

M.A.M. COLLEGE OF ENGINEERING AND TECHNOLOGY

Siruganur, Tiruchirappalli – 621 105

Department of Electronics and Communications Engineering



Department Newsletter – June 2022

Vol.No.5, Issue No.2

INSTITUTION VISION

“To be a reputed institution that fosters excellence in education, research, and innovation while upholding the highest standards of ethics and social responsibility.”

INSTITUTION MISSION

1. To provide a comprehensive education that prepares students for successful careers.
2. To foster a culture of research and innovation that drives progress.
3. To collaborate with industry partners to provide practical experience for students.
4. To promote ethical behaviour and social responsibility among our community.
5. To empower strong communication and leadership skills through open collaboration.



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VOLUME ISSUE

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NEWSLETTER JUNE 2022

PEOs

PEO1: To equip graduates with a strong foundation in theoretical knowledge and practical skills in Electronics and Communication Engineering, enabling them to succeed in their careers.

PEO2: To develop graduates' research and innovation skills in Electronics and Communication Engineering, enabling them to contribute to cutting-edge technologies.

PEO3: To prepare graduates for real-world challenges in Electronics and Communication Engineering by providing practical experience through collaborations with industry partners and leading organizations.

PEO4: To instill ethical behaviour and social responsibility in graduates, with a focus on environmental sustainability, and social impact, enabling them to contribute to a better society as Electronics and Communication Engineers.

PSOs

PSO1: Apply the fundamental principles of Science, mathematics, and Engineering to design and develop semiconductor technologies, high speed communication, and Sensor based embedded systems.

PSO2: Analyze and optimize the performance of Electronic Design System, Signal Processing, Communication system and Networks using appropriate tools, techniques and software

Vision

"To be a leading department that promotes excellence in electronics and communication education, research, and innovation, instilling ethical values and social responsibility in our graduates."

Mission

- To provide a comprehensive education that prepares students for successful careers in Electronics and Communication Engineering, with a strong emphasis on theoretical knowledge and practical skills.
- To foster a culture of research and innovation in Electronics and Communication Engineering, encouraging students and faculty to pursue cutting-edge technologies.
- To collaborate with industry partners and leading organizations to provide practical experience for students in Electronics and Communication Engineering, preparing them for real-world challenges.
- To promote ethical behaviour and social responsibility among our community of Electronics and Communication Engineering students, with a focus on environmental sustainability and social impact.
- To empower strong communication and leadership skills among our Electronics and Communication Engineering students through open collaboration, teamwork, and professional development opportunities

Events and Activities

Events

Webinar/Seminar

Association Activities

TECHFEST- Season 2

Students Activities

Internships

Extra-curricular activities

Industrial visit

Faculty Activities

Paper Published/Submitted

Research Activities

FDP attended/organized

Faculty- outside participation

Meetings

Class committee meetings

Parent's teacher meetings

Mentor-mentee meetings

Events - Webinar/Seminar

Online Webinar on

"Recent trends in Information Security"



Speaker



Dr. R. Amirtharajan
Professor, School of EEE
SASTRA University, Tanjore.

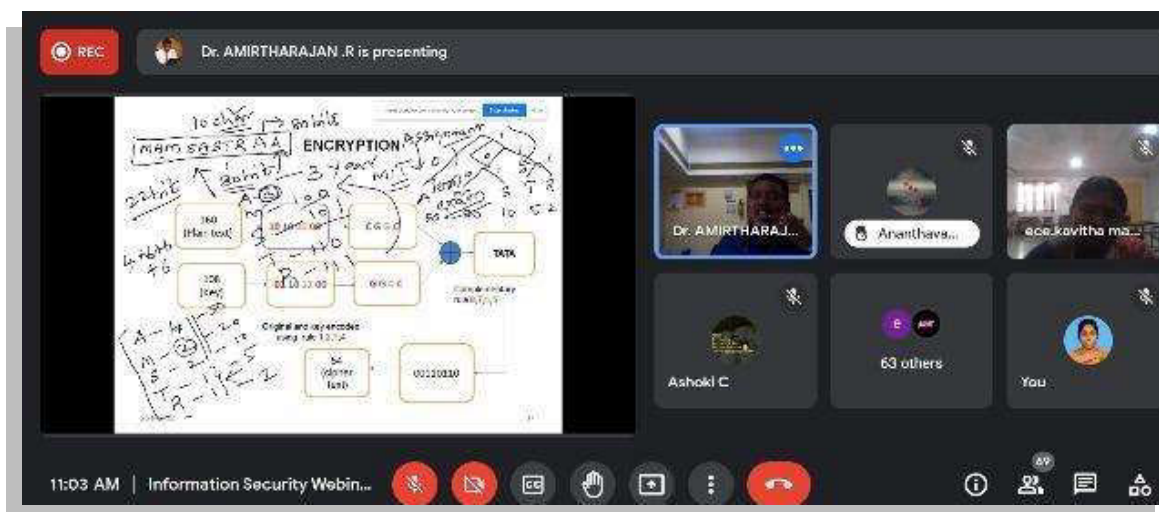
A webinar on "Recent trends in Information Security" was organized for the students and faculties of the department of ECE on 26th March, 2022. The speaker of the webinar was **Dr.R.Amirtharajan**, Professor, School of EEE, **SASTRA University**, Tanjore. The webinar aimed to make the audience aware of the threats and attacks encountered in the information security. The online programme also encompassed on recent trends and future of cybersecurity with the emphasis on emerging research scope covering mainly the finance sector. Students and faculties interacted with the speaker and

HIGHLIGHTS

- M.Mohamed Asheef, completed the six months internship at Aheesha technologies, Chennai with a monthly stipend of Rs.10,000.
- Ms.R. Madhumitha of II yr ECE was selected and completed the Campus ambassador Internship in Antaragni, IIT Kanpur and IIT- Delhi Rendezvous through Internshala.

TNSTC project on "Diagonization of Covid' 19 by Air content Analysation" mentored by Prof.S.Kavitha, Associate Professor/ECE was selected and funded with Rs.7,500. The Team members were K.P.Kishore Bharathy, H.Mohamed Asheef and K.Selvaraj from final year ECE





raised many questions. The students gained knowledge in the field of information security and the importance secured data transmission. Different types of encryption and decryption were discussed and few techniques were demonstrated. The demonstration on data compression using Shanon fano and Huffman coding was given in an innovative manner. Through this the students understood the data compression techniques very easily. Also a real time example on encryption and decryption was demonstrated to the students. The concept behind the encryption and decryption and role of authentication in using the data are well discussed among the students. Dr.X.Susan Christina , Principal , Dr.G.Haridoss, Vice principal and Head/ECE department felicitated the participants.

A Seminar on “**Strategies for Stress Relief during Examinations**” was conducted for the students of First year ECE on 3rd March, 2022 in association with Science and Humanities department. The speaker of the session

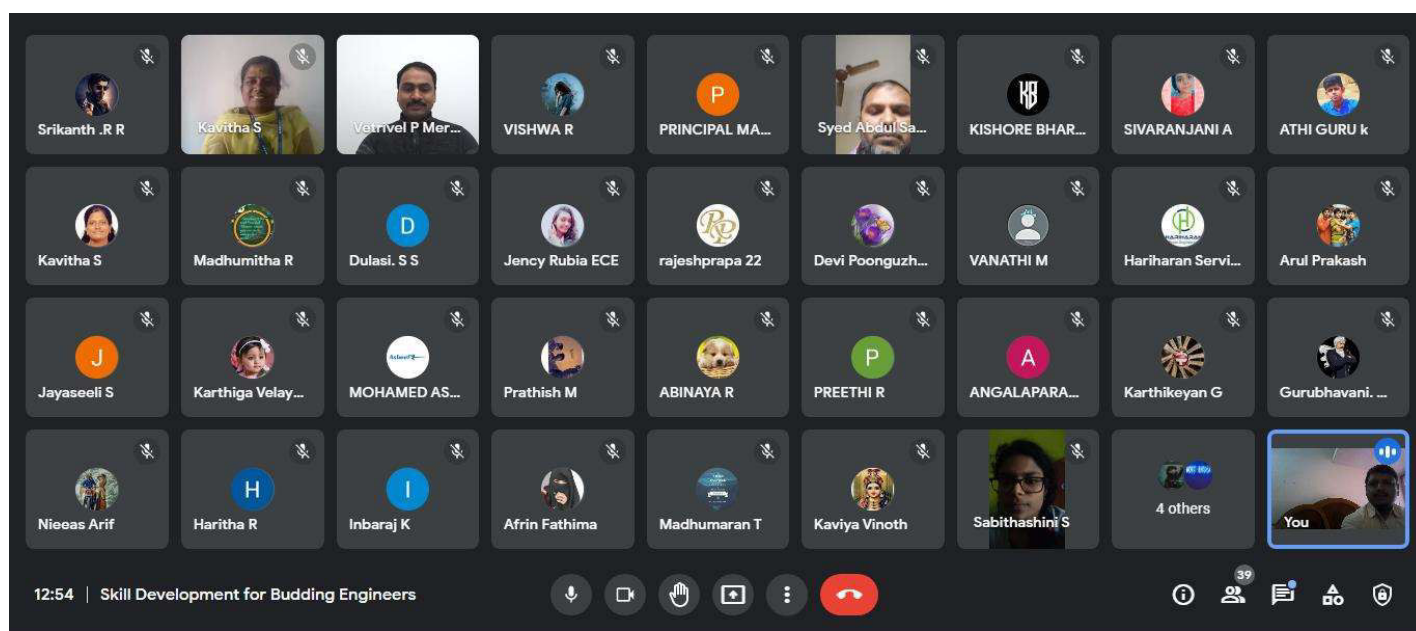


was Dr.H.Richard Raj, Soft skills trainer, Tamil Nadu. The programme was an eye opening for the students. Students were much enthusiastic and interacted with the speaker in a lively manner. Dr.X.Susan Christina, Principal, Dr.B.Muruganantham ,Registrar, MASTeR GI, Dr.S.Rajasekaran, Dean, MASTeR GI, Dr.G.Haridoss, Vice principal and Head/ECE department felicitated the participants.





A webinar on “**Skill development for Budding engineers**” was organized for the students of the department of ECE on 29th January, 2022. The speaker of the webinar was **Mr.Vetrivel Periyaiah**, Software Development Engineer, Microsoft, Redmond, Washington, USA. The webinar has motivated students to excel in their career. The speaker gave impact on the points of improving confidence level. Interview tips during the HR round were also imparted during the session. Current trends in technologies such as Artificial Intelligence, Information security were also delivered during this interactive session.



Association/Club/Students Chapter Activities

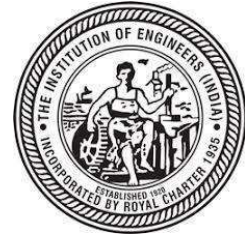
i-COMM CLUB



ECASTLE



IEI Students Chapter



The i-COMM club, ECASTLE (Electronics and Communication Association of Talent Engineers) and IEI students' chapter stood as the back bone of the department to enhance students' innovation in the field of Information and Communication Engineering. The staffs in charges were **Prof.S.Devi poonguzhali Assistant Professor, Department of ECE**, **Prof.S.Kavitha, Associate Professor, Department of ECE** and **Dr.K.Manikandan, Associate Professor, Department of ECE** respectively.

Through i-COMM club, ECE association –ECASTLE and IEI students chapter, the department conducted Intradepartmental technical symposium “**TECHFEST- Season 2**” on 7th May, 2022 with the outcome for providing

a platform to the students in showcasing their extracurricular and technical skills. The event was coordinated by **Prof. B.Syed Moinuddin Bokhari, Associate Professor, Department of ECE, MAMCET**. Both technical and non-technical events were conducted by the faculty and student coordinators. Students gave splendid performance in all the events. Totally five events were conducted. Events such as



sentation, Technical quiz, Circuit Debugging, Treasure Hunt and Connexions were conducted in a lively manner.. Participants were awarded with top three prizes in each event. Achievers were also awarded with their performance in internal tests as well as for 100% attendance.

Students Activities

Internships

- Ms.R. Madhumitha of II year ECE was selected and completed the Campus ambassador Internship in Antaragni, IIT Kanpur and IIT- Delhi Rendezvous through Internshala.
- Adbul Malik H of final year ECE, got selected in the internship offered by Twin Digital Inc., Trichy
- Kavitha M of final year ECE, completed the internship offered by Mr.Cooper, Chennai
- M.Mohamed Asheef, completed the six months internship at Aheesha technologies, Chennai with a monthly stipend of Rs.10,000
- R.Mohamed Thoufik of III year, completed the internship offered by Techlearn. Live from March 2022 to April 2022
- S Saraswathy of III year ECE, completed the internship offered by Mandatory Trends Online Institute from 02.02.22 to 14.03.22
- Bashriya S of II year ECE, completed the internship offered by UNIQ technologies, Trichy in the month of May,2022
- Madhumitha R of II year ECE, completed the internship offered by NBLIK technologies,
- Madhumitha R of II year ECE, completed the internship offered by Pantech solutions private limited, Trichy from February 2022 to March 2022
- Rajakumari R of II year ECE, completed the internship offered by NBLIK technologies

Extra-curricular activities



Abdul Malik. H of Final year ECE won second place in 100m men relay. He was the captain of the sport team from MAMCET for the academic year 2021-22. Rajakumari.M of II year ECE won first place in 100 m women relay. Rajakumari.M of II year ECE won third place in throw ball women, third place in 100m, and third place in carom.

Industrial Visit

Industrial visit is considered as one of the tactical methods of teaching. Visiting industries gives students an exposure to practical working environment .It provides students a good opportunity to gain full awareness about industrial practices. Through industrial visit students get awareness about how technologies are being used in real time scenario. Visiting a company actually help students to build a good relationship with that company. After visiting an industry students can gain a combined knowledge about both theory and practical. Ultimately students will be more concerned about getting jobs after having an industrial visit. Faculties and students from II year



and III year ECE visited Sea Blue Shipyard Ltd.,(SBSL) at Kochi, Kerala. Sea Blue Shipyard Ltd. is an ISO 9001-2015 certified Shipyard based in Kochi established in 2003, registered under the Companies Act. 1956. Dr.K.Manikandan, Associate Professor/ ECE, Prof.S.Kavitha ,Associate Professor /ECE, Prof.S.Devi poonguzhali, Assistant professor/ ECE, Mrs.S.Jeyaseeli and Ms. Kalaimagal coordinated with the students for industrial visit.



Mr.Tojan.E an Engineer at SBSL had handled a session for our students and explained about the various processing units in Seablue shipyard.

SBSL is capable of undertaking the following activities:

- of vessels up to 60m long
- Dry dock repairs of vessels up to 120m in length
- Afloat repairs to ships calling at Kochi, Goa and other neighboring ports and repairs to ships offshore installation up to 120m length
- Disposal of slop from ship calling at Kochi
- Crane facility for handling materials.
- Tug Boat Service
- Erection, Commissioning and Operation of ship lift system
- Design and fabrication of IRS approved Water Tight Doors, Hatches, Windows and manholes.



Mr.Tojan.E explained the role of ECE Engineers in shipyards as follows:

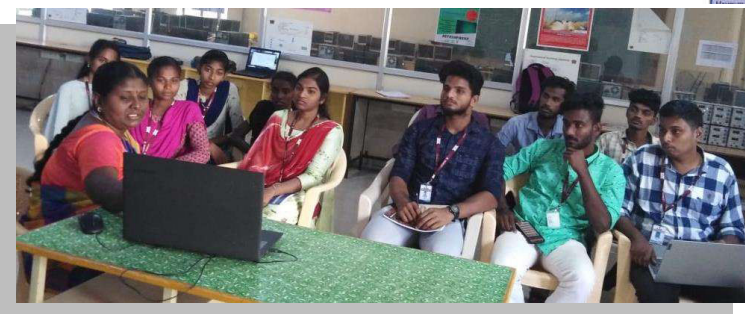
- Installation of all the electric cables on board the ship, based on the cable routing plans.
- Installation of all the electrical and electronic equipment, navigational equipment in the bridge and radar, lighting, control panels, main electrical control room panels, etc.

At the end of the industrial visit, students were able to:

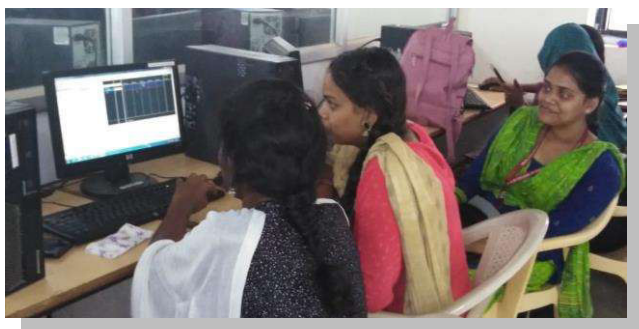
- Gain the first-hand information regarding the functioning of the Shipyard industries.
- Recognise the working units in shipyards.
- Describe the role of Electronics and Communication Engineering in Shipyards.
- Get insight into the real working environment of the shipyard industries.
- Plan, organize and engage in active learning experiences both inside and outside the classroom.

Value Added Courses

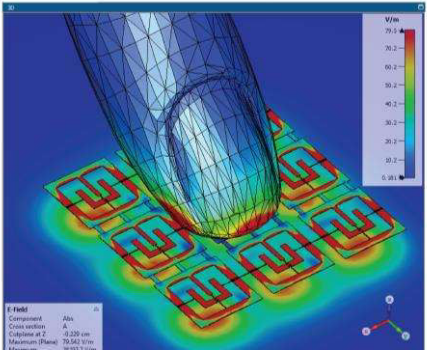
CST Studio Suite antenna design covers a wide range of antennas in devices at our homes and handheld, smart devices. CST Studio Suite offers simple-to-use tools to guide us through our antenna design and optimization process. Often times these devices contain several different antennas for communications at different frequencies. Because of



This Value Added Course is of HDL Programming from Basic (logic gate design) to Advance Design (Structural Design and State Machine Design). After completing the course student got an idea of HDL programming design methodology, FPGA Design Flow, Creating Simulation Testbench, Conditional Statements, Combinational Circuit Design with Verilog HDL, Sequential Circuit Design, Structural



Value added Course on
"Hands on training on CST Antenna Designing Tool"



Speaker

S.Kavitha
Associate Professor
Department of ECE
MAMCET

our "smart" or "connected" devices, many more companies across all industries are using EM simulation to analyze the performance of the antennas required to communicate with the world. Final year ECE students were the target audience for this course. Prof.S.Kavitha Associate professor/ECE handled the session.

Value added Course on
"VHDL/Verilog programming techniques for IC design"

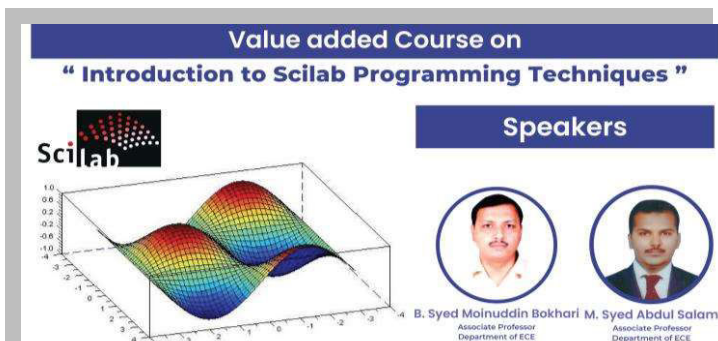


Speakers


S. Devi Poonguzhali
Assistant Professor
Department of ECE
MAMCET


A. Kaviya
Assistant Professor
Department of ECE
MAMCET

Design in Verilog HDL and State Machine Design in Verilog HDL. The participants were from III year ECE. Students were able to do the coding by themselves and design a chip using high level programming skills. Prof.S.Devi Poonguzhali , Assistant professor/ECE and Prof.A.Kaviya, Assistant Professor/ECE handled the session.



This course explained the **signals and systems** representations/classifications and also describes the **time and frequency domain** analysis of continuous time signals with **Fourier series, Fourier transforms** and **Z transforms** using **Scilab**. **MATLAB** was followed with expensive license purchase. For the scientific research community, however, there are some

free alternatives available, and Scilab is at the top of that list. Scilab is an open source, cross-platform numerical computational software and also a language of programming that is high-level, numerically oriented. It also has an integrated MATLAB translator for MATLAB users that can assist them in a smooth transition from MATLAB to Scilab. All the above explanation were given in the Hands on with Scilab software. II year ECE students were the target participants. Prof.B.Syed Moinuddin Bokhari, Associate professor/ECE and Prof. M.Syed Abdul Salam, Associate professor/ECE handled the sessions.



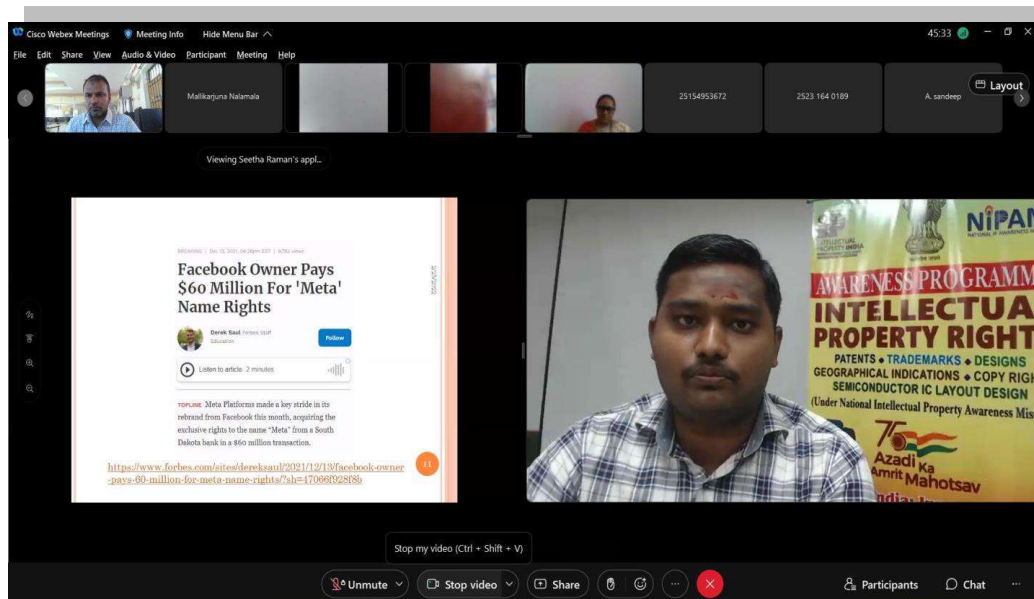
Faculty Activities

Paper published/submitted

- Dr.X.Susan Christina, Principal & Professor/ECE, published a paper entitled **“Design and Performance analysis of PhC based 4-bit all optical gray code converter for binary and BCD input”** in Optical and Quantum Electronics (Springer) vol.54, Article no:414 (2022).
- Prof.B.Syed Moinuddin Bokhari, Associate professor/ECE, submitted a paper entitled **“Detection of Black fungus disease using RNN algorithm”** in ICTACT journal on Image and video processing.
- Prof.S.Kavitha, Associate professor/ECE, submitted a paper entitled **“Diagonization of Covid' 19 by Air content Analysation”** in ICTACT journal on Communication technologies.
- Prof.S.Devi Poonguzhali, Assistant Professor/ECE, submitted a paper entitled **“Borrow select subtractor for low area efficiency design”** in ICTACT journal on Communication technologies.

Research Activities

An awareness programme on IPR (Webinar) was conducted by The Office of the Controller General of Patents, Trademarks and Designs (CGPDTM), Anna University on 25th February 2022 in association with the Department of



ECE, MAMCET. Prof.M.Syed Abdul Salam, Associate Professor / ECE, coordinated the programme. Both internal and external delegates participated and benefited from the session. The Speaker of the programme was Mr.A.Seetharaman, Examiner of Patents and

Designs, Intellectual property office, Chennai. More than 100 participants attended the programme and were issued participation certificates.

FDP attended and conducted

Department of ECE organized an FDP for all the faculty members of M.A.M.College of Engineering and Technology, Tiruchirappalli on the topic “Aal Pathi Attitude Pathi”. The speaker for the session was **Dr.H,Richard**



Raj, Softskills trainer, Tamil Nadu. The speaker gave many real time examples to improve the attitude of the faculties. More than 40 participants from all the departments participated in the programme. “Aal Pathi..Attitude

Pathii..” is an educational psychology program for understanding, predicting and controlling behaviour in learning situations. As the learning situation includes, teacher, learner, classroom environment and evaluation of their interactions, therefore, Teacher is like a philosopher who guides his student. They are responsible to be aware about growth and development of the students. This program helped them to apply psychological science to improve the teaching-learning process and promote educational success for all students.

Faculty participation -Outside

Prof.S. Kavitha Senthil delivered a talk on “Power of Women” at Hallmark business school, Trichy on March 8th, 2022. Students of the institution were trained with the personality developments and

other
related
their
career.
than



skills
to

More
120



participants were trained. Dr.B.Balamurugan, Director, Hallmark Business School, Trichy felicitated the programme.

Meetings

Class committee meetings

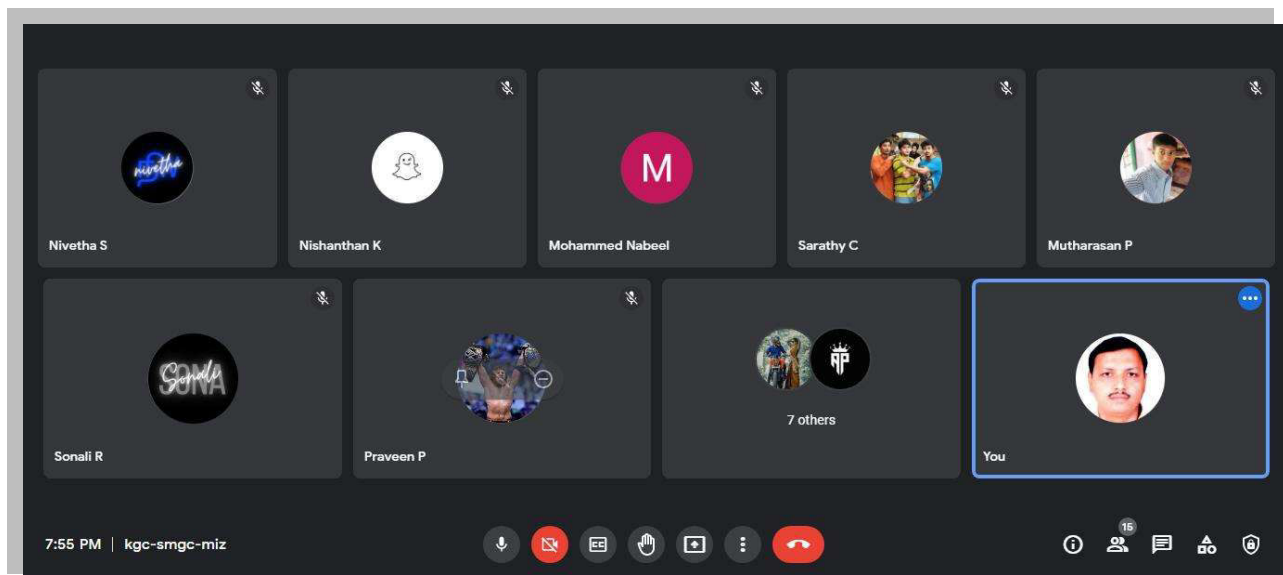
Three meetings were conducted during the month of March, April and May , 2022. **Class Committee meeting 1** for II Year ,III year and Final year was conducted on 23.03.22 and 24.03.22. **Second Class Committee meeting** for II year, III year and Final year was conducted on 27.04.22 and 28.04.22. **Third Class Committee meeting** conducted on 10.05.22 for IV year, 21.05..22 for III and IV Year students. Discussion on Student's grievances about the subjects - both theory and practical's were addressed and rectified by the respective chairpersons of each class. Corrective actions were properly identified and taken.

Parents –Teacher meetings

Parents-Teachers meeting was conducted for II, III and IV final year students 29.04.22 and 30.04.22. HoD, Mentors, Class coordinators of the respective classes organized the meeting online through Google meet. It was a one to one Parent –teacher meeting with the respective mentors. The points mainly discussed were about the attendance, academic performance, Training and placement activities. Parents were requested to take care of their wards health during the Pandemic and monitor the attendance of online academic activities of their children's'. The parents interacted about the reopening of college to attend the classes in a physical manner.

Mentor-Mentee meeting

Three meetings were conducted during the month of March, April and May, 2022. **Mentor –Meeting 1** conducted on 04.04.22, 05.04.22 and 06.04.22 for II year, III year and final year respectively. **Mentor –Meeting 2** conducted on



05.05.22 and 06.05.22 for II year, III Year and IV Year. **Mentor –Meeting 3** was conducted on 03.06.22 and 04.06.22 for II year, III Year & IV Year students. Mentors mainly concentrated on their mentees strength and motivated them during their group meetings. Their grievances and inabilities were discussed in the one –one, mentor –mentee session. Mentors mostly tried to overcome the problems faced by their mentees in that session itself. They also had a continuous telephonic conversation and motivated their mentees in all the meetings.

Soft skills Development Programmes

Training on Goal setting is planned for 2nd & 3rd Year students for the academic Year 2022-2023.

Editorial Board

Mr.S.Rajasekar,
AP/English

Dr.B.Syed
Moinuddin Bokhari,
ASP/ECE

Selvaganapathi
III yr /ECE
Madhumitha R,
II yr /ECE

Upcoming Events

PALS Activities

- PALS activities 2022-23 to be participated and organized as per the PALS 2022-23 calendar.

Association activities 2022-23

- State Level technical symposium during September 2022.
- Technical and non- technical Webinars/Seminars for the academic year 2022-23 during August-October 2022.

Hands on Training Program

- A Workshop with Hands-on-Training on "Tanner Analog IC Design: L-Edit" will be organized in tie-up with The CoreEL Technologies, Bangalore during September 2022.

Faculty/Student Participation

- Faculty and student participation in various events and activities

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