



KINGS
COLLEGE OF ENGINEERING
An Autonomous Institution
Affiliated to Anna University, Chennai, Approved by AICTE, New Delhi



INDEX

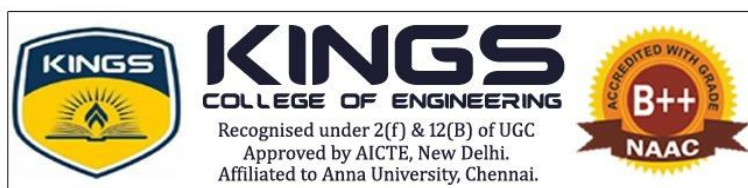
CRITERION: 3.2.1

Innovation Eco system / 2022-23

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| 1 | Research and Development Cell | 02 |
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P. P. S. S.

J. Monick
PRINCIPAL
Kings College of Engineering,
PUNALKULAM - 613 303.

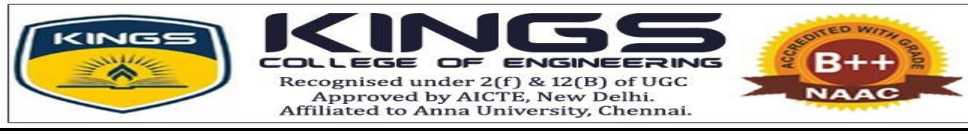


**3.2.2 - Number of workshops/seminars conducted on
Research Methodology, Intellectual Property Rights (IPR)
and entrepreneurship during the year 2023-23**

| Sl. No. | Date | Details | Beneficiaries | Page No. |
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| R & D Section | | | | |
| 1 | 15.09.2022 | Engineers Day celebration – Technical Quiz, Artathon & Speech competition | 174 | 02 |
| 2 | 26.09.2022 | Webinar on Robotics – in Research Perspective | 158 | 10 |
| 3 | 18.10.2022 | Online Workshop on Intellectual Property Rights (IPR) & Patents and Design Filing | 254 | 16 |
| 4 | 19.01.2023 | Workshop on Outcome Based Assessment and Evaluation | 70 | 24 |
| 5 | 04.05.2023 | Kings Project Expo'2023 | 240 | 30 |

P. P. S. S. S.

J. Praveen
PRINCIPAL
Kings College of Engineering,
PUNALKULAM - 613 303.



A REPORT ON ENGINEERS' DAY-2022

Every year, the country celebrates September 15 as National Engineer's Day to appreciate the contributions of Shri. Mokshagundam Visvesvaraya. The Bharat Ratna awardee, Visvesvaraya was born on September 15, 1861. To remember the birth anniversary of him, one of the great legends and engineer himself, Sir Mokshagundam Visvesvaraya, We Kings College of Engineering also join hands together in the merriment.

The objectives of the celebration of Engineer's Day were

- a) To take a guarantee to support and cheer the youth to select for engineering education.
- b) To produce quality Engineers for the bright future of our country.

| | | | |
|--|---|--|---|
|  | A NAAC Accredited Institution KINGS COLLEGE OF ENGINEERING <small>Recognized under 2(f) & 12(B) of UGC Approved by AICTE, New Delhi Affiliated to Anna University, Chennai</small> |  |  |
|  | Engineers Day Celebration In Memory of BHARAT RATNA Sir Mokshagundam Visvesvaraya | | |
| Jointly organized by Department of CSE & R & D Section | | | |
| <i>Events</i> | QUIZ | ARTATHON | SPEECH COMPETITION |
| <i>Dates</i> | 29.08.2022 | 01.09.2022 | 02.09.2022 |
| All Students are invited and exhibit your talents Register Quickly..!!!!!! | | | |
| Coordinator | Conveners | | Patron |
| Ms. S. Abikayil Aarthi AP/ CSE | Dr. S.M. Uma, HOD/CSE Dr. PP Shantharaman, DRC Convenor | | Dr. J. Arputha Vijaya Selvi Principal |

INVITATION

The engineering student community as a whole College devoted entire day and conducted the following activities as competition.

1. Speech Competition
2. Quiz
3. Artathon

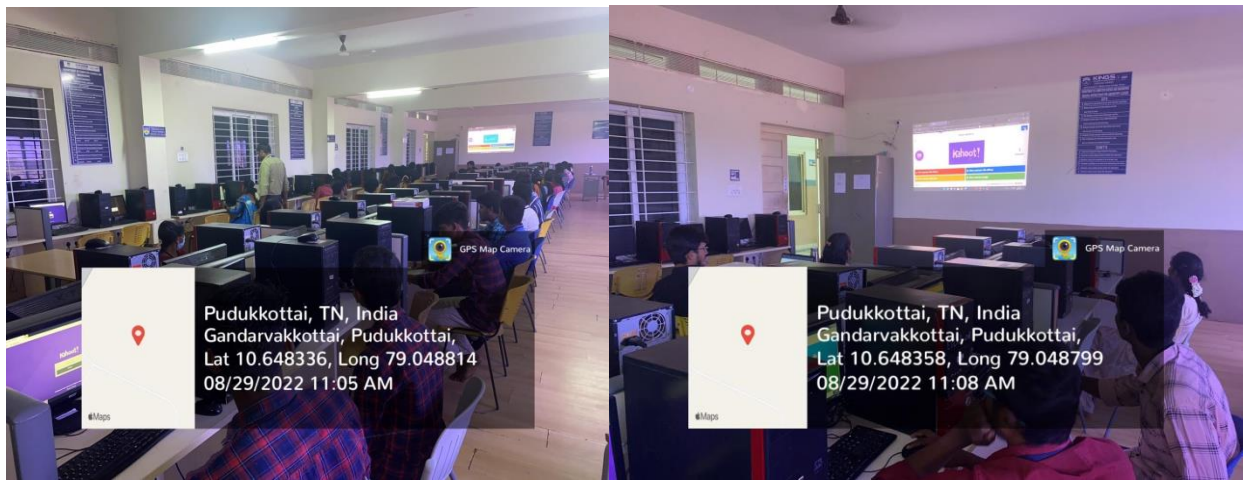
We have organized the following events after getting necessary approval.

Judges for the Events on Engineers' Day-2021

| S.No | Event Name | Date | Faculty Name (Judges) | Location |
|------|--------------------|------------|--------------------------------|--------------|
| 1. | Quiz | 29.08.2022 | Er. Senthilnathan AP/ CSE | CSE LAB - 1 |
| 2. | Artathon | 01.09.2022 | Er. Arun AP/ Civil | Drawing Hall |
| 3. | Speech Competition | 02.09.2022 | Er.Thiyagarajan / System Admin | Seminar Hall |

Event : QUIZ

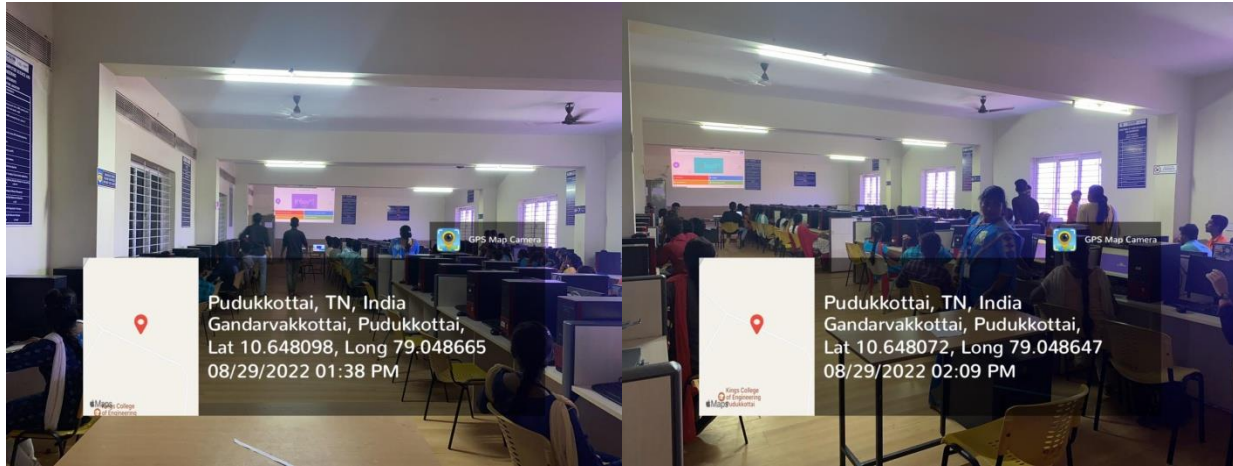
Students Participation:



Students attending through Kahoot app



No of user at a time Participants list shown in the projector view



After attending question the rating speed of all users shown on projector view for each single question

Students winning on level:

Number of participants for these events is 137 students, in these batch wise selection process has been undertaken.

Ist Batch

1. Akilan - EEE/ III
2. Keerthika - ECE/ III
3. Praveen Kumar – EEE/ III

IInd Batch

1. Krishnamoorthy - ECE/ III
2. Blesson - ECE/ III
3. Sajeevan- ECE/ III

IIIrd Batch

1. Tamilarasan .T – Civil / II
2. Mukesh.T - ECE/ III
3. Venkatesh.D- ECE/ III

IVth Batch

1. Fasila – CSE/ IV
2. Vindhya - CSE/ III
3. Lavanya - CSE/ III

Vth Batch

1. Ruthran - EEE/ II
2. Semili – EEE / III
3. Priya – Civil / III

VIth Batch

1. Shashance - CSE/ II
2. Dharani - CSE/ IV
3. Priyadharshini – Civil / III

Final Winning



Final Winners

1. Krishnamoorthy – ECE/ II
2. Fasila – CSE/ IV
3. Praveen Kumar – EEE / III

EVENT : ARTATHON

The event was held on 01.09.2022, there were 28 students from various departments eagerly attended the competition. The theme of the event is “Engineering Concepts through Art”. It takes place in Drawing Hall. Er. Arun AP, from Civil department being the Jury for this event.



Place of the Event



Participation of the Students



Usage of Tools in competition

Final Winning

Three students from various departments were chosen as winners.

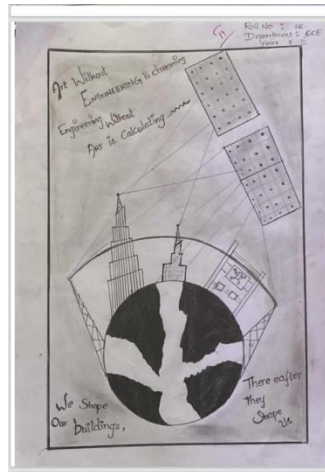
First Prize -> Mohamed Arsath. A / Mech III

Second Prize -> Jaishree . A / ECE III

Third Prize ->Karkuzhali. N / CSE IV



Ist Prize



IInd Prize



IIIrd Prize

EVENT : SPEECH COMPETITION

The event was held on 02.09.2022, there were nine students from various department eagerly attended the competition. The theme of the event is "Real Time Successful Engineer ". Mr. Thiyagarajan System Admin from Computer Engineering department being the Jury for this event.



Participation of students - I



Participation of the Students - II



Participation of students - III

Final Winning

Three student from various departments were chosen as winners.

First Prize -→ Avudaiyappan. A.B / CSE IV

Second Prize -→ Aiyappan. S / CSE IV

Third Prize -→ Sultan Abdul / MECH II

DAY EVENT & PRIZE DISTRIBUTION

The Welcome address was addressed by IV Year student M. Gokul in that an engineering song was also composed by our CSE department students and Speech about engineers also took place by students and motivational talk by Dr.S.Sivakumar Vice Principal, Dr.S.M.Uma /CSE - HOD along with that R & D Cell coordinator Dr. P.P. Santharaman, gave a talk in the event and prize distributed. At last vote of thanks by Student M.Gokul, Student President/ CSE has been delivered.



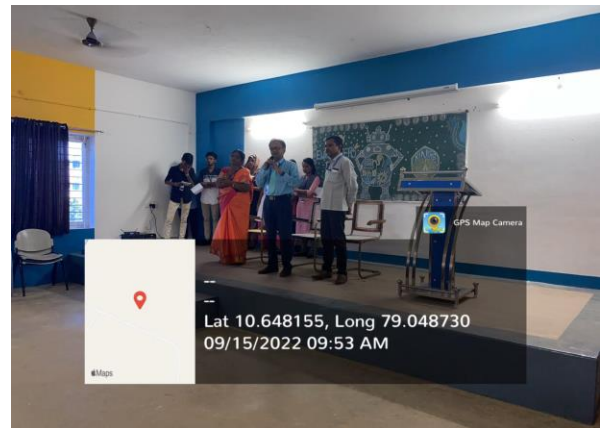
Event Place



Engineering Song Composed by III year Students



Speech by Students of CSE



Inspiration talk by Vice Principal



Prize Distribution Clips - 1



Prize Distribution Clips - 2



Team of EVENT

The Program has been ended successfully, the students shown their participation in a tremendous manner. This surprising outcome showed that not only students being entertained, they were also being socially educated. We planned to provide a greater number of such sessions to look forward. Thanks to all our students, and respected faculty members of all departments for making this event extravagant one.

The report prepared by

Event Coordinator,

Er. S. Abikayil Aarthi, AP/ CSE

Kings College of Engineering, Thanjavur.



R&D Section

Report on

Webinar on

Robotics – in Research Perspective

on

26th September, 2022

Report on
Webinar on Robotics – in Research Perspective
26th September, 2022

Research & Development Section and IEEE Student Branch jointly organized a webinar on **Robotics – in Research Perspective** on 26.09.2022. **Mr. Aditya Kameswara Rao Nandula**, Senior Project Officer, Chair - IEEE YPAG Kharagpur Section, IIT Kharagpur delivered lecture. In his lecture, he addressed several researches in the areas of robotics which shows a great attention to physical interface between robotic system and its environment. Also, he presented some of the real-time implementation of humanoid robots in the sector of medicine and waste management. 158 students of our institute participated and got benefitted. The event was coordinated by Mr. T. Pasupathi, AP/ ECE, KCE and Mr. J. Niranjan Samuel, JRF/ECE-R&D.

Research & Development Section organizes

Webinar on Robotics - in Research Perspective

26.09.2022 (Monday)
03:00 p.m. to 04:00 p.m.

Mr. Aditya Kameswara Rao Nandula
Senior Project Officer
Chair - IEEE YPAG Kharagpur Section
IIT Kharagpur

Coordinators
Mr. T. Pasupathi, AP/ECE & Mr. J. Niranjan Samuel, JRF/ECE

Convener
Dr. P.P. Shantharaman
Assoc. Prof/Mech

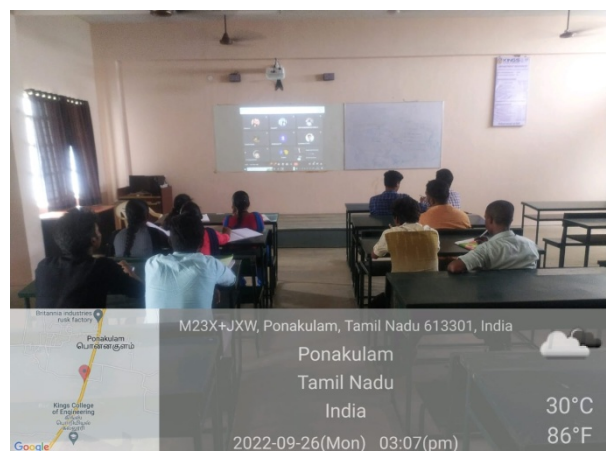
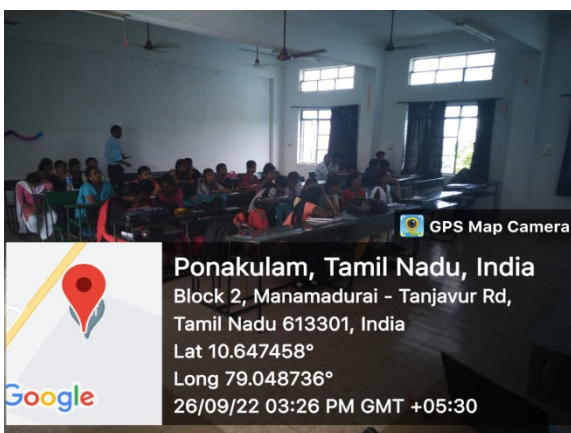
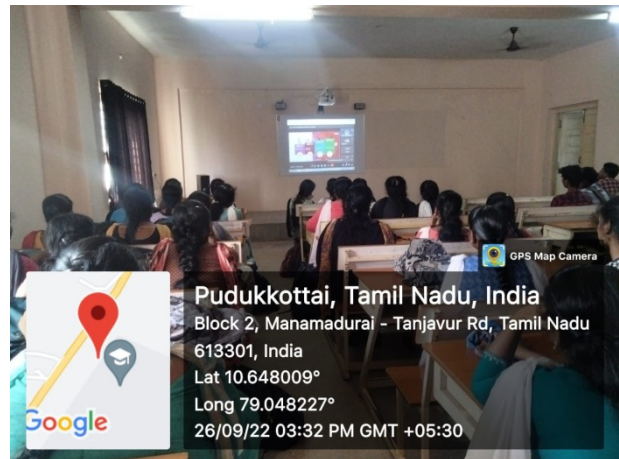
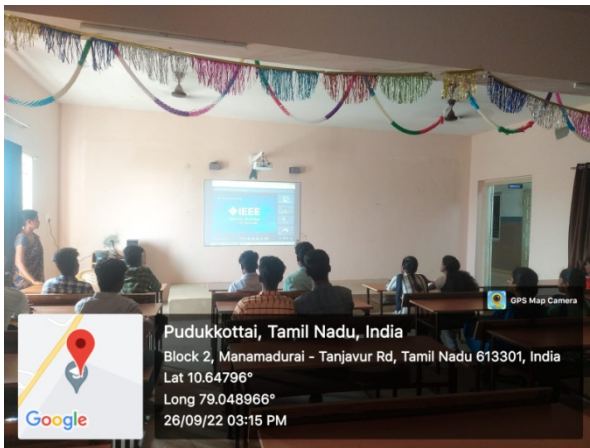
Patron
Dr. J. Arputha Vijaya Selvi
Principal

E-Certificates will be provided

Programme Flyer



Screen Shots



Geo tagged photos

Short Profile of Speaker

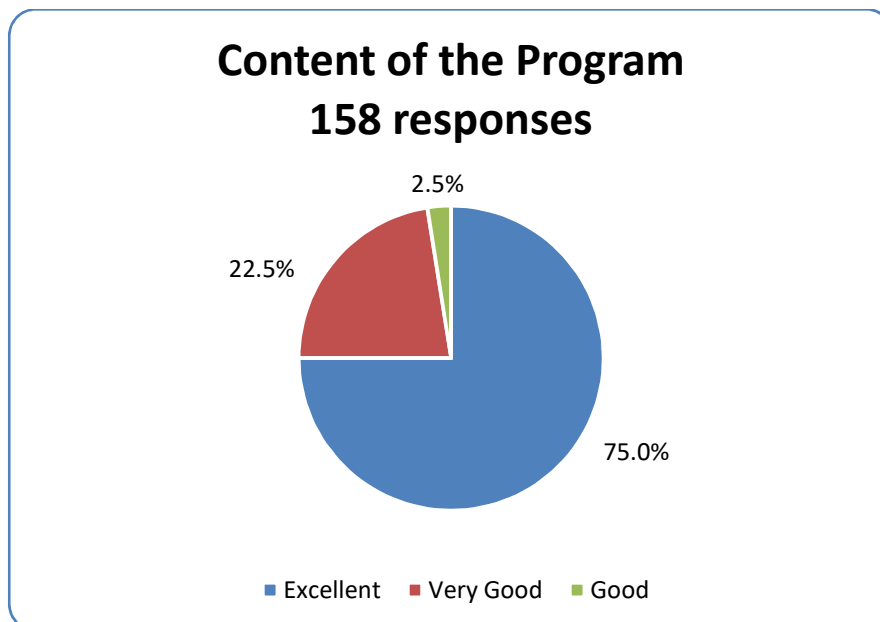
He received B.Tech in Electronics and Communication Engineering and M.Tech in ETE specialization in VLSI Design and Embedded System. He had around 4 years of Industrial experience in Medical electronic devices manufacturing industry and 7+ years of research experience in education technology At present he is working as Senior Project Officer in Virtual labs research project in the Mechanical Engineering Department at IIT Kharagpur and pursuing MS through Research (Robotics) in Advanced Technology Development Centre at IIT Kharagpur.

He is Chair (2022), IEEE Young Professionals Affinity Group Kharagpur Section, IEEE Brand Ambassador, IEEE Day 2022 Ambassador and IEEEExtreme 16.0 Ambassador.

- His Research interests are Robotics, Humanoid bipedal robotics, and Embedded Systems.

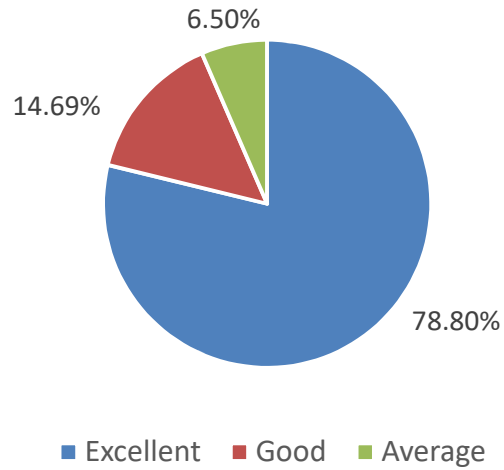
Feedback analysis

| | Excellent | Very Good | Good |
|----------------------------|-----------|-----------|-------|
| Content of the Program | 75.0% | 22.5% | 2.5% |
| Rate the speaker | 78.80% | 14.69% | 6.50% |
| Feedback about the program | 77.90% | 16.30% | 5.80% |
| Overall Experience | 77.50% | 18.25% | 4.20% |



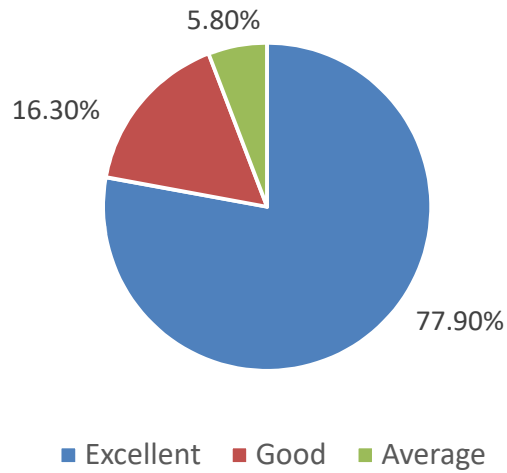
Rate the speaker

158 responses



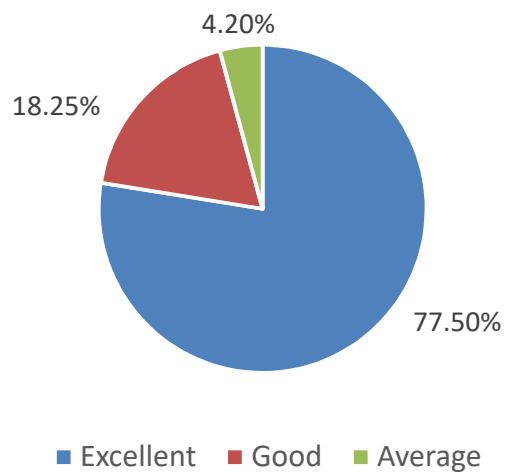
Feedback about the program

158 responses



Overall Experience

158 responses



Request for Consent



Niranjan Samuel J <niranjansamuel@kingsengg.edu.in>

Request for consent - reg

Niranjan Samuel J <niranjansamuel@kingsengg.edu.in>
To: akraonandula@ieee.org

Fri, Sep 9, 2022 at 1:15 PM

Sir,

Greetings from Kings College of Engineering - IEEE STB 16621

Kings College of Engineering (KCE) is an institution which was formed with the single aim of providing quality education to the poor and underprivileged students. KCE is approved by All India Council for Technical Education, New Delhi (AICTE) and is affiliated to Anna University, Chennai. The institution was established in the year 2001 on a sprawling campus of around 60 acres on the Thanjavur-Pudukkottai Highway and run by Raj Educational Trust (RET). The institution offers six U.G and four P.G programmes and is certified with ISO 9001:2008.

R&D Section in association with IEEE Student Branch is organizing a webinar on Robotics - A Research Perspective (tentatively topic) during September, 2022. Topic can be changed accordingly. In connection with this, we would like to invite you to deliver a lecture of one hour duration in the webinar

Expecting a favourable reply in this regard.

Kindly send us your profile.

Thank you,

Regards,

J. Niranjan Samuel
JRF/ECE-R&D
Coordinator - Social Media & Press
Incharge - IEEE STB 16621
Kings College of Engineering
Punakulam, Near Thanjavur

Acceptance letter



Niranjan Samuel J <niranjansamuel@kingsengg.edu.in>

Request for consent - reg

ADITYA KAMESWARA RAO NANDULA <akraonandula@ieee.org>
To: Niranjan Samuel J <niranjansamuel@kingsengg.edu.in>

Fri, Sep 9, 2022 at 8:59 PM

Respected Sir,

Thank you for your invitation to deliver a lecture. Find the talk details as follows and picture attached to this mail. Have a look at it and let me know if there are queries in it.

Title: **Robotics - In research perspective**
Date: **18-09-2022**
Time: **11:00 am to 12:00 pm**
Duration: **1 hour (50 mins lecture and 10 mins for QA)**

Picture link: <https://drive.google.com/file/d/1WZmDimbwCiiY7foDP7YnBrZiSuaEzA1u/view?usp=sharing>

Short bio:

He received B.Tech in Electronics and Communication Engineering and M.Tech in ETE specialization in VLSI Design and Embedded System. He had around 4 years of Industrial experience in Medical electronic devices manufacturing industry and 7+ years of research experience in education technology. At present he is working as Senior Project Officer in Virtual labs research project in the Mechanical Engineering Department at IIT Kharagpur and pursuing MS through Research (Robotics) in Advanced Technology Development Centre at IIT Kharagpur.

He is Chair (2022), IEEE Young Professionals Affinity Group Kharagpur Section, IEEE Brand Ambassador, IEEE Day 2022 Ambassador, and IEEE Xtreme 16.0 Ambassador.
His Research interests are Robotics, Humanoid bipedal robotics, and Embedded Systems.

With Thanks and Regards,
Aditya

[Quoted text hidden]

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Coordinator(s)

DRC Convener

Principal



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Affiliated to Anna University, Chennai



R&D Section

Report on

Online workshop

Intellectual Property Rights (IPR) & Patents and Design filing

on

18th Oct 2022

Time: 12.30 p.m. to 1.30 p.m.

Report on

Online workshop Intellectual Property Rights (IPR) & Patents and Design filing on 18th October, 2022

R&D Section in association with Rajiv Gandhi National Institute of Intellectual Property Management (RGNIPM), Government of India, Nagpur (Under National Intellectual Property Awareness Mission) and IEEE Student Branch 16621 jointly organized an online workshop on **Intellectual Property Rights (IPR) & Patents and Design Filing** on **18.10.2022** between 12.30 p.m. to 1.30 p.m.

Himanshu Chandrakar, Examiner of Patents & Designs, RGNIPM, Nagpur was the resource person. In his lecture, he briefed on Intellectual Property, Importance and Significance of IPR, Utilization and Commercialization. Under IP, he briefed on Patents, Designs, Trademarks, Geographical Indications and Copyrights. Before filing a patent, secrecy of the design has to be maintained. While concluding his session, application procedure for filing a patent was briefed. Totally 254 participants from other institutions and from our institute participated in the programme.

NIPAM
NATIONAL IP AWARENESS MISSION

R & D SECTION
KINGS COLLEGE OF ENGINEERING
In association with
Rajiv Gandhi National Institute of Intellectual Property Management (RGNIPM)
Government of India, Nagpur
(Under National Intellectual Property Awareness Mission)

PRESENTS
Online Workshop on
Intellectual Property Rights (IPR)
& Patents and Design filing
on
18th Oct 2022, Time: 12.30 p.m. to 1.30 p.m.
Resource Person


HIMANSHU CHANDRAKAR
Examiner of Patents & Designs
RGNIPM
Nagpur

Registration Link– <https://forms.gle/2NY2YRKjQTrMU9h9>
E-certificates will be given to all participants who attend the program

Coordinators
Dr. PP. Shantharaman, DRC Convenor
Dr. P. Narasimman, DRC Member

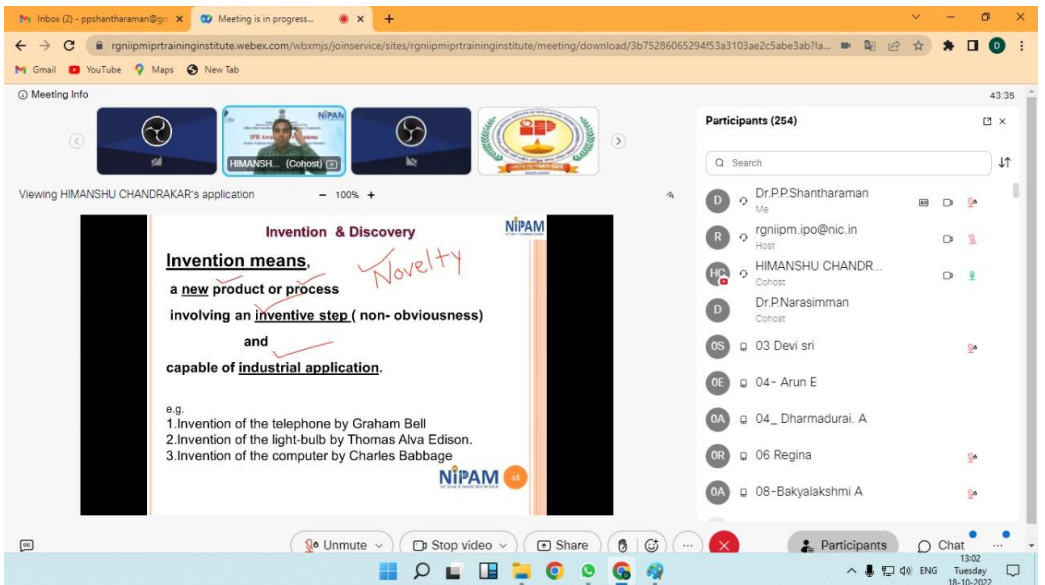
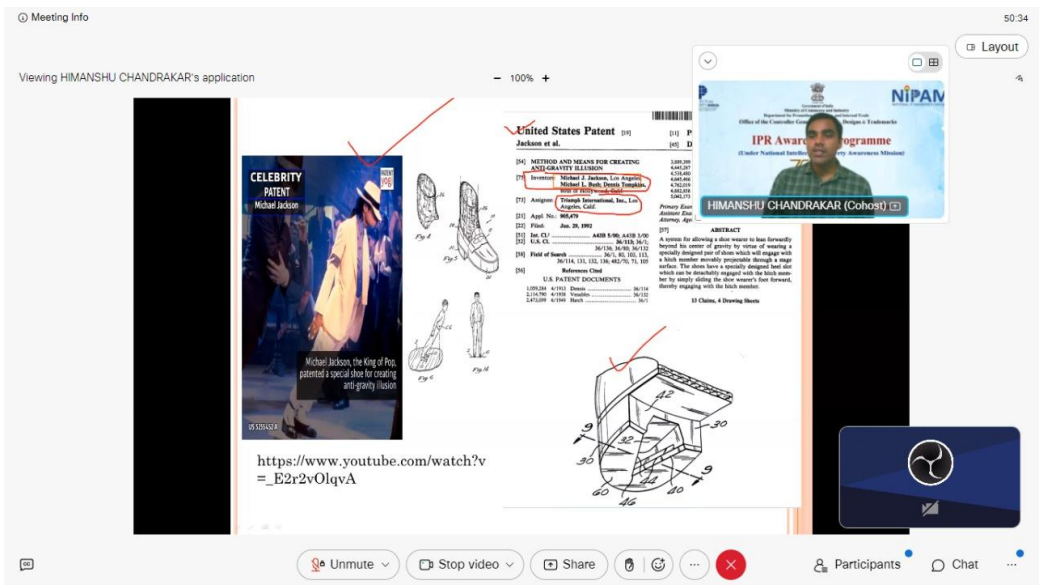
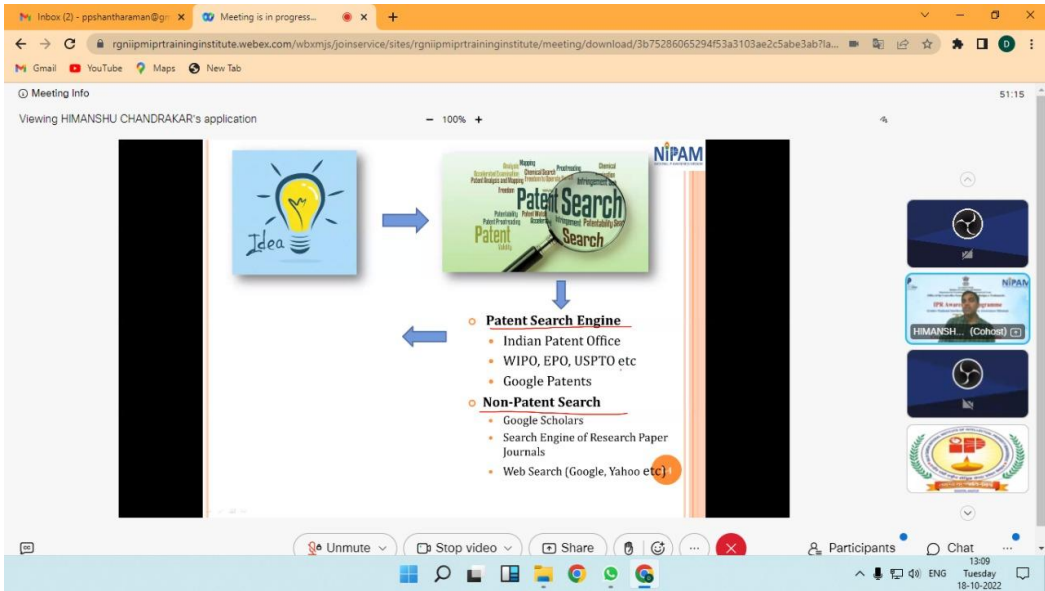
Patron
Dr. J. Arputha Vijaya Selvi
Principal

IEEE
Madras Section
KCE - STB 16621

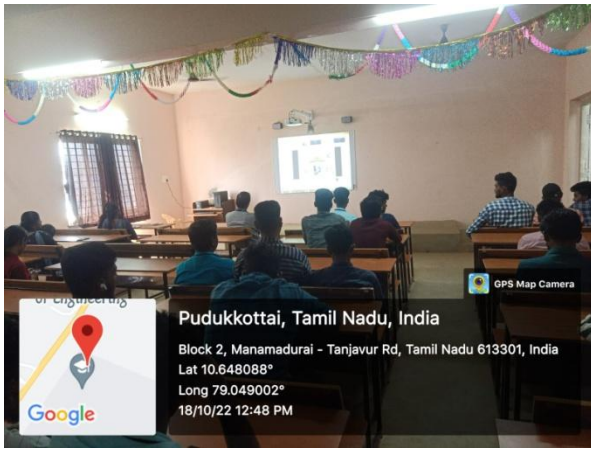
75
Azadi Ka
Amrit Mahotsav

**INSTITUTION'S
INNOVATION
COUNCIL**
(Ministry of HRD Initiative)

Programme Flyer



Screen Shots



Geo tagged photos



Sample Certificate



Government of India
 Ministry of Commerce and Industry
 Department for Promotion of Industry and Internal Trade
 Office of the Controller General of Patents, Designs and Trade Marks

CERTIFICATE OF APPRECIATION

Presented to

KINGS COLLEGE OF ENGINEERING, PUDUKKOTTAI

In recognition of active participation in the **National Intellectual Property Awareness Mission (NIPAM)** launched by the Government of India on the occasion of the 75th anniversary of independence under the banner "Azadi Ka Amrit Mahotsav" to create widespread awareness on Intellectual Property Rights (IPR). The exceptional contribution in successfully organizing the awareness programme on **October 18, 2022** in association with **RGNIIPM, Nagpur** by providing your valuable time and support is highly appreciated.

Solicit your continued support for outreach of IPR far and wide.

Date: October 21, 2022



(Prof. (Dr) Unnat P. Pandit)
 CONTROLLER GENERAL OF
 PATENTS, DESIGNS & TRADE MARKS



Government of India
 Ministry of Commerce and Industry
 Department for Promotion of Industry and Internal Trade
 Office of the Controller General of Patents, Designs and Trade Marks

CERTIFICATE

This is to certify that, **DR. P. NARASIMMAN** of **KINGS COLLEGE OF ENGINEERING, PUDUKKOTTAI** co-ordinated in conducting the Intellectual Property Awareness program under

NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION

on **October 18, 2022**

Azadi Ka
 Amrit Mahotsav

Organized by
Intellectual Property Office, India

Date: October 21, 2022



(Prof. (Dr) Unnat P. Pandit)
 CONTROLLER GENERAL OF
 PATENTS, DESIGNS & TRADE MARKS

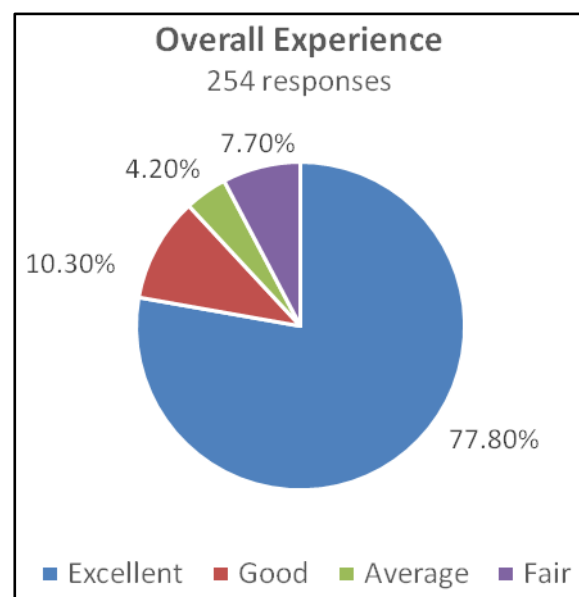
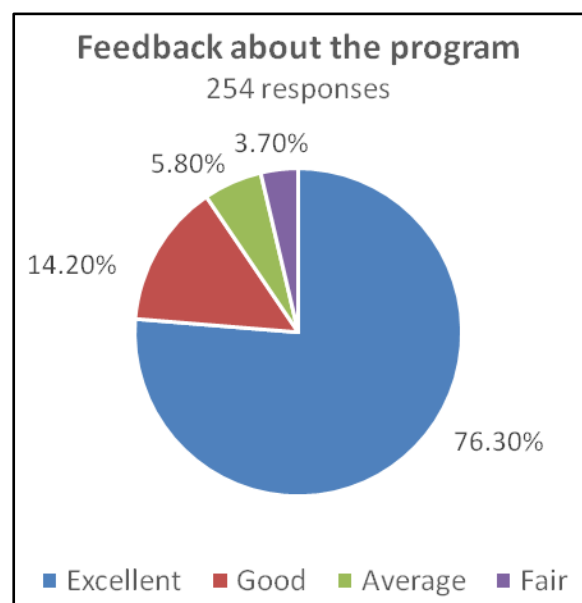
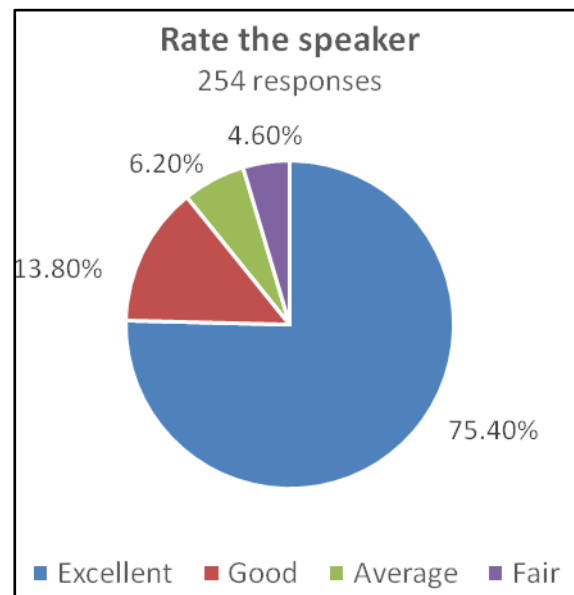
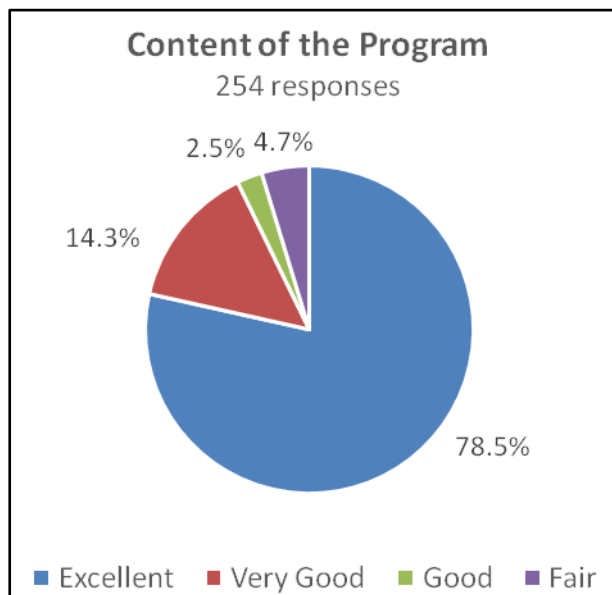
Short Profile of Speaker

HIMANSHU CHANDRAKAR is working for more than 6 years in Indian Patent Office, Ministry of Commerce & Industry, Govt. of India and presently working as Examiner of Patents & Designs at RGNIPM Nagpur

- He is examining and dealing with the national and International Patent applications filed at different Patent offices across India,
- He has done -
Bachelor of Engineering in Mechanical Engineering.
- He has delivered many lectures on IPR in various parts of the country

Feedback analysis

| | Excellent | Very Good | Good | Fair |
|----------------------------|-----------|-----------|-------|-------|
| Content of the Program | 78.50% | 14.30% | 2.50% | 4.70% |
| Rate the speaker | 75.40% | 13.80% | 6.20% | 4.60% |
| Feedback about the program | 76.30% | 14.20% | 5.80% | 3.70% |
| Overall Experience | 77.80% | 10.30% | 4.20% | 7.70% |





Dr. J. Arputha Vijaya Selvi, M.E., Ph.D.,
PRINCIPAL

Ref: KCE / PRL /invite/023/22-23

03.09.2022

To
Head of Office
RGNIIPM Nagpur
O/o CGPDTM, Ministry of Commerce & Industry - Govt. of India, DPIIT,
Civil Lines, Nagpur -440022, Maharashtra

Kind attention: **Mr Pankaj P. Borkar**, Dy. Controller of Patents & Designs

Subject: Online Session on IPRs & Patent/ Designs filing jointly with RGNIIPM

Sir,

On behalf of the Kings College of Engineering, we would like to conduct joint program with RGNIIPM Nagpur, we would like to invite any speaker from RGNIIPM to deliver an online session on **IPRs & Patent / Designs filing for** students and Faculty on either of the following time slots below:

Date: 14.10.2022 / 18.10.2022 / 20.10.2022

Time: from 11:00 a.m. to 12:00 noon (1 hour) followed by Q& A

Venue: Online program

Event Coordinators: 1. Dr. PP Shantharaman
Mobile: 99448 76644 Email: ppshantharaman@gmail.com
2. Dr. P. Narasimman
Mobile: 98944 79763 Email: simman837@gmail.com

We will assure that we will try to bring maximum participates for participating said programme and get benefited about IPR knowledge. We look forward to your kind acknowledgement and confirmation for the same.

Date: 02.09.2022.
Place: Punalkulam

J. Arputha Selvi
03/09/2022
Prof. Dr. J. Arputha Vijaya Selvi
Principal
PRINCIPAL
Kings College of Engineering
PUNALKULAM - 613 303.



Punalkulam, Gandarvakottai Taluk, Pudukkottai District, Tamil Nadu - 613 303. Ph : 04362 - 282474,
Email : contact@kingsindia.net, Thanjavur Information Centre : - 04362-279779

A joint workshop on IPR & Patents, Designs filing - with Kings College of Engg. Punalkulam

Himanshu Chandrakar <himanshu.ipo@gov.in>

Tue, Sep 6, 2022 at 1:37 PM

To: principal@kingsengg.edu.in

Cc: Pankaj Prabhakar Borkar <pborkar.ipo@nic.in>, Nirmalya Sinha <nirmalyas.ipo@nic.in>

Sir/Madam,

Welcome to RGNIPM Nagpur, Ministry of Commerce & Industry Government of India, IPR Training Institute. We can conduct the IPR program in association with RGNIPM with your organisation under National Intellectual Property Awareness Mission (NIPAM).

You are requested to send an invitation letter on letterhead to Head, RGNIPM, Nagpur & scan copy can be sent over the above E-mail. (Please don't send letter again if it was already sent over email on any other coordinator name. No personal invitation in the name of speaker will be required).

You are requested to fill the form to get various details and after filling form kindly send email to speaker and give copy to sarang.patil@nic.in

<https://forms.gle/LDo1MBmJEyNTF3T9>

Topic of programme:- Intellectual Property Rights (IPR) & Patent, Designs filing

Organizer:- RGNIPM, Govt. of India & your organization can jointly organize (Joint free online program)

Duration & Mode of program:- said online program will be around one hour duration

Date & Time of online program:- **18th Oct 2022, Time:12.20 PM to 02.00 PM** or will be as per mutual discussions

Who can attend : Any students of undergraduate, PG, etc., faculty etc. can attend

Speaker & Coordinator from RGNIPM: Himanshu Chandrakar, Examiner of Patents and Design / you may discuss with the speaker on the office phone. (Speaker name may vary depending on the urgent/unforeseen situations/medical reasons, if any) For further coordination you can contact to above speaker only.

Mobile of Speaker & Coordinator-(contact during 9.30 AM to 6 PM during - Monday- Friday)

Himanshu Chandrakar, Examiner of Patents and Design

Mobile- 9165637706, **Email-** himanshu.ipo@gov.in

(In case above numbers are busy /not working then for any urgent matters you can call others on 09224425777 / 09892605892 or 0712 - 2540920)



Summary of requirements from your end:-


- Try to arrange more than 200 participants to join online link,
- This Institute can arrange an online CISCO Webex link in which you can nominate 100 to 1000 participants OR as per your convenience you can also arrange the online link . However, if you want a link from our end kindly communicate immediately over above speaker's Email.
- You are requested to provide Minute to minute program, if available
- Prepare final virtual Banner/ flyer & give copy to speaker over email/ WhatsApp (as below in page 3)
- Publicity in newspaper / media after program is over – share copy to speakers over email /WhatsApp
- You are requested to share the signed copy of feedback letter from authorised person from your organization on cover letter to the speaker email.
- Ask participants to fill the feedback form to generate certificate with proper email and proper name.
- You are requested to fill the form to get various details and after filling form kindly send email to speaker and give copy to sarang.patil@nic.in

<https://forms.gle/LDo1MBmJEyNTF3T9>

****Please see attachment for more requirements of the program.

Thanks and Regards
Himanshu Chandrakar
Examiner of Patents and Design
RGNIPM, Nagpur
Ministry of Commerce and Industry
9165637706, himanshu.ipo@gov.in



Coordinator(s)


Principal



R&D Section & IQAC

Report on

Workshop on

Outcome Based Assessment and Evaluation

on

19th January 2023

KINGS COLLEGE OF ENGINEERING, PUNALKULAM

Report on

Workshop on Outcome Based Assessment and Evaluation

R&D Section and IQAC jointly organized a workshop on **Outcome Based Assessment and Evaluation** on **19.01.2023** at Pallava Hall.

Mr. PP. Shantharaman, Coordinator (Research), welcomed the dignitaries and participants. **Dr. J. Arputha Vijaya Selvi**, Principal presided over the programme. **Dr. S. Sivakumar**, Vice Principal offered felicitations. **Dr. K. Kannan**, IQAC Coordinator, Anjalai Ammal Engineering College, Kovilvenni was the resource person. In his lecture, he briefed the insights of Blooms Taxonomy, promoting learning experience, assessing methods, evaluation techniques and PO- CO mapping.

He demonstrated the preparation of a question paper as per outcome based evaluation. He also explained the effective use of performance indicators with each PO. Totally 70 faculty members from our institute participated in the programme.

Programme Flyer



The flyer features the Kings College of Engineering logo and accreditation details on the left, and a NAAC B++ accreditation badge on the right. The central text announces the workshop, organized by the R&D Section and IQAC. A portrait of Dr. K. Kannan is shown next to his name and title. The date and location are specified as 19th January, 2023, at Pallava Hall - Block - I. At the bottom, the names and titles of the IQAC Coordinator, R & D Convener, and Principal are listed.

KINGS COLLEGE OF ENGINEERING
Recognized under 2(f) & 12(B) of UGC
Approved By AICTE, New Delhi & Affiliated to Anna University, Chennai
Punalkulam, Gandarvakottai (tk), Near Thanjavur, Pudukkottai - 613303

ACCREDITED WITH GRADE
B++
NAAC

**Workshop on
Outcome based Assessment and Evaluation**
organized by
Research & Development Section and IQAC

**Dr. K. Kannan**
IQAC Coordinator
Anjalai Ammal Mahalingam Engineering College
Kovilvenni

Date : 19th January, 2023
Pallava Hall - Block - I

Ms. K. Abhirami
IQAC Coordinator

Dr. P.P. Shantharaman
R & D Convener

Dr. J. Arputha Vijaya Selvi
Principal

Photographs



GPS Map Camera



Pudukkottai, Tamil Nadu, India

Block 2, Manamadurai - Tanjavur Rd, Tamil Nadu 613301, India

Lat 10.647514°

Long 79.048191°

19/01/23 02:34 PM GMT +05:30

Google

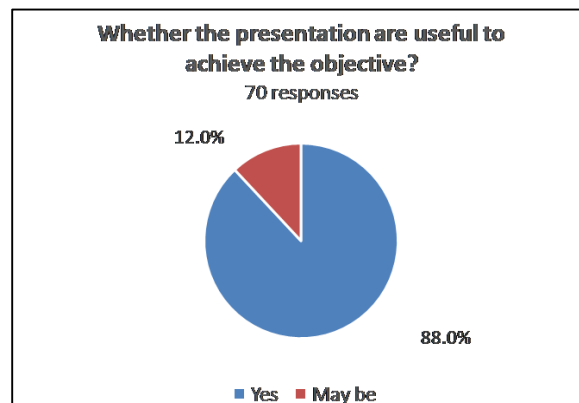
Geo tagged photo

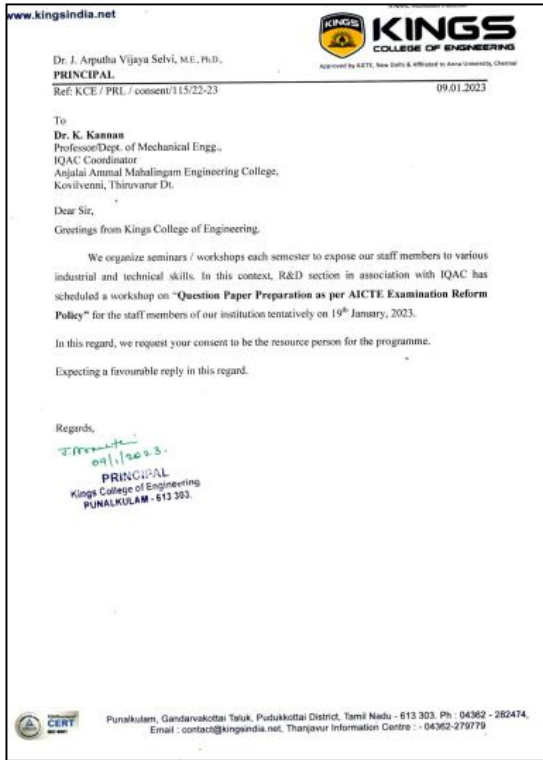
Short Profile of Speaker

Dr. K. Kannan Professor & Coordinator, IQAC Department of Mechanical Engineering
 Email id: k.kannan@aamec.edu.in
 Teaching experience 34 Years
 BE Degree in Mechanical Engineering , A.C.College of Engg & Tech, Karaikudi 1987
 ME Degree in Mechanical Engineering, Regional Engg College, Trichy, 1992
 PhD in Internal Combustion Engine, Anna University, 2010
 Publications in Journal 5
 Conference Papers Presented 4
 Books Published: 6
 Youtube Video Lectures: 500 lectures

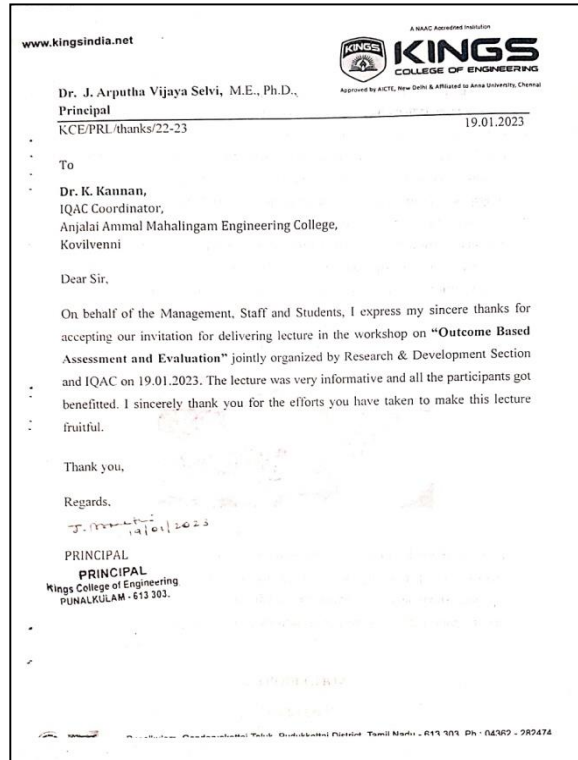
Feedback analysis

| | | |
|--|---|---------------|
| Whether the presentations are useful to achieve the objective? | Yes | May be |
| | 88 % | 12 % |
| The rating of the resource person | Excellent | Good |
| | 85 % | 15% |
| What did you like in the workshop? | <ul style="list-style-type: none"> • Way of presentation and content • Bloom Taxonomy content and Rubrix • CO,PO and blooms taxonomy explanation • Content and coverage approach • Excellent explanation • Explanation about BT level • Explanation of Selection of PIs • How to teach, formative asking questions to the students in every class. • Learn lot. • Indicator • Informative • knowledgeable session • Overall presentation • Po mapping • The zone level where I am currently standing • Understand the importance of first 3 BT Levels • Very interesting and informative program | |

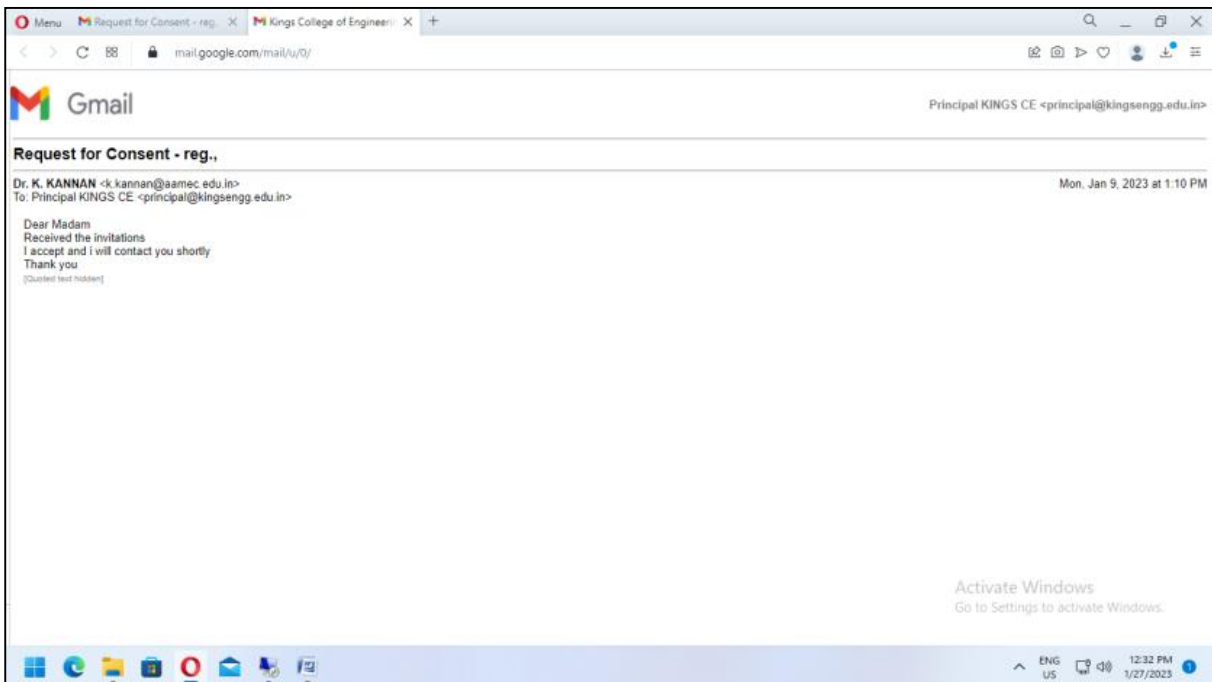




Request Letter



Thanks Letter



Acceptance Letter



Workshop on Outcome based Assessment and Evaluation

Organized by
Research & Development Section and IQAC

Date: 19.01.2023

Venue: Pallava Hall

AGENDA

| | | |
|-------------------------|----------------------------------|---|
| 10.05 a.m. | Invocation | |
| 10.07 a.m. | Welcome address | Dr.P P. Shantharaman, ASP/MECH, KCE |
| 10.10 a.m. | Introducing the Resource persons | Mr. T. Pasupathi, AP/ECE, KCE |
| 10.20 a.m. | Honouring the Guest | Dignitaries |
| 10.25 a.m. | Presidential Address | Dr. J. Arputha Vijaya Selvi, Principal, KCE |
| 10.30 a.m. | Felicitation | Dr. S. Sivakumar, Vice Principal, KCE |
| 10.35 a.m. | Session -I | Dr. K. Kannan IQAC Coordinator, AAMEC, Kovilvanni |
| 11.15 a.m. – 11.30 a.m. | | Break |
| 11.31 a.m. – 01.00 p.m. | | Session - I Continues |
| 01.01 p.m. – 01.40 p.m. | | Lunch Break |
| 01.41 p.m. – 02.40 p.m. | | Session - II |
| 02.41 p.m. – 02.50 p.m. | | Break |
| 02.51 p.m – 03.50 p.m. | | Hands-on-session (CSE Lab-I) |
| 04.00 p.m. – 04.05 p.m | | Feedback session |
| 04.06 p.m. – 04.10 p.m | | Vote of Thanks – Ms. K. Abirami, IQAC Coordinator |
| 04.11 p.m. | | National Anthem |


Convener


Principal



RESEARCH & DEVELOPMENT SECTION

ACADEMIC YEAR 2022-2023 (EVEN)

KINGS PROJECT EXPO'23

About Project Expo'23

Project expo'23 was organized in association with IEEE-STB16621, Chennai & ISTE on 04.05.2023. This project expo aims to encourage the students' creativity and innovations on Engineering & Technology. Dr. P.P.Shantharaman, DRC Convenor, welcomed the gathering.

Dr.J.Arputha Vijaya Selvi, Principal, inaugurated the expo and delivered the inaugural address. In her speech, she emphasized the significance of innovations in projects.

Mr.T.Pasupathi, AP/ECE, introduced the chief guest Mr.Rajkumar Kalaimani, Senior Engineer, Altimetrik, Chennai. Mr.Rajkumar Kalaimani delivered a keynote address on current scenario in IT sector. Dr. S. Sivakumar, Vice Principal, delivered the felicitation address. He insisted the students to enhance their technical knowledge both in software and hardware. The inaugural session ended at 10:50 am. After the inaugural session project expo were conducted individually by respective departments from 11:00 am onwards.

The projects of internal and external students were evaluated by senior faculty members of every department nominated as jury's. Totally 62 batches participated in the project expo. Jury's evaluated the projects and gave feedback & valuable comments to the students. Based on the innovation, presentation, implementation and demomarks was awarded by the jury's. Two projects were selected for rewards from each department. One project was selected for the **Best Project Award** from all disciplinary.

The valedictory ceremony of the project expo was started at 01:30 pm at Pallava Hall. Dr.R.Rajendran, Secretary, distributed the prizes and certificates to the participants. The cash prize was given to the best project award winners. Project Expo came to an end with vote of thanks by Dr.P.Narasimman, AP/EEE.

Outcomes of the Project Expo'23

Experts evaluated the student's projects and gave their valuable remarks and feedback on the topic of the project and interacted with students about how to improve the quality of the work and project at large scale.

Students were able to

- Efficiently present their ideas.
- Design the project with all technical aspects.

Participant Details:

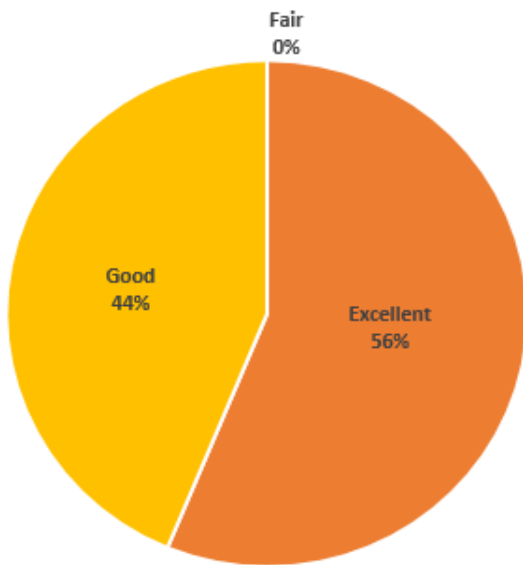
| S.No. | Department | Internal Batches | External Batches | Total |
|--------------|------------|------------------|------------------|-----------|
| 1. | CIVIL | 07 | - | 07 |
| 2. | CSE | 20 | 01 | 21 |
| 3. | ECE | 10 | 01 | 11 |
| 4. | EEE | 08 | 01 | 09 |
| 5. | MECH | 12 | 02 | 14 |
| Total | | 57 | 05 | 62 |

Details of Prize winners:

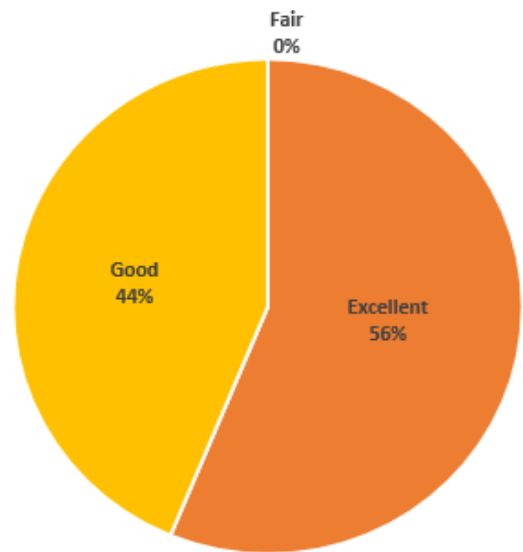
| S.No | Department | Name of the Participants/College | Title of the project |
|------|---|--|---|
| 1. | Best Project Award | A.Maria Merlina, A.Maria Vayolina, V.Aravinth, St.Joseph's College of Engg. and Technology, Thanjavur | Design and Implementation of E- Boat using Renewable Energy and Battery Management |
| 2. | Civil Engineering | First Prize S.Anbumani, M.Arunkumar M.Jayaseelan Kings College of Engineering | Experimental Investigation on Partial Replacement of Fine Aggregate in Concrete Using Ecofriendly Plastic and Concrete |
| | | Second Prize R.Kuralarsan, F.Danielnave R.Karthikeyan Kings College of Engineering | Development of Low-Cost Bio- Mineralized Bacterial Baggage Ash Bricks |
| 3. | Computer Science & Engineering | First Prize K.Varun, A.B.Arudaiyappan K.Govindharajan A.Mohamed Yazir Kings College of Engineering | Sign Languaging Interpreter |
| | | Second Prize J.Fasila Afreen, S.Suruthi R.Aarthi Kings College of Engineering | Multiple Discase Predication System using Machine Learning |
| 4. | Electronics Communication Engineering | First Prize S.Gayathri, S.Ramana Bharathi K.Renuka, SM.Swethaa Kings College of Engineering | AI based Border Security System using IoT |
| | | Second Prize K.Gayathri, K.Ishwarya K.Saraswathi Kings College of Engineering | IoT based Intelligent Surveillance System using Raspberry Pi. |
| 5. | Electrical & Electronics Engineering | Second Prize A.Sarathkumar, B.Yugeshwaran Kings College of Engineering | Smart Energy Meter and Power Theft Control using Arduino & GSM Technology |
| 6. | Mechanical Engineering | First Prize R.Sharon Chisha, H.Sarveshwaran T.Robin Mathew Kings College of Engineering | Production & Energy Management |
| | | Second Prize S.Praveen Kumar R.Veeramani, G.Aravindhhan K.R.Ashokkumar Kings College of Engineering | Oxidation behavior of SS316 under molten salt environment at elevated temperature |

Feedback Analysis:

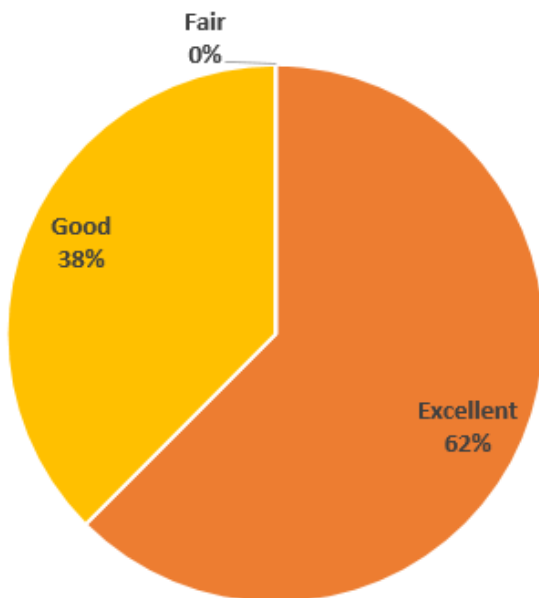
a) Planning and organization of the project expo



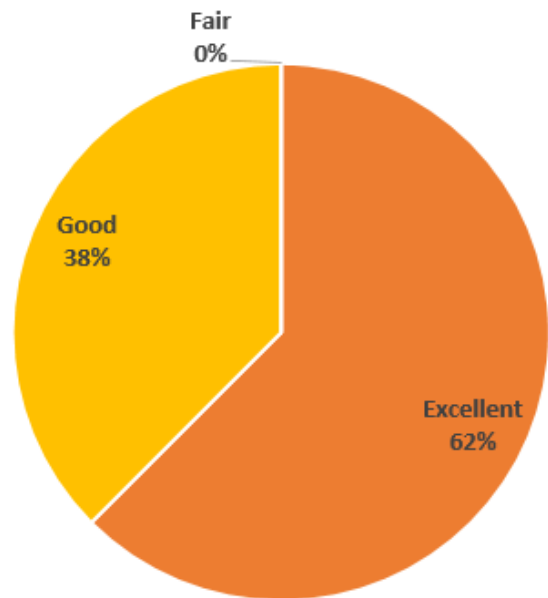
b) The facilities were appropriate



c) The purpose of the project expo was met



d) Over all event



Sample Feedback Form

Kings College of Engineering

Feedback Form -Project Expo 23

* Indicates required question

Email *

mariamerlina45@gmail.com

Title of the Project *

Design and implementation of e-boat using renewable energy & battery management system

Mobile Number *

7530038678

Name of the Participants (separate comma) *

A.Maria Vayolina,V.Aravinth

Department *

- CIVIL
- CSE
- ECE
- EEE
- MECH
- OTHERS

Name of the Institution *

St.joseph college of engineering and technology

Kindly respond to the following questions by using the rating scale below. *

| | Excellent | Good | Fair |
|---|----------------------------------|-----------------------|-----------------------|
| Planning and organization of the project expo | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The facilities were appropriate | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The purpose of the project expo was met | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Over all event | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Any other suggestions

Glimpses of the Project Expo'23



Inaugural Ceremony of Project Expo'23



Welcome Address by Dr. P.P. Shantharaman, DRC Convenor, KCE



Lighting of Ceremonial Lamp



Honouring the Chief Guest



Inaugural Address by Dr.J.Arputha Vijaya Selvi, Principal,KCE



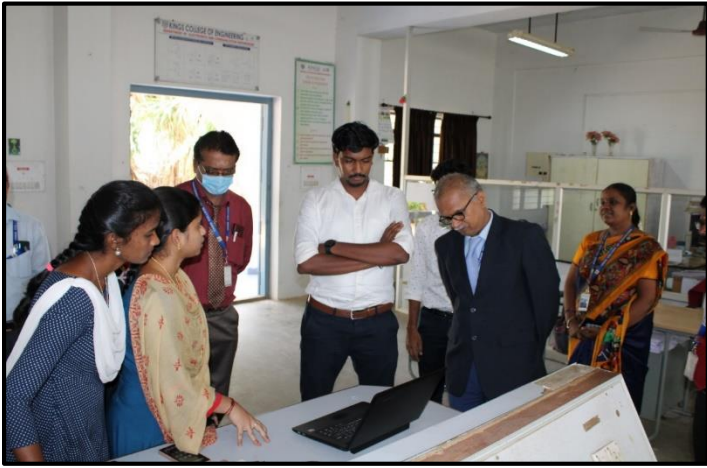
Chief guest introduction by Mr. T. Pasupathi, AP/ECE, KCE



Chief Guest Address



Felicitation by Dr. S. Sivakumar, Vice Principal, KCE



Participants demonstrated their projects in front of the jury's



Valedictory Session of Project Expo'23



Certificate Distribution by Dr.R.Rajendran, Secretary, KCE



Vote of Thanks by Dr.P.Narasimman, AP/EEE, KCE

1. P. Nannayya 19/5/23
 2. T. Pasumuri 19/5/23

Project Expo Coordinators

P. O. S. 19/5/23

DRC Convener

J. Prasad 19/5/2023

Principal

**INSTITUTIONS INNOVATION COUNCIL (IIC)
ACADEMIC YEAR 2022-2023**

| S.No | Date | Details | No.of. Beneficiaries |
|-------------|-------------|--|-----------------------------|
| 1. | 3.8.2022 | Workshop on “Intellectual Property Rights (IPRs) and IP management for startup” | 85 |
| 2. | 24.8.2022 | Seminar on “Accelerators/Incubation opportunities for students and faculties-Early stage Entrepreneurs | 78 |
| 3. | 11.11.2022 | Seminar on “Education to Innovation” | 87 |
| 4. | 21.11.2022 | Webinar on “My story –Motivational session by successful Entrepreneur. | 56 |
| 5. | 29.11.2022 | Workshop on “Problem solving and Ideation” | 84 |
| 6. | 2.12.2022 | Seminar on “Pollution-A threat to future generation” | 73 |
| 7. | 25.2.2023 | Workshop on “Design thinking, critical thinking and Innovation Design” | 71 |
| 8. | 27.2.2023 | Session on “Innovation and Entrepreneurship outreach programmes in schools” | 85 |
| 9. | 28.2.2023 | Session on “Process of Innovation development and technology readiness level(TRL) commercialization of lab technologies and tech transfer. | 65 |
| 10. | 11.4.2023 | Workshop on “Prototype/Process Design and Development-Prototyping” | 72 |
| 11. | 29.8.2023 | Seminar on “Accelerators/Incubation opportunities for students and faculties-Early stage Entrepreneurs | 75 |
| 12. | 30.8.2023 | Workshop on “Innovation/Prototype validation-Converting Innovation to start up” | 80 |



**ACADEMIC YEAR 2021-22(EVEN SEMESTER)
QUARTER-IV-IIC ACTIVITY REPORT**

| | |
|--|--|
| Session Details: | |
| Title of the Session : Workshop on " Intellectual Property Rights (IPRs) and IP management for startup" | |
| Date : 03.09.2022 | Duration : 1 Hour (6.30 P.M to 7.30 P.M) |
| Activity Category : Internal | Nature of the Session : Online Mode |
| Facebook link for the event organized | Facebook/Kings College of Engineering |
| Speaker Details: | |
| Name: Dr.M.Vasan | Designation: Assistant Professor, Commerce |
| Organization: National College(Autonomous), Tiruchirappalli, Tamilnadu. | |
| Programme Report: | |
| <p>Objective:</p> <ul style="list-style-type: none"> • To provide a brief idea and awareness on intellectual property and its rights to the students. • To give Innovative ideas to the students to upgrade and know about the Patents and filing. • To provide a platform for the Teaching Faculties and students to know about the IP Law and product development to Patents. • To give conceptual ideas on Intellectual property (IP) that nurtures and encourages innovation, creativity, thereby contributing towards cultural and economic development • In addition, this programme will help to improve the student's ability in carrying out simple innovation concepts to patents through professional discussions. <p>Institution's Innovation Council (IIC) of Kings College of Engineering organized workshop on "Intellectual Property Rights (IPRs) and IP management for startup" on 3.9.2022. The session was started by 6.30 p.m. The event had a whopping number of 85 participants of whom 78 were students and 07 were Faculty. Introduction about the resource person was delivered by M.Mukesh, III EEE, and IIC Member. During the session resource person has started from his research experience on Economics and Commerce and different mechanisms are used in Patents filing. He has broadly given the agenda such as Introduction about Innovation, patents, trademarks, and trade secrets. He pointed out the highlights of intellectual property law is to encourage the creation of a wide variety of intellectual goods and businesses property rights to the information and intellectual goods with economic incentive for their creation. Next, he presented the broad explanation about types of Intellectual property such as (a) Trademark (b) Patent (c) Copyright (d) Industrial Design (e) Geographical Indication (f) Trade Secret. In addition he broadly explained about Enforcement of Trademark rights and copyright in India. Finally he has mentioned that general Instructions and guidelines to solve real world problems to convert prototype to patents. The session was very informative and the participants have interacted with the resource person.</p> | |

Valedictory Function:

This session proposed a chance to the Undergraduate and Faculty members to spread their skill in the various steps involved in Intellectual Property Rights and Patent filing. The feedbacks from the participants were collected. Mr.R.Shankar, IIC Member delivered the vote of thanks.

Outcome of the activity:

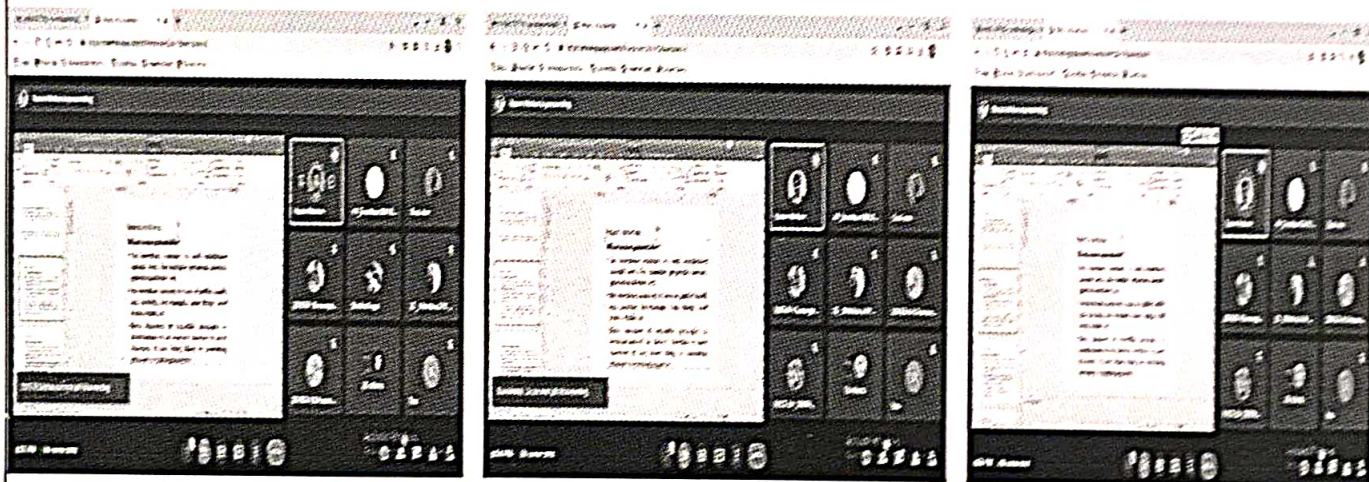
- All the participants have benefitted and gained knowledge about Patents which means that an exclusive right to the inventor/creator to fully utilize his invention/creation for a given period of time.
- Programme helped to provide knowledge on create and serve the interests of the public by promoting economic growth.
- Portrays the accelerated learning curve for students in involving different technologies associated with different Industries and funding Agencies to promote different patents.

Participants Details:

Total No. of Student Participation: 85 Members

Total No. of Staff (Teaching / Non-Teaching) Participation: 07

Photographs:



R. Shankar
15/9/22
R. Shankar
15/9/2022
IIC Members

R. Shankar
15/9/2022
Vice President, IIC

J. Shankar
27/9/2022
Principal/President, IIC



ACADEMIC YEAR 2022-23 (ODD SEMESTER)



SEMINAR

On

“ACCELERATORS/INCUBATION OPPORTUNITIES FOR STUDENTS & FACULTIES - EARLY STAGE ENTREPRENEURS”

24.08.2022

REPORT

Institution's Innovation Council (IIC) of Kings College of Engineering organized seminar on “Accelerators/Incubation opportunities For Students & Faculties - Early Stage Entrepreneurs” on 24.08.2022 at Smart class / Mechanical.

Objective:

The main objective of this seminar is to make the students understand how Incubators play a major role in supporting start-ups.

Resource person: Mr. E. Kishorekumar
Managing Director
KAM Motors
Thanjavur.

President:

Dr.J.Arputha vijaya selvi, Principal, KCE

Vice- President

Mr.R.Sundaramoorthi, Assistant Professor / EEE

Convenor

Mr.R.Balakrishnan, Assistant Professor / ECE

IIC member & Coordinator

Mr.R.Shankar, Assistant Professor / MECH

Quarter series - IV

Programme Type: Seminar session

Promotion in social media: Facebook

Seminar summary

This report provides a brief summary of the lecture on “ACCELERATORS/INCUBATION OPPORTUNITIES FOR STUDENTS & FACULTIES - EARLY STAGE ENTREPRENEURS” organized by Institutions Innovation Council on 24.08.2022 at 11.30 am to 12.30 pm through offline mode.

The session was started by 11.30 a.m. Introduction about the resource person was given by IIC Member **Mr.R.Shankar**, Assistant Professor/ Department of Mechanical Engineering, The lecture was delivered by **Mr.E.Kishorekumar**, Managing Director, KAM Motors, Thanjavur.

The speaker graced the occasion with their presence and shared their knowledge and experience with participants.

The Seminar session covered the following topics:

- Govt. Funding Schemes for Accelerators / Incubation.
- Entrepreneurship,
- Start-ups and company formation
- Types of companies and registration process

IIC student and faculty members participated in the seminar. The lecture provided an interactive atmosphere between the resource person and the participants. Vote of thanks was given by IIC Vice president **Mr.R.Sundaramoorthi**, Associate Professor, Department of Electrical and Electronics Engineering, Kings College of Engineering.

Brochure-Sample copy



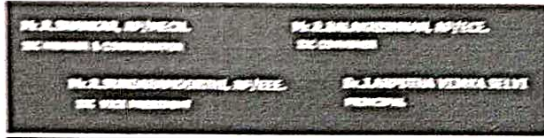
SEMINAR SESSION
ON
ACCELERATORS/INCUBATION-
OPPORTUNITIES FOR STUDENTS & FACULTIES -
EARLY STAGE ENTREPRENEURS

ORGANIZED
BY
INSTITUTIONS INNOVATION COUNCIL

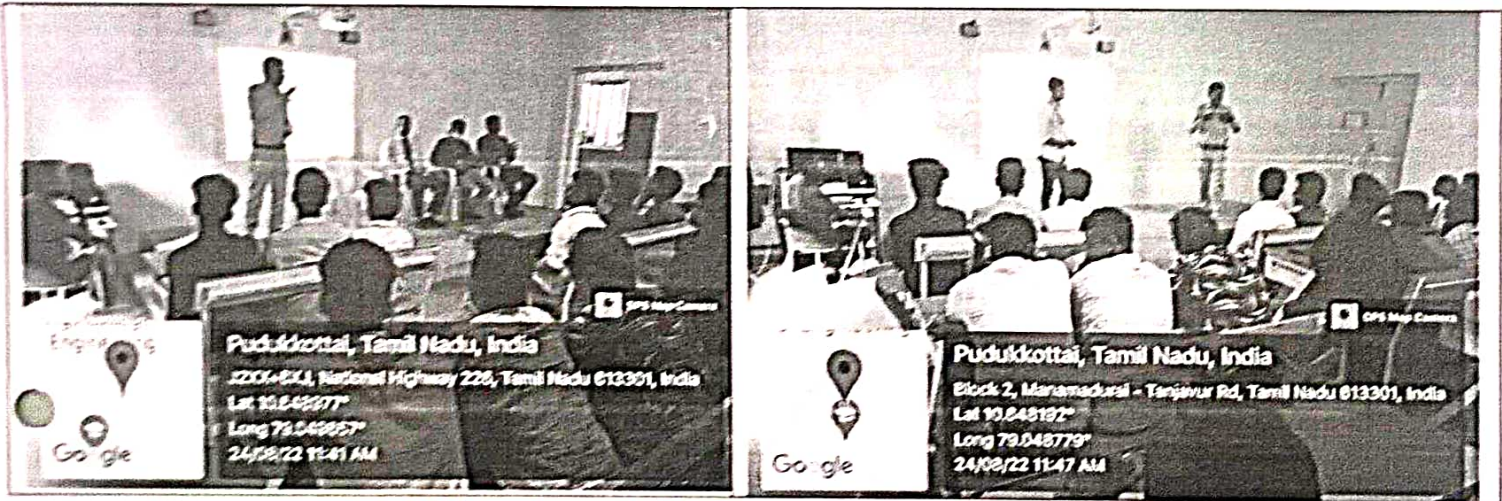


Resource person
E. KISHOREKUMAR, B.E.,
MANAGING DIRECTOR,
KAM MOTORS,
THANJAVUR-613501.

DATE : 24.08.2022
TIME : 11.30 AM TO 12.30 PM
VENUE : SMART CLASSROOM (MECHANICAL)



Event Photographs



Resource person Mr.E.Kishorekumar delivering the seminar session on Accelerators/Incubation opportunities for Students & Faculties - Early Stage Entrepreneurs.

Outcomes:

- Students got well versed with the concept of Incubation.
- The session helped young entrepreneurs who need necessary mentoring when they have an idea running in their mind.

Report Prepared by:

[Signature]
Coordinator & IIC Member
(R. SHANKAR)

[Signature]
Vice President-IIC & AP/EEE

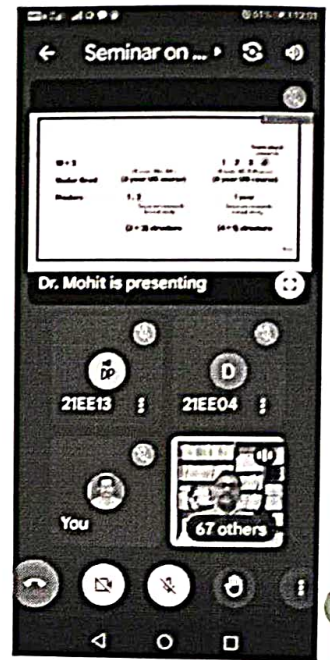
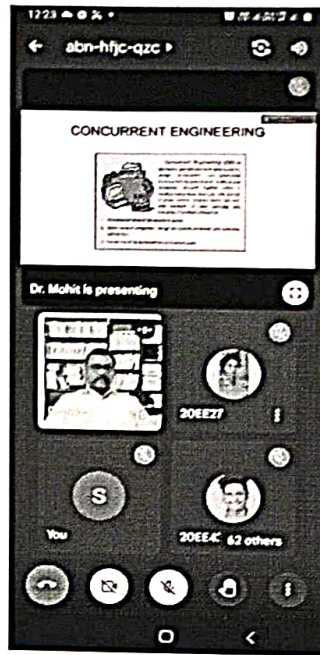
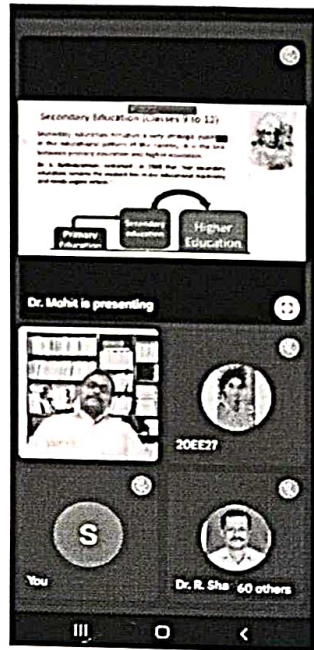
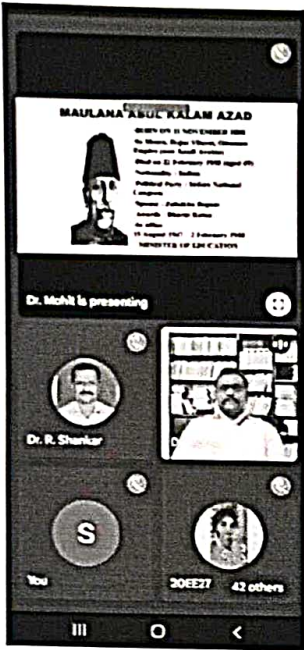
[Signature]
President-IIC & Principal



**ACADEMIC YEAR 2022-23 (ODD SEMESTER)
QUARTER-I-IIC ACTIVITY REPORT**

| | |
|---|---|
| Session Details: | |
| Title of the Session : Seminar on "Education to Innovations " | |
| Date : 11.11.2022 | Duration : 1 Hour (11.30 A.M to 12.30 P.M) |
| Activity Category : External | Nature of the Session : Online Mode |
| Facebook link for the event organized | Facebook/Kings College of Engineering |
| Speaker Details: | |
| Name: Dr.Mohit Hemanth Kumar | Designation: Assistant Professor, Mechanical Department |
| Organization: Alliance College of Engineering and Design, Alliance University, Bengaluru | |
| Programme Report: | |
| <p>Objective:</p> <ul style="list-style-type: none"> • The objective of celebrating National Education Day is described as strengthening educational institutions • To raise the quality of education. • To evaluate the current performance in the field. <p>Institution's Innovation Council (IIC) of Kings College of Engineering organized Seminar on "Education to Innovations" on 11.11.2022. The session was started by 11.30 a.m. IIC student and faculty members participated in the seminar. Introduction about the resource person was delivered by P. Sneha, III EEE, IIC Member. During the session resource person has started from the curriculum and pedagogy in Engineering colleges. He has broadly given the agenda such as, emerging education systems, the link between primary education and higher education, Reduce curriculum content to enhance essential learning and critical thinking, Empower students through flexibility in course choices and changes in current system, New developments in innovation. The session was very informative and the participants have interacted with the resource person.</p> <p>Valedictory Function:</p> <p>This session proposed to enhance the awareness of the students about National Education Day and its purpose and significance. The feedbacks from the participants were collected. Dr.R.Shankar, IIC Member delivered the vote of thanks.</p> | |
| <p>Outcome of the activity:</p> <ul style="list-style-type: none"> • Enhancing the development of student's education and supports nation building. • The introduction of new and emerging education systems has given rise to new learning opportunities for them. | |
| Participants Details: | |
| Total No. of Student Participation: 70 Members | |
| Total No. of Staff (Teaching / Non-Teaching) Participation: 17 | |

Photographs:



R. Shankar
17/11/22
IIC Member

S. V. Anand
17/11/2022
Vice President, IIC

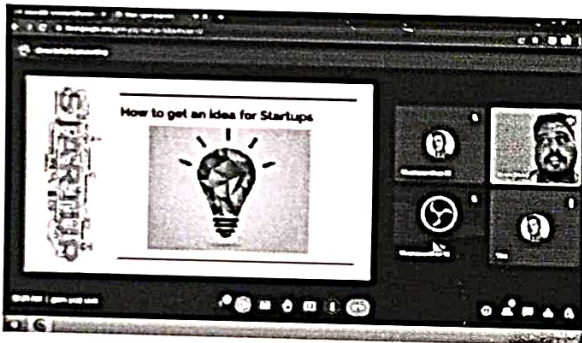
S. Anand
17/11/2022
Principal/President, IIC



**ACADEMIC YEAR 2022-23(ODD SEMESTER)
QUARTER-I-IIC ACTIVITY REPORT**

| | |
|--|--|
| Session Details: | |
| Title of the Session : A Webinar on "My Story- Motivational Session by Successful Entrepreneur" | |
| Date : 21.11.2022 | Duration : 1 Hour (10.00 A.M to 11.00 A.M) |
| Activity Category : External | Nature of the Session : Online Mode |
| Google meet link | meet.google.com/gom-yczj-uwz |
| Speaker Details: | |
| Name: Er.K.Sree Balaji. | Designation: Founder & CEO |
| Organization: HILIFE.AI Private Limited Company, (Recognized by Startup India),Trichy,Tamilnadu. | |
| Programme Report: | |
| <p>Objective:</p> <ul style="list-style-type: none"> To provide a brief idea and awareness on 'Entrepreneurship' to the students. To give motivation to the students to become Entrepreneur. <p>Institution's Innovation Council (IIC) of Kings College of Engineering organized a webinar on "My Story- Motivational Session by Successful Entrepreneur" on 21.11.2022. The session was started by 10.00 a.m. The event had a whopping number of 56 participants of whom 50 were students and 06 were Faculty. Introduction about the resource person was delivered by Mr.M.Vivekananthan, Assistant professor/Mechanical Engineering, Kings College of Engineering, punalkulam/IIC Member. During the session resource person has started from his personal experience how he started his company what are the struggles he faced and explained the resource of fund for initiate the company like government and non government funding agencies. Also he explained the various industrial problems and solution for the problems. The session was very informative and the participants have interacted with the resource person.</p> <p>Valedictory Function:</p> <p>This session proposed a chance to the Undergraduate and Faculty members to spread their skill. The feedbacks from the participants were collected. Mr.S.Nelsonraja, Assistant professor/Mechanical Engineering, Kings College of Engineering, punalkulam delivered the vote of thanks.</p> | |
| <p>Outcome of the activity:</p> <ul style="list-style-type: none"> All the participants got the new ideas and approaches toward Entrepreneurship. All participants can able to fit their business values with the targeted customers. | |
| Participants Details: | |
| Total No. of Student Participation: 50 Members | |
| Total No. of Staff (Teaching / Non-Teaching) Participation: 06 | |

Photographs:



P. J. Jatin
R. J. Jatin
M. V. Jatin
21/11/22
IIC Members

Sudhakar
21/11/22
Vice President, IIC

J. Jatin
30/11/2022
Principal/President, IIC



**ACADEMIC YEAR 2022-23 (ODD SEMESTER)
 QUARTER-I-IIC ACTIVITY REPORT**

Session Details:

Title of the Session : Workshop on "Problem Solving and Ideation "

Date : 29.11.2022

Activity Category : Internal

Nature of the Session : Physical Mode

Facebook link for the event organized

Facebook/Kings College of Engineering

Speaker Details:

Name: Mr.S.Saravanan

Designation: Assistant Professor, Management Studies

Organization: Gnanam School of Business, Sengipatti - 613 402 Thanjavur.

Programme Report:

Objective:

- To provide a brief idea and awareness on 'Problem Solving and Ideation' to the students.
- To convey the problems arise in our surroundings.
- To provide a platform for the students to understand the problems and provide idea to solve the problems.

Institution's Innovation Council (IIC) of Kings College of Engineering organized workshop on "Problem Solving and Ideation" on 29.11.2022. The session was started by 11.00A.M. The event had a number of 84 participants of whom 74 were students and 10 were faculty members. Introduction about the resource person was delivered by Mr.R.Sundharam, AP/Civil and IIC member. During the session resource person stated about the various problems occurred in our surroundings. Also he broadly discussed about the problems faced by people in our day to day life and suggested more ideas and solutions to solve the problems in a simple and effective manner. He conducted a group discussion session for students to discuss about the problem and solution finding for the issues. The session was very useful and the participants have interacted with the resource person.

Valedictory Function:

This session proposed a chance to the Undergraduate and Faculty members to create a solution for problems happen in our surroundings. The feedbacks from the participants were collected. Mr.R.Sivabalan, IIC student member delivered the vote of thanks.

Outcome of the activity:

- All the participants have benefitted and gained knowledge on 'Problem Solving and Ideation'
- All participants can able to give a solution for problem arises in their surroundings.

Participants Details:

Total No. of Student Participation: 74 Members

Total No. of Staff (Teaching / Non-Teaching) Participation: 10

Photographs:



[Signature]
 20/11/22
 IIC Members

[Signature]
 21/11/2022
 Vice President, IIC

[Signature]
 21/12/2022
 Principal/President, IIC

**ACADEMIC YEAR 2022-23 (ODD SEMESTER)
QUARTER-I-IIC ACTIVITY REPORT**

Session Details:

Title of the Session : Seminar on "Pollution – A threat to future generation"

| | |
|-------------------|---|
| Date : 02.12.2022 | Duration : 2 Hours (2.30 P.M to 4.30 P.M) |
|-------------------|---|

| | |
|------------------------------|---------------------------------------|
| Activity Category : Internal | Nature of the Session : Physical Mode |
|------------------------------|---------------------------------------|

| | |
|---------------------------------------|---------------------------------------|
| Facebook link for the event organized | Facebook/Kings College of Engineering |
|---------------------------------------|---------------------------------------|

Speaker Details:

| | |
|---------------------|--|
| Name: Ms.D.Sharmila | Designation: Assistant Professor, Department of Civil Engineering. |
|---------------------|--|

Organization: Kings College of Engineering, Punalkulam, Pudukkottai.

Programme Report:

Objective:

- To convey the serious issues related to human health.
- To spreading awareness of managing and controlling industrial disasters.
- To prevent pollution caused by industrial processes or human negligence.

- Department of Civil Engineering in association with Institution's Innovation Council (IIC) of Kings College of Engineering organized a seminar for the occasion of "National Pollution Control Day" on "Pollution – A threat to future generation" on 02.12.2022. The session was started by 2.30 p.m. The event had a whopping number of 73 participants of whom 63 were students and 10 were Faculty. Introduction about the resource person was delivered by Mr.R.Sundharam , AP / Civil , and IIC Member. During the session resource person has started from the types of pollution and its impact for human beings. She has given the detail explanation about the pollution lead damages to the environment with the case study of Bhopal Gas Tragedy. The concepts making people and industries aware of the importance of pollution control acts and also the Industries can cause harm to humans and the environment. The session was very informative and the participants have interacted with the resource person.

Valedictory Function:

This session proposed a chance to the Undergraduate and Faculty members to spread their skill in the various steps involved in Intellectual Property Rights and Patent filing. The feedbacks from the participants were collected. The student from final year Civil M.Jayaseelan, IIC Member delivered the vote of thanks.

Outcome of the activity:

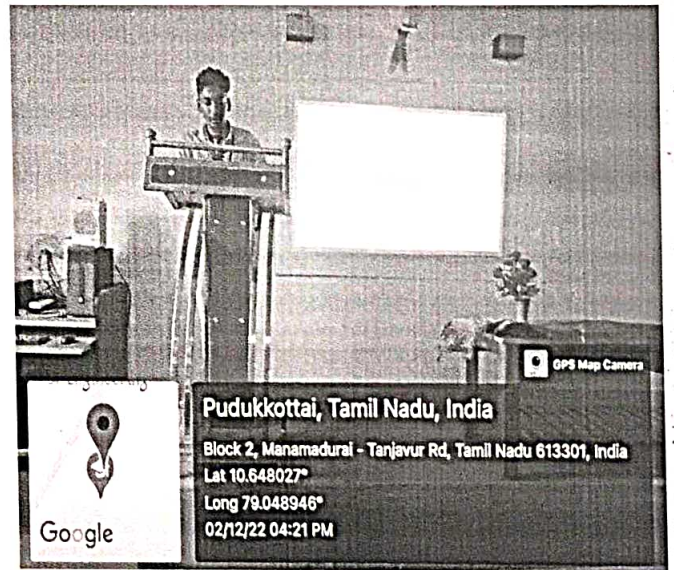
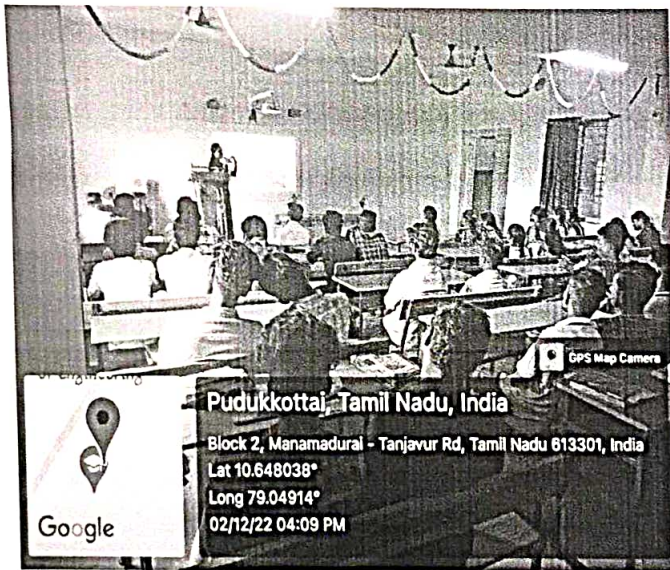
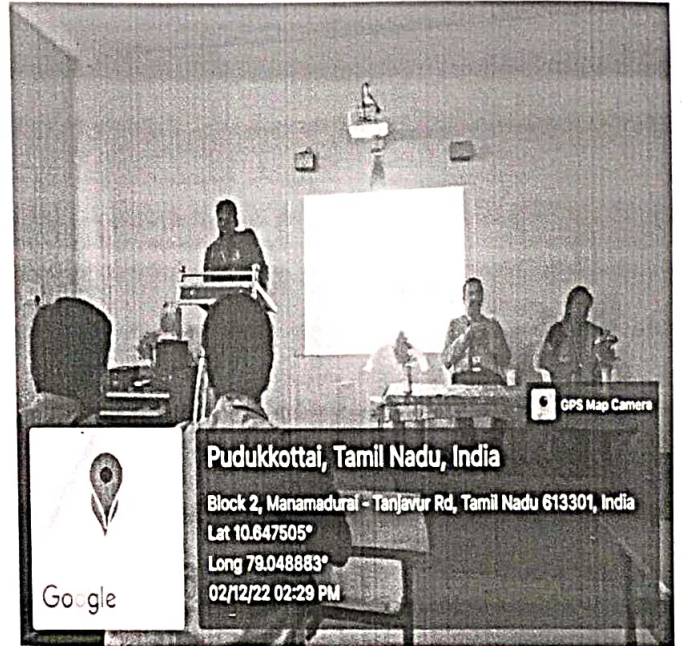
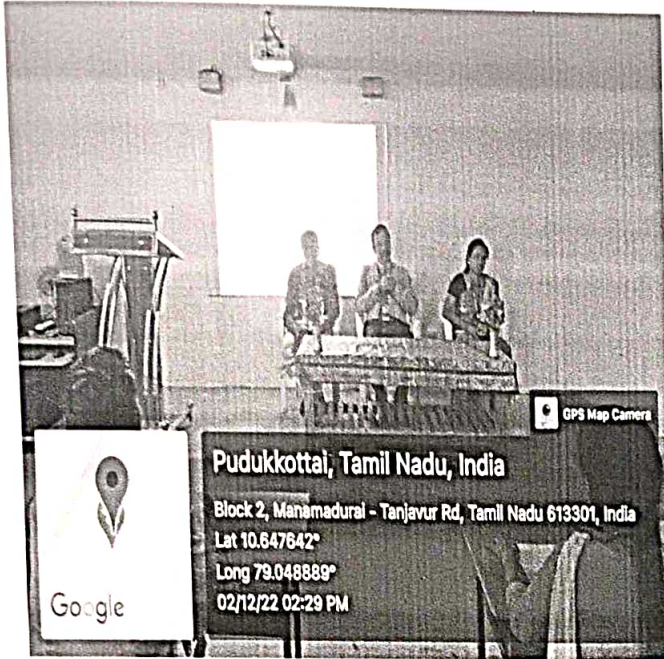
- All the participants have benefitted and gained knowledge on Pollution.
- All participants can able to know about the number of laws are promulgated by the government worldwide to seriously control and prevent pollution.

Participants Details:

Total No. of Student Participation: 63 Members

Total No. of Faculty Members: 10

Photographs:

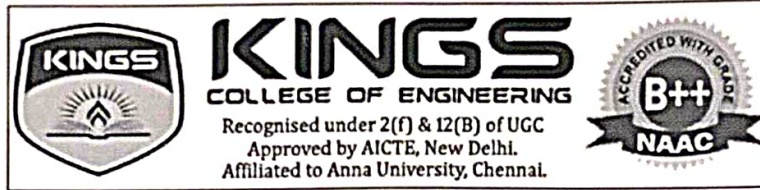


B. [Signature]
21/12/2022
IIC Member

A. Sandanan
21/12/2022
HOD/CIVIL

[Signature]
21/12/2022
Vice President, IIC

J. [Signature]
21/12/2022
Principal/President, IIC



ACADEMIC YEAR 2022-23 (EVEN SEMESTER)



WORKSHOP
On

"DESIGN THINKING, CRITICAL THINKING AND INNOVATION DESIGN"

25.02.2023

REPORT

Institution's Innovation Council (IIC) of Kings College of Engineering organized workshop on "Design Thinking, Critical Thinking and Innovation Design" on 25.02.2023.

Objective:

- To illustrate the key parts of the design-thinking process.
- How to overcome challenges with critical thinking
- To develop practical and innovative solutions for real world problems.

Resource person: Er. M. Kumar
Quality Engineer
Trigo Quality Production Service Pvt. Ltd.
Pune - 411007.

President:

Dr.J.Arputha vijaya selvi, Principal, KCE

Vice- President

Mr.R.Sundaramoorthi, Assistant Professor / EEE

Convenor

Dr.R. Shankar, Assistant Professor / MECH.

IIC member & Coordinator

Mr.R.Shankar, Assistant Professor / MECH

Quarter series-II

Programme Type: Workshop

Promotion in social media: Facebook

Workshop summary

This report provides a brief summary of the lecture on **“Design Thinking, Critical Thinking and Innovation Design”** organized by Institutions Innovation Cell on **25.02.2023** at pallava hall. 71 participants attended the programme.

The session was started by 2 pm. Introduction about the resource person was delivered by **Dr.R.Shankar**, Assistant Professor/ Mechanical & IIC Member. The lecture was delivered by **Er. M. Kumar**, Quality Engineer, Trigo Quality Production Service Pvt. Ltd., Pune - 411007. He has explained the design thinking process, critical thinking, innovative solutions for real world problems etc., Most of the participants who attended the workshop were students and faculty. The lecture provided an interactive atmosphere between the resource person and the participants. Vote of thanks was given by **Mr.R.Sundaramoorthi**, Associate Professor, Department of Electrical and Electronics Engineering, Kings College of Engineering.

Benefits Interms of Learning/Skills/Knowledge obtained:

- The design-thinking process comprises three main overlapping phases: inspiration, ideation, and implementation.
- Students were inspired by how the lead by design company solves critical problems
- They were motivated and taught how to solve problems and come up with innovative ideas using the thinking process.



**WORKSHOP
ON
DESIGN THINKING, CRITICAL THINKING
AND INNOVATION DESIGN**

**ORGANIZED
BY
INSTITUTIONS INNOVATION COUNCIL**

Resource person



**Er. M. Kumar M.E.,
Quality Engineer,
TRIGO Quality Production Service Pvt. Ltd.,
Pune - 411007**

Date : 25.02.2023

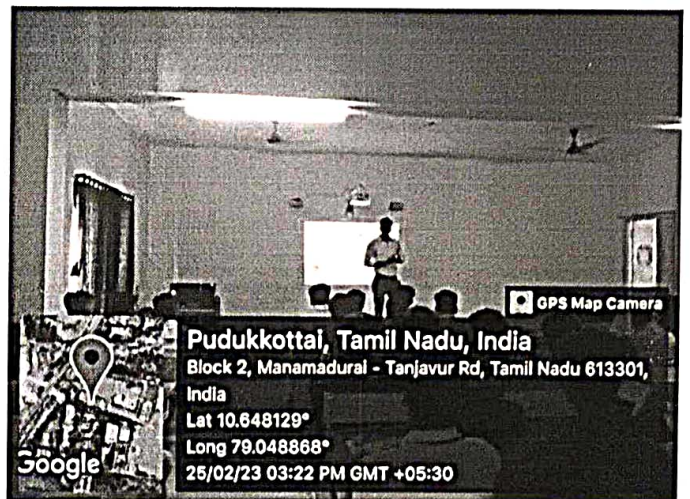
Time : 02.00 pm To 05.00 pm

Venue : Pallava Hall

| | |
|--|--|
| Dr.R.SHANKAR, AP/MECH, IIC MEMBER & COORDINATOR | Mr.R.SUNDARAMOORTHY, AP/EEE, IIC VICE PRESIDENT |
| Dr.J.ARPUTHA VEJAYA SELVI PRINCIPAL | |

Brochure-Sample copy

Event Photographs



Resource person Er. M. Kumar delivering the lecture on Design Thinking, Critical Thinking and Innovation Design

[Signature]
Coordinator
25/2/23

[Signature]
Vice President-IIC & AP/EEE
25/2/23

[Signature]
President-IIC & Principal
25/2/2023



**ACADEMIC YEAR 2022-23(EVEN SEMESTER)
QUARTER-II-IIC ACTIVITY REPORT**

| | |
|---|---|
| Session Details: | |
| Title of the Session : Innovation and Entrepreneurship outreach programme in Schools | |
| Date : 27.2.2023 | Duration : 4 Hour (12.00 P.M to 4.00 P.M) |
| Activity Category : External Programme | Nature of the Session : Physical/Offline Mode |
| Facebook link for the event organized | Facebook/Kings College of Engineering |
| Speaker Details: | |
| Name:Dr.K.Sudhakar,AP/EEE T&P Department IIC Students Vice presidents | Designation:Assistant Professor |
| Organization: Kings College of Engineering,Punalkulam,Thanjavur. | |
| Programme Report: | |
| <p>Objective:</p> <ul style="list-style-type: none"> To provide concise idea of basics of Innovation and technology readiness level in all the sectors in Engineering to the school students. To give Innovative ideas to the school students to upgrade and know about the recent development and Technology. To provide a platform for the School Teachers and students to promote Innovation and product development. In addition, this programme will help to improve the school level student's ability in carrying out simple innovation and to bring to product through professional discussions. <p>Institution's Innovation Council (IIC) of Kings College of Engineering organized "Innovation and Entrepreneurship outreach programme" for the school students at Government Higher Secondary school, Regunathapuram,Pudukottai District on 27.2.2023. The session was started by 2.00 p.m. The event had a whopping number of 85 participants of whom 80 were students and 05 were Faculty. Introduction about the resource person was delivered by M.Mukesh, III/EEE and IIC Member. During the session Dr.K.Sudhkar,AP/T&P started about the role and Importance of Innovation in Engineering and Entrepreneurship skills . He broadly gave the ideas of Innovations in different fields and Entrepreneur development skills.</p> | |

Mr.G.Bharath,III-Civil,IIC Student Vice president delivered talk on Civil Engineering scope, Innovation methods of Planning and Construction.He broadly explained that, Civil engineers develop and improve the services and facilities from supplying energy, clean water to homes, processing and recycling waste, finding solutions to problems like pollution. He mentioned that, Civil Engineers create the world more liveable by building bridges, road, airports, homes, hospitals, parks, tunnels, stadiums. They strive towards building a developed community. Civil engineering fosters cooperation and team spirit among engineers. He has broadly given the different types of applications and current Innovations in Civil Engineering.

Mr.M.Mukesh,III-EEE,IIC Student Vice president talked about Importance and simple Innovations in Electrical and Communication field. He pointed out, Electrical and Electronics Engineers work at the forefront of practical technology, solar-energy systems to mobile phones, communication, technology and energy needs.

Mr.K.Sultan,III/Mech, IIC Student Vice president explained about Mechanical Engineering importance and its applications. He mentioned that, Virtually every product or service in modern life has most likely been touched in some way by a mechanical engineer to help humankind. This includes solving today's problems and creating future solutions in health care, energy, transportation, world hunger, space exploration, climate change, and more.

The session was very informative and the participants have interacted with the resource person.

Valedictory Function:

This session proposed a chance to the Undergraduate, and Faculty members to spread their skill in various steps involved in prototype and various processes involved in design & development. The feedbacks from the participants were collected. Mr.R.Shankar, IIC Member delivered the vote of thanks.

Outcome of the activity:

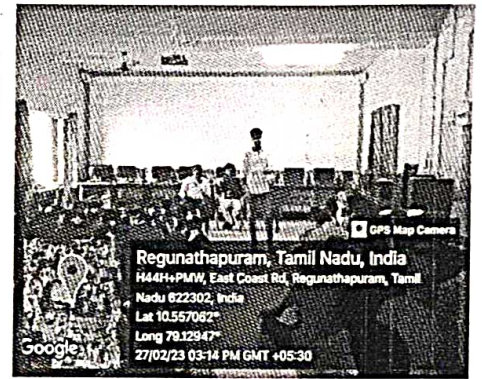
- All the participants have benefitted and gained knowledge about Innovation and Entrepreneur development skills.
- Programme helped to familiarize among the students to make simple innovation in Civil, Electrical and Electronics Engineering and Mechanical Engineering.
- Portrays the accelerated learning curve for school students in involving Innovation practice methods in all the domains of Engineering.

Participants Details:

Total No. of Student Participation:85 Members

Total No. of Staff (Teaching / Non-Teaching) Participation: 05

Photographs:



R. [Signature]
 IIC Members

[Signature]
 Vice President, IIC

J. [Signature]
 Principal/President, IIC

**ACADEMIC YEAR 2022-23(EVEN SEMESTER)
QUARTER-II-IIC ACTIVITY REPORT**

IIC ID: IC201810951

| | |
|--|--|
| Session Details: | |
| Title of the Session :“Process of Innovation development &technology readiness level(TRL) Commercialization of lab technologies &tech transfer” | |
| Date : 28.2.2023 | Duration : 2 Hour (2.00 P.M to 4.00 P.M) |
| Activity Category : Internal | Nature of the Session : Offline Mode |
| Facebook link for the event organized | Facebook/Kings College of Engineering |
| Speaker Details: | |
| Name:Mr.R.Viswanath | Designation:Technical trainer |
| Organization:Armada Industrial Automation,Thanjavur | |
| Programme Report: | |
| <p>Objective:</p> <ul style="list-style-type: none"> • To provide a brief idea of process of Innovation and technology readiness level in the manufacturing industry and other sectors. • To give Innovative ideas to the students to upgrade and know about the development and Technology. • To provide a platform for the Teaching Faculties and students to upgrade and know about the Innovation and product development. • In addition, this programme will help to improve the student's ability in carrying out simple innovation and to bring to product through professional discussions. <p>Institution’s Innovation Council (IIC) of Kings College of Engineering organized Expert talk on “Process of Innovation development &technology readiness level(TRL) Commercialization of lab technologies &tech transfer” on 28.2.2023.The session was started by 2.00 p.m. The event had a whopping number of 65 participants of whom 60 were students and 05 were Faculty. Introduction about the resource person was delivered by M.Mukesh,III/EEE, and IIC Member. During the session, He shared knowledge about how development and technology associated with Industry needs.In Industry 1.0, Machines, steam and water power involved under manual which means that no automation involved. In Industry 2.0, Mass Production and Electricity developed. Here mechanically automated process also done by using simple components. In the next revolution Industry 3.0 which involves Automation, Electronics and Information technology developed. In addition, software such as CNC& PLC and mechanical drives control used. Industry 4.0 deals with Cyber Physical systems and Digital twin technology.</p> | |

In Industry 4.0, all machineries controlled through Internet of Things (IoT) and Gateway. He gave plenty of examples such as mechanical automation and manufacturing technology associated with Industry 3.0 and Industry 4.0. He pointed out various role of Industry 4.0. He also shared the scope of current job requirement and future development in Industry.

He mentioned about Innovation in Industry through different practical examples that how Industry 4.0 which helpful in the development of Innovation. He has shared knowledge about the importance of Industry requirements such as sales, Product development, Production, quality prototype, basic circuit designing, latest software and applications etc. He clearly explained from basics of prototype through some practical examples such as LED TV and Refrigerator. In addition with, other practical examples were also given such as agriculture field and real world problem COVID-19. He has given Plenty of problems and solutions in order to get product through flowchart. Finally he has mentioned that general Instructions and guidelines to solve real world problems to convert prototype to product. The session was very informative and the participants have interacted with the resource person.

Valedictory Function:

This session proposed a chance to the Undergraduate, and Faculty members to spread their skill in the various steps involved in prototype and various processes involved in design & development. The feedbacks from the participants were collected. Mr.R.Shankar, IIC Member delivered the vote of thanks.

Outcome of the activity:

- All the participants have benefitted and gained knowledge about importance of Industry Requirements and Process of Innovation.
- Programme helped to adapt new technologies in IoT and Sales Marketing.
- Portrays the accelerated learning curve for students in involving different technologies associated with Industry 3.0 and Industry 4.0

Participants Details:

Total No. of Student Participation: 60 Members

Total No. of Staff (Teaching / Non-Teaching) Participation: 05

Photographs:



B. [Signature]
[Signature]
 IIC Members

[Signature]
 Vice President, IIC

[Signature]
 28/3/2023
 Principal/President, IIC

**KINGS**

COLLEGE OF ENGINEERING

Recognised under 2(f) & 12(B) of UGC
Approved by AICTE, New Delhi.
Affiliated to Anna University, Chennai.INSTITUTION'S
INNOVATION
COUNCIL
(Ministry of Education Initiative)

ACADEMIC YEAR 2022-23(EVEN SEMESTER)
QUARTER-III-IIC ACTIVITY REPORT

Session Details:

Title of the Session : Workshop on "Prototype/Process Design and Development-Prototyping"

Date : 11.4.2023

Duration : 7 Hour (9.15 A.M TO 4.15 P.M)

Activity Category :External and Internal

Nature of the Session : Physical Mode

Facebook link for the event organized

Facebook/Kings College of Engineering

Instagram link for the event organized

Kings_iic 4.0

Speaker Details:

Name:Dr.M.Vijayakumar

Designation:Founder&CEO

Organization:IndiGuard Systems Private Limited,Thanjavur

Programme Report:**Objective:**

- To provide a brief idea of prototype design and about it's important in the manufacturing Industry and other sectors.
- To give Innovative ideas to the students to upgrade and know about the development and Technology.
- To provide a platform for the Teaching faculties and students to upgrade and know about the Innovation and product development.
- In addition, this programme will help to improve the student's ability in carrying out simple innovation and to bring to product through professional discussions.

Institution's Innovation Council (IIC) of Kings College of Engineering organized workshop on "Prototype/Process Design and Development" on 11.4.2023.The session was started by 10.00 A.M. Dr.J.ArputhaVijayaSelvi,Principal&IIC President delivered presidential address.The event had a whopping number of 72 participants of whom 65 were students and 07 were Faculty. Introduction about the resource person was delivered by M.Mukesh, UG Student IIC Member.

The following points were discussed during session-I:**Prototype Design:**

- Prototyping is the process of designing and building an early model of a product to test it. Any system or device that will be sold to consumers, government agencies, or businesses will begin as a prototype that typically does not have all of the components or functions that will be used in the final product that is brought to market.

- A prototype can serve as a proof of concept showing that the system or device can be built and will perform correctly.

Breadboards:

- Breadboards are small boards that are commonly used for circuit prototyping. They allow the circuit's components to be connected without making permanent connections.
- The red and blue strips on the sides of the board (sections A and D) are called power rails and are connected down the board, usually used for powering and grounding.
- The non-colored rows between the power and ground strips (sections B and C) are connected across and are usually used for making the connections between components. Sections B and C are not connected to each other across the bridge in the middle of the board

Microcontrollers:

- A microcontroller is an inexpensive, programmable computer without any peripherals, such as a mouse, keyboard, or screen.
- Microcontroller boards have direct access to the input and output pins of their processing chips so that the user can directly read from sensors and perform actions.
- Microcontrollers perform specific functions in household appliances, medical devices, cars, and other systems and devices.
- Arduino boards which use a microcontroller were designed to be easily programmed and assembled into larger projects. These boards come in many shapes and sizes, and some contain additional features, such as WiFi or Bluetooth connectivity. Different boards can also have different features, such as a higher processing speed and more memory.

The Arduino IDE (Integrated Development Environment):

- Arduino IDE is a program that can be used to edit, compile, and upload code to a supported microcontroller.
- Verify: Checks code for errors and points those errors
- Upload: Verifies code and uploads it to the Arduino board
- Console: Shows errors found in the hardware
- Serial Monitor: Sends and receives messages to and from the board

Arduino Programming:

- The Arduino programming language is based on C/C++, but it is designed to be simpler and easier to learn. The intuitive way to think about programming is like building with LEGO blocks: certain rules must be followed and different building blocks can be used to build bigger parts.
- Every line must end with a semicolon (;) unless it is a conditional, loop, or function. Comments start with two backslashes (//). Comments are text that the program ignores and are used to label and explain code.

Arduino Programs:

- Programs written in Arduino are called sketches. A basic sketch can be broken up into three different areas: global, setup, and loop. These areas are pictured in Figure 14.
- Global: Contains constants and imported libraries
- Setup: Functions that run once at the start of the program. Setup function often used to activate pins and sensors in the program
- Loop: Function runs continuously after Setup function. Code in a loop function will continue to run until Arduino loses power. Function often in most of the program to read sensors and switch pins HIGH or LOW

Schematic Circuit Design:

- There are dozens of PCB tools available. The first step in designing a schematic is to place all of the key components. For this initial design this includes the microcontroller chip, a voltage regulator, a microUSB connector, and a programming connector.
- For more complex designs it usually makes more sense to completely design each sub-circuit first, and then merge them all together. Rechargeable batteries that hold electrical charge and help to stabilize the voltage on a supply line. By placing a 4.7uF capacitor on the input pin of the linear regulator. This is the 5VDC input voltage supplied by an external USB charger.
- This voltage is fed into a TLV70233 linear regulator which steps the voltage down to 3.3V since the microcontroller can only be supplied by a maximum of 3.6V. Another 4.7uF capacitor is placed on the output of the regulator as close to the pin as possible.

SessionII:

- During the session-II resource person has started from his research experience and different mechanisms are used in Prototype design and process designing order to develop the prototype. He has broadly given the agenda such as Introduction about prototype, basic circuit designing, latest software and applications etc. He clearly explained from basics of prototype through some practical examples such as LED TV and Refrigerator.
- In addition with, other practical examples were also given such as agriculture field and real world problem COVID-19 .He has given plenty of problems and solutions in order to get product through flowchart.
- Finally he has mentioned that general Instructions and guidelines to solve real world problems to convert prototype to product. The session was very informative and the participants have interacted with the resource person.

Valedictory Function:

This session proposed a chance to the Undergraduate and Faculty members to spread their skill in the various steps involved in prototype and various processes involved in design & development. The feedbacks from the participants were collected. Mr.G.Bharath, IIC Member delivered the vote of thanks.

Outcome of the activity:

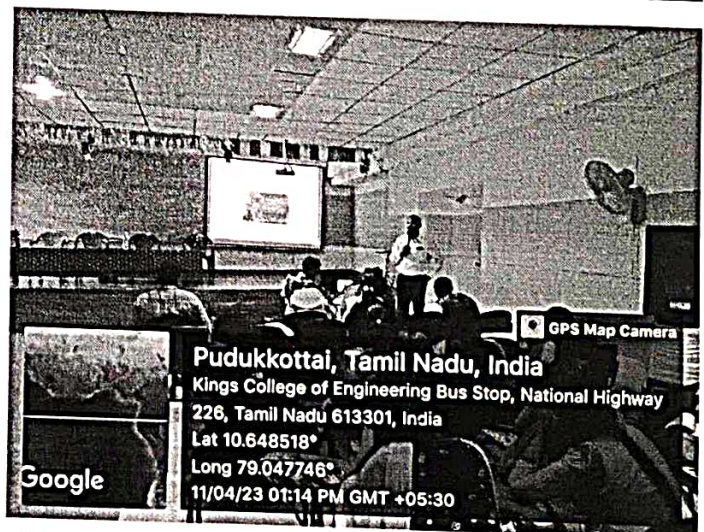
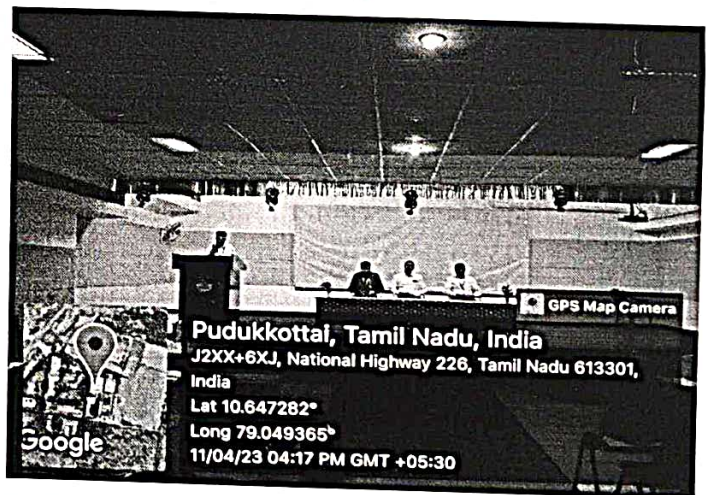
- All the participants have benefitted and gained knowledge about Prototype/Process Design and Development.
- Programme helped to adapt new technologies in all the sectors.
- Portrays the accelerated learning curve for students in involving different technologies associated with different Industries and funding Agencies.

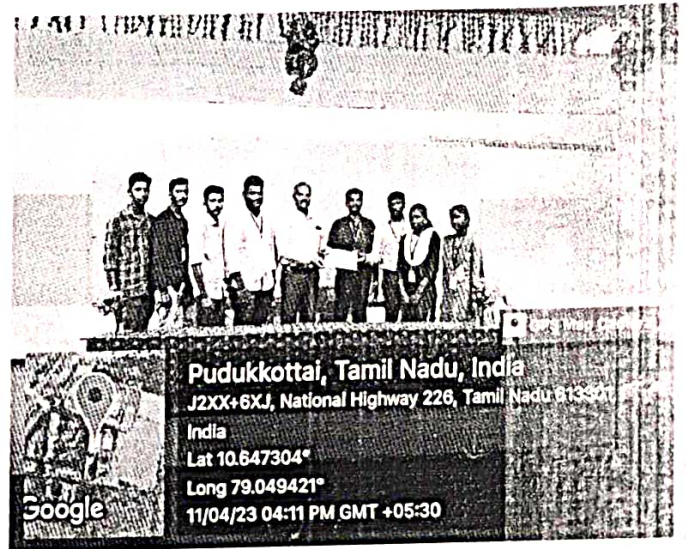
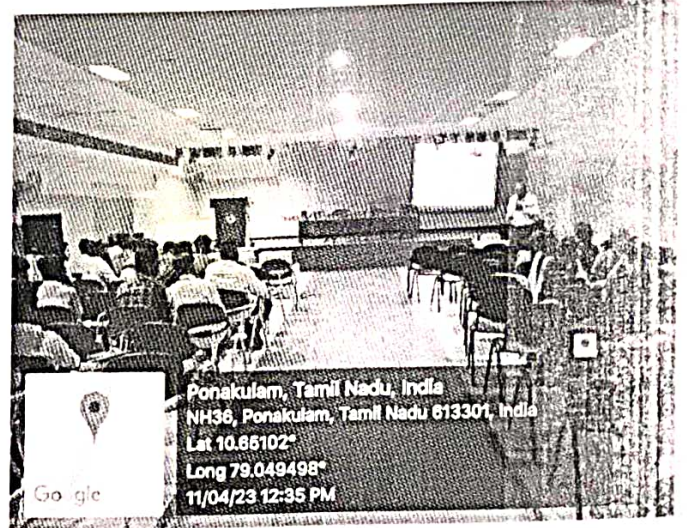
Participants Details:

Total No. of Student Participation: 65 Members

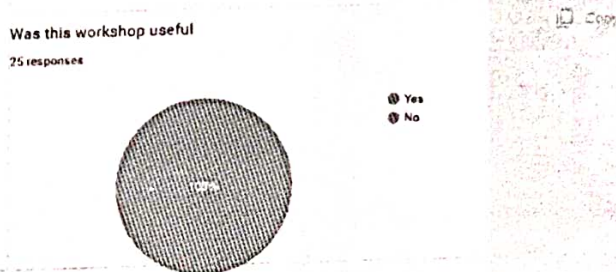
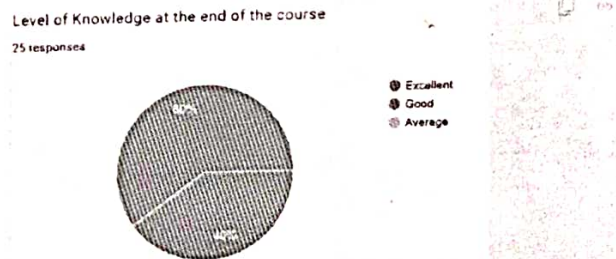
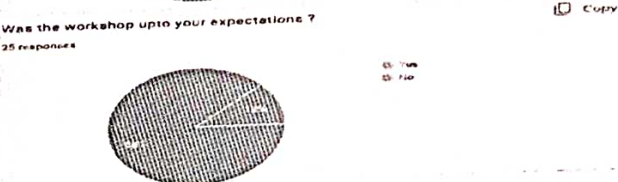
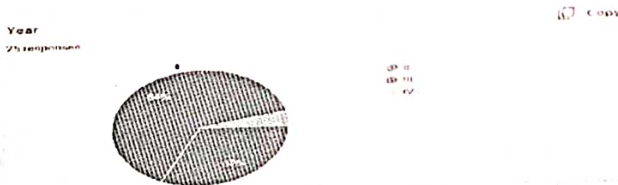
Total No. of Staff (Teaching / Non-Teaching) Participation: 07 Members

SNAPSHOTS:





FEEDBACK:



[Signature]
 20/04/23
 Coordinators

[Signature]
 20/04/23
 Vice President, IIC

[Signature]
 20/4/2023
 Principal/President, IIC



**ACADEMIC YEAR 2022-23(EVEN SEMESTER)
QUARTER-IV-IIC ACTIVITY REPORT**

Session Details:

Title of the Session : Seminar on "Accelerators/Incubation - Opportunities for Students & Faculties - Early Stage Entrepreneurs "

Date : 29.8.2023

Duration : 3 Hour (10 A.M TO 1.00 P.M)

Activity Category :Internal

Nature of the Session : Physical Mode

Facebook link for the event organized

Facebook/Kings College of Engineering

Instagram link for the event organized.

Kings College of Engineering

Speaker Details:

Name:Prof.A.Manikandan

Designation:Head-DOMS

Organization: St.Joesph's College of Engineering and Technology, Thanjavur

Programme Report:

Objective:

- To provide a brief idea of Incubation opportunities and about it's important in the Industry and other sectors.
- To give Innovative ideas to the students to upgrade and know about the development and Technology.
- To provide a platform for the Teaching faculties and students to upgrade and know about the Innovation and Incubation opportunities.
- In addition, this programme will help to improve the student's ability in carrying out simple innovation and to bring to product through professional discussions.

Institution's Innovation Council (IIC) of Kings College of Engineering organized seminar on "Accelerators/Incubation - Opportunities for Students & Faculties - Early Stage Entrepreneurs" on 29.8.2023. The session was started by 10.00 A.M. Vice Principal, Dr.S.Sivakumar delivered presidential address. The event had a whopping number of 75 participants of whom 70 were students and 05 were Faculty. Introduction about the resource person was delivered by Dr.K.Sudhkar, ED Cell Coordinator, Kings College of Engineering.

The following points were discussed during session:

During the session, he started to explain about the role of importance and incubation process and Entrepreneurship skills to be implemented in the Institution levels. Students allow entrepreneurs to preserve capital and gain external support to accelerate their businesses growth. Through business incubation, the Enterprise Center captures each entrepreneur's uniqueness and offers support and customized services to maximize businesses potential. The ultimate goal of incubation is to launch profitable, sustainable entrepreneurial companies. Student entrepreneurship is an important but not well-studied field of research. Student venturing activity is characterized by the lack of experience and expertise among founders, which is a critical barrier in technology-based venturing.

Importance of Entrepreneurship:

Entrepreneurship drives the growth and diversification of the economy and contributes to the creation of wealth. Before we get into the specifics of the role of entrepreneurship in economic development, let's briefly encapsulate its significance. Entrepreneurship's importance lies in the following:

- Drives economic growth and creates new job
- Encourages innovation by bringing new ideas, products, and services to the market
- Contributes to social change by developing products or services that reduce people's dependence on outdated technologies
- Addresses social and economic problems by creating solutions that meet the needs of society
- Enables competition which improves business efficiency and lowers prices for consumers

Economic Independence:

Entrepreneurship can be a path to economic independence for both the country and the entrepreneur. It reduces the nation's dependence on imported goods and services and promotes self-reliance. The manufactured goods and services can also be exported to foreign markets, leading to expansion, self-reliance, currency inflow, and economic independence. Similarly, entrepreneurs get complete control over their financial future. Through their hard work and innovation, they generate income and create wealth, allowing them to achieve economic independence and financial security.

Entrepreneurship promotes economic growth, provides access to goods and services, and improves the overall standard of living. Many entrepreneurs also make a positive impact on their communities and improve their well-being by catering to underserved areas and developing environment-friendly products.

Increases Gross National Product and Per Capita Income:

Entrepreneurship can play a significant role in increasing economic growth and prosperity by increasing Gross National Product (GNP) and Per Capita Income (PCI). GNP measures the total economic output of a country while PCI calculates the average income per person. The increase in GNP can lead to a rise in PCI. Entrepreneurship can contribute to GNP by creating new businesses and industries, which can lead

to job creation, increased consumer spending, and higher tax revenue. The entrepreneurship education programs in which students create their own ventures are commonly referred to as "action-based" entrepreneurship education. Entrepreneurship education has therefore become increasingly popular in technology-focused education such as engineering education and now involve several different designs and methods to achieve problem-based learning and real-life projects in education.

Valedictory Function:

This session proposed a chance to the Undergraduate and Faculty members to spread their skill in the various steps involved in incubation and various processes involved in design & development. The feedbacks from the participants were collected. Mr.G.Bharath, IIC Member delivered the vote of thanks.

Outcome of the activity:

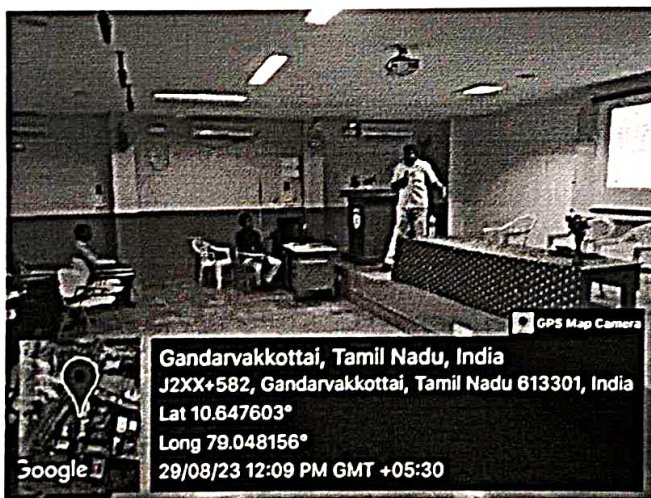
- All the participants have benefitted and gained knowledge about Incubation Process Design and Development.
- Programme helped to adapt new technologies in all the sectors.
- Portrays the accelerated learning curve for students in involving different technologies associated with different Industries and funding Agencies.

Participants Details:

Total No. of Student Participation: 70 Members

Total No. of Staff (Teaching / Non-Teaching) Participation: 05 Members

SNAPSHOTS:





P. Anandaraman
9/9/23
Coordinators

P. Anandaraman
9/9/2023
Vice President, IIC

J. Prakash
09/9/2023
Principal/President, IIC



**ACADEMIC YEAR 2022-23(EVEN SEMESTER)
QUARTER-IV-IIC ACTIVITY REPORT**

Session Details:

Title of the Session : Workshop on "Innovation /Prototype Validation –Converting Innovation to startup "

Date :30.8.2023

Duration : 3 Hour (10.00 A.M TO 1.00 P.M)

Activity Category :Internal

Nature of the Session : Physical Mode

Facebook link for the event organized

Facebook/Kings College of Engineering

Instagram link for the event organized

Kings College of Engineering

Speaker Details:

Name:Dr.S.Srinath

Designation:Founder

Organization: The Director, Ziwwit Educational and Research center, Thanjavur

Programme Report:

Objective:

- To provide a brief idea of Innovation and Prototype validation and about it's important in the Industry and other sectors.
- To give Innovative ideas to the students to upgrade and know about the development and Technology.
- To provide a platform for the Teaching faculties and students to upgrade and know about the Innovation and product development.
- In addition, this programme will help to improve the student's ability in carrying out simple innovation to start up and to bring to product through professional discussions.

Institution's Innovation Council (IIC) of Kings College of Engineering organized seminar on "Innovation /Prototype Validation –Converting Innovation to startup "on 30.8.2023.The session was started by 11.00 A.M. VicePrincipal, Dr.S.Sivakumar delivered presidential address. The event had a whooping number of 80 participants of whom 75 were students and 05 were Faculty. Introduction about the resource person was delivered by S.Sneha, UG Student IIC Member.

The following points were discussed during session-I:

Innovation and Importance:

- Innovation is often necessary for Organizations to adapt and overcome the challenges of change. Achieving organizational and economic growth through innovation is key to staying afloat in today's highly competitive world. Innovation refers to introducing novelty in a product, service, strategy, or business model. Moreover, innovation also increases the usability and durability of the entity above. It is a concept that helps stay ahead of the competition and induces creativity and efficiency in businesses. Innovation is important to the advancement of society as it solves these kinds of social problems and enhances society's capacity to act.
- It's responsible for resolving collective problems in a sustainable and efficient way, usually with new technology. These new technologies, products and services simultaneously meet a social need and lead to improved capabilities and better use of assets and resources. In order to be able to solve these kinds of societal problems, private, public and non-profit sectors are involved.
- He explained about the following research areas: Experimental and theoretical research is carried out on the development and application of aero space Engineering, space propulsion system, electric propulsion systems, including electro thermal propulsion systems, electromagnetic propulsion systems and electrostatic propulsion systems.

Innovation/Prototype Design:

- Innovation/Prototyping is the process of designing and building an early model of a product to test it. Any system or device that will be sold to consumers, government agencies, or businesses will begin as a prototype that typically does not have all of the components or functions that will be used in the final product that is brought to market.
- A prototype can serve as a proof of concept showing that the system or device can be built and will perform correctly.

SessionII:

- During the session-II resource person has started from his research experience in the field of Aerospace Engineering and satellite communications are used in Prototype design and process designing order to develop the prototype. He has broadly given the agenda such as Introduction about prototype, basic circuit designing, latest software and applications etc. He clearly explained from basics of prototype through some practical examples such as LED TV and Refrigerator.
- Finally he has mentioned that general Instructions and guidelines to solve real world problems to convert prototype to product. The session was very informative and the participants have interacted with the resource person.

Valedictory Function:

This session proposed a chance to the Undergraduate and Faculty members to spread their skill in the various steps involved in prototype and various processes involved in design & development. The feedbacks from the participants were collected. Mr.G.Bharath, IIC Member delivered the vote of thanks.

Outcome of the activity:

- All the participants have benefitted and gained knowledge about Innovation/Prototype validation design and Development.
- Programme helped to adapt new technologies in all the sectors.
- Portrays the accelerated learning curve for students in involving different technologies associated with different Industries and funding Agencies.

Participants Details:

Total No. of Student Participation: 75Members

Total No. of Staff (Teaching / Non-Teaching) Participation: 05 Members

SNAPSHOTS:



Dr. S. SRINATH

(B.E., M.Sc.-Engg. (by Res.),
Ph.D., Post-Doc)

Director - Ziwvit Educational and
Research Center, Tamil Nadu,
India.

Seminar on

" INNOVATION/PROTOTYPE
VALIDATION - CONVERTING
INNOVATION INTO STARTUP "

Date : 30.08.2023

Time : 11.00 am - 12.30 pm

Venue : Pallava hall



Gandarvakkottai, Tamil Nadu, India
J2XX+582, Gandarvakkottai, Tamil Nadu 613301, India
Lat 10.647622°
Long 79.048164°
30/08/23 11:41 AM GMT +05:30

IIC Member
Dr.K.Sudhakar
AP/MGT

IIC Vicepresident
Mr.R.Sundaramoorthy
AP/EEE

IIC President & Principal
Dr.J.Arputha Vijaya Selvi

[Signature]
9/9/23
Coordinators

[Signature]
9/9/23
Vice President, IIC

[Signature]
09/9/2023
Principal/President, IIC




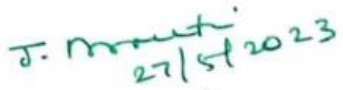
**3.2.2 - Number of workshops/seminars conducted on
Research Methodology, Intellectual Property Rights (IPR)
and entrepreneurship during the year 2022-23**

IEEE Student Branch - STB 16621

| S. No | Name of the Activity | Page No. |
|--------------|---|-----------------|
| 1 | Industrial Training on Industry 4.0 and IoT | 03 |
| 2 | Awareness Session on Outcome Based Education | 04 |
| 3 | Installation of Office Bearers | 04 |
| 4 | Orientation session on Curriculum Orientation and Career Opportunities | 04 |
| 5 | Student Activity Committee meet | 05 |
| 6 | webinar on Advanced Applications of IoT and LTE Beyond | 05 |
| 7 | Seminar on Sources of Renewable Energy | 06 |
| 8 | Workshop on Web Designing | 07 |
| 9 | Seminar on Recent Trends in Biomedical Instrumentation- Overview | 07 |
| 10 | Seminar on Comparison of Alternative Architecture for fog computing | 08 |
| 11 | Engineers Day Celebration | 08 |
| 12 | Technical Symposium eBlast'22 | 09 |
| 13 | Mini Project Expo | 10 |
| 14 | Technical Symposium CISABZ'22 | 10 |
| 15 | Technical Symposium ENIGMA'22 | 11 |
| 16 | Webinar on Robotics – in Research Perspective | 12 |
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| 18 | IEEE Day Celebrations | 14 |
| 19 | Three Days Workshop on CCTV Installation and Servicing | 14 |
| 20 | Seminar on Multi-Objective Based Optimal Planning of DG in Distribution Network | 15 |
| 21 | Workshop on Intellectual Property Rights (IPR)& Patents and Design filing | 16 |
| 22 | Workshop on Python with Data Science | 17 |

| | | |
|----|--|----|
| 23 | Renewable Energy Sources | 18 |
| 24 | Electronic Art 2.0 | 18 |
| 25 | VLOG Competition | 19 |
| 26 | Workshop on Microgrid Technology for Renewable Energy Systems | 20 |
| 27 | FDP on Problem Solving and Python Programming | 20 |
| 28 | Technical Activity | 21 |
| 29 | Internal Staff Seminar | 22 |
| 30 | 3 days winter crash course on C, C++ programming for Placements | 23 |
| 31 | Awareness Programme on Engineering Ethics | 24 |
| 32 | Workshop on Real Time Project Design Using Arduino | 25 |
| 33 | Internal Staff Seminar | 26 |
| 34 | Guest lecture on Innovation and Technology for gender equality | 26 |
| 35 | Internal Staff Seminar | 27 |
| 36 | Internal Staff Seminar | 27 |
| 37 | One day field visit | 28 |
| 38 | Seminar on IoT based Smart Agriculture | 29 |
| 39 | One day field visit | 29 |
| 40 | Internal Staff Seminar | 29 |
| 41 | International Conference on Computing, Communication and Control | 29 |
| 42 | Workshop on Machine Learning with Google Colab | 30 |
| 43 | KINGS PROJECT EXPO' 2023 | 31 |
| 44 | Workshop on POWER-BI | 31 |


 27/05/2023
 Coordinator - IEEE STB


 27/5/2023
 Principal
PRINCIPAL
 Kings College of Engineering
 PUNALKULAM - 613 303

July, 2022

1. Industrial Training on Industry 4.0 and IoT

Department of Computer Science & Engineering and IEEE Student Branch of jointly organized **Industrial Training on Industry 4.0 and IoT** during 12.07.2022 and 30.07.2022. The sessions were handled by Mr. S. Kannadasan, Trainer, Kits N Comps Pvt. Ltd., Thanjavur and Mr. P. Rajasekar, Proprietor, Kits N Comps Pvt. Ltd., Thanjavur. During the training, Industrial IoT and its applications were demonstrated with case studies.

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IEEE
MADRAS SECTION

Department of Computer
Science & Engineering
and
Kits N Comps Pvt. Ltd,
Thanjavur
Jointly organizes

Industrial Training
on
IoT and Industry 4.0

🕒 12.07.2022 TO 30.07.2022
📅 09:30 a.m. to 04:00 p.m.

Dr. S.M. Uma
HOD/CSE

Dr. J. Arputha Vijaya Selvi
Principal/IEEE SBC

August, 2022

1. Outcome based Education

Awareness session on “**Outcome Based Education**” was organized on 08.08.2022 at Pallava Hall by 2.30pm. Session was handled by K.Abhirami, IQAC Coordinator. During the session, members were briefed about the significance of OBE, mapping of Course outcome with Programme Outcome, Identification of Correlation matrix for courses, mapping of CO with Programme specific outcome with suitable illustration. Stating the importance of planning for appropriate Teaching-Learning-Assessment approaches to facilitate OBE, members were guided for raising the standard in the process. Also, Bloom Taxonomy based assessment process was also elaborated with assessment sample paper.



2. Installation of Office Bearers

Office bearers for the year 2022 took charge on 01st August, 2022. Ms. Fasila Afreen J, of IV CSE as IEEE SB Chairman, Ms. Gayathri K of IV ECE as IEEE SB Vice-Chairman, Ms. Maheswari V of IV ECE as Treasurer, Ms. Suruthi S of IV CSE as Secretary and Mr. Suriyaprakash M of IV CSE as webmaster.

3. Orientation Programme

Department of Computer Science & Engineering & IEEE STB 16621 jointly organized an orientation session on "**Curriculum Orientation and Career Opportunities**" for II year students on 11.08.2022. Dr.S.M.Uma, Head of the Department elaborated the academic aspects of department of CSE. She also explained the importance of registration and completion of online certification courses. Ms.S.Puvaneswari AP / CSE, discussed about the importance of being a

member in professional society. Mr.M.Arun AP/CSE described the various career opportunities available in IT industry and explained the roles and responsibilities of a software engineer. Totally 58 students actively participated.



4. Student Activity Committee meet

Inauguration of IEEE SB for the year 2022 was conducted on 11th August 2022. The welcome address was given by Ms. FasilaAfreen J, IEEE SB Chairman (IV /CSE). The presidential address was given by Dr.J.Arputha Vijaya Selvi, Principal, KCE and she had encouraged the office bearers and coordinators to conduct more events to improve the student's technical skills. Newly elected members are introduced and the annual activity plan of IEEE SB for the year 2022 – 2023 was presented by Mr.T.Pasupathi (Asst.Prof/ECE). Finally the vote of thanks was given by Ms. Gayathri K, IEEE Vice-Chairman (IV ECE).

5. Webinar on Advanced Applications of IoT and LTE Beyond

Department of Electronics and Communication Engineering in association with R&D Section and IEEE STB 16621 organized a webinar on **Advanced Applications of IoT and LTE Beyond** on 29.08.2022. **Dr. Vaddi Naga Padma Prasunna**, Associate Professor, IEEE WIE AG Advisor, Atria Institute of Technology, Bangalore delivered lecture. In her lecture, she has introduced the concept of Internet of Things and its applications on various areas such as farming, health, traffic monitoring and energy savings etc. Also she explained the challenges in providing IoT solutions for various applications. She gave an overview on scenario, requirements and applications of Long Term Evaluation Technology (LTE) technology which offers a faster and better broadband connectivity with speeds upto 300 Mbps. A total of 120 students participated in the programme.

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 Panakkal, Gandarvathal (K), Near Thanjavur, Palakkad - 613307

IEEE Madras Section
 STB 16621

Department of ECE
 and
 R&D Section
 jointly organizes

WEBINAR ON
**Advanced applications of
 IoT and LTE beyond**

Dr. Vaddi Naga Padma Prasuna
 Associate Professor,
 IEEE WIE AC Faculty Advisor,
 Atria Institute of Technology,
 Bangalore

29 AUGUST 2022
MONDAY

TIME
11:30 a.m.

Coordinators
 Mr. T. Pasupathi, AP/ECE
 Mr. J. NiranjanSamuel, JRF/R&D

Conveners
 Mrs. N. Mangalyarkarasi,
 HOD/ECE
 Dr. P. P. Shantharaman
 DRC Convener

Patron
 Dr. J. Arputha Vijaya Selvi
 Principal/IEEE SBC

6. Renewable Energy Day 2022

Department of Electrical and Electronics Engineering in association with Energy Club and IEEE STB 16621 organized a seminar on **Sources of Renewable Energy** in view of **Renewable Energy Day 2022** on 30.08.2022. **Mr. J. Arokkiaraj**, AP/EEE delivered lecture. The main objective of the seminar is to provide exposure to various research areas to our faculty members. The following points were discussed during the session, Renewable hybrid power architecture for microgrid Grid-interlinked microgrid, AC microgrid, AC/DC microgrid, Off-grid connected microgrid, Microgrid control schemes for hybrid Renewable energy, Architecture proposed for the photovoltaic- Microgrid hybrid biomass-solar and Summary of the voltage control scheme.



September, 2022

1. Workshop on Web Designing

Department of Computer Science & Engineering and IEEE Student Branch 16621 jointly organized a workshop on “Web Designing” on 02.09.2022. The main objective of this workshop is to provide ideas of fundamental knowledge about web designing. Mr. M. Arun, Asst. Prof/ CSE, handled the session, he explained the basic concepts of web designing and also listed down the free software available to develop websites. He clearly explained the basics of Style sheets. He demonstrated other mark-up languages along with practical examples. Also, he provided plenty of exercises for real time working. Totally 50 participants registered and actively participated in this workshop. The session was very informative and the participants have interacted with the resource person.



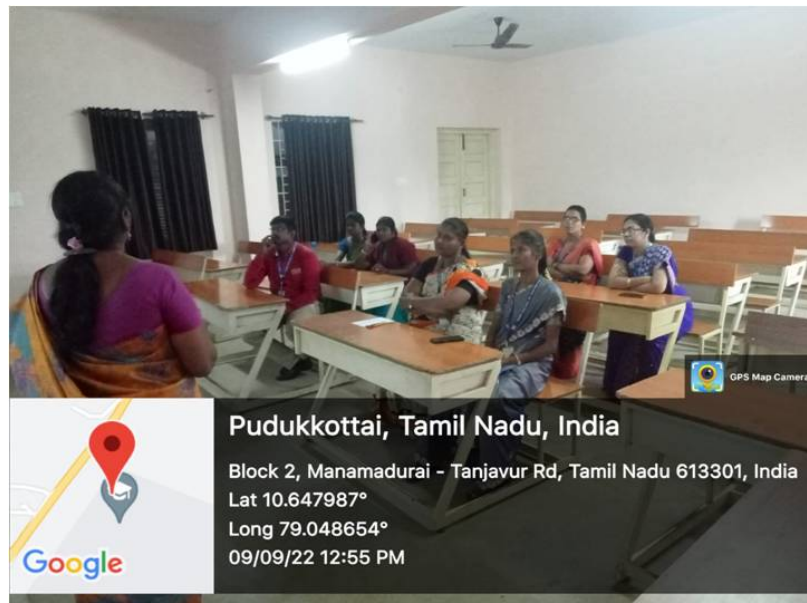
2. Seminar on Recent trends in Biomedical Instrumentation-overview

Department of EEE and IEEE Student Branch 16621 jointly organized a seminar on Recent Trends in Biomedical Instrumentation- Overview on 03.09.2022. Mr.R.Sundaramoorthi, Assistant Professor/EEE delivered lecture. In his lecture, he briefed on Introduction about Biomedical Instrumentation, Fundamentals of Medical Instrumentation, Bioelectric Signals and Electrodes, Physiological Transducers and Recent Trends in Biomedical Instrumentation. 68 students from II and III Year participated and got benefitted.



3. Seminar on Comparison of Alternative Architecture for fog computing

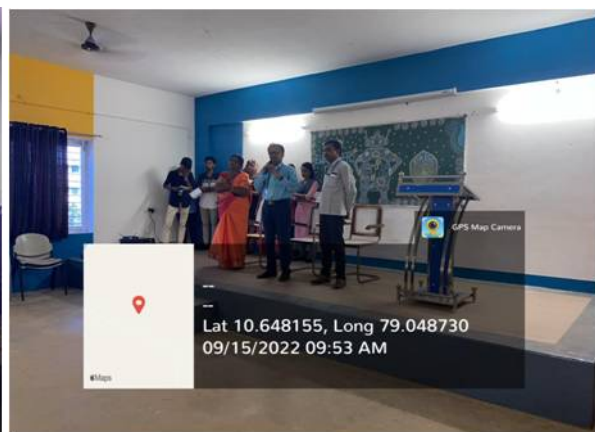
Department of Computer Science & Engineering and IEEE Student Branch jointly organized an internal seminar on 09.9.2022 at smart classroom. Ms.P.Nalayini, AP/CSE delivered lecture on the topic “Comparison of Alternative Architecture for fog computing”. She explained the basics of fog computing and its different types of architectures such as hierarchical and flat types. Also, she described about algorithms that can be used for creating fog computing systems that follow these architectures.



4. Engineers Day Celebration

Department of Computer Science & Engineering and R&D Section in association with IEEE Student Branch organized various activities such as Speech Competition, Technical Quiz and Artathon in view of National Engineer’s Day. In technical quiz, 137 students’ participated and final winners are Mr. Krishnamoorthy of II ECE, Ms. Fasila of IV CSE and Mr. Praveen Kumar of III

EEE. In ARTATHON, 28 students participated in the competition and the theme of the event is Engineering Concepts through Art. The winners are Mr. A. Mohamed Arsath of III Mech – first prize, Ms. A. Jaishree of III ECE - second prize and Ms. N. Karkuzhali of IV CSE - third prize. In speech competition, nine students participated and the theme of the event is Real Time Successful Engineer. The winners are Mr. A.B. Avudaiyappan of IV CSE - First Prize, Mr. S. Aiyappan of IV CSE - Second Prize and Mr. Sultan Abdul of II MECH - Third Prize. Winners of various activities were felicitated on 15.09.2022. Mr. M. Gokul, IV CSE student delivered welcome address. Dr.S.Sivakumar, Vice Principal and Advisor / IEEE STB delivered motivational talk. Dr.S.M.Uma, HOD/ CSE and Dr. P.P. Santharaman, DRC Convener felicitated. The event was coordinated by Ms. S. Abikayil Aarthi, AP/ CSE, KCE.



5. Technical Symposium eBlast'22

Department of Electronics and Communication Engineering and IEEE Student Branch jointly organized a National Level Technical Symposium eblast'22 on 15.10.2022. Ms.V.Maheswari of IV ECE and Treasurer – IEEE STB welcomed the gathering. Dr.R .Rajendran, Secretary, KCE delivered presidential address, in his address he stressed the importance of organizing technical events and motivated the students to utmost utilization of the library. Dr.J.Arputha Vijaya Selvi, Principal and IEEE SBC delivered special address. In her address, she briefed the skill development schemes such as “Nalaiya Thiran” and “Naan Mudhalvan” introduced by the Government of Tamil Nadu. Also she stressed the students to upgrade their skills with latest technologies. Dr.S.Sivakumar, Vice Principal delivered the felicitation address. **Mr.J.Alexandar**, Assistant Engineer, Public Works Department, Thanjavur delivered Inaugural address. In his inaugural address he motivated the students and highlighted the challenges and opportunities available in the Electronics and Communication Engineering.

Mrs.N.Mangaiyarkarasi HOD/ECE distributed the cash award and prizes to the winners and participants. Mr. S. Abimaneu, IV ECE student delivered vote of thanks.



6. Mini Project Expo

Department of Electronics and Communication Engineering and IEEE Student Branch jointly organized a Mini Project Expo on 15.10.2022. 13 batches of students actively exhibited their prototype and were evaluated by Dr.P.Narasimman, AP/EEE and Mr.Arockiaraj, AP/ECE. Best two projects were awarded with a cash prize.



7. Technical Symposium CISABZ'22

Department of Computer Science & Engineering and IEEE Student Branch jointly organized a National Level Technical Symposium CISABZ'22 on 22.09.2022. Dr.S.M.Uma, HoD/CSE, KCE delivered welcome address. Dr. J.Arputha Vijaya Selvi, Principal, KCE delivered Inaugural Address. Dr.R.Rajendran, Secretary, KCE

delivered presidential address. Dr.S.Sivakumar, Vice Principal, KCE offered felicitation. Dr.M.Brindha, AP, NIT, Trichy delivered special address. 48 papers were presented and other events such as Tech Wizard (Technical Quiz), Code Storm (Debugging), UI Design, Delineation (Pencil Sketching), Go-Between (Connection), Boot-Hill (Hand cricket) and Just – a – Min were conducted.



8. Technical Symposium ENIGMA'22

Department of Electrical & Electronics Engineering and IEEE Student Branch jointly organized a National Level Technical Symposium **ENIGMA'22** on 23.09.2022. Dr.A.Albert Martin Ruban, HOD/ EEE delivered welcome address. Dr.R.Rajendran, Secretary of Kings College of Engineering delivered his presidential address. Dr.J.ArputhaVijaya Selvi, Principal of Kings College of Engineering delivered her Inaugural address. Dr.S.Sivakumar, Vice Principal of Kings College of Engineering delivered his Special address. The symposium souvenir has been released by Principal and received by the chief guest and other dignitaries. Mr.M.Mukesh of III Year EEE, introduced the chief guest. Dr.M.Vijayakumar, Associate Professor, EGS Pillay Engineering College, Nagapattinam delivered chief guest address. The paper presentation sessions segregated into three parallel sessions. Circuit debugging & Technical Quiz were conducted. The valedictory session started with feedback from the participants. The winners for the paper presentation were awarded with cash prize. Other technical and Non Technical events such as Technical Quiz, Circuit debugging, Robotics (Line follower), Paper Wings, Dumb Charades, Short Film was

conducted and winners were awarded with certificates. Finally, Vote of Thanks was delivered by Mr.A.Sarath Kumar of final year EEE.



9. Webinar on Robotics – in Research Perspective

Research & Development Section and IEEE Student Branch jointly organized a webinar on **Robotics – in Research Perspective** on 26.09.2022. **Mr. Aditya Kameswara Rao Nandula**, Senior Project Officer, Chair - IEEE YPAG Kharagpur Section, IIT Kharagpur delivered lecture. In his lecture, he addressed several researches in the areas of robotics which shows a great attention to physical interface between robotic system and its environment. Also, he presented some of the real-time implementation of humanoid robots in the sector of medicine and waste management. 158 students of our institute participated and got benefitted. The event was coordinated by Mr. T. Pasupathi, AP/ ECE, KCE and Mr. J. Niranjan Samuel, JRF/ECE-R&D.



10. Test your Mettle

To enrich the minds of budding Engineers, CSE department in association with IEEE student branch organized “**Test your Mettle**” on 30.9.2022. The event was organized with an aim to improve the student’s reaction times with timed challenges, quick-fire rounds aimed to test their speed, attention, and ability to react quickly and accurately. Totally 56 students from II, III and IV year CSE participated in the event. The competition was conducted in two rounds; out of 56 students 18 students shortlisted to final round and Ms.P.Deepika, Ms. N.Karkuzhali, Mr. T.Sathish bagged first, second and third prize respectively. The activity helped in improving the student’s memory attention, processing speed, mental flexibility, reaction time and problem solving in turn with increased productivity.



1. IEEE Day celebrations

IEEE student branch of KCE organized IEEE day celebration and awareness of MyIEEE Program on 13th October 2022, 12 IEEE student members actively participated in the event. Ms.J. Fasila Afreen, IEEE student Branch Chairperson gave a talk on IEEE Membership and its Benefits. Group photos was taken and submitted to the IEEE Day Photo contest.



2. Three Days Workshop on CCTV Installation and Servicing

Department of Electronics and Communication Engineering in association with IEEE STB 16621 organized Three days workshop titled “**CCTV Installation and Servicing**” from 12th October 2022 to 15th October 2022. Mr.P.Raja Pirian, AP/ECE, KCE in his lecture explained about the need for Closed Circuit Television System, Basics of CCTV and its assembly. He also explained about the Digital Video Recorder system and IP address concepts. Mr.T.Jeyaseelan, AP/ECE in his lecture, briefed about DVR, how to install the hard disk and its accessories. He also explained the types of hard disks used for DVR and the recording formats. Finally, he explains the real-time functionalities of CCTV in a detailed manner. Mr. George Nelson, George Tech Solutions, Kumbakonam demonstrated about various cameras and its accessories, how to install camera with DVR. Then they demonstrated how to setup the DVR for real-time capturing. Mrs.D.Vennila, AP/ECE, Mr.R.Thandayuthapani, AP/ECE & Mr.W.Newton David Raj, AP/ECE were the coordinators. 84 students participated and got benefitted.

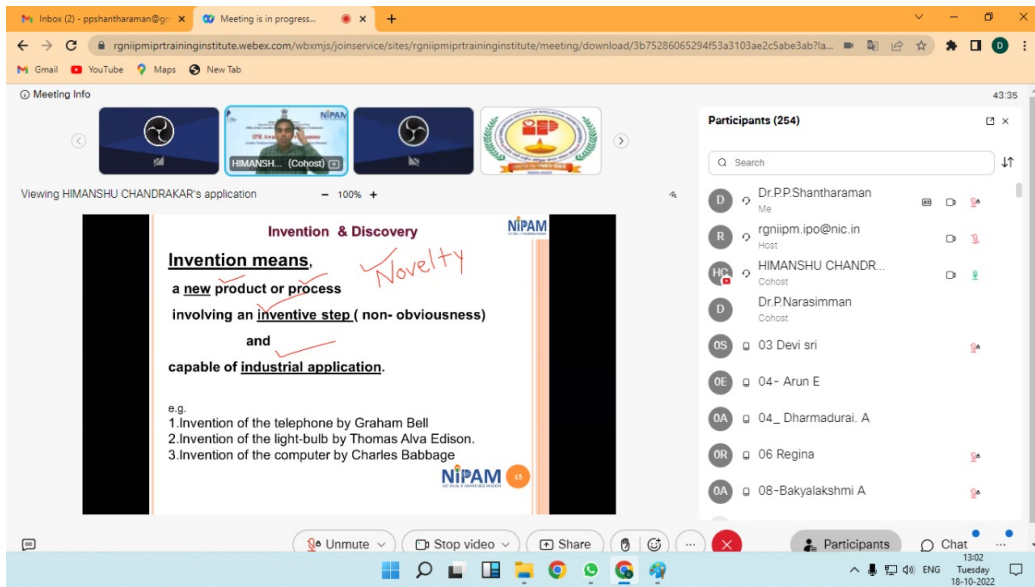


3. Seminar on Multi-Objective Based Optimal Planning of DG in Distribution Network

Seminar on Multi-Objective Based Optimal Planning of DG in Distribution Network was organized on 13.10.2022. During the session the resource person discussed the importance of multi-objective evolutionary algorithms in the field of Power System Engineering. He explained the importance of Multi-Objective Hybrid WIPSO – GSA algorithm which is a hybrid version of WIPSO algorithm and GSA. He explained how hybridization is done in Multi-Objective Hybrid WIPSO-GSA Algorithm, by merging the strength of social thinking in WIPSO with the strength of local search capability in GSA, so that fine balance between exploration and exploitation abilities is achieved. He pointed out the drawbacks and weakness in weighted sum method of multi-objective optimization and how it is eliminated in the pareto based Multi-Objective Hybrid WIPSO-GSA Algorithm while solving large scale optimization problems. In order to provide deeper insight on the multi-objective optimization technique, he explained the application of Multi-Objective Hybrid WIPSO-GSA Algorithm in solving optimal Distributed Generation (DG) allocation problem considering different objectives. At the end of the session faculties asked questions regarding implementation of multi-objective optimization techniques in different areas of Power Engineering and also expressed their willingness to publish research papers using multi-objective optimization algorithms in near future.



- 4. Workshop on Intellectual Property Rights (IPR) & Patents and Design filing**
- R&D Section in association with Rajiv Gandhi National Institute of Intellectual Property Management (RGNIIPM), Government of India, Nagpur (Under National Intellectual Property Awareness Mission) and IEEE Student Branch 16621 jointly organized an online workshop on **Intellectual Property Rights (IPR) & Patents and Design Filing** on **18.10.2022** between 12.30 p.m. to 1.30 p.m. **Himanshu Chandrakar**, Examiner of Patents & Designs, RGNIIPM, Nagpur was the resource person. In his lecture, he briefed on Intellectual Property, Importance and Significance of IPR, Utilization and Commercialization. Under IP, he briefed on Patents, Designs, Trademarks, Geographical Indications and Copyrights. Before filing a patent, secrecy of the design has to be maintained. While concluding his session, application procedure for filing a patent was briefed. Totally 254 participants from other institutions and from our institute participated in the programme.



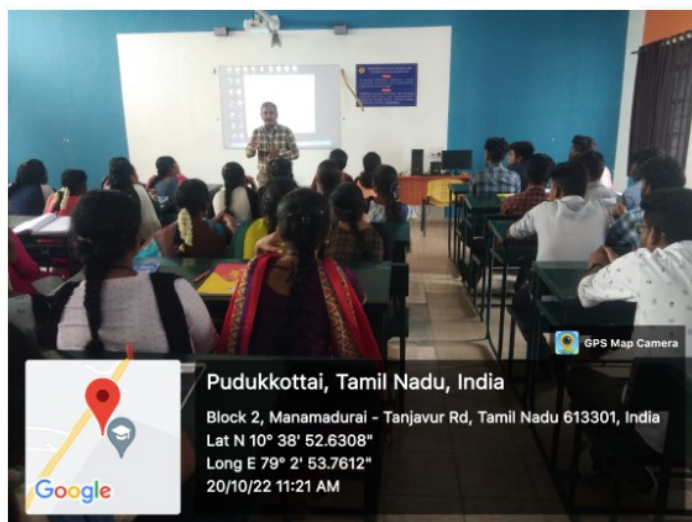
5. Workshop on Python with Data Science

Department of Computer Science & Engineering in association with IEEE STB 16621 organized a workshop on “**Python with Data Science**” on 19.10.2022. The workshop was handled by **Mr. S. Ram Prakash**, Teaching Faculty / CSE, UCE, Thirukkuvilai. He highlighted the importance of Python and basic requirements for that language. In addition to this, he also explained about the concepts of using Python pandas & Data Analysis, which was very well understood by the participants. In the afternoon session practical classes took place and queries from participants were clarified. Finally one Quiz competition was also conducted by coordinators through KAHOOT app, regarding the workshop content to analyze the student understanding about the workshop. Around 104 participants from various educational institutions all over the state eagerly participated in the workshop. Ms. S. Abikayil Aarthi, AP/ CSE, Ms. N. Dhamayandhi, AP/ CSE, Ms. S. Priyadarshini AP/ CSE were the coordinators for this workshop.



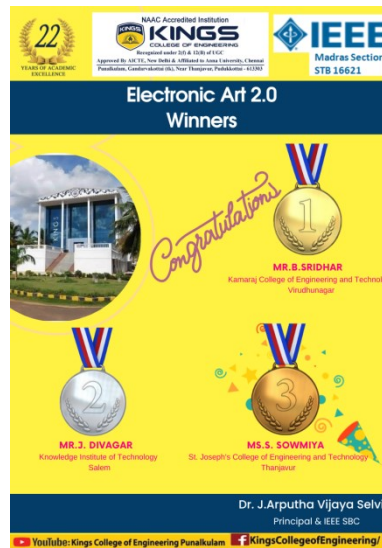
6. Renewable Energy Sources

Department of Electronics and Communication Engineering in association with IEEE STB 16621 organized a Guest Lecture on Renewable Energy Sources on 20.10.2022. **Mr.J.Arockia Raj**, Assistant Professor /EEE, Kings College of Engineering, Punalkulam was the resource person. In his lecture, he briefed on the various Renewable Energy Sources namely, Solar Energy, Wind Energy, Tidal Energy, Wave Energy and Bio Mass. Students gathered practical knowledge related to the theoretical concept. 45 students participated and got benefitted. The programme was coordinated by Mrs. N. Mangaiyarkarasi, HOD/ECE.



7. Electronic Art 2.0

IEEE STB 16621 organized an event titled Electronic Art 2.0 during 01.10.2022 and 15.10.2022. For the contest, 20 participants submitted their creativity through Google forms. On evaluation of the received entries three entries were selected. Art by **Mr.B.Sridhar** from Kamaraj College of Engineering and Technology Virudhunagar stood in I position, Art by **Mr.J. Divagar** of Knowledge Institute of Technology, Salem stood in II position and Art by **Ms.S. Sowmiya** from St. Joseph's College of Engineering and Technology, Thanjavur stood in III position. Certificate of Appreciation was given to the outstanding design and participation certificate was given to all participants. The event was coordinated by Mr. T. Pasupathi, AP/ECE and Mr. J. Niranjan Samuel, JRF/R&D.



8. VLOG Competition

Department of Computer Science and Engineering in association with IEEE STB 16621 organized an event titled VLOG Competition during 01.10.2022 and 12.10.2022. 20 Students from various institutions submitted their entries through Google form. Based on evaluation, best three videos were selected and certificate of appreciation was provided. Log by **Mr.Mao Timong** from Kirirom Institute of Technology, Cambodia stood in I position, log by **Mr.M.Vasanth, Mr.M.Guhan & Mr.N.Naresh Kumar** of Kings College of Engineering stood in II position and Log by Ms.M. Roohi Shifa & Ms.P.A.Bharathi from Kings College of Engineering stood in III position. The event was coordinated by students J. Fasila Afreen, M. Suriya prakash and M. Siva and staff coordinator Ms. R. Sugantha Lakshmi, AP/CSE.

KINGS COLLEGE OF ENGINEERING
 DEPARTMENT OF CSE & IEEE STUDENT BRANCH ORGANIZE

IEEE Madras Section STB 16621
 IEEE DAY 2022

VLOG Competition

Video Submission Date: 12-10-2022
 Winner Announcement Date: 10-10-2022

TOPICS
 * Social Awareness
 * Environmental Awareness

JUDGEMENT CRITERIA
 * Creativity, Originality, Message of Video
 * Technical(Quality,Sound and Music)

RULES/GUIDELINES
 1. Video should be less than 10 mins.
 2. Open to all the college students.
 3. Participants can send one Vlog only.
 4. Students can participate individually or by team (Team size maximum three).
 5. Participants should post their video on or before the deadline date.
 6. E-certificate will be provided to all the participants.

REGISTRATION FEE ₹ 5,100

FOR PAYMENT

To Register: <https://qr1.8e7ZKXV>
 To Upload: <https://qr1.8e7UDXA>

Staff Co-ordinator: Mrs. R.Sugantha Lakshmi, AP/CSE 9894688906
 Student Co-ordinator: J.Fasila Afreen, M.Suriya prakash, 7888862830, M.Siva, 9789752263
 Email: kingsicee01@gmail.com

1. **Workshop on Microgrid Technology for Renewable Energy Systems**




Department of Electrical and Electronics Engineering in association with IEEE STB 16621 organized a workshop on **Microgrid Technology for Renewable Energy Systems** on 04th November, 2022. Dr.S.Sivakumar, Vice Principal in his lecture discussed on the Indian Power system for planning and operational purposes is divided into five regional grids, four major grid components: electricity generators, transmission lines, distribution networks, and consumer use. Also he listed the top companies in Indian Electricity & Power Sector. **Ms.A.Prabha, AP/EEE**, in her session discussed that Microgrid is one of the advanced small-scale centralized electricity systems and it usually contains energy storage resources, Distributed Generation (DG) units, and loads. Microgrid can improve customer reliability and resilience to grid disturbances. **Dr.R.Arulraj, AP/EEE** discussed on basic power system components viz. generators, transformers, transmission lines, busses, and loads. Also he demonstrated the calculation of the optimal size of DG at each bus using the exact loss formula and the optimal location of DG using loss sensitivity factor. Also shared the results obtained from the proposed technique, tested on standard 33-bus test system and compared with the results with exhaustive load flows. **Mr.J.Arokiaraj, AP/EEE** discussed on designing and testing of efficient renewable energy system.



2. **FDP on " Problem Solving and Python Programming"**

Department of CSE and IEEE STB 16621 jointly organized a three days faculty development programme on **Problem Solving and Python Programming** was organized from 21.11.2022 to 23.11.2022. Mr. M. Arun, AP/CSE and faculty members from CSE department handled the sessions. The programme covers computational thinking and problem solving, data types, files modules and

packages in Python. Hands-on- session were also conducted. Around 15 participants from KCE participated and got benefitted.

| | | |
|--|--|---|
| <p>Three Days Internal FDP On "GE3151- Problem Solving and Python Programming" 21st Nov- 23rd Nov 2022</p>  <p>Organized by, Department of Computer Science & Engineering</p> <p> Madras Section STB 16621</p> <p> KINGS COLLEGE OF ENGINEERING</p> <p>Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai. NAAC Accredited Institution Recognized Under 2(f) & 12 (B) of UGC Punakulam, Gandarvakkottai Taluk, Near Thanjavur, Pudukkottai – 613303 Phone: 04362 282 474 www.kingsengg.edu.in</p> | <p>ABOUT OUR INSTITUTION Kings College of Engineering (KCE) was born out of a dream and vision to provide education with unparalleled quality to the young and enthusiastic students of our nation. The college is approved by AICTE, New Delhi and affiliated to Anna University, Chennai and accredited by NAAC. The drive from our management and dedication of the faculty has seen KCE to rise to the status as one of the most prestigious institutions in this part of the country. KCE, run by Raj Educational Trust (RET), Chennai, is a fast growing technical institution in the state of Tamilnadu with a great promise to cater the educational demands of budding engineers in and around Thanjavur from 2001. Our institution offers five UG programmes namely, CIVIL, CSE, ECE, EEE and Mechanical Engineering and four PG programmes namely CSE, VLSI Design, PED and Thermal Engineering. Department of ECE, EEE and Mechanical are approved research center for pursuing research (Ph.D) under Anna University.</p> <p>ABOUT THE DEPARTMENT The Department of Computer Science and Engineering since its inception in the year 2001 offers programme keeping in pace with technological advancements. Department offers Post Graduate course M.E – CSE . The state-of-the-art computer centre has over 300 computers with 100 Mbps internet connectivity. The department has highly qualified and experienced faculty to offer both class room teaching and practical instructions.</p> | <p>COURSE CONTENT The objective of this workshop is to provide</p> <ul style="list-style-type: none"> • Computational Thinking and Problem Solving. • Data Types, Expressions, Statements. • Control flow, functions, strings. • Lists, Tuples, Dictionaries. • Files, Modules, Packages. <p>COURSE OUTCOMES</p> <ul style="list-style-type: none"> • Develop algorithmic solutions to simple computational problems. • Develop and execute simple Python programs. • Write simple Python programs using conditionals and loops for solving problems. • Decompose a Python program into functions. • Represent compound data using Python lists, tuples, dictionaries etc. • Read and write data from/to files in Python programs <p>Registration Details</p> <ul style="list-style-type: none"> • Internal Faculty Members of KCE can participate in three days FDP. • Registration Link: • https://forms.gle/hzm1BksgDjgHnWRf8 <p>Resource Person</p> <ul style="list-style-type: none"> • Faculty members of CSE department. <p>Coordinator M.Arun, AP/CSE Cell: 8110012246</p> |
|--|--|---|

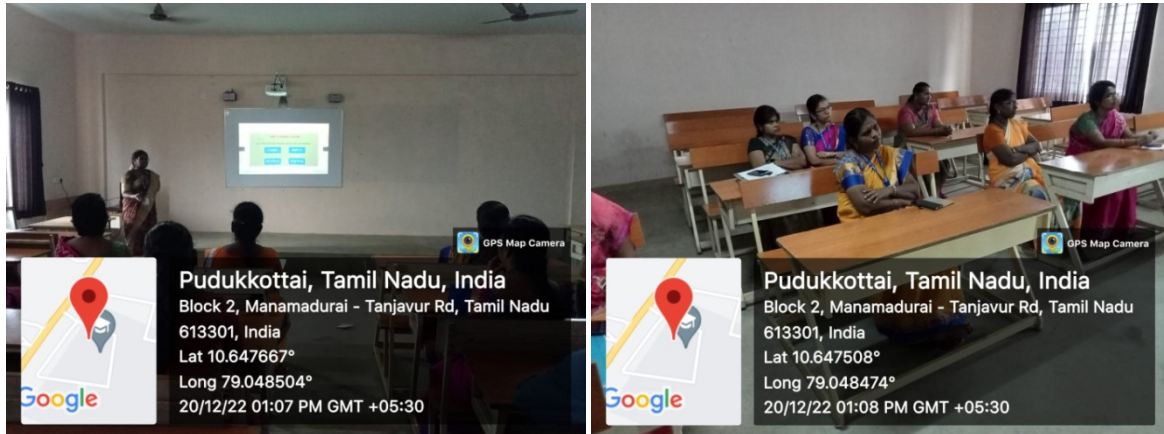
3. Technical Activity

Department of ECE and IEEE STB 16621 jointly organized a session on **Introduction to Electronics Engineering** on 23.11.2022. During the session, the basics of electronics engineering such component familiarization and color coding technique were briefed. At the end of the session a puzzle was conducted to find the value of the resistor. Around 80 students participated in the session.



1. Internal Seminar

Department of Computer Science & Engineering in association with IEEE STB 16621 jointly organized an internal staff seminar on 20.12.2022. The objective of this seminar is to gain insight knowledge about human computer interaction using machine learning techniques. Ms.S.Abikayil Aarthi, AP/CSE delivered the lecture on the topic “**3D Hand Gestures Segmentation and Optimized Classification using Deep Learning**”. She compared computer with human and how the era of communication between human with computer created. She explained the hidden markov model's principles which is used to track the human emotions which depends on head gestures. She described about the types of input which is used for analyzing the human gestures which belongs to three inputs. She concluded that the existing inputs may be extended to capture the more emotions from the human.



Internal seminar session snapshot

1. Department of Electronics and Communication Engineering in association with IEEE STB 16621 jointly organized three days winter crash course on “**C, C++ programming for Placements**” for final year ECE students from 11th January 2023 to 13th January 2023. The main objective of this course is to train the students in C and C++ programming. Ms.K.Gayathri, Student of IV ECE welcomed the gathering.

Session 1 was handled by Mr.T.Pasupathi, Assistant Professor/ ECE. In his lecture, he briefed on the fundamentals of C- Language, data types, keywords and how the keywords are used in C-Programming. He also explained about operators used in C-Language such as arithmetic operators, relational operators, conditional statements and loop statements. He demonstrated each syntax with simple examples. Session 2 was handled by Mr.P.Raja Pirian, Assistant Professor /ECE. During his session, students are trained on working with Arrays in C, String Handling, Function, Pointers, Structures and Unions, Linked List & File Management. Finally he demonstrated the students on the project - student Information system, which handles the students’ personal and academic information.

Session 3 was handled by Mr.T.Jeyaseelan, Assistant Professor /ECE. In his lecture, he briefed on the variables, strings, If-else statement, loops, functions call by value and call by reference, recursion and recursive function in C++, data input and output, classes & objects, constructors and destructors, operator overloading. Session 4, was a hands on session, students practiced with the programs based on the topics learned during session-3. Session 5 was handled by Mrs.U.Jeyamalar, Assistant Professor/ECE. During her session, she delivered lecture on header files, arrays, pointers, memory management basics, classes and objects, operator overloading, vectors, inheritance, polymorphism & exception handling. Session 6, was a hands on session, students practiced with the programs based on the topics learned during session-5. Totally 23 students have enthusiastically participated in this programme. The programme was coordinated by Mrs. D.Vennila, AP/ECE and Mr. R. Thandayuthapani, AP/ECE.



Department of Electronics & Communication Engineering

Especially for IV ECE Students

Three Days Winter Crash Course on C & C++ Programming for Placements

11.01.2023 to 13.01.2023 @ 10:00am to 04:00pm

Resource Persons

| | | | |
|---|---|---|--|
|  |  |  |  |
| Mr. P. Raja Pirian Assistant Professor Department of ECE | Mr. T. Jeyaseelan Assistant Professor Department of ECE | Mr. T. Pasupathi Assistant Professor Department of ECE | Mrs. U. Jeyamalar Assistant Professor Department of ECE |

Topics :

- ✓ C-Programming : C - fundamentals, Arrays in C, String Handling, Function, Pointers, Structures and Unions, Linked List & File Management.
- ✓ C++ Programming : Data Input and Output, Classes & Objects, Constructors and Destructors, Operator Overloading, Inheritance, Polymorphism & Exception Handling.
- ✓ Simple Projects using C & C++

VENUE : DSP LAB

Co-ordinators: Mrs.D.Vennila, AP/ECE Mr.R.Thandayuthapani, AP/ECE

Convener
Mrs.N.Mangaiyarkarasi
HOD/ECE

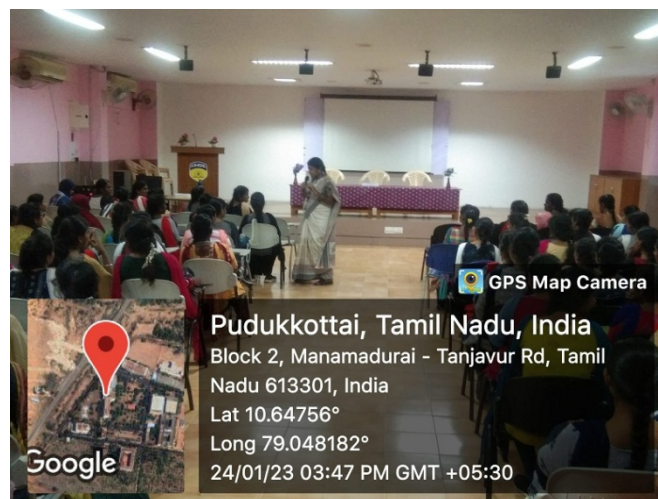


Patron
Dr.J.Arputha Vijaya Selvi
PRINCIPAL

Register Now : <https://tinyurl.com/KECINDC>

<https://www.kingsengg.edu.in> fb:Kings College of Engineering

- Women's Cell in association with IEEE Student Branch organized a awareness programme on "Engineering Ethics" on 24th January 2023 to all faculties and first year students. **Dr.T.Shanthi**, Associate Professor/ECE, KCE acted as resource person. The main objective of this programme is to create awareness among students and realize **self discipline** which plays a vital role throughout their life. In her address to the students, she explained about self discipline, which gives inner strength and a way to control ourselves. It is one of the most and useful skills to achieve success and everyone should possess this quality. A student who stays in control has the ability to take charge of her actions and reactions.



February, 2023

The two day National Level Workshop on **“Real Time Project Design Using Arduino”** was organized for the benefit of students community those who are interested to implement their innovative ideas using the arduino Kit. The workshop conducted from 23rd February to 24th February. Totally 56 students have enthusiastically participated in this workshop.

Ms.U.Jeyamalar, Assistant Professor / ECE welcomes the gathering. Mrs.N.Mangaiyarkarasi, HOD/ECE delivered the Inaugural address. In her speech, she motivates the students towards innovation and how the workshop helps the students to do their ideas in implementation. Ms. K.Jayashree, III year ECE, introduced the Resource persons. The resource person details were as follows:

Day-1-Session -1 : Mr.P.Raja Pirian, Assistant Professor, KCE.

Day-1-Session -2 : Mr.T.Pasupathi , Assistant Professor, KCE.

Day-2-Session -3 : Dr.P.Narasimman, Assistant Professor, KCE.

Day-2-Session-4 : Mr.T.Jeyaseelan, Assistant Professor, KCE.



March, 2023

1. Department of ECE in association with IEEE STB 16621 organized a seminar on “**Electro coagulation of car wash water Using various electrodes**” on 06.03.2023 for the **Mrs.N.Mangaiyarkarasi**, HOD/ECE welcomed the faculties. **Mr.S.Ramarajan**, Assistant Professor/ECE delivered lecture. In his lecture, he listed out how electrocoagulation process is introduced in order to treat the polluted water from car wash service centres. All the faculties were attended the seminar. This study provides a comparison of the efficiency of two different electrode combinations that is Ai and Fe-steel electrode and also to determine the effectiveness at various voltage ranges that is at 10v, 20V and 30V.



2. Women’s cell in association with IEEE STB 16621 organized a guest lecture on “**Innovation and Technology for gender equality**” to all women staff members and all girl students owing to **International Women’s Day**. **Mrs. G. Prabavathy**, Sub Inspector of Police, Crime and Criminal Tracking Network & Systems, District Police Office, Thanjavur and **Ms.Jaishree Kamalanathan**, Senior Analyst, HCL Tech, Bangalore (Alumni 2015-2019 Batch) acted as resource persons. The following competitions were conducted for the students, Cook Without fire, Singing, Fashion Walk, Dance, Drawing, and Speech. Resource person Mrs. G. Prabavathy explained gender equality which is very important for a healthy society. She insisted the impact of technology which affects the teenage students. Education to every girl child results in overall development of nation. She pointed out that there is no age limit to succeed in life. Working women have to take care of both family and profession. It is a very big challenge to them. She explained the difficulties faced by her and how she converted them as stepping stones to success. She insisted that women have intuition power and it is our responsibility to utilize it. **Ms.Jayashree Kamalanathan**, suggested the students to be bold to face the challenges in life. Also she stressed that Parents play the most important role in our life. There is no basis for children to disrespect their parents because respecting them is the only way of showing gratitude. Notably, parents are the valid reasons of our existence, and we should be courteous, loyal and help them in their need.



3. Department of EEE in association with IEEE STB 16621 organized a seminar on “Partial Discharges Classification Methods in XLPE Cable: A Review” for the faculty members of EEE Department on 31.03.2023. The main objective of the internal seminar is to provide an exposure to our faculty members on partial discharges classification methods in XLPE cable. Eight faculty members participated and got benefitted.



4. On behalf of the Department of EEE and IEEE Branch organized an Internal Seminar on “Energy Storage - Technologies and Applications” for the faculty members of EEE Department on 31.03.2023. The main objective of the internal seminar is to provide an exposure to our faculty members on Energy Storage - Technologies and Applications. Eight faculty members participated and got benefitted.

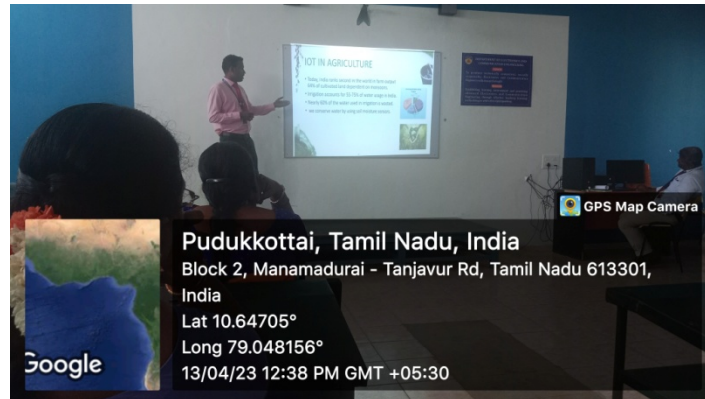


5. Second and Third year EEE students were taken for a one day field visit for to 230 / 110 kV Sub-Station, Thirukannurpatty, Vallam Road, Thanjavur on 30.03.2023 & 31.03.2023. The Students visited the following places at 230kV Sub-station: Control house, Battery room and Switchyard. 38 students from III EEE accompanied by 04 staff members visited on 30.03.2023 and 30 students from II EEE accompanied by 04 staff members on 31.03.2023.



April, 2023

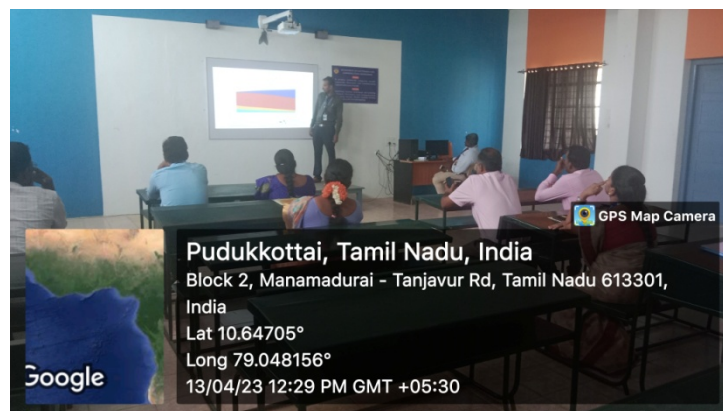
1. Department of ECE in association with IEEE STB 16621 organized a seminar on **“IoT based Smart Agriculture”** on 13.04.2023. **Mrs.N.Mangaiyarkarasi**, HOD/ECE welcomed the faculties. **Mr.R. Sathayraj**, Assistant Professor/ECE delivered lecture.



2. Department of ECE in association with IEEE STB 16621 organized a local visit to Siemens Center of Excellence, National Institute of Technology, Tiruchirappalli on 12.04.2023.



3. Department of ECE in association with IEEE STB 16621 organized a seminar on **“5G Evolution: A View on 5G Cellular Technology”** on 13.04.2023. **Mr.A. Herald**, Assistant Professor/ECE delivered lecture.



4. The International Conference on Computing, Communication and Control was organized on 26.04.2023. The conference was started with a welcome address by Dr.J.Arputha Vijaya

Selvi, Principal & IEEE STB SBC followed by Presidential address by Dr. R. Rajendran, Secretary, KCE. The inaugural address was given by the Chief Guest of honour **Dr. K.Vasudevan**, Professor - Emeritus, Cochin University of Science and Technology (CUSAT), Kochi, Kerala. In his inaugural speech, he detailed about the MEMS technology and Microwave antennas. The hard and soft copies of the conference proceedings were released by the chief guest Dr. K.Vasudevan and received by Dr.R.Rajendran, Secretary and Dr.J.Arputha Vijaya Selvi, Principal. The special invitee of the function, **Dr. Arun K. Majumder**, Adjunct Professor, Colorado State University, USA delivered the invited talk on **“Modern Communication Techniques”**. **Dr. K.Vasudevan**, delivered invited talk on **“Microwave Communication”**. **Dr.S.Albert Alexander**, Associate Professor, VIT, Vellore delivered invited talk on **“Nuances of Machine Learning”**. **Dr. G. Tamilarasi**, Professor, Department of IT, University of Technology & Applied Sciences-ALMusannah, Sultanate of Oman delivered invited talk on **“Power of Predictive Analytics- Data Science Perspective”**. All the invited talks were conducted as parallel sessions. Nearly 80 research articles were presented by the students, research scholars and faculty members from various reputed institutions across India and abroad.

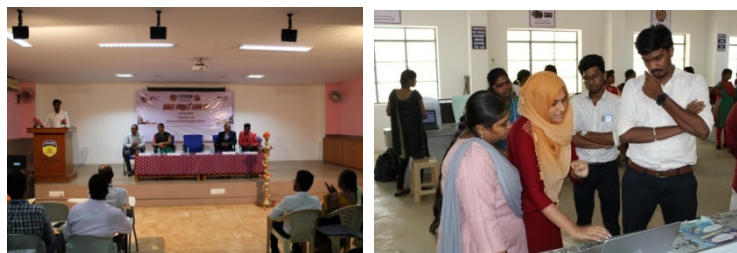


5. Department of CSE in association with IEEE STB 16621 organized a workshop on **“Machine Learning with Google Colab”** on 28.04.2023. Sessions were handled by Dr. J. Rajiv Gandhi, Assistant Professor, Department of Computer Science, Government Arts and Science College for Women, Paramakudi.



May, 2023

1. Research & Development Section in association with IEEE STB 16621 organized KINGS PROJECT EXPO' 2023 on 04.05.2023. This project expo aims to encourage the students' creativity and innovations on Engineering & Technology. Dr. P.P.Shantharaman, DRC Convener, welcomed the gathering. Dr.J.Arputha Vijaya Selvi, Principal, inaugurated the expo and delivered the inaugural address. In her speech, she emphasized the significance of innovations in projects. Mr.T.Pasupathi, AP/ECE, introduced the chief guest Mr.Rajkumar Kalaimani, Senior Engineer, Altimetrik, Chennai. Mr.Rajkumar Kalaimani delivered a keynote address on current scenario in IT sector. Dr. S. Sivakumar, Vice Principal, delivered the felicitation address. He insisted the students to enhance their technical knowledge both in software and hardware. The projects of internal and external students were evaluated by senior faculty members of every department nominated as jury's. Totally 62 batches participated in the project expo. Jury's evaluated the projects and gave feedback & valuable comments to the students. Based on the innovation, presentation, implementation and demomarks was awarded by the jury's. Two projects were selected for rewards from each department. One project was selected for the **Best Project Award** from all disciplinary. The valedictory ceremony of the project expo was started at 01:30 pm at Pallava Hall.Dr.R.Rajendran, Secretary, distributed the prizes and certificates to the participants.The cash prize was given to the best project awardwinners. Project Expo came to an end with vote of thanks by Dr.P.Narasimman, AP/EEE.



2. Department of Computer Science & Engineering in association with IEEE STB 16621 organized an internal workshop on "POWER-BI" on 18.05.2023. Er. S. Abikayil Aarthi,

Assistant Professor, Department of Computer Science & Engineering, Kings College of Engineering, Punalkulam, Pudukkottai handled the session. During the session, she explained about the technology-driven business intelligence tool which is an array of software services. Opportunities and scope for engineers also elaborated the key aspects and role of innovation in choosing POWER-BI as career option. Also, she explained with real world examples. She listed the availability of components and features in that tool. The resource person explained about the direct and indirect benefits of business available with the help of tool. The program was eagerly attended by all participants, who gained new knowledge from it. Students from second and third year of CSE discipline totally 120 participants participated in the programme and got benefitted.





**3.2.2 - Number of workshops/seminars conducted on
Research Methodology, Intellectual Property Rights (IPR)
and entrepreneurship during the year 2022-23**

Entrepreneurship Development Cell

| S. No | Name of the Activity | Page No. |
|-------|---|----------|
| 1. | Workshop on Entrepreneurship and Innovation as Career Opportunity. | 02 |
| 2. | Awareness Programme on Entrepreneurship and Innovation and TNSI - 2022. | 05 |
| 3. | Programme on Achieving Problem - Solution Fit and Product Market Fit. | 07 |
| 4. | Workshop on Entrepreneurship Skill, Attitude and Behaviour Development. | 09 |

[Signature]
27/7/2023
Coordinator, ED Cell

[Signature]
27/7/2023
Principal



ACADEMIC YEAR 2022-23 (ODD SEMESTER) 02.11.2022

Workshop

on

“Entrepreneurship and Innovation as Career Opportunity”

30.11.2022

REPORT

Institution Innovation Council and Entrepreneurship Development Cell of Kings College of Engineering organized a workshop on **“Entrepreneurship and Innovation as Career Opportunity”** on 30.11.2022.

Objective:

The main aim of the workshop is to create awareness and insist the need of self employment through innovation in order to solve the problems faced by the people, by the society by the nations all over the world along with individual prospects in economic conditions.

Resource person

Dr. B. Barankumar, Assistant Professor, Department of Management Studies (T & P), Kings College of Engineering, Punalkulam, Pudukkottai.

Participants:

1st Year students of all discipline = 285 participants

Inaugural Session:

Inaugural session was started with Welcome address and Introduction about the Resource Persons delivered by Mr. A. Sivabalan, President, IIC and ED Cell.

Session highlights: (Awareness Programme on One Million Idea)

In this session, resource person explained about the opportunities and scope of Entrepreneurship for the engineers also elaborated the key aspects and role of innovation in choosing entrepreneurship as career option. Also, he explained with real world examples about various successful entrepreneurs, Technopreneurs, Sociopreneurs, women entrepreneurs and etc. He listed the availability of funding schemes with subsidies offered by Government of India and Tamil Nadu State Government to promote innovation culture. The resource person explained about the direct and indirect contribution by entrepreneurs to themselves, society.

nation and to the world. The program was eagerly attended by all participants, who gained new knowledge from it.

Benefits in terms of Learning/Skills/Knowledge obtained:

- The students are aware about the concept of entrepreneurship and know about innovation.
- Schemes provided by the State and Central Governments to promote innovation among students.
- To make use of the opportunities available to before them to become successful entrepreneurs.

Valedictory Function:

Finally, vote of thanks was given by Dr. K. Sudhakar, Coordinator, ED Cell.

Event Photographs



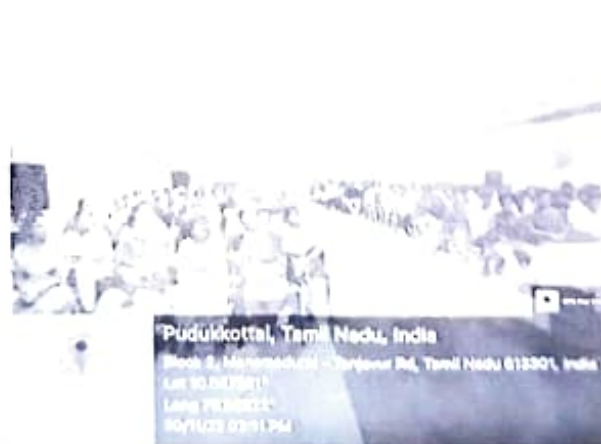
Event Photograph-1



Event Photograph-2



Event Photograph-3



Event Photograph-4



Event Photograph-5

J. J. J.
05/11/2023
Coordinator - ED Cell

J. J. J.
5/11/23
Vice President-IIC & AP/EEE

J. J. J.
05/11/2023
President-IIC & Principal



ACADEMIC YEAR 2022-23 (ODD SEMESTER) 27.01.2023

An Awareness Programme

on

"Entrepreneurship and Innovation and TNSI - 2022"

23.01.2023

REPORT

Institution Innovation Council and Entrepreneurship Development Cell of Kings College of Engineering organized an Awareness Programme on "Entrepreneurship and Innovation and TNSI 2022" on 23.01.2023.

Objective:

To educate people, society nations across the globe, and individuals about the necessity of self-employment through innovation to overcome problems faced by people and societies all over the world.

To provide the necessary information about TNSI - 2022 and the registration process

Resource person:

1. Mr. M. Martin, Field Coordinator, EDII - TN, Chennai, Hub - SASTRA University, Thanjavur.
2. Mr. Sam Jayakumar, Training Coordinator, EDII - TN, Chennai

Participants:

1st Year students of all discipline = 258 participants and 67 student members of IIC & ED Cell attended the programme through online mode.

Inaugural Session:

The inaugural session kicked off with a welcome address and introduction of the resource persons delivered by Dr. K. Sudhakar, Coordinator, ED Cell.

After honoring the resource persons with shawl Dr. S. Sivakumar, Vice Prinicipal delivered presidential address.

Session highlights:

Mr. M. Martin began the session by defining entrepreneur and entrepreneurship, as well as their characteristics, challenges, and opportunities. He distinguished between employee and entrepreneur.

In addition, the importance of innovation in the development of an entrepreneur was highlighted. He listed the domains where problems can be found. Finally, he concluded his session by providing a brief overview of EDII - TN and their role in facilitating initiatives among students at various educational levels (engineering, polytechnic, arts, science, and so on).

Mr. Sam Jayakumar began his session by explaining TNSI-2022, the reason for participating in the event, the procedures to be followed in the registration of ideas, and the steps that students must take to present their innovative ideas.

Finally, he spoke briefly about the awards and rewards that had been announced.

Benefits in terms of Learning/Skills/Knowledge obtained:

- Students understand the concepts of entrepreneurship and innovation.
- Seize the opportunities to become a successful entrepreneur.
- Gain knowledge of TNSI - 2022 registration and participation procedures.

Valedictory Function:

Finally, vote of thanks was given by Mr. M. Jayaseelan, Student Coordinator, Department of Civil Engineering.

Event Photographs



Event Photograph-1



Event Photograph-2



Event Photograph-3



Event Photograph-4

S. Jayakumar
23/01/2023
Coordinator - ED Cell

M. Jayaseelan
23/01/2023
Vice President-IIC & AP/EEE

M. Jayaseelan
23/01/2023
President-IIC & Principal



ACADEMIC YEAR 2022-23

16.02.2023

Programme on "ACHIEVING PROBLEM - SOLUTION FIT AND PRODUCT MARKET FIT" & "TNSI - 2022"

On

13.02.2023

REPORT

Institution Innovation Council and Entrepreneurship Development Cell of Kings College of Engineering organized a programme on "Achieving Problem - Solution Fit and Product Market Fit" on 13.02.2023.

Objective:

To get into the problems of various domains and to come with new solution.
To design and create the product which could be fit to the market.

Resource person:

I. Mr. G. Krishnakanth, Entrepreneur & Co - Founder, 3D SIRPI, Thanjavur.

Participants:

IIC and ED Cell members and interested students of IInd, IIIrd, IVth year students of all disciplines 100 participants attended the programme.

Inaugural Session:

The inaugural session started with a welcome address by Mr. R. Sulthan, Department Student Coordinator (Mechanical) of ED Cell and introduction about the resource persons delivered by Ms. M. Roohi Shifa, Student Member (CSE), ED Cell.

Resource person was honored with Shawl by Dr. R. Shankar, Assistant Professor, and Department of Mechanical Engineering & Coordinator of IIC.

Session highlights:

Mr. G. Krishnakanth delivered a vibrant talk and shared his experience gained as an entrepreneur and Co-Founder of 3D printing technology.

He narrated about the problems pertaining to the various domains like Health Care, Technology, Agriculture and etc., taking up the problems and providing innovative solutions with real world examples.

He gave tips to convert ideas into a successful product. And explained how to reach the market through which the consumers can be approached for selling of products. Lastly, he also recalled his candidature and participation in Tamil Nadu Student Innovators (TNSI), he guided with the

procedures to be followed in the registration of ideas, and the steps that students must take to present their innovative ideas.

He expressed his joy at achieving an award in the TNSI. The student members actively participated with more interactions and the resource person clarified doubts asked by the present TNSI participants. Positive feedback was given by the participants.

Benefits in terms of Learning/Skills/Knowledge obtained:

- Student members gained hands on experience in problem-solving techniques.
- To get succeed in creating and manufacturing goods that might work in the market.
- Acquired understanding of TNSI - 2022 participation and registration requirements.

Valedictory Function:

Finally, Mr. Ajay, Student Member (ECE), ED Cell delivered a vote of thanks.

Event Photographs



Event Photograph-1



Event Photograph-2



Event Photograph-3

[Signature]
16/2/23
Coordinator - ED Cell

[Signature]
16/2/23
Vice President-IC & AP/EEE

[Signature]
16/2/2023
President-IC & Principal

Workshop
on
“Entrepreneurship Skill, Attitude and Behaviour Development”

REPORT

MoEs - Institution Innovation Council and Entrepreneurship Development Cell of Kings College of Engineering organized a workshop on “Entrepreneurship Skill, Attitude and Behaviour Development” on 27.02.2023.

Objective:

To guide and provide necessary skills to the students who are aspiring to be entrepreneurs to turn their creative ideas into successful startups.

To impart skills, attitude and behaviour required by entrepreneurs.

Resource person:

1. Mr. M. Vivekanandan, Coordinator, Start - Up & Assistant Professor, Kings College of Engineering, Punalkulam, Pudukottai

Participants:

IIC and ED Cell members of II, III and IV year students of all disciplines 75 participants attended the programme.

Inaugural Session:

The inaugural session started with a welcome address by Dr. K. Sudhakar, Coordinator of ED Cell.

Dr. R. Shankar, Convener of the IIC, introduced and honored the resource person before the gathering.

Session highlights:

The speaker highlighted some of the key characteristics that make up an entrepreneur, such as resilience, ambition, risk-taking and resourcefulness. These attributes are what make entrepreneurs stand out from the crowd and give them the edge in business. With these traits, entrepreneurs can create innovative solutions to problems and capitalize on opportunities that others may not see. Nurturing empathy and entrepreneurial values can be achieved through various approaches such as thinking, doing, feeling, perceiving, expressing ideas, structuring tasks, and acquiring knowledge.

Building strategic thinking and scenario planning abilities, as well as having the capacity to make prescient choices with only a bit of information is important.

Benefits in terms of Learning/Skills/Knowledge obtained:

Student members gained

- The ideologies to grow their Innovative Ideas and eventually become prosperous Entrepreneurs.
- To align their attitude, skills to become a successful entrepreneur.
- To stimulate a variety of entrepreneurial behaviors such as seeking and seizing opportunities, networking, taking initiative, convincing others, and making intuitive decisions.

Valedictory Function:

Finally, Ms. Kavi Nila, member of ED Cell delivered a vote of thanks.

Event Photographs



Event Photograph-1



Event Photograph-2



Event Photograph-3

[Signature]
10/03/2023
Coordinator - ED Cell

[Signature]
10/03/23
Vice President-IIC & AP/EEE

[Signature]
10/03/2023
President-IIC & Principal