



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

NEWSLETTER- JAN- 2022

About the Department:

The Department was started in the year 2008 with an objective of creating a leader in engineering education and research with the application of knowledge for uplifting the society globally. Initially, the Department was started with an intake of 60 students and later it was increased to 120 students in the year 2011. The Department inaugurated IEEE students' chapter in the year 2012. The faculty members are consistently doing well in teaching and research activities. The Department had well established and equipped laboratories like Electrical Machines Lab, Power Electronics Lab, Power System Simulation Lab, Microprocessor Lab & Measurements and Instrumentation Lab with equipment cost of Rs. 65 Lakhs. The Department provides exposure to the students with hands-on experience on various Electrical Engineering subjects to face the challenges of the modern corporate world and to mould them as responsible citizens of the country with a willingness to serve the society.

The Department established internal Library with 400 titles and IEEE volumes for the welfare of the Faculty members and students.

VISION

To create comprehensive electrical engineers to meet up the growing technological demands of the society.

MISSION

- **Higher Order Thinking:** To impart high quality education to help the students hone their professional skills.
- **Competency:** To improve the competencies of students and faculties on contemporary technologies through continuous improvement programs.
- **Continuous learning:** To undertake research on frontier areas of electrical and electronics engineering.
- **Entrepreneurship:** To imbibe the spirit of innovation and entrepreneurship among the students

Program Educational Objectives (PEOs)

- **Employability:** Graduates will have the ability to demonstrate skills in developing innovative ideas, and in providing effective solutions to complex engineering problems thereby being productive and participative global citizens

- **Higher Education:** Our graduates will have the ability and confidence to pursue higher education or exhibit professionalism in the career or take up entrepreneurial accomplishments.
- **Entrepreneurship:** Our graduates will have the technical competency to involve in multidisciplinary research within the suitable technological, global, societal, ethical, economical, environmental and organizational context.
- **Ethical:** Our graduates will engage themselves in life-long learning thereby keeping themselves abreast of the contemporary issues.

Program outcomes (POs)

POs	DESCRIPTION
PO1	Engineering knowledge: An ability to apply the knowledge of mathematics and engineering fundamentals to provide solutions to complex Electrical Engineering problems
PO2	Problem analysis: An ability to identify and analyse the problems on electrical engineering, and formulate the solutions appropriate to the problem through structured approach
PO3	Design/development of solutions: An ability to design and develop software solutions to the problem with due considerations on socio-economical and environmental sustainability
PO4	Conduct investigations of complex problems: An ability to design and conduct experiments, analyse and interpret data to provide valid conclusions and recommendations.
PO5	Modern tool usage: An ability to use appropriate techniques and adapt modern electrical engineering simulation tools to solve intricate engineering problems
PO6	The engineer and society: Apply logic informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and recognise their responsibility relevant to the profession and explore the human side of engineering.
PO7	Environment and sustainability: Understand the role of electrical engineers in society regarding social, cultural, environmental and global responsibilities for sustainable development.
PO8	Ethics: Ability to understand and practice the professional, legal and ethical principles involved in the area of electrical engineering-
PO9	Individual and team work: An ability to function effectively as a team member or a leader focusing on a common goal in multi disciplinary settings
PO10	Communication: An ability to communicate effectively on technical activities both orally and in written form
PO11	Project management and finance: An ability to apply the knowledge of engineering and management principles to manage projects in multi disciplinary environments
PO12	Life-long learning: An ability to undertake self learning of contemporary issues and engage in lifelong learning

Programme Specific Outcome (PSO)

PSOs	Description
PSO1	Products Development: An ability to design, analysis and to implement power electronics

	converters in renewable energy applications.
PSO2	Design Thinking: A capability to design and examine the power system and to solve the unit commitment with various constraints.

• **Staff Activities**

- Dr. K. Sedhuraman, ASP/EEE has attended AICTE Training and Learning (ATAL) Academy Online FDP on “Applications of IoT in Agriculture” Gandhi Institute for Technology, 06-07-2021 to 10-07-2021.
- Dr. K. Sedhuraman, ASP/EEE has attended ATAL academy Online FDP on “Distributed Energy System Modeling and Control” Government Engineering College, Bharuch, 21-06-2021 to 25-06-2021.
- Dr. K. Sedhuraman, ASP/EEE has attended AICTE – ISTE Sponsored One Week Induction /Refresher Programme (online) on “Grid Connected Electric Vehicle Charging Station with Renewable Energy Power” 23.12.2021 to 30.12.2021.
- Dr. K. Sedhuraman, ‘V/F speed control of three phase and five phase induction motor drive: A comparative study’ Springer - Lecture Notes in Electrical Engineering, 2021, 711, pp. 1035–1054 (ISBN: 978-981-15-9019-1 (Online), 978-981-15-9018-4 (Print)) DOI: 10.1007/978-981-15-9019-1, Edition Number: 1.
- Dr. K. Sedhuraman (July 2021), ‘Implementation of Deep Learning Neural Network In Forecasting of Solar Power’, Proc. IEEE International Conference on Systems, Computation, Automation and Networking (ICSCAN 2021), Manakula Vinayagar Institute of Technology, Pondicherry, India. (ISBN: 978-1-6654-3986-2 (Online), 978-1-6654-3987-9 (Print)) DOI: 10.1109/ICSCAN53069.2021.9526487.
- Dr. K. Sedhuraman, ASP/EEE, taken Technical Lecture Series (TLS) - V titled, “Power Line Harmonic Detector” on 20th Oct. 2021.
- Dr. K. Sedhuraman, AP/EEE, delivered a special lecture on “AI techniques application to Power Dr. Electronics” on 11th Nov. 2021 for Third year EEE students.
- K. Sedhuraman, AP/EEE, delivered a special lecture on “Optimization Techniques of Power System” on 07th Oct. 2021 for Final year EEE students.
- Mr. S.Rajkumar, AP/EEE has participated & completed successfully Six days FDP on “Research Innovations and Emerging Advances in Electrical Engineering” from 14th June to 19th June 2021 at Easwari Engineering College, Chennai.
- Mr. S.Rajkumar, AP/EEE has participated & completed successfully Five days FDP on “Recent Trends and Developments in Electrical Power Engineering” from 21st June to 25th June 2021 at Chadalawada Ramanamma Engineering College (Autonomous), Tirupathi.
- Mr. S.Rajkumar, AP/EEE has attended AICTE Training and Learning (ATAL) Academy Online FDP on “Applications of IoT in Agriculture” Gandhi Institute for Technology, 06-07-2021 to 10-07-2021.
- Mr. S.Rajkumar, AP/EEE has participated & completed successfully Five days STTP on “Smart Grid And Sustainable Energy Management in Virtual Power Plants” from 26th July to 31st July 2021 at Sathyabama Institute of Science and Technology, Chennai.
- Mr. S.Rajkumar, ‘Cogging Torque Performances Evaluation Of Permanent Magnet Brushless Dc Motor Using Finite Element Analysis’, Proc. IEEE International Conference on Systems, Computation, Automation and Networking (ICSCAN 2021), Manakula Vinayagar Institute of Technology, Pondicherry, India. (ISBN: 978-1-6654-3986-2 (Online), 978-1-6654-3987-9 (Print)) DOI: 10.1109/ICSCAN53069.2021.9526487.
- Mr. S.Rajkumar, AP/EEE, taken Technical Lecture Series (TLS) - V titled, “Hybrid Automatic Irrigation System” on 27th Sep. 2021.
- Mr. S.Rajkumar, AP/EEE, delivered a special lecture on “Two port network analysis and its

applications” on 12th Sep 2021 for Second year EEE students.

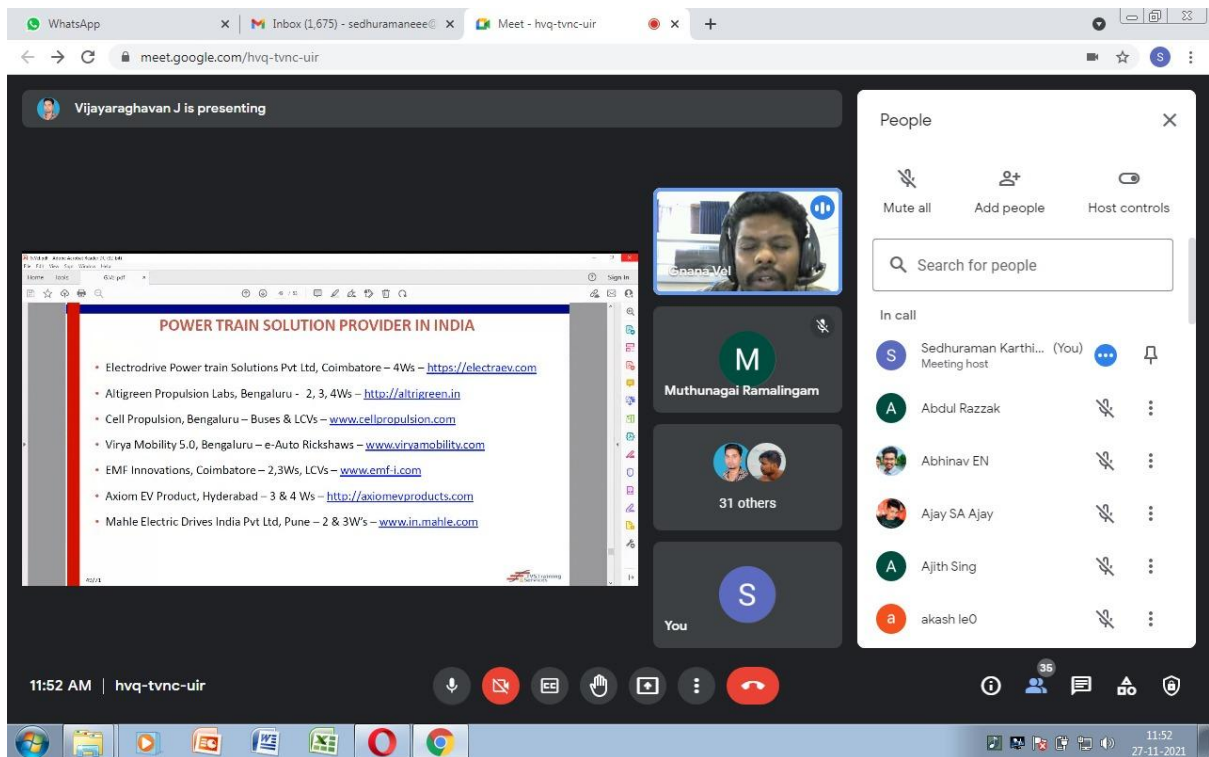
- Mr. S.Rajkumar, AP/EEE, delivered a special lecture on “Real time management applications in industry” on 21st Oct 2021 for Final year EEE students.
- Mr.D.Balaji, AP/EEE has participated & completed successfully Three days FDP on “Impact of Controllers in Power Electronics Converter for Electric Vehicles” from 1st to 3rd June 2021 at Dr.N.G.P.Institute of Technology, Coimbatore.
- Mr.D.Balaji, AP/EEE has participated & completed successfully Six days International FDP on “Challenges in Energy Management for Smart Cities” from 7th to 11th June 2021 at Centre for Renewable Energy Technology -AVIT, Chennai.
- Mr.D.Balaji, AP/EEE has participated & completed successfully Six days International FDP on “Research Innovations and Emerging Advances in Electrical Engineering” from 14th to 19th June 2021 at Easwari Engineering College, Chennai.
- Mr.D.Balaji, AP/EEE has participated & completed successfully AICTE Training and Learning Academy (ATAL) on “Electrical Vehicle Technology: Challenges and Business Opportunity” from 21st to 25th June 2021 at National Small Industries Corporation (NSIC), Hyderabad.
- Mr.D.Balaji, AP/EEE has participated & completed IEEE PELS, Madras section FDP on “Emerging Opportunities in Power Electronics and Drives” from 6th to 10th December 2021 at Vellore Institute of Technology, Chennai.
- Mr.D.Balaji, AP/EEE, taken Technical Lecture Series (TLS) - V titled, “Hybrid Solar Water Heater” on 20th September 2021.
- Mr.D.Balaji, AP/EEE has Completed NPTEL online certification Courses “Digital Circuits” on July – October 2021.
- Mr.D.Balaji & Mr.J.Vijaya Raghavan, AP/EEE presented the paper title “Automatic Speed Transmission Ratio of Linear Actuator”, Proc. IEEE International Conference on Systems, Computation, Automation and Networking (ICSCAN 2021), Manakula Vinayagar Institute of Technology, Pondicherry, India, July 2021.
- Muthunagai.R (July 2021), “Investigation of a Real Time Safety Monitoring System with Integrated Modeling Techniques” Proc. IEEE International Conference on Systems, Computation, Automation and Networking (ICSCAN 2021), Manakula Vinayagar Institute of Technology, Pondicherry, India. (ISBN: 978-1-6654-3986-2 (Online), 978-1-6654-3987-9 (Print)) DOI: 10.1109/ICSCAN53069.2021.9526487.
- Muthunagai.R, AP/EEE, taken Technical Lecture Series (TLS) - V titled, “Solar water pumping “ on Oct. 2021.
- Muthunagai.R, Assistant Professor of Manakula Vinayagar Institute of Technology has delivered a SPECIAL LECTURE ON “Condition Monitoring of Rotating Machines” for Second Year EEE students on 07-06-2021.
- Muthunagai.R, Assistant Professor of Manakula Vinayagar Institute of Technology has delivered a SPECIAL LECTURE ON “Trouble Shooting Maintenance & Protection of Electrical Motor and Drives” for Final Year EEE students on 02-06-2021.
- Mrs.R.Priya,AP/EEE has attended Faculty Development Program titled “Green Entrepreneurship and development” hosted by NITTTR, Bhopal from 14.6.2021 to 18.6.2021.
- Mr.J.Vijaya Raghavan, AP/EEE has participated & completed successfully Three days FDP on “Impact of Controllers in Power Electronics Converter for Electric Vehicles” from 1st to 3rd June 2021 at Dr.N.G.P.Institute of Technology, Coimbatore.
- Mr.J. Vijaya Raghavan,AP/EEE has participated & completed successfully Six days International FDP on “Challenges in Energy Management for Smart Cities” from 7th to 11th June 2021 at Centre for Renewable Energy Technology -AVIT, Chennai.
- Mr.J. Vijaya Raghavan,AP/EEE has participated & completed successfully Six days International FDP on “Research Innovations and Emerging Advances in Electrical Engineering” from 14th to 19th June 2021 at Easwari Engineering College, Chennai.

- Mr.J.VIJAYA RAGHAVAN, AP/EEE has participated & completed successfully AICTE Training and Learning Academy (ATAL) on "Distributed Energy System Modeling And Control" from 21st to 25th June 2021 at Government Engineering College, bharuch.
- Mr.J. Vijaya Raghavan, AP/EEE has participated & completed successfully AICTE Training and Learning Academy (ATAL) on "Application of IOT in Agriculture " from 6th to 10th July 2021 at Gandhi Institute For Technology (GIFT) Bhubaneswar.
- Mr.J. Vijaya Raghavan, AP/EEE has participated & completed BYJU's Sponsored National Level Faculty Development Program on "Smart Grid and Sustainable Energy Management in Virtual Power Plants" from 26th to 31st July 2021 at Sathyabama Institute of Science and Technology, Chennai.
- Mr.J. Vijaya Raghavan, AP/EEE, special lecture titled, "Real Time Applications using op-Amp " on 23rd oct 2021 for third year EEE students.
- Mr.J. Vijaya Raghavan, AP/EEE, special lecture titled, "Recent trends in electrical machines and its application " on 29th oct 2021 for second year EEE students.
- Mr.J. Vijaya Raghavan, AP/EEE, taken Technical Lecture Series (TLS) - V titled, "Artificial Intelligence in Power system " on 29th September 2021.
- Mr.J. Vijaya Raghavan, AP/EEE has Completed NPTEL online certification Courses "Digital Circuits" on July – October 2021

Department Activities:



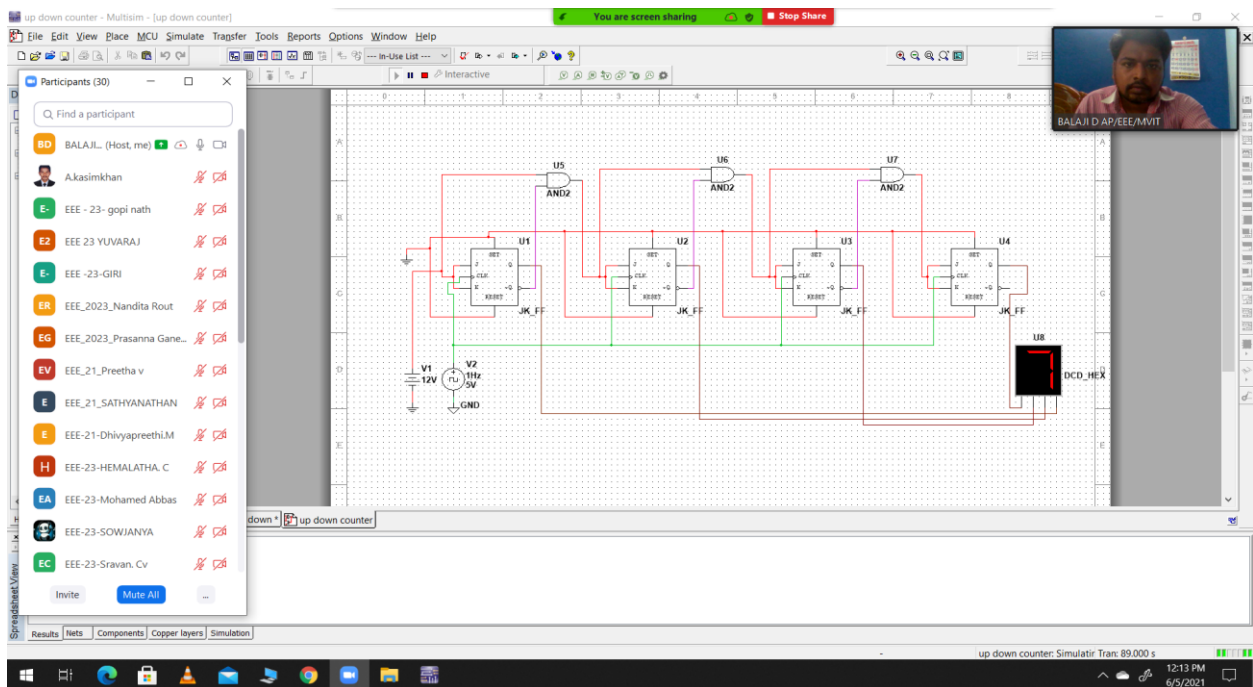
One day Internal Workshop on "An Introductory on MATLAB and Simulink" Organized by Power Electronics FSG, Department of Electrical and Electronics Engineering for III year Students on 30-10-2021



Guest Lecture on “Selection of Electric Drives For EV’s” to III year Students, delivered by Dr.C.Gnanavel, AP/EEE, AMET University, Chennai. Organized by Power Electronics FSG, Department of Electrical and Electronics Engineering on 27-11-2021



Mr.D.Balaji, AP/EEE has organized guest lecture titled - “INDUSTRY 4.0” to II, III and IV year Students on 19th November 2021 by Mr.VISHAL KUMAR, Application Engineer, Axis Global Institute of Industrial Training, Chennai has delivered Session.



FSG-Electrical Drives and Control group has conducted one day internal workshop on “Basics of Electrical Simulation Software -PV” to II, III and IV year Students on 5th Jun 2021. Mr.D.Balaji AP/EEE handled the session title “Multi-Sim” Software and their application in EEE

Dr. K. Sedhuraman, ASP/EEE, Mr.D.Balaji, AP/EEE, Special Summer Internship Online Certificate Course for 12th Students on “Electrical and Electronic Gadgets – Working Principle and Design “on 19th August to 13th August 2021



Mr. Hariharan V, Managing Director, SPACE ZEE ,Chennai has delivering the session titled “CAREER ASPECTS & OPPERTUNITIES IN ELECTRICAL ENGINEERING” to second and third year EEE students on 6.12.2021



Dr.S.Selvanathan BDS, Chief Dental Surgeon – Swasthya Dentique, Fellowship in General Dentistry (CMC-Vellore) delivering the session titled “DENTAL SCREENING AND DIAGNOSIS-GUIDANCE TOWARDS DENTAL HEALTH” on 04-12-2021.



II Year students has visited the SPINCO, THIRUBHUVANAI on 11th December 2021 as a part of Industrial Visit Activity



AHALIA SCHOOL OF ENGINEERING & TECHNOLOGY

ISO 9001:2015 Certified Institution. Approved by AICTE & Affiliated to A. P. J. Abdul Kalam Technological University
Ahalia Health, Heritage & Knowledge Village, Palakkad - 678557. Ph: 04923-226666. www.ahalia.ac.in



Ahalia Palakkad ISTE Chapter

Department of Electrical & Electronics Engineering

Webinar on
**Introductory Note to
Bio Inspired
Algorithms**

DATE &
TIME
01 Dec 2021
03.15 PM - 4.15 P M



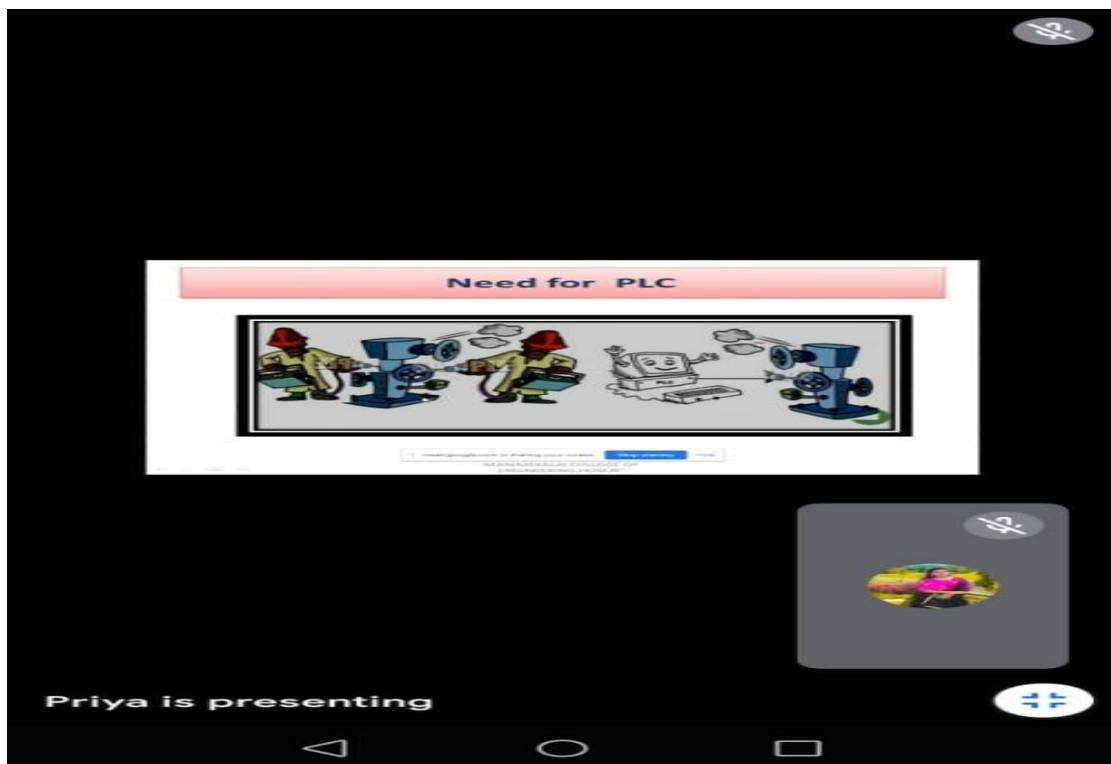

R. Priya
Assistant Professor
Manakula Vinayagar Institute of Technology,
Puducherry

<https://meet.google.com/jzz-aczd-bss>
or
open Meet and enter this code: jzz-aczd-bss

Mrs.Priya.R,AP/EEE has delivered webinar on “Introductory note to Bio Inspired Algorithms” on 1st December 2021 to Ahalia School of Engineering and Technology on virtual mode.



Mrs.Priya.R,AP/EEE has delivered guest lecture session on “Factory Automation Tools – Note to Programmable Logic Controllers” on 24th November 2021 to the EEE students of MNGP Polytechnic College, Puducherry.



Mrs.Priya.R,AP/EEE has delivered guest lecture session on “Exploring Industrial Automation tools” on 11th October 2021 to the students of Er.Perumal Manimekalai College of Engineering, on virtual mode.



Mrs.Priya.R,AP/EEE has handled awareness session on “My Waste – My Responsibility” on 24th November 2021 to the EEE students of MNGP Polytechnic College, Puducherry.

- **Student Participation:**

- Sanjay.K of Second Year EEE has participated in the 30th Senior National WUSHU (Boxing) Championship at Bhopal (MP) from 4th to 10th Dec 2021.
- Sanjay.K of Second Year EEE has participated in the Pondicherry University Selection Match Boxing Championship on 8th Dec 2021.
- Bharath Kumar.R has participated in the Pondicherry University Selection match for Handball on 20th Dec 2021.