



NEWSLETTER

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Department of
Electronics and Communication Engineering

SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)

Puducherry-605 107



SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

An Autonomous Institution

Sri Manakula Vinayagar Engineering College (SMVEC) established in the year 1999. SMVEC is an autonomous institution affiliated to Pondicherry University. It offers 14 undergraduate, 8 postgraduate, and 11 research programs in Engineering, Architecture, Management Studies and Computer Applications. SMVEC has been accredited by NAAC with "A" grade and NBA. The institution is also accredited by TATA consultancy services. The college has a good placement record with students getting job offers from top MNC companies in India and abroad. SMVEC students have won many awards and accolades for their academic achievements.

INSIDE

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Vision

To be globally recognized for excellence in quality education, innovation and research for the transformation of lives to serve the society

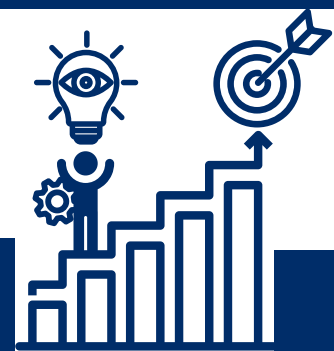
Mission

M1: Quality Education : To provide a comprehensive academic system that amalgamates the cutting edge technologies with best practices.

M2: Research and Innovation : To foster value-based research and innovation in collaboration with industries and institutions globally for creating intellectuals with new avenues.

M3: Employability and Entrepreneurship : To inculcate the employability and entrepreneurial skills through value and skill based training.

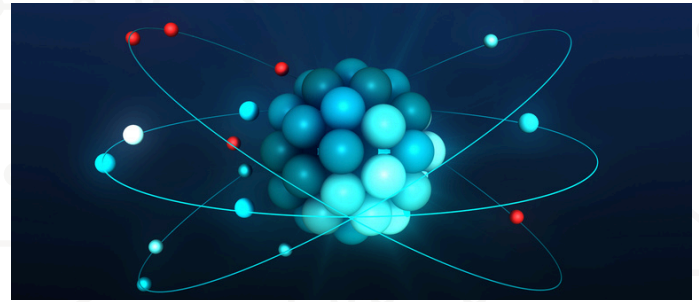
M4: Ethical Values : To instill a deep sense of human values by blending societal righteousness with academic professionalism for the growth of society.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The Department of Electronics and Communication Engineering is a top-notch department that offers high-quality UG, PG and Ph.D. programs. The UG program B.Tech - Electronics and Communication Engineering is accredited by the National Accreditation Board, AICTE-New Delhi, and has a placement record of over 89%. The department's graduates are highly sought-after by employers in the Electronics and Communication sector.

Our department contributes significantly to achieve the national objective of envisioning the world with a clear and deep commitment and a sincere desire to meet the expectations of a rising, fast-developing technology.



PROGRAMMES OFFERED

- B.Tech - Electronics and Communication Engineering
- M.Tech - Electronics and Communication Engineering
- M.Tech - VLSI & Embedded Systems
- Ph.D - Electronics and Communication Engineering

Vision



Facilitate academic excellence and research among Electronics and Communication Engineers to meet the global needs with high competence and ethical professionalism.

Mission



M1: Academic Excellence: To impart learning skills to meet the global challenges in the field of Electronics and Communication Engineering.

M2: Research and Innovation: To provide excellence in research and innovation through multidisciplinary specialization.

M3: Employability and Entrepreneurship: To enhance inter and intra personal skills among students to make them employable and entrepreneurs.

M4: Ethics: To inculcate the significance of human values and professional skills to serve the society.

FACULTY DEVELOPMENT ACTIVITIES

Mrs. V. Logisvary actively participated in a specialized training program focused on the "National Intellectual Property Awareness Mission" held on December 19, 2022. This program was meticulously organized by the Intellectual Property Office, India, as part of a broader initiative to enhance understanding and awareness of intellectual property rights across various sectors. The training aimed to equip participants with the essential knowledge and tools to navigate the complexities of intellectual property, including patents, trademarks, copyrights, and industrial designs. Mrs. V. Logisvary's involvement in this program underscores her commitment to staying abreast of critical developments in the field of intellectual property, which is increasingly vital in today's knowledge-driven economy.



GUEST LECTURE

- On December 17, 2022, Mr. Sudeep Surendran from Oracle Technology's India Development Centre in Bengaluru delivered a lecture on the "Role of Cybersecurity in Industry 4.0."
- On December 31, 2022, Er. V. Thangavelu, Manager of Control/Design Engineering at Celestica in Chennai, delivered a lecture on the "Role of Digital Electronics in Industries."
- On January 4, 2023, Dr. B. Keerthiveena, a Research Associate at the School of Artificial Intelligence, IIT, presented a lecture on the "Applications of Signal Processing in Real-Time Data."
- On January 7, 2023, Mr. N. Santhoshkumar, Senior Software Developer at Libre Wireless Technologies in Bangalore, delivered a lecture on the "Scope and Fields of Embedded Systems in Industry."
- On January 9, 2023, Mr. Arunan, Founder and Director of EXOR Robotics Private Limited in Puducherry, delivered a lecture on the "Scope of Electronics Automation and Requirements for Industry."
- On January 10, 2023, Mr. Harish Suresh, IT Analyst at Tata Consultancy Services Limited in Chennai, delivered a lecture on the "Role of Electronics in Cloud-Based Systems."
- On January 10, 2023, Mr. K. S. Vicanand, Senior Project Lead at Open RAN in Kerala, delivered a lecture on "Recent Advancements in Wireless and Cellular Communications."
- On January 11, 2023, Dr. D. Sheela, Professor at Saveetha School of Engineering in Chennai, delivered a lecture on the "Role of Optical Fibers in 5G Evolution: Challenges and Solutions."
- On January 11, 2023, Mr. M. P. Vinayaga, Technical Head at Techvolt Software Pvt. Ltd. in Coimbatore, delivered a lecture on the "Evolution of IoT in Machine Learning."
- On January 11, 2023, Mrs. A. Malarvizhi, Research Engineer at Charulinga Technologies in Coimbatore, delivered a lecture on "Overview of MATLAB and Its Applications."
- On January 11, 2023, Mr. Aurijothy Sundaramoorthy, Senior Engineer at Renault Nissan Technology & Business Centre India, delivered a lecture on "Digital Signal Processing for In-Vehicle Systems."
- On January 12, 2023, Er. Madhuvanath Selvaraj, Manager at HCL Technology's Infrastructure Services Division in Chennai, delivered a lecture on "The Emerging Technology in Vehicular Communication."
- On January 13, 2023, Mr. R. Anil Kumar, Senior Information Security Analyst at The World Bank Group in Chennai, delivered a lecture on "Parallel Switch to Cyber Security."
- On January 18, 2023, Mr. Shaik Basheeruddin Shah, Post-Doctoral Fellow at the Department of Mathematics and Computer Science, Weizmann Institute of Science, Israel, delivered a lecture on "Signal Processing and Its Applications."
- On January 19, 2023, Mr. T. Parthasarathy, Senior Engineer at Robert Bosch Engineering and Business Solutions Limited in Coimbatore, delivered a lecture on "Advancement in Electric Vehicle Technology."
- On January 21, 2023, Dr. R. Kurinjimalar, Professor in the ECE Department at Sri Manakula Vinayagar Engineering College, delivered a lecture on "Fundamentals of Electric Circuits."
- On January 21, 2023, Ms. M. Devi, Project Head at 4/232, Mudichur Road, Muthamil Nagar, Mudichur, Chennai, delivered a lecture on "MATLAB on Electric Circuits."
- On January 23, 2023, Dr. Mohammad Ameen, Post-Doctoral Fellow at the National University of Singapore, delivered a lecture on "Circularly Polarized Metamaterial Antennas."
- On January 27, 2023, Dr. V. Sandeep, Post-Doctoral Fellow at Kalasalingam Academy of Research and Education, delivered a lecture on "High-Electron-Mobility Transistor & Its Future Scope."
- On January 28, 2023, Mr. R. Ravivarman, Senior DevOps Engineer at Zoho Corporation Private Limited in Chennai, delivered a lecture on "Real-Time Applications of Embedded Systems & Its Future Scope."
- On January 28, 2023, Mr. R. Ravivarman, Senior DevOps Engineer at Zoho Corporation Private Limited, delivered a lecture on "Real-Time Applications of Embedded Systems & Its Future Scope."



STUDENTS CORNER

S. Sneha achieved notable recognition by securing the Third Prize of Rs. 500/- in the G20 Submit Elocution competition, which took place on February 8, 2023. This prestigious event was organized by the Puducherry Council for Science and Technology, under the Department of Science, Technology, and Environment. The competition featured a diverse array of participants presenting on significant topics related to the G20 agenda. Sneha's award underscores her exceptional oratory skills and her capacity to articulate complex ideas clearly and persuasively, contributing to the broader discussions on global and scientific issues. Her success in this competitive forum highlights her dedication and talent in public speaking and thought leadership.



RESEARCH ACTIVITIES

Proposal submitted to various Funding Agencies



Dr.P.Raja and Dr.N.Saranya has the submitted 3 year proposal on "Indigenous Development of UWB microwave imaging system(MWI) for Early Breast Cancer Detection " for Rs. 23,50,000/-.



Patents

- **J. Soundararajan**, K. Jambulingam, V. Logisvary, V. Prasannavasan, S .Balavinayaga, E. Kiruthivaas, M. Naveen have filed for the patent title, "Anti-theft system for automobile wheels".
- **R. Kalaiyarasan**, N. Sundar Ganesh, V. Surender, V. Vigneshwaran, P. Saravanan have filed for the patent title, "Nomex as an antflammable protection for batteries in electric vehicles".

Publications

- **R. Gayathri**, K. Sneha, T. Shakila, K. Thatchitha, and V. Saumya published their study on "Power Lines and Lane Detection Using Deep Learning–Based YOLO V5 Algorithm for Smart Agriculture" in *The Journal of Data Acquisition and Processing*, focusing on applying advanced YOLO V5 deep learning techniques to enhance agricultural automation through precise power line and lane detection.
- **N. Jothy**, R. Manibharathi, T. Sivaraj, and V. Srivinas published "A Random Forest Algorithm–Based Dark Objects Visualization" in the *Journal of Data Acquisition and Processing*, exploring the use of random forest algorithms to improve the visualization and analysis of dark objects in various data acquisition contexts.
- **N. Jothy**, S. Ranjith, J. Rajesh, and S. Surjith developed the "Design of Long–Range MI–WI Based Borewell Child Rescue System," focusing on creating an advanced system for efficiently locating and rescuing children trapped in borewells using MI–WI technology for enhanced range and effectiveness.
- **P. Srividhya** and K. Dhanasekaran presented "New Advances in Image Recognition Using Deep Learning" at the International Conference on Innovative and Cutting Edge Technologies in Electrical, Electronics, Computer Engineering, and Information Technology (ICICECI'22), highlighting recent breakthroughs and applications of deep learning techniques in enhancing image recognition capabilities.
- **S. Dhivya**, K. Vijayakumar, and S. Nigithadharshini presented "A Scrutiny on Diversified Techniques for Air Pollution Level Detection Based on IoT Applications" at the International Conference on Emerging Innovative Technologies in Engineering, exploring various IoT–based methods for monitoring and analyzing air pollution levels to improve environmental health and safety.
- **S. Mohanram**, Balamurugan V., Goventhan M., and Rajeshvaran N. presented "Glaucoma Detection Using CNN Ensemble Classifier and OTSU Thresholding Algorithm" at the International Conference on Circuit, Power and Computing Technologies (ICCPCT-2023), demonstrating how integrating CNN–based classifiers with OTSU thresholding enhances the precision and effectiveness of glaucoma detection in medical imaging.

WORKSHOPS

- On December 17, 2022, Mr. Sudeep Surendran conducted a 1-day workshop on the "Role of Cybersecurity in Industry 4.0," with 47 participants.
- From December 29, 2022, to January 3, 2023, Dr. N. Saranya led a 5-day workshop on "PCB Design and Challenges," attended by 100 participants.
- On December 31, 2022, Er. Thangavelu from the Hardware Platform Solution Group in Chennai delivered a 1-day workshop on the "Role of Digital Electronics in Industries," which was attended by 75 participants.
- On January 6, 2023, Dr. B. Keerthiveena from IIT Delhi conducted a 1-day workshop on "Applications of Signal Processing in Real-Time Data," with 76 participants.
- On January 7, 2023, Mr. N. Santhoshkumar from Libre Wireless Technologies in Bangalore conducted a 1-day workshop on the "Scope and Fields of Embedded Systems in Industry," with 70 participants.
- On January 9, 2023, Mr. Arunan from EXOR Robotics Pvt. Ltd. in Puducherry conducted a 1-day workshop on the "Scope of Electronics Automation and Requirements for Industry," with 51 participants.
- On January 10, 2023 Mr. Harish Suresh from TCS Chennai conducted a 1-day workshop on the "Role of Electronics in Cloud-Based Systems," with 76 participants.
- On January 10, 2023, Mr. K. S. Victanand from Open RAN in Kerala conducted a 1-day workshop on "Recent Advancements in Wireless and Cellular Communications," with 71 participants.
- On January 11, 2023, Dr. D. Sheela from Saveetha School of Engineering in Chennai conducted a 1-day workshop on the "Role of Optical Fibers in 5G Evolution: Challenges and Solutions," with 72 participants.
- On January 11, 2023, Mr. M. P. Vinayaga from Techvolt Software Pvt. Ltd. in Coimbatore conducted a 1-day workshop on the "Evolution of IoT in Machine Learning," with 71 participants.
- On January 11, 2023, Dr. D. Sheela from Saveetha School of Engineering in Chennai conducted a 1-day workshop on the "Role of Optical Fibers in 5G Evolution: Challenges and Solutions," with 72 participants.
- On January 11, 2023, Mr. M. P. Vinayaga from Techvolt Software Pvt. Ltd. in Coimbatore conducted a 1-day workshop on the "Evolution of IoT in Machine Learning," with 71 participants.
- On January 11, 2023, Mr. Aruljothy Sundaramoorthy from Renault Nissan Technology & Business Centre India conducted a 1-day workshop on "Recent Trends in Digital Signal Processing for In-Vehicle Systems," with 60 participants.
- On January 11, 2023, Mrs. A. Malarvizhi from Charulinga Technologies in Coimbatore conducted a 1-day workshop on the "Overview of MATLAB and Its Applications," with 71 participants.
- On January 12, 2023, Er. Madhuvanath Selvaraj from HCL Technologies in Chennai conducted a 1-day workshop on "The Emerging Technology in Vehicular Communication," with 56 participants.
- On January 13, 2023, Mr. R. Anil Kumar from The World Bank Group in Chennai conducted a 1-day workshop on "Parallel Switch to Cyber Security," with 55 participants.
- On January 18, 2023, Mr. Shaik Basheeruddin Shah from the Weizmann Institute of Science in Israel conducted a 1-day workshop on "Signal Processing and Its Applications," with 56 participants.
- On January 19, 2023, Mr. T. Parthasarathy from Robert Bosch Engineering and Business Solutions Ltd. in Coimbatore conducted a 1-day workshop on "Advancement of Electric Vehicle Technologies," with 60 participants.
- On January 21, 2023, Dr. R. Kurinjimalar conducted a 1-day workshop on "Fundamentals of Electric Circuits," with 50 participants.
- On January 28, 2023, Mr. R. Ravivarman from Zoho Corporation Pvt. Ltd. in Chennai conducted a 1-day workshop on "Real-Time Application of Embedded Systems & Its Future Scope," with 73 participants.



INDUSTRIAL VISIT

Our **third-year students** participated in a series of industrial visits aimed at enhancing their practical understanding of various sectors and technologies.

- **Sai Tech Engineers Pvt Ltd (January 6, 2023):** The students explored real-world operations and processes within an industrial setting, gaining insights into the day-to-day activities and workflows of the company.
- **Mobitech Wireless Solutions Pvt Ltd (January 6, 2023):** This visit focused on networking skills, team dynamics, and problem-solving. The students learned about the importance of teamwork and decision-making in a technological environment.
- **Annai CNC Machinery Pvt Ltd (January 6, 2023):** The students gained hands-on experience with computer-controlled machinery used to cut various materials. This visit helped them understand practical challenges and applications relevant to their future careers.
- **Associated Transformers Private Limited (January 7, 2023):** Students were introduced to the manufacturing process of transformers. They became familiar with the steps and processes involved in transformer production.
- **Auroville Electrical Service (February 3, 2023):** The visit covered power transition patterns, the study of AC and DC machines, and the maintenance of solar panels. Students learned about electrical analysis and the operational aspects of various electrical units.



Sai Tech Engineers Pvt Ltd



Mobitech Wireless Solutions Pvt Ltd



Annai CNC Machinery Pvt Ltd



Associated Transformers Private Limited



Company Overview



Auroville Electrical Service

PROFESSIONAL BODIES ACTIVITIES

The Institution of Electronics and Telecommunication Engineers (IETE)



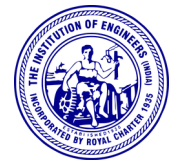
- A unique workshop, "**PCB DESIGN AND CHALLENGES**" was conducted from the 26th of December 2022 till the 5th of January 2023 for the first-year students of the ECE department in the IDEA Lab to make them learn about the importance of PCB designing along with its challenges in these PCB workshop where individuals are learn about and work with printed circuit boards. This workshop include hands-on training in PCB design, manufacturing, and assembly techniques, as well as access to equipment and resources for creating



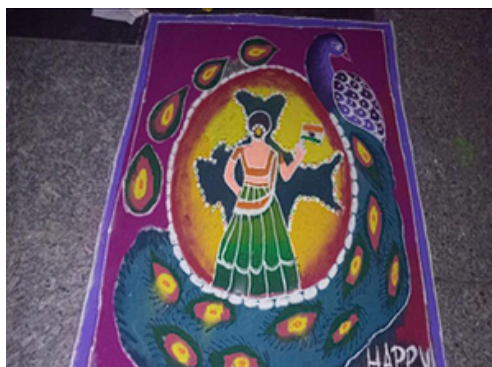
- "INNOTECH" was a paper presentation contest conducted especially for the students of the ECE department. The major focus of this event is to motivate the students to do presentations based on the domains that we've provided. This made them gain in-depth knowledge about the domains and improved their confidence. This contest was conducted on January 4, 2023.



The Institution of Engineers (India) IEI



The **Patriotic Rangoli Creation Contest** was held on January 25, 2023, in the Lecture Hall, with 50 students participating. The event celebrated creativity and patriotism, as students showcased their artistic skills by designing beautiful rangoli patterns inspired by national themes. Participants used vibrant colors and intricate designs to express their love for the country, making the contest a visually captivating and inspiring experience. The event fostered a sense of unity and pride among the students, while also enhancing their artistic talents.



PLACEMENT RECORD

Company-wise Placements

S.No.	Company	Package (Lakhs per Annum)	Offers
1	MICROCHIP	10	2
2	Avalon	3.00	2
3	CARATLANE	4.00	1

Congratulations to All Placed Students

PLACEMENT TRAINING

MICROCHIP Specific Training



Microchip Technology Inc., which is a leading provider of microcontroller, mixed-signal, analog, and Flash-IP solutions. They offer a wide range of products and services for various industries including automotive, industrial, consumer, aerospace, and defence

Microchip specific Training is conducted by Aptitude Buster, FacePrep and Alumni. Total of 80 students from the Department of ECE has attended. For 1 week, the training is conducted for the following skills:

- Aptitude Skills
- Domain-Based Skills
- Communication Skills
- Technical Interview
- HR Interview



Training on Technical Skills

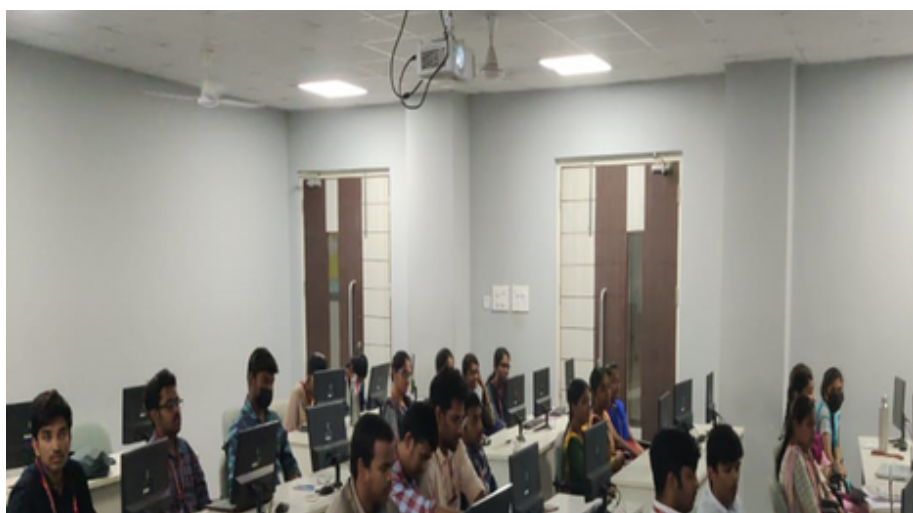
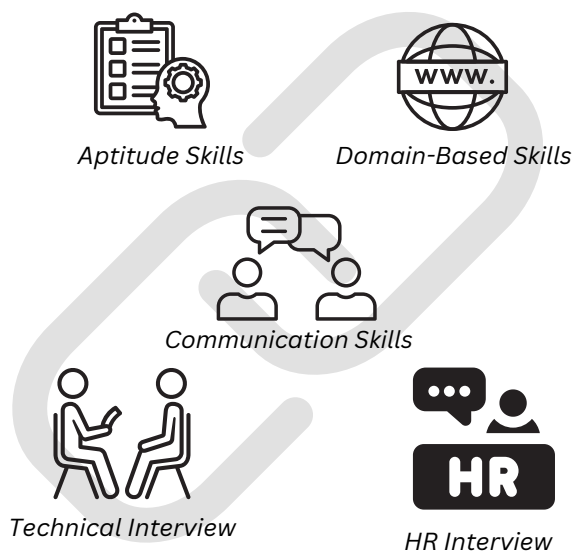
PLACEMENT TRAINING



PEGA Systems Training

Pega Systems, often referred to simply as Pega, is a software company known for its Pega Platform, which provides tools for customer relationship management (CRM), business process management (BPM), and robotic process automation (RPA). Pega's platform allows organizations to build and deploy enterprise applications to streamline processes, improve customer engagement, and drive digital transformation.

Pega specific Training is conducted by Pega. Total of 19 students from the Department of ECE has attended. For 6 months, the training is conducted for the following skills:



Session on Hands on Training Conducted by PEGA Systems

EDITORIAL BOARD

Editor In Chief

Dr. P. Raja

Professor and Head, Dept. of ECE

Staff Coordinator

Dr. S. Dhivya

Assistant Professor, Dept. of ECE

Year Coordinators

Dr. N. Jothy

Final Year

Dr. P. Arunagiri

Third Year

Dr. S. B. Lenin

Second Year

Dr. R. Kurinjimalar

First Year

Student Coordinators

Ishwar.V

Final Year – A

Jaya Vignesh.S

Final Year – A

Dinakar.G

Third Year – A

Loga Sankar .D

Third Year – A

Preneshwar.S.A

Second Year – A

Preethika.M

Second Year – A

Ramya Devi.M

Second Year – A

Anandkumar.C

Final Year – B

Balavinayaga.S

Final Year – B

Keethivasan.A

Third Year – B

Krishnaraj.R

Third Year – B

Praveen.S

Second Year – B

Ranjith Kumar.S

Second Year – B

Sarmini.M

Second Year – B

Alagamma.V

Final Year – C

Agarvin.B

Final Year – C

Ajaydev.C.R

Final Year – C

Dhanajayan.D

Third Year – C

Divya.K

Third Year – C

Nirmal.K

Second Year – C

Pachaiyappan.S

Second Year – C

Sharaan.V

Second Year – C