mr.M.Aswin	Fire tube & Water tube Boilers	12.2.2020	M. Aswin
EE8251	Circuit Theory	Mrs.N.Arulmozhi	Norton's theorem	11.2.20	N. Arulmozhi
GE8291	Environmental Science and Engineering	Dr. P.Saravanan	Aquatic ecosystem solid waste management	25.1.2020	P. Saravanan

**I MECH**

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Mr.P.Rajeshwari	Seamless words misspelled words	25.01.20	P. Rajeshwari
MA8251	Engineering Mathematics - II	Mrs. T.Gnanajeya	Diagonalization of Matrices	27.1.2020	T. Gnanajeya
PH8251	Materials Science	Mrs.S.Anuradha	Phase rule Single component system	13.2.2020	S. Anuradha
BE8253	Basic Electrical, Electronics and Instrumentation Engineering	Mr.S.Sivakumar	Thevenin's & Norton's theorem	27.1.2020	S. Sivakumar
GE8291	Environmental Science and Engineering	Dr.S.Udayakumar	Aquatic ecosystem solid waste management	25/1/2020	S. Udayakumar
GE8292	Engineering Mechanics	Mr.M.Aswin	Forces in 3-Dimensions	28/1/20	M. Aswin

**GP**  
(IQAC member)

**by**  
(HOD/S&H)



**DEPARTMENT OF SCIENCE AND HUMANITIES**  
**NPTEL SESSION EXECUTION STATUS**  
**ACADEMIC YEAR 2019-20(ODD)**

I CIVIL					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mrs.C.Jansi Rani	Asking about expressing opinions	28.10.19	C.Jansi
MA8151	Engineering Mathematics-I	Mrs.N.Latha	change of order of integration	15.10.19	N.Latha
PH8151	Engineering Physics	Mrs.R.Umamaheswari	Semiconductor homojunction diode	17.10.19	R.Uma
CY8151	Engineering Chemistry	Dr.AL.Kavitha	Light water nuclear power plant	28.11.19	AL.Kavitha
GE8151	Problem Solving And Python Programming	Mr.M.Arun	Sorting	24.11.19	M.Arun
GE8152	Engineering Graphics	Mr.V.Sivashankar	free hand orthographic projections	10.10.19	V.Sivashankar

**I CSE**

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mr.P.Rajeshwaran	Asking about asking expressing opinions	28.10.19	P.Rajeshwaran
MA8151	Engineering Mathematics-I	Dr.G. Ramya Arockiyamary	change of order of integration	14.10.19	Ramya
PH8151	Engineering Physics	Mr.S.Ambalatharasu	Semiconductor Homojunction diode	20.12.2019	S.Ambalatharasu
CY8151	Engineering Chemistry	Dr.AL.Kavitha	Light water nuclear power plant	28.11.19	AL.Kavitha
GE8151	Problem Solving And Python Programming	Mr.M.Arun	Sorting	20.12.2019	M.Arun
GE8152	Engineering Graphics	Mr.M.Aswin	free hand & Orthographic projections	10.10.19	M.Aswin



## I ECE

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mr.K.Anandharaj	Asking about asking & answering questions	22-10-19	K. Anand
MA8151	Engineering Mathematics-I	Mr.S.Geetha Dr.R. SURESH	Change the order of integration	11-12-19	
PH8151	Engineering Physics	Mrs.S.Anuratha	Semiconductor homojunction laser	17-12-19	
CY8151	Engineering Chemistry	Dr.P.Saravanan	solar cell wind energy	4-12-19	
GE8151	Problem Solving And Python Programming	Mr.R.Sriramkumar	Selection, Merge Insertion Sorting	20-12-19	
GE8152	Engineering Graphics	Mr.M.Sakthivel	Projection as Simple Solids	17-12-19	

## I EE

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mr.P.Rajeshwaran	Asking about asking & answering questions	28-10-19	
MA8151	Engineering Mathematics-I	Mrs.T.Gnanajeya	Change the order of integration	24-10-19	
PH8151	Engineering Physics	Mrs.S.Anuratha	Semiconductor homojunction laser	17-12-19	
CY8151	Engineering Chemistry	Dr.V.SureshKumar	solar cell wind energy	4-12-19	
GE8151	Problem Solving And Python Programming	Mrs. R. Ranitha	Selection, Merge Insertion Sorting	20-12-19	
GE8152	Engineering Graphics	Mr.V.Sivashankar	Freehand & Orthographic Projections	17-10-19	

## I MECH

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Dr.R.Senguttuvan	Asking about asking & answering questions	28-10-19	
MA8151	Engineering Mathematics-I	Mrs.S.Revathi	Change the order of integration	29-10-2019	
PH8151	Engineering Physics	Mr.S.Ambalatharasu	Semiconductor Homojunction Laser	17-12-2019	
CY8151	Engineering Chemistry	Dr.S.Udhaya kumar	solar cell wind energy	4-12-19	
GE8151	Problem Solving And Python Programming	Mrs.Suganthalakshmi	Selection, Merge, Insertion Sorting	24-11-19	
GE8152	Engineering Graphics	Mr.M.Sakthivel	Projection as Simple Solids	18-12-19	

GRY  
(IQAC Member)

by  
(HOD/SEH)

# **ACADEMIC YEAR 2018-2019**



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2018-2019 / EVEN SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : CIVIL**

**CLASS: II CIVIL**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8491	Numerical Methods	Finite Difference Technique for two dimensional Laplace	19/2/19	Ms.S.Revathi	S. Revathi
CE8401	Construction Techniques and Practices	Tunneling Techniques Unit - 3	25.1.20	Mr.K.Ranjith	K. Ranjith
CE8402	Strength of Materials II	Euler column theory Unit 3	25/01/19	Ms.V.Ishwarya	V. Ishwarya
CE8403	Applied Hydraulic Engineering	Francis turbine Unit 4	19/2/19	Mr.S.Kamaraj	S. Kamaraj
CE8404	Concrete Technology	Slump & compaction factor test Unit - 4	11/2/19	Mr.M.Md Ilyas	M. Md Ilyas
CE8491	Soil Mechanics	Direct Shear test Unit - 4	11/2/19	Ms.M.Priya	M. Priya

**CLASS: III CIVIL**



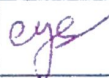
CE6601	Design of Reinforced Concrete & Brick Masonry Structures	Design of circular slab Unit - 4	19/2/19	Mr.S.R.Elwin Guru Chanth	S. R. Elwin
CE6602	Structural Analysis II	Truss element Unit - 4	25/01/19	Ms.R.Revathi	R. Revathi
CE6603	Design of Steel Structures	Built up beams Unit - 4	13/2/19	Ms.K.Jeyashankari	K. Jeyashankari
CE6604	Railways, Airports and Harbour Engineering	Earthwork Stabilization Unit - 5	11.1.19	Mr.M.Manimuthilan	M. Manimuthilan
CE6605	Environmental Engineering II	Standards of disposal Unit - 5	25.2.19	Ms.V.Ishwarya	V. Ishwarya
CE6003	Remote Sensing and GIS	UNIT - I Atmospheric windows	02/01/19	Mr.K.Arun	K. Arun

**CLASS: IV "A" CIVIL**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MG6851	Principles of Management	Creativity and Innovation Unit - 4	2.01.19	Mr.K.Sudhakar	K. Sudhakar
CE6016	Prefabricated Structures	Progressive Collapse Unit - 5	26.2.19	Mr.M.Manimuthilan	M. Manimuthilan
CE6021	Repair & Rehabilitation of Structures	Self compacting & Geopolymer concrete Unit - 3	11/2/19	Mr.S.R.Elwin Guru Chanth	S. R. Elwin



CLASS: IV "B" CIVIL

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MG6851	Principles of Management	Creativity and Innovation Unit - 4	25.1.19	Mr.B.Barankumar	
CE6016	Prefabricated Structures	Columns Unit - II	19/1/19	Mr.R.Sundharam	
CE6021	Repair & Rehabilitation of Structures	NDT Techniques Unit - 4	1/2/19	Mr.M.Md Ilyas	


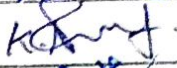



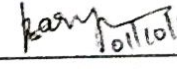
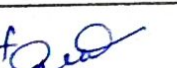

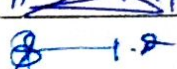
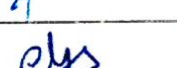

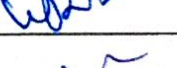


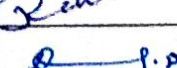
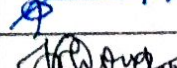
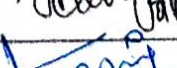
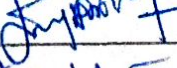
  
IQAC MEMBER  
(K.ARUN)

  
HOD/CIVIL  
(Ms.R.REVATHI)

  
PRINCIPAL  
(Dr.J.ARPUTHA VIJAYA SELVI)

**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2018-2019 / ODD SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : CIVIL**

<b>CLASS: II CIVIL</b>					
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8353	Transforms and Partial Differential Equations	UNIT-III One dimensional Heat equation.	17-9-18	Dr.R.Suresh	
CE8301	Strength of Materials I	Unit-II - Concept of shearing force and bending moment	20/07/18	Ms.K.Aruna	
CE8302	Fluid Mechanics	Application of orifice & satellite stations	31/07/18	Mr.K.Ranjith	
CE8351	Surveying	reducing to center	24/08/18	Mr.S.Kamaraj	
CE8391	Construction Materials	UNIT-3 Manufacturing process of concrete	14/8/18	Mr.M.Mohamed Iiyas	
CE8392	Engineering Geology	UNIT-IV - Attitude of beds.	3/9/18	Ms.V.Ishwarya	
<b>CLASS: III CIVIL</b>					
CE6501	Structural Analysis I	UNIT-IV Continuous Beam	21/8/18	Ms.T.Bhuvaneswari	
CE6502	Foundation Engineering	Unit-2 Determination of settlement	26/8/18	Mr.R.Sundharam	
CE6503	Environmental Engineering	Unit-3 Disinfection & Residue Management	30/8/18	Ms.D.Sharmila	
CE6504	Highway Engineering	UNIT-2 Soil Suitability - Road ecology	14/7/18	Mr.M.Mohamed Iiyas	
CE6505	Design of Reinforced Concrete Elements	Analysis and design of flanged beams.	24/07/18	Mr.K.Ranjith	
CE6506	Construction Techniques, Equipment and Practice	Earthmoving operations, Earthwork, Tractors, Shippers (UNIT-V)	11/09/18	Mr.K.Arun	
<b>CLASS: IV "A" CIVIL</b>					
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
CE6701	Structural Dynamics & Earthquake Engineering	UNIT-V - Guidelines for Earthquake resistance design	07/09/18	Mr.K.Arun	
CE6702	Prestressed Concrete Structures	UNIT-7 - System Method of prestressing.	5/7/18	Ms.R.Revathi	
CE6703	Water Resources and Irrigation Engineering	Unit-2 Consumptive & Non Consumptive water use	24/7/18	Ms.D.Sharmila	
CE6704	Estimation and Quantity Surveying	Unit-2 analysis of rates	20/08/18	Mr.S.R.Elwin Guru Chanth	
CE6007	Housing Planning and Management	Unit:II Neighbourhood planning.	27/7/18	Mr.M.Manimukilan	
CE6011	Air Pollution Management	UNIT-IV - Legislation & enforcement	02/09/18	Ms.T.Bhuvaneswari	



**CLASS: IV "B" CIVIL**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
CE6701	Structural Dynamics & Earthquake Engineering	Unit-IV - Response Spectra	31.08.18	Ms.K.Aruna	K.Aruna
CE6702	Prestressed Concrete Structures	Unit -1 - System & method of Prestressing	04.07.18	Mr.S.R.Elwin Guru Chanth	S.R.Elwin
CE6703	Water Resources and Irrigation Engineering	Consumptive and non Consumptive use	20.7.18	Mr.S.Kamaraj	S.Kamaraj
CE6704	Estimation and Quantity Surveying	Unit-IV Analysis of rate.	24.08.18	Mr.M.Manimukilan	M.Manimukilan
CE6007	Housing Planning and Management	Unit-IV; Green Building Concept.	04/9/18	Ms.V.Ishwarya	V.Ishwarya
CE6011	Air Pollution Management	Unit IV Legislation & enforcement	5/9/18	Mr.R.Sundharam	R.Sundharam

*K.Aruna*  
03/10/18  
**IQAC MEMBER**  
**(K.ARUN)**


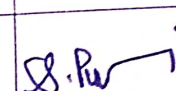








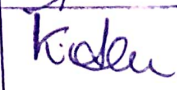


*J. Arputha Vijaya Selvi*  
5/10/18  
**PRINCIPAL**  
**(Dr.J.ARPUTHA VIJAYA SELVI)**


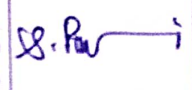

*Revathi*  
3/10/18  
**HOD/CIVIL**  
**(Ms.R.REVATHI)**

**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2018-19 (Even Sem)**

**NPTEL SESSION EXECUTION STATUS**

**DEPT: CSE**

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff incharge	Signature
<b>YEAR : SEM : SEC: II/ IV</b>				
MA8402- Probability & Queuing Theory	Single & Multiple server Queueing	1.3.19	Ms.G.Ramya Arokia Mary	
CS8491- Computer Architecture	Memory Hierarchy	1.3.19	Ms.S.Puvaneswari	
CS8492- Database Management Systems	ODMG Object Model, ODL, OQL	8.3.19	Ms.R.Suganthalakshmi	
CS8451 - Design & Analysis of Algorithm	Approximation Algm for NP hard	12.3.19	Ms.P.Nalayini	
CS8493 - Operating Systems	Threads Multi threading	10.1.19	Mr.S.Rajarajan	
CS8494- Software Engineering	Agile Process	28.12.18	Mr.R.Sriramkumar	
<b>YEAR : SEM : SEC:III/VI</b>				
CS6601 Distributed System	Synchronizing Physical clocks	1.3.19	Ms.R.Ranitha	
IT6601 Mobile Computing	Global System for Mobile	29.1.19	Dr.S.M.Uma	
CS6660 Compiler Design	LR Parser LR(0) Item	<del>2.5.19</del> 1.2.19	Ms.G.Chandrapraba	
IT6502 Digital Signal Processing	IIR Filter design by Impulse invariance	4.3.19	Mr.R.Balakrishnan	
CS6659 Artificial Intelligence	Use of Predicate Calculus	7/1/19	Ms.K.Abhirami	
GE6757 Total Quality Management	New Management tools	6.2.19	Dr.D.Sivakumar	
IT6004 Software Testing	Configuration test	15.2.19	Mr.S.Rajarajan	
<b>YEAR : SEM : SEC: IV / VIII</b>				

CS6801- Multicore architectures and programming	MPI - derived datatypes	18.2.19	Ms.B.Sangeetha	
IT6011 - Knowledge management	Decision Support System	17.2.19	Ms.S.Puvaneswari	
GE6075 - Professional ethics in engineering	Human Values	16.2.19	Mr.K.Rajesh	

  
10/3/19  
IQAC Member

  
10/3/19  
HOD



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2018-19 (Odd Sem)**

**NPTEL SESSION EXECUTION STATUS**

**DEPT: CSE**

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff in-charge
<b>YEAR : SEM : SEC: II/ III</b>			
MA8351-Discrete Mathematics	Graphs-Unit-III		Ms.Geetha
CS8351- Digital Principles and System Design	Storage Elements- Unit-III	24.9.18	Mr.W.Newton David Raj
CS8391- Data Structures	Hash Functions – Unit-V	25.9.18	Ms.P.Nalayini
CS8392 – Object Oriented Programming	Catching Exceptions— Unit-III	11.8.18	Dr.D.Sivakumar
EC8395 – Communication Engineering	Modulator- Demodulator-Unit-I	25.9.18	Mr.K.Sudarsanan
<b>YEAR : SEM : SEC:III/V</b>			
MA6566- Discrete Mathematics	Propositional Logic- Unit-I Graphs –Unit-III	30.8.18	Ms.T.Gnanajeya
CS6501- Internet Programming	Internet Technologies- Unit-II	1.8.18	Ms.G.Chandra Praba
CS6502- Object Oriented Analysis and Design	Aggregation and Composition-Unit-III	25.8.18	Dr.S.M.Uma
CS6503- Theory of Computation	Definitions of Turing Machines- Unit-IV	4.9.18	Ms.S.Puvaneswari
CS6504- Computer Graphics	Fractals – Unit-V	25.9.18	Ms.R.Ranitha

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff In-charge
IT6004, Software Testing	Adhoc Testing, Alpha-Beta testing, Testing OO Systems, Usability and Accessibility testing- Unit-III	16.2.18	Ms.P.Nalayini
<b>YEAR : SEM : SEC: IV / VII</b>			
CS6801, Multicore architectures and programming	Point-to-point and Collective communication- Unit-IV	28.01.18	Dr.S.M.Uma
IT6011, Knowledge management	Decision support Systems- Unit-I	20.12.17	Ms.R.Ranitha
GE6075, Professional ethics in engineering	Moral leardership- Unit-V	29.12.17	Ms.B.Sangeetha

*K. C. D. S.* 16/4/18  
IQAC Member

*S. J.*  
HOD

*J. M. S.* 18/4/18

21.2.18




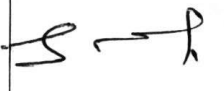



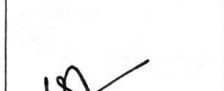
**INTERNAL QUALITY ASSURANCE CELL**

**ACADEMIC YEAR 2018-2019 / EVEN SEMESTER**



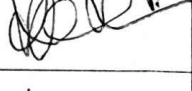
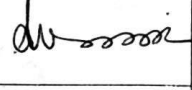

**NPTEL SESSION EXECUTION STATUS**



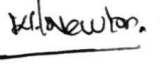






**DEPARTMENT : ECE**

**CLASS: II ECE / 4<sup>th</sup> sem**

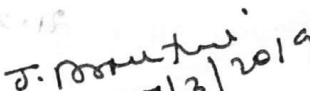
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8451	Probability and Random Processes	Unit - 1 Discrete and continuous random variables.	05.1.19	Mrs.S.Revathi	
EC8452	Electronic Circuits II	Unit - 2 Oscillator amplitude stabilization	25.07.19	Mr.S.Ramarajan	
EC8491	Communication Theory	Unit - 1 DSBSC, SSB, VSB	04.01.19	Mrs.D.Vennila	
EC8451	Electromagnetic Fields	Unit - 5 Group velocity, EM power flow and pointing vector	7.3.19	Mrs.P.Thirumagal	
EC8453	Linear Integrated Circuits	Unit - 2 Logarithmic and Antilogarithmic amplifier.	10.1.19	Mr.K.Sudarsanan	
GE8291	Environmental science and Engineering	Unit - 1 Aquatic Eco systems Unit - 2 Nuclear hazards - soil waste management.	7.1.19 * 23.2.19	Dr.V.Sureshkumar	

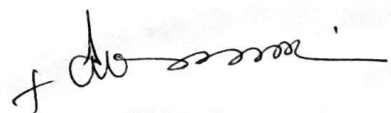
**CLASS: III ECE/ 6<sup>th</sup> sem**

MG6851	Principles of Management	Unit - 1 Evolution of Management	28.12.19	Ms.B.BaranKumar	
CS6303	Computer Architecture	Unit - 5 Memory Hierarchy	27-02-19	Mr.T.Pasupathi	
CS 6551	Computer Networks	Unit - 5 DNS	4-3-19	Dr.T.Shanthi	
EC6602	Antenna & Wave Propagation	Unit - 5 Ground wave propagation	21.2.19	Ms.N.Mangaiyarkarasi	
EC6601	VLSI Design	Unit - 2 Examples of combinational logic design	10-01-19	Mr.P.Rajapirian	

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
EC6001	Medical Electronics	Unit – 5 Thermograph	27.2.19	Mr.R.Thandayuthapani	
<b><u>CLASS: IV ECE -A/8th sem</u></b>					
EC6801	Wireless Communication	Unit – 5 MIMO systems	15.2.19	Mrs.R.Ponni	
EC6802	Wireless networks	Unit – 2 Mobile IP session initiation protocol	19.01.19	Mr.W.Newton David Raj	
EC6018	Multimedia Compression and Communication	Unit – 4 CODEC methods Unit- 5 Streamed stored and audio-making the best effort service	20.2.19 + 26.2.19	Dr.T.Shanthi	
EC6019	Data Converters	Unit – 1 & 5 Switched capacitor architecture. Calibration techniques.	7.1.19 + 01.3.19	Mrs.U.Jeyamalar	
<b><u>CLASS: IV ECE-B /8th sem</u></b>					
EC6801	Wireless Communication	Unit – 5 MIMO systems	15.2.19	Mr.R.Sathyaraj	
EC6802	Wireless networks	Unit – 2 Mobile IP session initiation protocol	21.1.19	Mrs.P.Thirumagal	
EC6018	Multimedia Compression and Communication	Unit – 4 CODEC methods Unit- 5 Streamed stored and audio-making the best effort service	25.2.19 + 27.2.19	Mr.S.Sivakumar	
EC6019	Data Converters	Unit – 1 & 5 Switched capacitor architecture. Calibration techniques.	7.1.19 + 01.3.19	Mr.T.Jeyaseelan	

  
**IQAC Member**  
**(D.Vennila)**

  
 07/3/2019

  
**HOD / ECE**



**INTERNAL QUALITY ASSURANCE CELL**

**ACADEMIC YEAR 2018-2019 / ODD SEMESTER**

**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : ECE**

**CLASS: II ECE / 3<sup>rd</sup> sem**


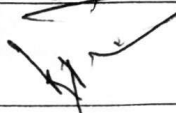
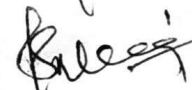



Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA8352	Partial Differential Equations	Unit-3 Solutions of one dimensional wave equation, One dimensional equation of heat conduction	15.7.18	Mrs.G.Ramya Arockiamary	
EC 8391	Control System Engineering	Unit - 2 Type number-PID control	14.8.18	Mr.K.Sudarsanan	
EC8393	Object Oriented Programming and Data Structures	Unit - 5 Merge sort	1.10.18	Ms.R.Ranitha	
EC8392	Digital Electronics	Unit - 3 Synchronous counters, Synchronous Up/Down counters, Programmable counters	29.8.18	Ms.D.Vennila	
EC8352	Signals and Systems	Unit - 1 CT and DT systems Classification of Systems	13.7.18	Dr.T.Shanthi	
EC8351	Electronic Circuits- I	Unit - 1 & 2 Various biasing methods for BJT. Differential amplifiers - CMRR	23.8.18	Ms. C.M. Kalaiselvie	

**CLASS: III ECE/ 5<sup>th</sup> sem**

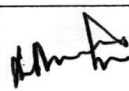
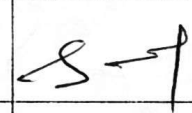



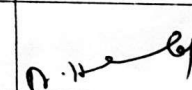
EC6501	Digital Communication	Unit - 5 Hamming codes	18.9.18	Ms.P.Geethabai	
EC6502	Principles of Digital Signal Processing	Unit - 2 Discrete time IIR filter from analog filter	25.7.18	Mr.S.Ramarajan	
EC6503	Transmission Lines and Wave guides	Unit - 5 TM and TE waves in Circular wave guides.	25/9/18	Ms.N.Mangaiyarkarasi	
GE6351	Environmental Science and Engineering	Unit - 1 & 2 aquatic ecosystems & Soil pollution	28/9/18	Dr. V.Suresh Kumar	
EC6504	Microprocessors and Microcontrollers	Unit - 5 Programming 8051 Timers	12.9.18	Mr.R.Thandayuthapani	



**CLASS: IV ECE -A/7<sup>th</sup> sem**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
EC6701	RF and Microwave Engineering	Unit - 5 Spectrum analyzer, Network analyzer	15.9.18	Mr.R.Balakrishnan	
EC6702	Optical Communication and Networks	Unit - 5 Solitons	24.9.18	Ms.R.Ponni	
EC6703	Embedded and Real Time System	Unit - 3 Example Real time operating systems-POSIX-Windows CE.	25.8.18	Mr.S.Sivakumar	
E-II-EC6004	Satellite Communication	Unit - 5 INTELSAT series: INSAT, VSAT	15/9/18	Mr.P.Rajapirian	
E-III-EC 6011	Electromagnetic Interference and Compatibility	Unit - 3 Choice of Materials for H, E, and free space fields	16.8.18	Ms.U.Jeyamalar	
E-IV-EC6016	Opto Electronic devices	Unit - 1 Review of Solid State Physics	13.7.18	Mr.T.Jeyaseelan	

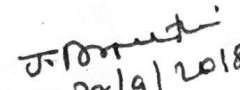
**CLASS: IV ECE-B /7<sup>th</sup> sem**

EC6701	RF and Microwave Engineering	Unit - 5 Spectrum analyzer, Network analyzer	14.09.18	Mr.R.Sathyaraj	
EC6702	Optical Communication and Networks	Unit - 5 Solitons	27.09.18	Mr.S.Ramarajan	
EC6703	Embedded and Real Time System	Unit - 3 Example Real time operating systems-POSIX-Windows CE.	29.8.18	Mr.T.Pasupathi	
E-II-EC6004	Satellite Communication	Unit - 5 INTELSAT series: INSAT, VSAT	24.9.18	Mr.T.Jeyaseelan	
E-III-EC 6011	Electromagnetic Interference and Compatibility	Unit - 3 Choice of Materials for H, E, and free space fields	24.8.18	Ms.P.Thirumagal	
E-IV-EC6016	Opto Electronic devices	Unit - 1 Review of Solid State Physics	12.7.18	Mr.A.Herald	

  
 IQAC Member  
 (D.Vennila)

  
 HOD / ECE

28/9/18

  
 28/9/2018

**KINGS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF EEE**  
**ACADEMIC YEAR 2018-19 EVEN**

Sub Code / Name	Name of the Faculty	NPTEL session topic	Date of Execution	Faculty Sign
MA8491 NDM	Dr. R. Suresh	Finite difference technique for the solution of 2D-5	24.12.18	
EE8401 EM-II	Mr. C. John Selva -raj	Powerway Control Unit - IV	13/2/19	guy. c
EE8402 TRD	Mrs. N. Arulmozhi	Real Power Flow in lines - Unit - II	23.1.19	my. g. m. m. m.
EE8403 M&I	Mr. S. Sakthivel	Static characteristics unit - I	24/12/18	S. guy
EE8451 LIC	Mr. S. R. Karthikeyan	Summar, differentiator & integrator unit - II	23/1/19	S. R. key
LC8451 CS	Mr. C. Balaji	Signal Flow Graph - UNIT - I	31/12/18	f.
EC6651 CE	Ms. E. Suganya	FDMA	11.2.2019	
EE6601 SSD	Mr. R. Sundara Moorthy	Four Quadrant operation of converter & chopper fed	28/01/19	R. Sundara
EE6602 ES	Mr. W. Newton David Raj	Serial Bus unit - II Communication	31.12.18	W. Newton
EE6603 PSOC	Mrs. A. Prabha	AVR - Unit - 3 Reactive power control	4/2/19	R.
EE6604 DEM	Dr. S. Sivakumar	Estimation of no load current - II	2/1/19	S. Sivakumar
EE6602 PST	Mr. J. Arunkumar	EMTP - Unit - 5	12/3/19	J. Arunkumar
EE6801 EGUC	Mrs. N. Rajeswari	Classification of Incandescent Lamp - III	11.1.19	nm
EE6809 RES	Dr. A. Albert Martin Ruban	MPPT Tracking unit - II	6.3.19	A. Albert Martin
GE6757 TQM	Mr. B. Suresh Babu	FMEA	8.3.19	B. Suresh

S. R. Karthikeyan  
30/3/2019

S. R. Karthikeyan  
30/3/19

**KINGS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF EEE**  
**ACADEMIC YEAR 2018-19 ODD**

Sub Code / Name	Name of the Faculty	NPTEL session topic	Date of Execution	Faculty Sign
MA8353 TPDE	Mrs. N. Latha	1D - Fourier series Caution	14.4.18	<i>[Signature]</i>
EE8351 DLC	Mr. W. Newton David Raj	Sequential logic SR, JK - unit - III	6/8/18	W. Newton.
EE8391 EMT	Mr. S. Sakthivel	Gravels laws & its application - unit - I	14/9/18	S. <i>[Signature]</i>
EE8301 FM-I	Mr. M. Mayapandi	Testing of transformer unit - II	28/7/18	<i>[Signature]</i>
EC8853 EDC	Mrs. P. Thirumagal	MOSFET - II	20/7/18	<i>[Signature]</i>
ME8192 PPE	Mr. S. R. Karthikeyan	Diesel cycle unit - II	25/7/18	S. R. Karthi
EE6501 PSA	Dr. S. Sivakumar	Bus Admittance Matrix - Unit - I	5/7/18	<i>[Signature]</i>
EE6502 MP&MC	Mrs. N. Anulmozhi	Memory organization unit - III	30.8.18	N. Anulmozhi
ME6701 PPE	Mr. J. Arokia Raj	Diesel Cycle	30-8-18	<i>[Signature]</i>
EE6503 PE	Mr. R. Sundaramoorthi	PWM techniques	14/9/18	R. Sundaramoorthi
EE6504 EM-II	Mr. M. Mayapandi	3 $\phi$ IM - Speed ctrl - Unit - 4	14/9/18	<i>[Signature]</i>
IC6501 IC	Mr. C. Balaji	Nyquist Stability Criterion - UNIT - IV	26/9/18	<i>[Signature]</i>
EE6701 HVE	Mr. C. Balaji	Testing of CABLES - 5 Insulation co-ordination UNIT - II	4/10/18	<i>[Signature]</i>
EE6702 PSGT	Prof. A. Albert Martin Ruban	over current relay. UNIT - II	30.7.18	<i>[Signature]</i>
EE6703 SEM	Mrs. N. Rajeswari	Driver circuits of stepper motor.	6.8.18	nm
MG6851 DOM	Mr. B. Guresh Babu	budgetary and non- budgetary control	25.7.18	<i>[Signature]</i>
EE6005 PQ	Ms. E. Suganya	Voltage sag	20.7.18	<i>[Signature]</i>
EE6007 MEMS	Mrs. A. Prabha	Piezo resistive sensors unit - III	13/8/18	<i>[Signature]</i>

S. R. Karthikeyan  
30/8/2018

*[Signature]*  
30/8/18





**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2018-2019 / EVEN SEMESTER**

**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : MECHANICAL**

<b>CLASS: II-MECH-A</b>					
<b>Sub code</b>	<b>Subject name</b>	<b>NPTEL session topic &amp; Unit mapped to</b>	<b>Date of execution</b>	<b>Staff Name</b>	<b>Staff Signature</b>
MA8452	Statistics and Numerical Methods	Eigen values & matrix	A.1.19	Mrs.N.Latha	
ME8492	Kinematics of Machinery	uniform velocity, SHM, UAG&PA, cycloidal motion etc	30.1.19	Mr.B.Adhichelvan	B-Adh
ME8451	Manufacturing Technology - II	Cream cutting Forming Unit-14	31/1/19	Mr.R.Arun	
ME8491	Engineering Metallurgy	Fatigue Test [Unit (V)]	6/3/19.	Mr.M.Aswin	
CE8395	Strength of Materials for Mechanical Engineers	Volumetric strain / unit - I	22/12/18	Mr.J.Prince Jerome Christopher	Jm
ME8493	Thermal Engineering-I	Regenerative cycle & its performance - I unit	1/3/19	Mr.S.Rajesh Kumar	
<b>CLASS: II-MECH-B</b>					
<b>Sub code</b>	<b>Subject name</b>	<b>NPTEL session topic &amp; Unit mapped to</b>	<b>Date of execution</b>	<b>Staff Name</b>	<b>Staff Signature</b>
MA8452	Statistics and Numerical Methods			Dr.R.Suresh	
ME8492	Kinematics of Machinery	Types of Gear Pairs	25/2/19	Mr.G.Mathivanan	
ME8451	Manufacturing Technology - II	Cream cutting forming unit-14	8/1/19	Mr.V.Vijaya kumar	
ME8491	Engineering Metallurgy	Fatigue creep and fracture toughness tests unit	9/3/19 & 14/3/19	Mr.S.Rajesh Kumar	
CE8395	Strength of Materials for Mechanical Engineers	Volumetric strain Unit - I	22/12/18	Mr.J.Prabhakaran	
ME8493	Thermal Engineering-I	Dual cycle Program Unit	4.3.19	Mr.R.Suriyamurthy	
<b>CLASS: III-MECH-A</b>					
<b>Sub code</b>	<b>Subject name</b>	<b>NPTEL session topic &amp; Unit mapped to</b>	<b>Date of execution</b>	<b>Staff Name</b>	<b>Staff Signature</b>
ME6601	Design of Transmission Systems	Design of cone clutch	25/2/19	Mr.S.Giridharan	
MG6851	Principles of Management	Budgetary and non-budgetary control / unit - I	4/3/19	Mr.J.Prince Jerome Christopher	
ME6602	Automobile Engineering	Differential	7/2/19	Mr.N.Anandaraman	
ME6603	Finite Element Analysis	Axisymmetric Problem - IV	11.2.19	Mr.P.P.Shantharaman	
ME6604	Gas Dynamics and Jet Propulsion	performance of ram jet / unit IV 13.2.19	13.2.19	Mr.N.Magesh	
ME6004	Unconventional Machining Process	Mechanical M/C in process	4/3/19	Mr.J.Rajaparthiban	



**CLASS: III-MECH-B**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
ME6601	Design of Transmission Systems	Design of core clutch	26/2/19	Mr.V.Vijaya kumar	gk
MG6851	Principles of Management	Leadership and its styles IV	6.3.19	Mr.R.Suriyamurthy	2
ME6602	Automobile Engineering	Principle of function in differential	11.2.19	Mr.G.Mathivanan	15
ME6603	Finite Element Analysis	Isoparametric formulation	6/3/19	Mr.J.Rajaparthiban	15
ME6604	Gas Dynamics and Jet Propulsion	Rocket Engine	25.2.19	Mr.R.Shankar	R. Shankar
ME6004	Unconventional Machining Process	Electron beam machining	04/3/19	Mr.S.Giridharan	15

**CLASS: IV-MECH-A**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MG6863	Engineering Economics	Effective Interest rate Examples of all methods	31/01/19	Mr.B.Sureshbabu	Mr. B. Sureshbabu
IE6605	Production Planning and Control	production planning control systems	4/2/19	Mr.M.Melwin J Sridhar	15
ME6016	Advanced I.C. Engines	Emission of NOx, HC, CO	5/2/19	Dr.T.Pushparaj	T. Pushparaj

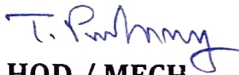
**CLASS: IV-MECH-B**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MG6863	Engineering Economics	Effective Interest rate Examples of all methods	01/02/19	Mr.K.Sudhakar	15
IE6605	Production Planning and Control	production planning control systems - Loading	6.2.19	Mr.H.Agilan	15
ME6016	Advanced I.C. Engines	Emission Measuring Equipments - III	4.2.19	Mr.P.P.Shantharaman	15

  
IQAC Member

[J. JEROME]

  
PAC Member

  
HOD / MECH





**KINGS**  
COLLEGE OF ENGINEERING  
(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai)



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2018-19 (Odd Sem)**  
**NPTEL SESSION EXECUTION STATUS**

DEPT: MECHANICAL ENGINEERING

SEC: A

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff incharge sign
YEAR : SEM : SEC: <u>I / IV / A</u>			
MA8353 - TDE	Discrete mathematics	23.8.18	<i>[Signature]</i>
ME8391 - Engineering Thermodynamics	First Law of Thermodynamics Application	16/7/18	<i>[Signature]</i>
CE8394 - FMM	Centrifugal Pump	14/9/18	<i>[Signature]</i>
ME8351 - MT-I	Centrifugal casting	14/7/18	<i>[Signature]</i>
EE8353 - EDC	Electrical - generator	10/8/18	<i>[Signature]</i>
YEAR : SEM : SEC: <u>II / V / A</u>			
ME6501 - CAD	Hidden Line Removal	10/8/18	<i>[Signature]</i>
ME6502 - HMT	Heat exchangers	19/7/18	<i>[Signature]</i>
ME6504 - MM	Angular Measuring Instruments - Types	20/7/18	<i>[Signature]</i>
ME6503 - DME	Factor withstanding m/c design	03.7.18	<i>[Signature]</i>
ME 6505 DYNAMICS OF MACHINE	FREE VIBRATION	23/8/18	<i>[Signature]</i>
GE620 - PEE	Radial Clearance	05/09/18	<i>[Signature]</i>
YEAR : SEM : SEC: <u>IV / VII / A</u>			
ME6701 SS PPE	Steam Power plant	14.7.18	<i>[Signature]</i>
ME6702 Mech.	Sensors & transducers	26/7/18	<i>[Signature]</i>
ME6757 JAM	Types of FEMA	05.09.18	<i>[Signature]</i>
ME6703 - CIME	Jitter	23.8.18	<i>[Signature]</i>
ME6005 - PPE	Extrusion of light type 9 Sub	25.8.18	<i>[Signature]</i>
ME6012 ME	Maintenance economics	14.07.18	<i>[Signature]</i>

T. Senthil  
HOD

*[Signature]*  
IQAC Member



# INTERNAL QUALITY ASSURANCE CELL

ACADEMIC YEAR 2018-19 (Odd Sem)

NPTEL SESSION EXECUTION STATUS

DEPT: MECHANICAL ENGINEERING		SEC: E	
Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff incharge sign
YEAR : SEM : SEC: II / V / B			
MASS58 - TPE	Partial integration	12.7.18	F. Anand
ME8391 - ETD	classical inequality, entropy change	26.7.18	B.
ME8394 - FMM	Centrifugal pump-worked ex. pm	14.9.18	B. Anand
ME8351 - M.T.3	Super plastic Forming	29.9.18	X
EE8353 - EDC	Draw Power System	24.8.18	E. Saravanan
YEAR : SEM : SEC: II / V / B			
ME6501 - CAD	Hidden line Removal	6/8/18	J. Anand
ME6502 - HEM / MASS / TPE	Lumped Analysis	16.7.2018	V. V. V.
ME6503 - DME	Design of Shafts	19/7/18	V. V. V.
ME6504 - M&M	Companions	20/7/18	B. Anand
ME6505 - Designing	Formal Verification	3.9.2018	B.
GE6205 - PLE	Integral Proportion Solution Spills	11/9/18	J. Anand
YEAR : SEM : SEC: II / V / B			
ME6701 & PPE	Binary cycles	14.7.18	P. Anand
ME6702 Mechanisms	Accelerate Motion	14/9/18	B. Anand
ME6703 + LMS	JIT Motion	12/7/18	B. Anand
GE6751 - TCE	FICA	22.8.18	J. Anand
ME6705 PPE	Estimation of diff. port	11.9.18	B. Anand
ME6702 & ME	Newton's laws of motion	25/8/18	T. Anand
V. V. V. IQAC Member		T. Anand HOD	



**DEPARTMENT OF SCIENCE AND HUMANITIES**  
**NPTEL SESSION EXECUTION STATUS**  
**ACADEMIC YEAR 2018-19(EVEN)**

**I CIVIL**

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Mr. K. Albert Lawrence	Sequence words Misspelled words	18-4-19	K. Albert
MA8251	Engineering Mathematics - II	Dr. G. Ramya Arockiyamary	Cayley Hamilton	25-4-19	G. Ramya
PH8201	Physics for Civil Engineering	Mrs. R. Umamaheswari	Electrical conductivity Wiedemann Franz law	25/4/19	R. Umamaheswari
BE8251	Basic Electrical and Electronics Engineering	Mr. S. Sakthivel	SR flip flop	19/4/19	S. Sakthivel
GE8291	Environmental Science and Engineering	Dr. AL. Kavitha	Nuclear Hazards and solid waste man.	22/4/19	A. Kavitha
GE8292	Engineering Mechanics	Ms. K. Jeyashankari	Force in 3D	22.4.19	Jeyashankari

**I CSE**

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Mr. K. Albert Lawrence	Sequence words Misspelled words	19-4-19	K. Albert
MA8251	Engineering Mathematics - II	Mrs. N. Latha	Cayley Hamilton	19-4-19	N. Latha
PH8252	Physics for Information Science	Mrs. R. Umamaheswari	Electrical conductivity Wiedemann Franz law	26.4.19	R. Umamaheswari
BE8255	Basic Electrical, Electronics and Measurement Engineering	Mr. C. John Selvaraj	1 <sup>st</sup> induction motor unit - IV	18/4/19	C. John Selvaraj
GE8291	Environmental Science and Engineering	Dr. S. Udayakumar	Nuclear Hazards Solid waste management	26/4/2019	S. Udayakumar
CS8251	Programming in C	Mr. M. Arun	Pointers	19/4/19	M. Arun



I ECE

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNA
HS8251	Technical English	Mr. R. Anandharaj	Sequence words misplaced words	19.4.19	Id. B...
MA8251	Engineering Mathematics - II	Mr. G. Jeyakrishnan	Cayley Hamilton Theorem	9.4.19	Sp...
PH8253	Physics for Electronics Engineering	Mrs. S. Anuradha	Thermal conductivity Wiedemann Franz law	26-4-19	scud
BE8254	Basic Electrical and Instrumentation Engineering	Mrs. U. Jeyamalar	Therapage transformation	25-4-19	UJ...
EC8251	Circuit Analysis	Ms. S. Sivakumar	Norton's theorem	24.4.19	Se...
EC8252	Electronic Devices	Mr. A. Herald	Bandwidth filter	18.4.19	A Herald

I EEE

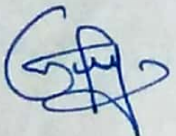
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Mr. P. Rajeshwaran	Sequence words misplaced words	19.4.19	21/4/19
MA8251	Engineering Mathematics - II	Mrs. S. Geetha	Cayley Hamilton theorem	25-4-19	Geetha
PH8253	Physics for Electronics Engineering	Mrs. S. Anuradha	Electrical Conduct Wiedemann Franz law	24/4/19	scud
BE8252	Basic Civil and Mechanical Engineering	Mr. S. Sabanayagam	Geotechnical Environment	19/4/19	by
EE8251	Circuit Theory	Mrs. N. Arulmozhi	Norton's Unit-II Theorem	9/4/19	Arulmozhi
GE8291	Environmental Science and Engineering	Dr. AL. Kavitha	Nuclear Hazards solid waste mgmt	23/4/19	T. Vg

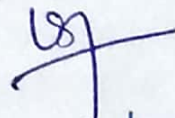
I MECH A

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Mr. P. Rajeshwaran	Sequence words misplaced words	18.4.19	21/4/19
MA8251	Engineering Mathematics - II	Mr. G. Shankarakalidoss	Cayley Hamilton	17-4-19	Shankar...
PH8251	Materials Science	Mr. S. Ambalatharasu	Fracture Griffith's Criterion	17/4/19	By
BE8253	Basic Electrical, Electronics and Instrumentation Engineering	Mr. S. Ramarajan	Norton's theorem	23.4.19	S. Ram...
GE8291	Environmental Science and Engineering	Dr. P. Saravanan	Nuclear Hazards solid waste management	23/4/19	P. Sar...
GE8292	Engineering Mechanics	Mr. S. Sabanayagam	Equilibrium of rigid bodies in 3D	17/4/19	by

## I MECH B

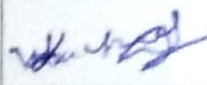

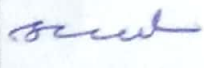
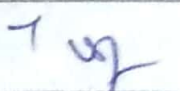
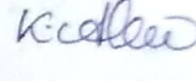
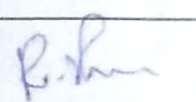
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8251	Technical English	Ms. K. Jebamahil	Sequence words Misspelled words	19/4/19	K. Jey
MA8251	Engineering Mathematics - II	Mrs. T. Gnanajeya	Cayley Hamilton theorem	9/4/19	T. Gnanajeya
PH8201	Physics for Civil Engineering	Mr. S. Ambalatharasu	Fracture - Griffiths Criterion.	17/4/19	S. Ambalatharasu
BE8251	Basic Electrical and Electronics Engineering	Mr. A. Herald	Norton's theorem	17-4-19	A. Herald
GE8291	Environmental Science and Engineering	Dr. P. Saravanan	Nuclear hazards Solid waste management.	19/4/19	P. Saravanan
GE8292	Engineering Mechanics	Mr. M. Aswin	Lami's theorem	18/4/19	M. Aswin

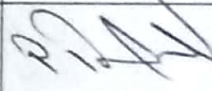
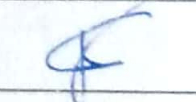
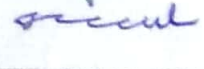
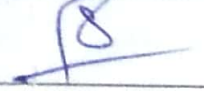
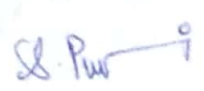

  
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(HOD/STH)



**DEPARTMENT OF SCIENCE AND HUMANITIES**  
**NPTEL SESSION EXECUTION STATUS**  
**ACADEMIC YEAR 2018-19(ODD)**

SECTION A					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Dr.V.Kumaran	Participating in conversations & group conversations	27.11.18	
MA8151	Engineering Mathematics-I	Dr.R.Suresh	Taylor's Series	29.11.18	
PH8151	Engineering Physics	Mrs.S.Anuradha	Stress Strain diagram	28.11.18	
CY8151	Engineering Chemistry	Dr.AL.Kavitha	Light water nuclear power plant solar cell	26.11.18	
GE8151	Problem Solving And Python Programming	Mrs.K.Abirami	Sorting Algorithms & Histogram	27.11.18	
GE8152	Engineering Graphics	Mr.R.Shankar	Cycloids	29.11.18	

SECTION B					
SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mr.P.Rajeshwaran	Participating in conversations & short group conversations	26.11.18	
MA8151	Engineering Mathematics-I	Mr.G.Shankarakalidoss	Taylor's Series	25.11.18	
PH8151	Engineering Physics	Mrs.R.Umamaheswari	Stress - Strain diagram	25.11.18	
CY8151	Engineering Chemistry	Dr.P.Saravanan	Light water power plant solar cell	29.11.18	
GE8151	Problem Solving And Python Programming	Mrs.S.Puvaneswari	Sorting Algorithms	26.11.18	
GE8152	Engineering Graphics	Mr.J.Rajaparthiban	Cycloids & involutes	29.11.18	



## SECTION C

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mr.K.AlbertLawrence	Participatory in conversations & short conversations	26-11-18	[Signature]
MA8151	Engineering Mathematics-I	Mrs.J.Angelin Thamaraiselvi	Taylor's Series	27.11.18	[Signature]
PH8151	Engineering Physics	Mr.S.Ambalatharasu	Stress Strain Diagram	27.11.18	[Signature]
CY8151	Engineering Chemistry	Dr.AL.Kavitha	Light water nuclear power Reactor Plant	23/11/18	[Signature]
GE8151	Problem Solving And Python Programming	Dr.J.Jegan	Insertion sort	27.11.18	[Signature]
GE8152	Engineering Graphics	Mr.R.Shankar	Helix Angles	20.11.18	[Signature]

## SECTION D

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Ms.K.Jebamahil	Participatory in conversations & short conversations	27.11.18	[Signature]
MA8151	Engineering Mathematics-I	Mrs.S.Revathi	Taylor's Series	29.11.18	[Signature]
PH8151	Engineering Physics	Mrs.R.Umamaheswari	Stress Strain Diagram	23/11/18	[Signature]
CY8151	Engineering Chemistry	Dr.S.Udayakumar	Light water nuclear power Reactor Plant	29/11/2018	[Signature]
GE8151	Problem Solving And Python Programming	Mr.R.Sriramkumar	Insertion sort	27.11.18	[Signature]
GE8152	Engineering Graphics	Mr.M.Aswin	Helix Angles	23.11.18	[Signature]

## SECTION E

SUB CODE	SUB NAME	STAFF NAME	NPTEL TOPIC	DATE OF EXECUTION	SIGNATURE
HS8151	Communicative English	Mr.P.Rajeshwaran	Participatory in conversations & short conversations	26.11.18	[Signature]
MA8151	Engineering Mathematics-I	Mr.G.Jeyakrishnan	Taylor's Series	29.11.18	[Signature]
PH8151	Engineering Physics	Mr.S.Ambalatharasu	Stress Strain Diagram	20.11.18	[Signature]
CY8151	Engineering Chemistry	Dr.P.Saravanan	Light water Power Plant Solar Cell	19.11.18	[Signature]
GE8151	Problem Solving And Python Programming	Mrs.R.Suganthalakshmi	Sorting Algorithms Selection, Insertion, Bubble	19.11.18	[Signature]
GE8152	Engineering Graphics	Mr.M.Aswin	Cylinders & Helix	22.11.18	[Signature]

(IQAC Member)

(HOD/SEH)

# **ACADEMIC YEAR 2017-2018**







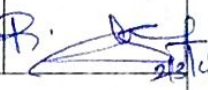
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**ACADEMIC YEAR 2017-2018 / EVEN SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : CIVIL**

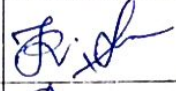
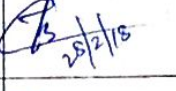
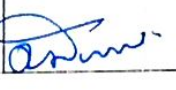
CLASS: II CIVIL					
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA6459	Numerical Methods	Two Dimensional Poisson equations	13.03.18	Ms.S.Revathi	S. Revathi
CE6401	Construction Materials	High Strength Concrete UNIT-3	20.2.18	Ms.R.Revathi	R. Revathi 13/18
CE6402	Strength of Materials	Rankine's Gordon formula - UNIT-3	03/2/18	Mr.K.Arun	K. Arun 28/2/18
CE6403	Applied Hydraulic Engineering	Specific energy (TOPIC NO-6)	03/01/18	Mr.G.Venkatesan	G. Venkatesan 3/2/18
CE6404	Surveying II	orbit determination and Representation (Unit-IV)	03/03/18	Mr.K.Ranjith	K. Ranjith
CE6405	Soil Mechanics	Soil classification - unit I Factors influencing Permeability of Soil - UNIT-II	24.12.18 17.1.18	Mr.S.R.Elwin Guru Chanth	S. R. Elwin
CLASS: III "A" CIVIL					
CE6601	Design of Reinforced Concrete & Brick Masonry Structures	Cantilever & mat foundation	20.12.17 2.2.18	Ms.S.Vanathi	S. Vanathi
CE6602	Structural Analysis II	Analysis of Continuous beam UNIT-III	30/1/18	Ms.R.Revathi	R. Revathi
CE6603	Design of Steel Structures	Design of single section Compression member	09/2/18	Mr.K.Ranjith	K. Ranjith
CE6604	Railways, Airports and Harbour Engineering	Environmental Concern of Port operations - unit-5		Mr.S.R.Elwin Guru Chanth	S. R. Elwin
CE6605	Environmental Engineering II	PRIMARY TREATMENT	09/02/18	Mr.M.Manimukilan	M. Manimukilan
CE6002	Concrete Technology	Mix Design procedure	12/2/18	Mr.P.Karthik	P. Karthik 6/3/18
CLASS: III "B" CIVIL					
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
CE6601	Design of Reinforced Concrete & Brick Masonry Structures	cantilever retaining wall rectangular water tank	22/12/17 09/01/18	Mr.G.Venkatesan	G. Venkatesan 9/1/18
CE6602	Structural Analysis II	Analysis of continuous beam UNIT-III	9/1/18	Ms.T.Bhuvaneswari	T. Bhuvaneswari 28/2/18
CE6603	Design of Steel Structures	Design of Purlin & element of truss Unit-V	06/03/18	Mr.R.Sundharam	R. Sundharam
CE6604	Railways, Airports and Harbour Engineering	Harbour and Environmental Concern of Port operation	9/3/18	Mr.R.Jeevanesan Mr. Mohamed ilyes	R. Jeevanesan 28/2/18
CE6605	Environmental Engineering II	ACTIVATED SLUDGE PROCESS TRICKLING FILTERS (UNIT-IV)	23/2/18	Ms.D.Sharmila	D. Sharmila 28/2/18
CE6002	Concrete Technology	Test on cement - IS specifications	26-12-18	Mr.M.Manimukilan	M. Manimukilan



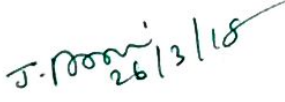
CLASS: IV "A" CIVIL

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MG6851	Principles of Management	Budgetary & non budgetary control techniques	8/2/18	Mr.B.Baran kumar	
CE6016	Prefabricated Structures	Case studies on - unit 3 Refabricated Buildings	17/1/18	Mr.K.Arun	
CE6021	Repair & Rehabilitation of Structures	Cathodic protection unit - IV	25/1/18	Mr.R.Sundharam	

CLASS: IV "B" CIVIL

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MG6851	Principles of Management	Budgetary & non budgetary control techniques	01/02/18	Mr.K.Sudhakar	
CE6016	Prefabricated Structures	Case studies, UNIT - III	6.1.18	Ms.T.Bhuvaneswari	
CE6021	Repair & Rehabilitation of Structures	Cathodic protection - unit - IV	25/1/18	Dr.R.Saravanan	

  
22/2/18  
IQAC Member  
(K.ARUN)

  
26/3/18  
PRINCIPAL

  
26/3/18  
HOD / CIVIL





**KINGS**  
COLLEGE OF ENGINEERING  
(NAAC Accredited Institution)  
(Approved by AICTE, New Delhi. Affiliated to Anna University, Chennai)



TÜV Rheinland  
**CERT**  
ISO 9001

**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2017-2018 / ODD SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : CIVIL**

<b>CLASS: II CIVIL</b>					
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA6351	Transforms and Partial Differential Equations	Unit 3 – One dimensional equation of heat condition	20/7/17	Ms.G.Ramya Arockiamary	
GE6351	Environmental Science and Engineering	Unit 1 – Aquatic Ecosystems Unit 2 – Soil Pollution	30/6/17 21/7/17	Dr.P.Saravanan	
CE6301	Engineering Geology	Unit 4 – Study of structures - Folds, Faults	17/8/17	Mr.M.Mohamed Iliyas	
CE6302	Mechanics of Solids	Unit 3 – Macaulay's Method, Moment Area Method	10/8/17	Mr.K.Arun	
CE6303	Mechanics of Fluids	Unit 3 – Pipes in series and Parellel	24/8/17	Dr.R.Saravanan	
CE6304	Surveying I	Unit 4 – Characteristics and uses of contours, plotting	30/8/17	Mr.G.Venkatesan	
<b>CLASS: III "A" CIVIL</b>					
CE6501	Structural Analysis I	Unit 5 – Continuous Beams	4.9.17	Ms.R.Revathi	
CE6502	Foundation Engineering	Unit 2 – Bearing capacity for insitu tests	11/7/17	Mr.A.Mohamed Mansoor	
CE6503	Environmental Engineering I	Unit 2 – Transmission main design and laying	18/7/17	Ms.G.Sofia	
CE6504	Highway Engineering	Unit 4 – Glass fiber, Plastic, Geo textiles, Geo membrane	04/09/17	Mr.R.Jeevanesan	
CE6505	Design of Reinforced Concrete Elements	Unit 2 - Analysis and design of singly and doubly reinforced rectangular beams	11/7/17	Ms.S.Vanathi	
CE6506	Construction Techniques, Equipment & Practice	Unit 3 – Piling Techniques Unit 5 – Equipment for compaction , mixing, concreting	01/08/17 09/09/17	Mr.M.Arun Pandiyan	
<b>CLASS: III "B" CIVIL</b>					
Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
CE6501	Structural Analysis I	Unit 5 – Continuous Beams	24.8.17	Ms.T.Bhuvaneshwari	
CE6502	Foundation Engineering	Unit 2 – Bearing capacity for insitu tests	20/9/17	Mr.R.Jeevanesan	
CE6503	Environmental Engineering I	Unit 2 – Transmission main design and laying	17.7.17	Mr.G.Venkatesan	
CE6504	Highway Engineering	Unit 4 – Glass fiber, Plastic, Geo textiles, Geo membrane	8.9.17	Ms.D.Sharmika	
CE6505	Design of Reinforced Concrete Elements	Unit 3 - Design of RC members for combined bending shear and torsion.	11.8.17	Mr.R.Sundharam	
CE6506	Construction Techniques, Equipment & Practice	Unit 5 – Equipment for compaction , mixing, concreting	12/9/17	Ms.G.Sofia	



**CLASS: IV "A" CIVIL**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
CE6701	Structural Dynamics and Earthquake Engineering	Unit 1 - Degree of freedom Unit 2 - Damped and Undamped MDOF system.	23/6/17 14/7/17	Mr.M.Rajiv	M. Rajiv 11/8/17
CE6702	Prestressed Concrete Structures	Unit 1 -Systems and method of prestressing, Analysis of sections	22.6.17	Ms.R.Revathi	Revathi 11/8/17
CE6703	Water Resource and Irrigation Engineering	Unit 2 - Consumptive and non-consumptive water use	14/07/17	Mr.M.Arun Pandiyan	Arun Pandiyan 15/8/17
CE6704	Estimation and Quantity Surveying	Unit 3 - Analysis of Rates	7/8/17	Mr.A.Mohammed Mansoor	A. Mansoor 31/8/17
CE6007	Housing Planning and Management	Unit 2 - Rental Housing, Cooperative Housing	19/7/17	Ms.K.Gowri Devi	Gowri Devi 7/8/17
CE6011	Air Pollution Management	Unit 4 - Preventive measures & Air pollution control efforts	24/8/17	Mr.K.Arun	K. Arun 22/8/17

**CLASS: IV "B" CIVIL**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
CE6701	Structural Dynamics and Earthquake Engineering	Unit 1 - Degree of freedom Unit 2 - Damped and Undamped MDOF system.	22/6/17 13/7/17	Mr.M.Rajiv	M. Rajiv 11/8/17
CE6702	Prestressed Concrete Structures	Unit 1 -Systems and method of prestressing, Analysis of sections	23.6.17	Ms.S.Vanathi	S. Vanathi 11/8/17
CE6703	Water Resource and Irrigation Engineering	Unit 2 - Consumptive and non-consumptive water use	20.7.17	Mr.R.Sundharam	R. Sundharam 7/8/17
CE6704	Estimation and Quantity Surveying	Unit 3 - Analysis of Rates	25.07.17	Ms.T.Bhuvaneswari	T. Bhuvaneswari 25/7/17
CE6007	Housing Planning and Management	Unit 2 - Rental Housing, Cooperative Housing	13/7/17	Ms.K.Gowri Devi	Gowri Devi 7/8/17
CE6011	Air Pollution Management	Unit 4 - Preventive measures & Air pollution control efforts	31.8.17	Ms.D.Sharmila	D. Sharmila 31/8/17

**IQAC MEMBER  
(K.ARUN)**

**PRINCIPAL  
(Dr.J.ARPUTHA VIJAYA SELVI)**

**HOD/CIVIL  
(Dr.R.SARAVANAN)**



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2017-18 (Odd Sem)**

**NPTEL SESSION EXECUTION STATUS**

**DEPT: CSE**

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff in-charge
<b>YEAR : SEM : SEC: II/ III</b>			
MA6453, Probability & Queuing Theory	Queuing Models	15.2.18	Mr.G.Jeyakrishnan
CS6551, Computer Networks	Connection management- Unit-IV	24.2.18	Mr.D.Sivakumar
CS6401, Operating System	Process concept, PCB, Scheduling- Unit-II	06.1.18	Mr.S.Rajaraman
CS6402, Design & Analysis of Algorithm	Approximation algorithm for NP- Unit-V	02.3.18	Mr.R.Sriramkumar
EC6504, Microprocessor & Microcontroller	Architecture of 8051, SFRs-Unit-IV	24.2.18	Ms.P.Nalayini
CS6403, Software Engineering	Estimation- Unit-I	28.12.18	Ms.S.Hemalatha
<b>YEAR : SEM : SEC:III/V</b>			
CS6601, Distributed System	Synchronizing physical clocks, logical time and logical clocks-Unit-IV	23.2.18	Ms.R.SuganthaLakshmi
IT6601, Mobile Computing	GSM-Unit-III	02.2.18	Mr.J.Jegan
CS6660, Compiler Design	LR Parser- Unit-III	01.2.18	Ms.S.Puvaneswari
IT6502, Digital Signal Processing	IIR filter design by Impulse invariance, Bilinear transformation- Unit-III	13.2.18	Mr.R.Balakrishnan
CS6659, Artificial Intelligence	Planning systems - Unit-IV	15.2.18	Ms.K.Abhirami
GE6757, Total Quality Management	FEMA- Unit-IV	16.2.18	Mr.D.Sivakumar

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff in-charge
IT6004, Software Testing	Adhoc Testing, Alpha-Beta testing, Testing OO Systems, Usability and Accessibility testing- Unit-III	16.2.18	Ms.P.Nalayini
YEAR : SEM : SEC: IV / VII			
CS6801, Multicore architectures and programming	Point-to-point and Collective communication- Unit-IV	28.01.18	Dr.S.M.Uma
IT6011, Knowledge management	Decision support Systems- Unit-I	20.12.17	Ms.R.Ranitha
GE6075, Professional ethics in engineering	Moral leardership- Unit-V	29.12.17	Ms.B.Sangeetha

*K. S. Sree* 16/4/18  
IQAC Member

*S. S.*  
HOD

*J. S. S.*  
18/4/18

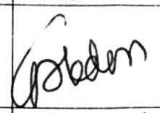

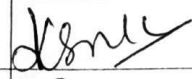


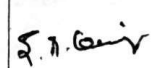
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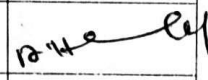
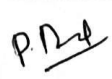

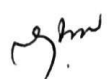
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**ACADEMIC YEAR 2017-2018 / EVEN SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : ECE**


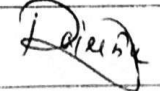
**CLASS: II ECE-A / 4<sup>th</sup> sem**

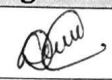



Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA6451	Probability and Random Processes	Unit - 1 Discrete and continuous random variables.	22.2.18	Mr.G.Shankarakalidoss	
EC6401	Electronic Circuits II	Unit - 2 WIEN bridge, Twin-T, frequency range of RC & LC oscillators.	23.01.18	Ms. D. Vennila	
EC6402	Communication Theory	Unit - 1 DSBSC	10.1.18	Mr. K. Sudarsanan	
EC6403	Electromagnetic Fields	Unit - 2 Poissons equation and Laplace equation.	25.01.18	Ms. P. Geethabai	
EC6404	Linear Integrated Circuits	Unit - 2 Logarithmic and Antilogarithmic amplifier.	29.01.18	Mr. W. Newton David Raj	
EC6405	Control System Engineering	Unit - 2 P,PI,PD,PID compensations.	24.1.18	Mr.S.R.Karthikeyan	

**CLASS: II ECE- B / 4<sup>th</sup> sem**


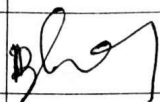
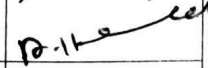


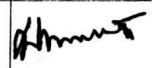
MA6451	Probability and Random Processes	Unit - 1 Discrete and continuous random variables.	22.2.18	Ms.J.Angelinthamaraiselvi	
EC6401	Electronic Circuits II	Unit - 2 WIEN bridge, Twin-T, frequency range of RC & LC oscillators.	11.1.18	Ms. U. Jeyamalar	
EC6402	Communication Theory	Unit - 1 DSBSC	28.12.17	Mr.A.Herald	
EC6403	Electromagnetic Fields	Unit - 2 Poissons equation and Laplace equation.	14.2.18	Ms. P.Thirumagal	
EC6404	Linear Integrated Circuits	Unit - 2 Logarithmic and Antilogarithmic amplifier.	23.1.18	Mr. R. Thandayuthapani	
EC6405	Control System Engineering	Unit - 2 P,PI,PD,PID compensations.	23.1.18	Mr. V.Moorthy	

**CLASS: III ECE-A / 6<sup>th</sup> sem**



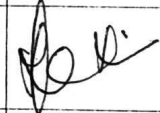
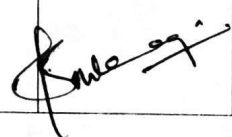
MG6851	Principles of Management	Unit - 5 Budgetary and Non-budgetary control techniques.	26.2.18	Mr. B. Barankumar	
CS6303	Computer Architecture	Unit - 5 Memory Hierarchy	3.3.18	Mr.K.Rajesh	


Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
CS 6551	Computer Networks	Unit - 5 DNS	13.3.18	Ms. D. Vennila	
EC6601	VLSI Design	Unit - 2 Combinational logic design eg.	08.1.18	Mr. T. Jeyaseelan	
EC6602	Antenna & Wave Propagation	Unit - 5 Ground wave propagation.	9.3.18	Ms. N. Mangaiyarkarasi	
EC6001	Medical Electronics	Unit - 5 Thermograph	5.3.18	Ms. R. Ponni	

**CLASS: III ECE-B /6<sup>th</sup> sem**

MG6851	Principles of Management	Unit - 5 Budgetary and Non-budgetary control techniques.	03/03/18	Mr. P. Rajapirian	
CS6303	Computer Architecture	Unit - 5 Memory Hierarchy	7.3.18	Ms. B. Sangeetha	
CS 6551	Computer Networks	Unit - 5 DNS	14.3.18	Mr. A. Herald	
EC6602	Antenna & Wave Propagation	Unit - 5 Ground wave Propagation	3.3.18	Mr. R. Balakrishnan	
EC6601	VLSI Design	Unit - 2 Combinational logic design eg.	08-01-18	Mr. T. Pasupathi	
EC6001	Medical Electronics	Unit - 5 Thermograph	02.03.18	Mr. R. Sathyaraj	

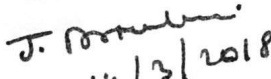
**CLASS: IV ECE /8<sup>th</sup> sem**

EC6801	Wireless Communication	Unit - 5 MIMO systems	1.2.18	Mr. K. Sudarsanan	
EC6802	Wireless networks	Unit - 5 4G Technologies: Multicarrier Modulation, Smart antenna techniques	7.3.18	Mr. S. Ramarajan	
EC6018	Multimedia Compression and Communication	Unit - 3 Dynamic Huffman Coding	20.1.18	Ms. T. Shanthi	
EC6019	Data Converters	Unit - 1 & 5 Switched capacitor architecture. Calibration techniques.	26.12.17 31.1.18	Mr. S. Sivakumar	

  
IQAC Member  
(D. Vennila)

  
14/3/18

HOD / ECE

  
14/3/2018



**INTERNAL QUALITY ASSURANCE CELL**  
**ACADEMIC YEAR 2017-2018 / ODD SEMESTER**  
**NPTEL SESSION EXECUTION STATUS**

**DEPARTMENT : ECE**

**CLASS: II ECE-A / 3<sup>rd</sup> sem**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA6351	Transforms and Partial Differential Equations	Unit-3 Solutions of one dimensional wave equation, One dimensional equation of heat conduction	8.9.17	Ms.S.Revathi	
EE6352	Electrical Engineering and Instrumentation	Unit - 2 construction and principle of operation of single phase transformer	11/7/17	Mr.S.R.Karthikeyan	
EC6301	Object Oriented Programming and Data Structures	Unit - 5 Merge sort	6/9/17	Mr.M.Arun	
EC6302	Digital Electronics	Unit - 3 Synchronous counters, Synchronous Up/Down counters, Programmable counters	04.8.17	Ms.D.Vennila	
EC6303	Signals and Systems	Unit - 1 CT and DT systems Classification of Systems	06.7.17	Ms.P.Geethabai	
EC6304	Electronic Circuits- I	Unit - 1 & 2 Various biasing methods for BJT. Differential amplifiers - CMRR	04.08.17	Mr.P.Rajapirian	

**CLASS: II ECE- B / 3<sup>rd</sup> sem**

MA6351	Transforms and Partial Differential Equations	Unit-3 Solutions of one dimensional wave equation, One dimensional equation of heat conduction	11.9.17	Ms.N.Latha	
EE6352	Electrical Engineering and Instrumentation	Unit - 2 construction and principle of operation of single phase transformer	18.7.2017	Ms.E.Suganya	
EC6301	Object Oriented Programming and Data Structures	Unit - 5 Merge sort	6/9/17	Mr.M.Arun	
EC6302	Digital Electronics	Unit - 3 Synchronous counters, Synchronous Up/Down counters, Programmable counters	4.9.17 7 <sup>th</sup> Nov	Mr.K.Sudarsanan	
EC6303	Signals and Systems	Unit - 1 CT and DT systems Classification of Systems	10.7.17	Mr.R.Balakrishnan	
EC6304	Electronic Circuits- I	Unit - 1 & 2 Various biasing methods for BJT. Differential amplifiers - CMRR	27.6.17 19.7.17	Ms.U.Jeyamalar	

**CLASS: III ECE-A / 5<sup>th</sup> sem**

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
EC6501	Digital Communication	Unit - 5 Hamming codes	8.9.17	Ms.R.Ponni	
EC6502	Principles of Digital Signal Processing	Unit - 2 Discrete time IIR filter from analog filter	12.7.17	Mr.T.Jeyaseelan	
EC6503	Transmission Lines and Wave guides	Unit - 5 TM and TE waves in Circular wave guides.	09.9.17	Ms.N.Mangaiyarkarasi	
GE6351	Environmental Science and Engineering	Unit - 1 & 2 aquatic ecosystems & Soil pollution	3.7.17	Mr.R.Balakrishnan	
EC6504	Microprocessors and Microcontrollers	Unit - 5 Programming 8051 Timers	07.09.17	Mr.R.Thandayuthapani	

**CLASS: III ECE-B / 5<sup>th</sup> sem**

EC6501	Digital Communication	Unit - 5 Hamming codes	08.09.17	Mr.R.Sathyaraj	
EC6502	Principles of Digital Signal Processing	Unit - 2 Discrete time IIR filter from analog filter	13.7.17	Mr.K.Sudarsanan	
EC6503	Transmission Lines and Wave guides	Unit - 5 TM and TE waves in Circular wave guides.	24.8.17	Mr.A.Herald	
GE6351	Environmental Science and Engineering	Unit - 1 & 2 aquatic ecosystems & Soil pollution	04/08/17	Mr.P.Rajapirian	
EC6504	Microprocessors and Microcontrollers	Unit - 5 Programming 8051 Timers	11.9.17	Ms.T.Shanthi	

**CLASS: IV ECE / 7<sup>th</sup> sem**

EC6701	RF and Microwave Engineering	Unit - 5 Spectrum analyzer, Network analyzer	21.09.17	Mr.S.Ramarajan	
EC6702	Optical Communication and Networks	Unit - 3 Solitons	17.08.17	Ms.B.Krishnaveni	
EC6703	Embedded and Real Time System	Unit - 3 Example Real time operating systems-POSIX-Windows CE.	4.8.17	Mr.S.Sivakumar	
E-II-EC6004	Satellite Communication	Unit - 5 INTELSAT series: INSAT, VSAT	23.09.17	Dr.J.Arputha Vijaya Selvi	
E-III-EC6011	Electromagnetic Interference and Compatibility	Unit - 3 Choice of Materials for H, E, and free space fields	24.8.17	Ms.P.Thirumagal	
E-IV-EC6016	Opto Electronic devices	Unit - 1 Review of Solid State Physics	5.7.17	Mr.T.Pasupathi	






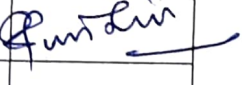



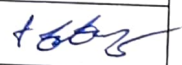
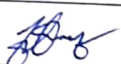



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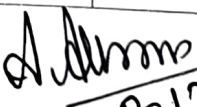
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KINGS COLLEGE OF ENGINEERING  
DEPARTMENT OF EEE  
ACADEMIC YEAR 2017-18 EVEN

Sub Code / Name	Name of the Staff	NPTEL session topic	Date of Execution	Staff Sign
MAB459/ NM	Dr. R. Suresh	2D - Poisson's equation Unit - V	21/2/18	
EE6401/ EM-I	Mr. M. Mayapandi	Testing of transformer unit - II	18/1/18	
CS6456/ OOPS	Mr. M. Arun	Exceptionary hierarchy	12/3/18	
EE6402/ T&D	Mr. C. Balaji	Reactive Power flow in lines unit - IV	3/2/18	
EE6403/ DSP	Mr. Jeyaseelan	FILTERS <sup>unit-4</sup> Amplifying	21/2/18	
EE6404/ MAT	Mr. R. Sundara Moorthy	Static and dynamic characteristics	20/12/17	
EC6651/ CE	Ms. E. Suganya			
EE6601/ SSD	Mr. V. Moorthy	4-Quadrant operation - Unit - III	13.2.18	
EE6602/ ES	Mrs. N. Hemavathi	Serial Bus communication Protocols - Unit - 2	9.1.18	
EE6603/ PSOC	Mrs. A. Prabha	Load Curves - Unit - 1.	22.12.17	
EE6604/ DEM	Dr. S. Sivakumar	Estimation of no load current - II	18.01.18	
EE6602/ PST	Mr. J. Arokraj	EMTP for Transient Computation - Unit - 5	14-3-18	
EE6601/ EGUC	Mrs. N. Rajeswari	Incandescent lamp unit - II	3.1.18	
EE6609/ RES	Prof. A. Albert Martin Ruban	MPPT unit - V	12.3.18	
GIE6757/ TQM	Mr. Suresh Babu	FMEA - V	15/3/18	

S. I. Karthikeyan  
29/3/2018

  
29/3/18

## INTERNAL QUALITY ASSURANCE CELL

### ACADEMIC YEAR 2017-18 (ODD SEMESTER)

### NPTEL SESSION EXECUTION STATUS

**DEPT: EEE**

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff in charge sign
<b>II YEAR</b>			
MA6351- Transforms and Partial Differential Equations	Solution of one Dimensional wave equation	23/8/17	P. I. [Signature]
EE6301 - Digital Logic Circuits	SR, JK, D and T FlipFlops	04.09.17	[Signature]
EE6302 - Electromagnetic Theory	UNIT-2 - Gauss's Law & Applications	04.07.17	[Signature]
GE6351 - Environmental Science and Engineering	Water shed management unit IV	10-9-17	[Signature]
EC6202 - Electronic Devices and Circuits	MOSFET unit-II	13/7/17	[Signature]
EE6303 - Linear Integrated Circuits and Applications	IC Voltage regulators	15.9.17	[Signature]
<b>III YEAR</b>			
EE6501 - Power System Analysis	Single line diagram	18.8.17	[Signature]
EE6502 - Microprocessors & Microcontroller	Building blocks of 8051 MC	8.8.17	[Signature]
ME6701 - Power Plant Engineering	Diesel cycle for Diesel P.P	24.7.17	[Signature]
EE6503 - Power Electronics	Voltage & Current Commutated choppers	17.8.17	[Signature]
EE6504 - Electrical Machines - II	speed control of 3 $\phi$ induction motor	20.9.17	[Signature]
IC6501 - Control Systems	Nyquist stability	11.9.17	[Signature]
<b>IV YEAR</b>			
EE6701 - High Voltage Engineering	Insulation coordination Unit - V	14.09.2017	[Signature]
EE6702 - Protection and Switchgear	Overcurrent relays	18.07.17	[Signature]
EE6703 - Special Electrical Machines	Drive circuits in Stepper motor	14.7.17	[Signature]
MG6851 - Principles of Management	Budgetary & Non-budgetary control techniques (Unit V)	12.9.17	[Signature]
EI6704 - Biomedical Instrumentation	Heart rate, Heart sound ESR, GSR measurements	10/7/17 & 20/7/17	[Signature]
EE6007 - Micro Electro Mechanical Systems	Piezoresistive Sensors	18.08.17	[Signature]

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**HOD** 28/9/17  
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INTERNAL QUALITY ASSURANCE CELL  
ACADEMIC YEAR 2017-2018 / EVEN SEMESTER  
NPTEL SESSION EXECUTION STATUS

DEPARTMENT : MECHANICAL

CLASS: II 'A' MECH

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA6452	Statistics and Numerical Methods	Taylor's Series method	6/2/18	Ms.T.Gnanajeya	P.1
ME6401	Kinematics of Machinery	Types of follower motion	8/2/18	Mr.N.Anandaraman	N.m
ME6402	Manufacturing Technology - II	Clean cutting form	7/2/18	Mr.N.Magesh	0001
ME6403	Engineering Materials and Metallurgy	3rd chap, fatigue and creep test	9/3/18	Mr.M.Rajeshkumar	B
GE6351	Environmental Science and Engineering	Aquatic Ecosystem Soil Pollution	17/01/18	Dr.A.L.Kavitha	ALW
ME6404	Thermal Engineering	Vapour absorption system - Ammonia - water, Lithium bromide - water system, Compression of vapour absorption	(5) 8/3/18	Mr.V.Vinothkannan	v.v

CLASS: II 'B' MECH

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MA6452	Statistics and Numerical Methods	Taylor series Method	5-2-18	Mr.G.Sankaralingam	F
ME6401	Kinematics of Machinery	UNIFORM VELOCITY, PARABOLIC, SIMPLE HARMONIC & CYCLOIDAL MOTIONS (10)	8-3-18	Mr.S.Karikalan	S.101
ME6402	Manufacturing Technology - II	Metal cutting	30-1-18	Mr.J.Prabhakaran	2
ME6403	Engineering Materials and Metallurgy	3rd and chap, (5) Fatigue & creep test, fracture toughness test	14-3-18	Mr.V.Vinothkannan	v.v
GE6351	Environmental Science and Engineering	Role of Engineering in Prevention of Pollution, Aquatic Ecosystem	11/2/18	Dr.S.Udhayakumar	S.U
ME6404	Thermal Engineering	Vapour absorption system Ammonia - water, Lithium bromide - water, Compression of vapour absorption	5/3/18	Mr.R.Arun	S

CLASS: III 'A' MECH

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
ME6601	Design of Transmission Systems	Design of cone clutches	21-2-18	Mr.G.Mathivanan	B
MG6851	Principles of Management	Planning operations	9-3-18	Mr.R.Suriyamurthy	R.Suriyamurthy
ME6602	Automobile Engineering	Clutch type working	29-1-18	Mr.M.Aswin	A.M
ME6603	Finite Element Analysis	Finite Element analysis Formulation	31-1-18	Mr.J.Prabhakaran	2
ME6604	Gas Dynamics and Jet Propulsion	Generalised gas compression	20-2-18	Mr.N.Magesh	001
ME6004	Unconventional Machine Process	LBM, ADM, EBM working principles, types	01-03-18	Mr.M.Melwin / Sridhar	M.Melwin



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## CLASS: III "B" MECH

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
ME6601	Design of Transmission Systems	Gear Terminology Speed ratios & number of teeth	02.01.18	Mr.V.Vijayakumar	<i>[Signature]</i>
MG6851	Principles of Management	Planning operations	7.3.18	Mr.G.Mathivanan	<i>[Signature]</i>
ME6602	Automobile Engineering	Working of clutch	21.2.18	Mr.R.Suriyamurthy	<i>[Signature]</i>
ME6603	Finite Element Analysis	Basic concepts of the FEM, Derivation of shape function, Variational formulation	30.12.17	Mr.J.Rajaparthiban	<i>[Signature]</i>
ME6604	Gas Dynamics and Jet Propulsion	Performance of Ramjet Engine	5.3.18	Mr.M.Aswin	<i>[Signature]</i>
ME6004	Unconventional Machining Process	J.B.M, F.B.M, A.B.M, W.B.M working principles	26.2.18	Mr.H.Agilan	<i>[Signature]</i>

## CLASS: IV "A" MECH

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MG6863	Engineering Economics	Effective interest rate	05/11/18	Mr.B.Sureshbabu	<i>[Signature]</i>
IE6605	Production Planning and Control	Production control system - loading & scheduling	20.1.18	Mr.B.Adhichelvan	<i>[Signature]</i>
ME6016	Advanced I.C. Engines	Emission measuring	11.1.18	Dr.T.Pushparaj	<i>[Signature]</i>

## CLASS: IV "B" MECH

Sub code	Subject name	NPTEL session topic & Unit mapped to	Date of execution	Staff Name	Staff Signature
MG6863	Engineering Economics	Effective Interest rate (UNIT I)	03/01/18	Mr.K.Sudhakar	<i>[Signature]</i>
IE6605	Production Planning and Control	Production control system - loading & scheduling	20.1.18	Mr.R.Shankar	<i>[Signature]</i>
ME6016	Advanced I.C. Engines	Emission Measuring Equipments UNIT-III (ag)	8.1.18	Mr.P.P.Shantharaman	<i>[Signature]</i>

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(V.VINOTH KANNAN)

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**ACADEMIC YEAR 2017-18 (Odd Sem)**  
**NPTEL SESSION EXECUTION STATUS**

DEPT: MECHANICAL ENGINEERING

SEC: 'A'

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff incharge sign
YEAR : SEM : SEC: I / IV / A			
ME6301 - Engineering Thermodynamics	Application to closed and open system - I <sup>st</sup> law of thermodynamics	10.7.2017	V. J. R.
MA6351 - TPE	Application of Engg. Mathematics	16.8.17	G. S.
EE6351 - EDC	Power electronics & Electrical drives.	24.8.17	P. D. S.
CE6451 - FMM	Properties of fluid & Flow characteristics	21/8/17	N. S.
CE6306 - SOM	Stress-strain diagrams in cantilever beams	23/9/17	S. S. J.
ME6302 - MEI	Application of matrices in Engg.	17.8.17	J. S.
YEAR : SEM : SEC: III / V / A			
ME6503 - Design of machine element	Torsional stress analysis	28/6/2017	G. S.
ME6504 - Metrology and Measurements	Angular measuring instruments	14.7.2017	V. J. R.
ME6505 - Dynamics of machines	Free Vibration	3.8.2017	G. S.
ME6501 - Computer aided design	Solid modeling	25.07.17	P. S.
ME6502 - IAMT	Heat- Exchangers	25.9.17	M. S.
GE6075 - PEE	Moral leadership	18.9.17	S. S. J.
YEAR : SEM : SEC: IV / VII / A			
GE6757 - Total Quality Mgt	Customer Complaints / Customer retention	06/07/2017	G. S.
ME6702 - Mechanically	Instruction set	25/07/17	B. A. S.
ME6701 - Power plants Engg.	Feed water treatment Binary cycle	10/07/17	B. A. S.
ME6703 - CIM	Introduction to CAD/CAM	23/06/17	B. S.
ME6005 - PPE	Estimation of different types of cost	25.7.17	S.
ME6012 - Mechanical Engg	Repair methods in engg	13/9/17	T. S.

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**ACADEMIC YEAR 2017-18 (Odd Sem)**  
**NPTEL SESSION EXECUTION STATUS**

DEPT: Mechanical

SEC: B

Sub.code & Sub.Name	NPTEL session topic & Unit mapped to	Date of execution	Staff incharge sign
YEAR : SEM : SEC: <u>II / II / B</u>			
MA6351 / TPDE	Applications of Energy Methods	16/8/17	R. Mary
CE6306 / SOM	3F and BM in the Cantilever Beams	11/7/17	R. Mary
CE6451 / FMM	Pumps and Turbines	26.09.2017	John P
ME6301 / ETD	Reheat/Regenerative cycles & Economiser.	2/8/17 and 17/8/17	John P
ME6302 / MTI	Classical Equilibrium & Thermodynamics	17.8.17	John P
EE6351 - EDC	Power electronics & electrical drives	22.8.17	John P
YEAR : SEM : SEC: <u>III / V / B</u>			
ME6502 - HMT	Unsteady Heat conduction & Lumped Heat Analysis	4.7.2017	John P
CE6075 - PEE	Moral Leadership	14/09/2017	R. Mary
ME6501 - CAD	Computer Graphics	1/08/2017	M. Sathya
ME6505 - DOM	FREE VIBRATION	7.8.17	S. Leel
ME6503 - DMF	FACTORS INFLUENCING MACHINE DESIGNING	12.7.17	John P
ME6504 - MM.	Brigade measurement & Strain gauge	15.9.17	N. Mary
YEAR : SEM : SEC: <u>III / V / B</u>			
ME6701 - PPE	Binary Cycles.	5.7.17	John P
ME6702 - Mechanisms	Instruction set	24/7/17	R. Mary
ME6703 - CIM	Concurrent eng	22/6/17	John P
CE6757 - TQM	TQM Tools.	16/8/17	John P
ME6005 - BPCE	Estimation of job	18/8/17	John P
ME6012 - ME	Repair methods & gears.	16/8/17	John P

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