




**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

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 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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Punalkulam, Gandarvakottai (tk), Near Thanjavur, Pudukkottai - 613303

**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 01<sup>st</sup> 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 11<sup>th</sup> 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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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.

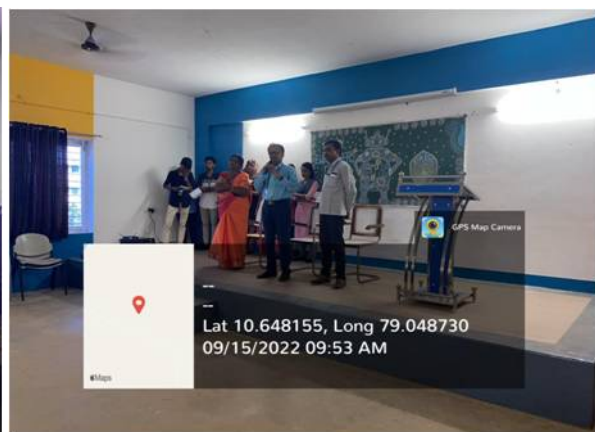


### 4. Engineers Day Celebration

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 13<sup>th</sup> 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

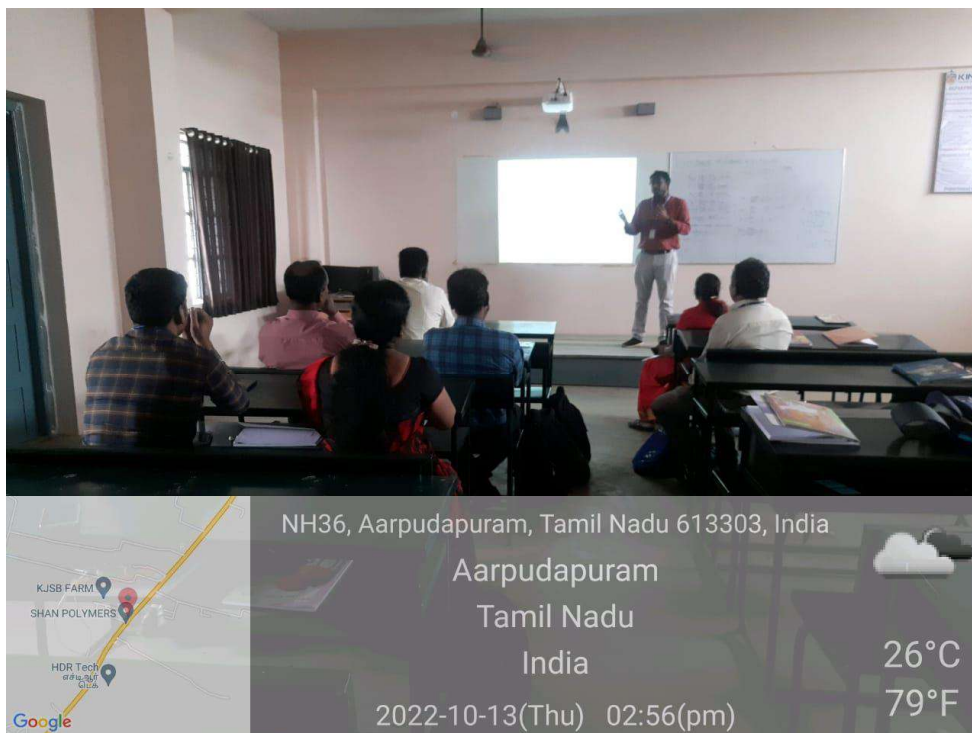
Department of Electronics and Communication Engineering in association with IEEE STB 16621 organized Three days workshop titled “**CCTV Installation and Servicing**” from 12<sup>th</sup> October 2022 to 15<sup>th</sup> October 2022. Mr.P.Raja Pirian, AP/ECE, KCE in his lecture explained about the need 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.





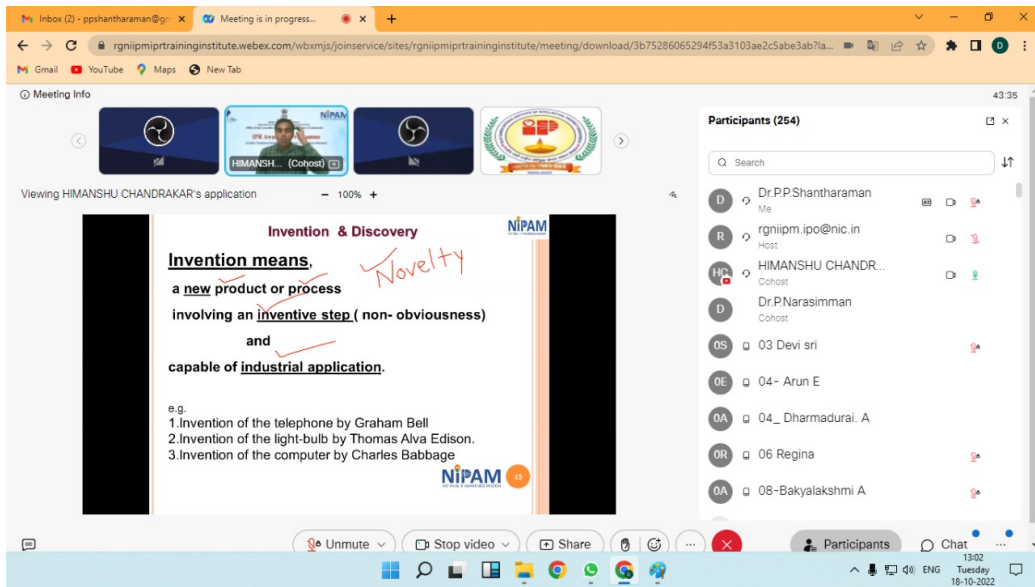
### **3. Seminar on Multi-Objective Based Optimal Planning of DG in Distribution Network**

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.



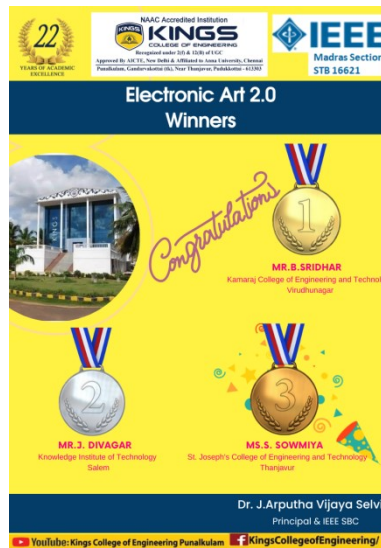
## 6. Renewable Energy Sources

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

**VLOG Competition**

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

**REGISTRATION FEE ₹ 5.100**

**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.

**FOR PAYMENT**

To Register: <https://qr1.8e7ZKXV>  
 To Upload: <https://qr1.8e7UD9A>

Staff Co-ordinator: Mrs. R. Sugantha Lakshmi, AP/CSE, 9894688906  
 Student Co-ordinator: J. Fasila Afreen, M. Suriya prakash, 7868862830, 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 04<sup>th</sup> 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" 21<sup>st</sup> Nov- 23<sup>rd</sup> Nov 2022</p>  <p>Organized by, Department of Computer Science &amp; Engineering</p> <p>   Madras Section STB 16621</p> <p> <b>KINGS</b> COLLEGE OF ENGINEERING</p> <p>Approved by AICTE, New Delhi &amp; Affiliated to Anna University, Chennai. NAAC Accredited Institution Recognized Under 2(f) &amp; 12 (B) of UGC Punakulam, Gandarvakkottai Taluk, Near Thanjavur, Pudukkottai – 613303 Phone: 04362 282 474 www.kingsengg.edu.in</p>	<p><b>ABOUT OUR INSTITUTION</b> 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><b>ABOUT THE DEPARTMENT</b> 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><b>COURSE CONTENT</b> The objective of this workshop is to provide</p> <ul style="list-style-type: none"> <li>• Computational Thinking and Problem Solving.</li> <li>• Data Types, Expressions, Statements.</li> <li>• Control flow, functions, strings.</li> <li>• Lists, Tuples, Dictionaries.</li> <li>• Files, Modules, Packages.</li> </ul> <p><b>COURSE OUTCOMES</b></p> <ul style="list-style-type: none"> <li>• Develop algorithmic solutions to simple computational problems.</li> <li>• Develop and execute simple Python programs.</li> <li>• Write simple Python programs using conditionals and loops for solving problems.</li> <li>• Decompose a Python program into functions.</li> <li>• Represent compound data using Python lists, tuples, dictionaries etc.</li> <li>• Read and write data from/to files in Python programs</li> </ul> <p><b>Registration Details</b></p> <ul style="list-style-type: none"> <li>• Internal Faculty Members of KCE can participate in three days FDP.</li> <li>• Registration Link: • <a href="https://forms.gle/hzm1BksgDjgHnWRf8">https://forms.gle/hzm1BksgDjgHnWRf8</a></li> </ul> <p><b>Resource Person</b></p> <ul style="list-style-type: none"> <li>• Faculty members of CSE department.</li> </ul> <p><b>Coordinator</b> M.Arun, AP/CSE Cell: 8110012246</p>
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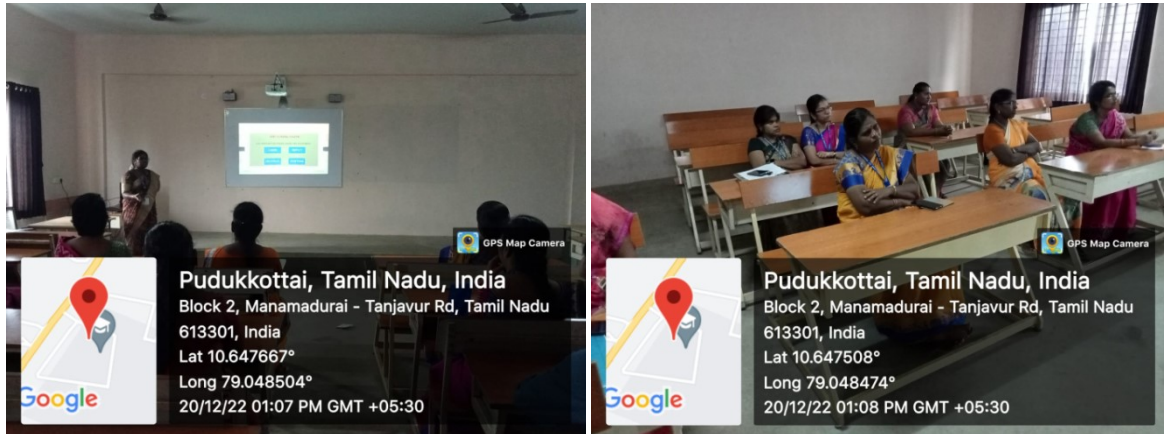
### 3. Technical Activity

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 11<sup>th</sup> January 2023 to 13<sup>th</sup> 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

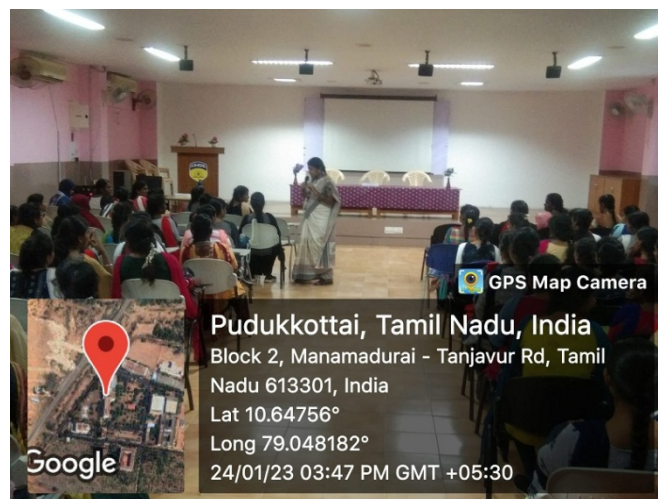


**Patron**  
Dr.J.Arputha Vijaya Selvi  
PRINCIPAL

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

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

2. Women's Cell in association with IEEE Student Branch organized a awareness programme on "**Engineering Ethics**" on 24<sup>th</sup> 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 23<sup>rd</sup> February to 24<sup>th</sup> 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.

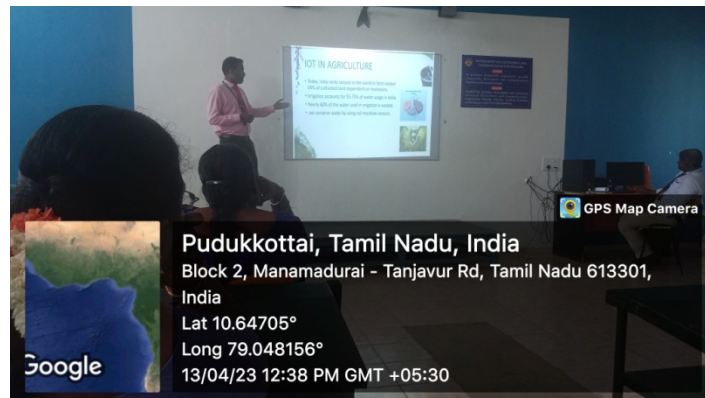


5. Second and Third year EEE students were taken for a one day field visit for to 230 / 110 kV Sub-Station, Thirukannurpatty, Vallam Road, Thanjavur on 30.03.2023 & 31.03.2023. The Students visited the following places at 230kV Sub-station: Control house, Battery room and Switchyard. 38 students from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

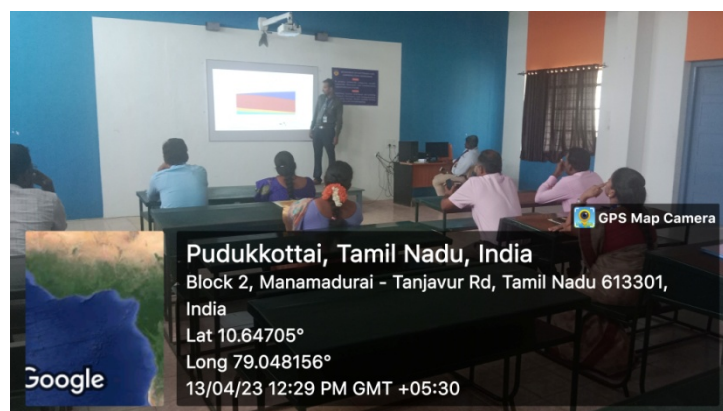
1. Department of ECE in association with IEEE STB 16621 organized a seminar on **“IoT based Smart Agriculture”** on 13.04.2023. **Mrs.N.Mangaiyarkarasi**, HOD/ECE welcomed the faculties. **Mr.R. Sathayraj**, Assistant Professor/ECE delivered lecture.



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.



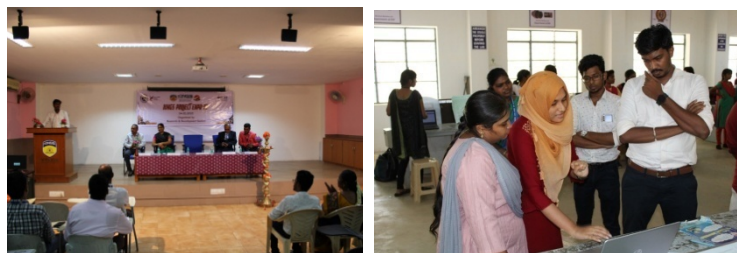
5. Department of CSE in association with IEEE STB 16621 organized a workshop on **“Machine Learning with Google Colab”** on 28.04.2023. Sessions were handled by Dr. J. Rajiv Gandhi, Assistant Professor, Department of Computer Science, Government Arts and Science College for Women, Paramakudi.





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.

