

MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY Kalitheerthal kuppam, Madgadipet 605107

NEWS LETTER (OCTOBER 2019)









DEPARTMENT OF ELECTRONICS AND COMMUNICATION

ABOUT THE INSTITUTION



Manakula Vinayagar Institute of Technology (MVIT) was established in 2008, with a view to provide quality technical education to young aspirants. The institution is affiliated to Pondicherry Central University and is approved by AICTE, New Delhi.

Our college is professionally managed and guided by the members of the board of Management with vast experience, knowledge and academic excellence, with a vision to achieve the most preferred position globally.

The high performance of our Institution is witnessed by the results produced by our students in the university exams. Our Institution has acquired enviable status for maintaining highest order of discipline.

MVIT is revitalizing itself, to face the challenging expertise with reputed team of faculty. We facilitate to produce efficient Professionals who can meet the demands of the expectations and shine in their profession through innovative ideas, knowledge and team work.

CHAIRMAN'S MESSAGE



Sri Manakula Vinayagar Educational Trust was formed with the objective of imparting quality technical education, medical education and other relevant field of education especially to the weaker section of the society.

The Trust is sponsoring the colleges with the state of art facilities and modern technologies for making our students employable as well as to become successful entrepreneurs. We are running all the colleges in the highest order of discipline among the students and personally take care of their studies, successful completion of the course. We take utmost care about students future and also believe that they all are our customers.

All the colleges have got highest order of discipline, won the reputation and opinion of public and industrialists. That is the success of our institutions which makes us to be a leader in Education.

VICE CHAIRMAN'S MESSAGE



The transition from school to college is a very big step in life. By choosing to create a future for yourself from our institution means that we, the teachers and management at MVIT are responsible for your successful graduation and growth. You will cherish every day at your college, right from day one, you will feel welcome by all of us here – your seniors, your new professors, and members of administration you will get to interact with. What's more the energetic environment will have you charged up to achieve your dream with confidence like never before.

It is your career path that you have now embarked upon, which will be a remarkable journey in itself that will prepare you for a life beyond college. We pray and will work with you to see you become one with the society where your contribution will make a definitive difference to our world.

The commitment from us begins from day one to work with you and walk with you through each day all through the years you will spend here which is your home away from home. The learned staff members and the ever accessible Management are always with you to guide you through your path and help you nurture your dreams and fulfill them – by empowering you to realize your true potential. Be it studies, sports or any extracurricular activities, you don't just graduate with a degree and a certificate – but become a graduate of life and a true citizen of the world of tomorrow.

SECRETARY'S MESSAGE



It give me immense pleasure to present few words as prologue to Seventh Issue of MVIT News Letter. I congratulate all the faculty and students and the editorial board for bringing out such a beautiful issue. Empowerment of students for their all round development through education is our appreciated motto.

Today Higher Education means much more than merely acquiring knowledge. It is acquisition of knowledge and skills, building character and improving employability of our young talent, the future leadership.

I am proud of being the Secretary of SMVE Trust dedicated to the causes of better India. Come a let's give our best and make the institution as a modern temple of learning through our diligence, devotion and dedication. Wishing you all the best...!

PRINCIPAL MESSAGE



My heartiest welcome to all the young and budding Engineers who have joined in Manakula Vinayagar Institute of Technology (MVIT). With the guidance of our respected Chairman and Vice Chairman, with the help of highly qualified and dedicated faculty team, we will be moulding the students to the required shape which will make them industry-ready, employable and well disciplined.

The Manakula Vinayagar Institute of Technology will strive hard to provide pleasant ambience and conducive atmosphere for moulding the young minds to scale greater heights in their chosen field of study. In our college we give top priority to academic excellence, innovation, and discipline. An effective Training and Placement Cell is in place to provide placement to all our students. Focus is given to Extra Curricular and Co-Curricular activities through various clubs and societies instituted to augment the students skills and knowledge.

A state-of-the-art and up-to-date infrastructure facilities and good learning atmosphere are the hallmarks of our Institution. I hope all the students admitted in this Institution will enjoy their study in the campus. Let us all come together, build together, and achieve together with the blessings of Almighty for Tomorrow's India.

ABOUT THE DEPARTMENT

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

NBA ACCREDITED

The Department was established in the year 2008 focusing to develop the skills of modern youth in the field of Electronics and Communication Engineering. Adequate emphasis is given to electronic design using modern teaching methodologies. Emphasis is also given to the development of soft and hard skills. Utmost care is taken in the perspective of imparting more practical knowledge to the student's community in the field of Electronics and Communication.

VISION

The department aspires to produce dexterous professionals, competent Researchers and entrepreneurial leaders for the benevolence of the society.

MISSION

Higher Order Thinking: To invoke higher order thinking among the students by means of comprehensive teaching and learning process.

Competency: To provide training on cuttingedge technologies to improve the competency of the students.

Continuous learning: To promote innovation through providing state of-art facilities and active industry institute interaction.

Entrepreneurship: To facilitate the students to improve their leadership and entrepreneurship skills with ethical values.

PROGRAMME EDUCATIONAL OBJECTIVES

Graduates of Electronics and Communication Engineering will

PEO1: **Employability:** Our Graduates shall be suitably employed in allied industries/services with professional competency and knowledge of modern tools..

PEO2: **Higher Education**: Our Graduates shall be capable to pursue higher studies/research in the field of engineering and management.

PEO3: **Entrepreneurship:** Our Graduates shall be prepared for a successful career by meeting ever increasing demands required by Electronics and communication profession and enable them to become an entrepreneur.

PEO4: **Ethical**: Our Graduates cultivate professional and ethical attitudes with effective communication skills, team work and multidisciplinary approach related to engineering issues.

PROGRAMME OUTCOMES

Engineering Graduates of will be able to:

PO1: **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal and environmental considerations.

PO4: **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PROGRAMME OUTCOMES

PO5: **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAMME SPECIFIC OUTCOMES (PSOS)

PSO1: **Products Development:** Use modern tools to design subsystems for simple applications in Embedded Systems and VLSI.

PSO2: **Design Thinking:** Apply engineering concepts to find solutions in the fields of Communications, Signal/Image Processing.

Mr.S.Arunmozhi conducted a one day workshop on "Engineering Mathematics" for Mathematics faculties on 3rd May 2019.

Dr.R.Valli, Mr.S.Arunmozhi, Dr.G.Idayachandran, Dr.S.Padmapriya, Mr.E.Ramassamy, Mr.M.Sivaraj, Ms.G.Sharmila, Ms.R.Vithiya, Ms.S.Karthika, Mr.R.Runithalakshmi, attended IEEE sponsored Faculty Development Programme on "The Impact – Skill Development for Class Room Management" conducted by R & D Cell, MVIT from 29th May to June 1st 2019.



FDP on "The Impact – Skill Development for Class Room Management"

Mr. Gowshameed attended a workshop on "Salesforce Essentials for Business Specialists" conducted by ICT Academy from 27th to 31st May 2019 at our college.

Dr.D.Saraswathi and Ms.B.Lakshmi Priya attended One Week FDP on "Machine Learning Applications in Signal Processing" at NIT Warangal, from 4th to 9th June 2019.

Mr.Gowshameed, Mr.V.Rajesh, Mr.K.Kumaran, Ms.Punithavathy, Dr.D.Saraswathi and Ms.B.Lakshmi Priya attended the IEEE sponsored Faculty Development Programme on "The Impact – Skill Development for Class Room Management" conducted by R & D Cell, MVIT from 10th to 12th June 2019.

All faculty members attended "Transforming Instruction using Blended Learning" conducted by Dr.G.Janardhanan, Associate Professor and Head, Centre for Environment Management; National Institute of Technical Teachers Training and Research (NITTTR) Chennai on 2nd June 2019 at our college.

Mr.S.Arunmozhi and Dr.R.Valli were invited as jury members to evaluate the students projects at project expo conducted at Amalorpavam Higher Secondary School, Puducherry on 6th July 2019.

Dr.R.Valli and Dr.S.Arunmozhi attended the Workshop III on "Leadership Development Programme" conducted by AICTE in association with UKIERI (UK – India Education and Research Initiative) at Shillong, during 19th to 22nd June 2019.



AICTE in association with UKIERI Sponsored Workshop on "Leadership Development Programme"

Dr.D.Saraswathi and Ms.B.Lakshmi Priya were invited as resource persons to conduct a Hands-on session on "Image Fusion using MATLAB" conducted as a part of One Week Workshop on "Image Fusion and Multimodal Imaging – Fundamental to Advanced" on 18th July 2019 at M.S.Ramaiah Institute of Technology, Banglaore.



Hands-on session on "Image Fusion using MATLAB" at M.S.RIT, Bangalore

Dr.S.Arunmozhi and Dr.R.Valli participated in EDUMEET on Factory Automation organized by Mitsubishi Electric India at MIT, Chennai on 8th August 2019.

One day workshop on "Machine Learning using Python" was conducted for III ECE A and B on 8th and 9th July 2019 respectively. The workshop was handled by Dr.D.Saraswathi and Ms.B.Lakshmi Priya.



Internal workshop on "Machine Learning using Python"

Dr.M.Jayekumar was invited as delegate to conduct Orientatation Programme on the title "Developing Student's Employability Skills" for 1st year students of Mothilal Nehru Govt. Polytechnic College, Puducherry on 26th July 2019.



Orientatation Programme on "Developing Student's Employability Skills"

One day **workshop on "Digital Image Processing using MATLAB"** was conducted for IV ECE A and B on 18th and 19th September 2019. The workshop was conducted by Dr.D.Saraswathi and Ms.B.Lakshmi Priya.

Dr.R.Valli attended the Regional Mentoring Session for Proof of Concepts and Orientation Session on IIC 2.0 & ARIIA 2020 conducted at Vel Tech Rangarajan Dr. Sakunthala R & D Institute of Technology, Chennai on 31st July 2019.



Orientation Session on IIC 2.0 & ARIIA 2020

Dr.Idayachandran and Mr.V.Rajesh given seminar on "How to choose projects on RF and VLSI" for IV year ECE on 2nd July 2019.



Internal seminar on "How to choose projects on RF and VLSI"

Guest lecture on "AI for Web Development" was conducted for III ECE students on 10th August 2019. The resource person was Mr. P.Ganesh, Sr.Software Engineer, DELL EMC, Bangalore and the arrangements were made by Dr.D.Saraswathi.



Industrial Guest lecture on "AI for Web Development"

Dr.D.Saraswathi and Ms.B.Lakshmi Priya were invited as resource persons for Two Day Workshop on "Deep Learning Models for Signal and Image Recognition using Python" organized by PES University, Bangalore on 1st and 2nd August 2019.



Two Day Workshop on "Deep Learning Models for Signal and Image Recognition using Python" at PES University, Bangalore

Dr.D.Saraswathi and Ms.B.Lakshmi Priya conducted a Two Day Workshop on "Deep Learning using Python" for the second round shortlisted students of all departments of TCS HumAIn contest on 22nd and 23rd August 2019.

Dr.S.Arunmozhi conducted a one day workshop on "MATLAB Basics" was conducted for II ECE A and B students on 23rd and 25th September 2019.



Internal Workshop on "Deep Learning using Python"



One day Internal workshop on "MATLAB Basics"

Dr.D.Saraswathi and Ms.B.Lakshmi Priya were invited as resource person to conduct a one day workshop on **"Deep Learning using Python" at MOP Vaishnav College of Women**, Chennai on 13th September 2019.



One day workshop on "Deep Learning using Python" at MOP Vaishnav College of Women, Chennai

Two days workshop on Microprocessor and Microcontroller using Keil μ Vision and Proteus Software was conducted for III year A and B section on 24th and 26th September 2019 by Ms.G.Sharmila and Ms.S.karthika.



Internal Workshop on Keil µVision and Proteus Software

Ms.G.Sharmila handled an activity based Technical Training session on "Microprocessor and Microcontroller" for ECE IV year students on 18th and 20th June 2019.



Blended Learning session For IV year on Microprocessor and Microcontroller

Dr.S.Padmapriya attended a one Week AICTE sponsored STTP on "Emerging Trends and Applications of Multiresolution Analysis Techniques in Wireless Communication" organized by the department of ECE, PEC from 16.09.2019 to 21.09.2019.

One day workshop on **LTSPICE** was conducted for II ECE A and B students on 24th and 26th September 2019 respectively. The workshop was conducted by Mr.V.Rajesh and Mr.K.Kumaran.



Internal workshop on "LTSPICE"

The following staffs were Presented a technical lecture on the topic includes Recent Technology,

Working of Modern Electronic Devices and Reason behind the Science.

NAME OF THE STAFF	ΤΟΡΙΟ	DATE OF PRESENTATION
Dr.S.ArunMozhi	LI-FI TECHNOLOGY	27.06.2019
Dr.R.Valli	BLIMP CELL SERVICE	26.06.2019
Dr.M.Jayekumar	HIGH ALTITUDE AERONAUTICAL PLATFORM STATION (HAAPS)	29.07.2019
Dr.D.Saraswathi	MACHINE LEARNING	28.06.2019
Dr.G.Idayachandran	EM SENSORS	02.07.2019
Mrs.B.Lakshmi Priya	APPLICATIONS OF AI	04.07.2019
Dr.S.Padmapriya	THE 5G: BOON OR CURSE??	03.07.2019
Mr.Rajesh	REVOLUTION OF DISPLAYS IN TELEVI- SION	24.09.2019
Mr.K.Kumaran	HOW TO BUY A SMARTPHONE	23.08.2019
Mr.E.Ramassamy	MOBILE RADIO SYSTEM- CALL ESTAB- LISHMENT	25.09.2019
Mrs.R.Vithiya	RO WATER PURIFIER	27.08.2019
Ms.G.Sharmila	KNOW YOUR WORLD	28.08.2019



Technical Series I and II

Dr.D.Saraswathi conducted activity based training on "Language Skill" for I yr MBBS students as a part of their induction programme on 03.09.2019 & 09.09.2019.



One week Programme on "Language Skill" for M.B.B.S students

STUDENTS ACTIVITIES

Manoj Kumar.K and Seenuvasan.G of III ECE attended a TNSCT sponsored National Workshop on "Recent Trends in Artificial Intelligence and Robotics" conducted at Sri Sairam Engineering College, Chennai on 10th and 11th June 2019.

P.Vasanthakumar of IV ECE B got an offer in Zoho in the recruitment drive conducted on 21st June 2019.



"Zoho Placed Students"

S. Balaganapathy of III ECE and A.Angela Sherlin of IV ECE have cleared the first round of TCS Code Vita Contest.

Shaalini Devi, Geetha Mahalatchoumy, Suhas.E, Monika.S, G.Yaghini from II year ECE were participated in Innovators' Day a National Level Project contest conducted by Sri Manakula Vinayagar Institute of Technology, Puducherry.

One day workshop on "Arduino" was conducted for the students on II ECE B on 6th July 2019. The workshop was conducted by Dharanidharan, Vijayshree, Gavya, Siranjeevi, Mohammed Abdulla, Suhas, Akaash and Velprasath of III ECE.



Students Volunteers Conducted One day workshop on "Arduino"

Manojkumar.K, Karthikeyan, Syed Abdur Rahman, K.Seenuvasn participated in the Grand Finale of Smart India Hackathon Hardware Edition at NIT Trichy held from 8th to 12th July 2019. The team displayed the project on "Hydrogen Vehicle" under the category of Smart Vehicles.



"Smart India Hackathon 2019" at NIT Trichy

Vignashvaran.V from IV year and Vidya Sagar from III year have participated in VIBRANCE'19 a **National Level Inter college Cricket tournament** and won **Runner up Trophy** conducted at VIT, Chennai on 19th April 2019.



National Level Inter college Cricket tournament at VIT, Chennai

Three batches of students exhibited their projects during Regional Mentoring Session for Proof of Concepts conducted at Vel Tech Rangarajan Dr. Sakunthala R & D Institute of Technology, Chennai on 31st July 2019.

A.Shabana Parveen and T.Priya dharshini from II year have participated in Paper Presentation a technical event at Hindustan Institute of Technology, Coimbatore on 21st August 2019.

MVIT Dream students P.Pravin, L.Sirejeevi, S.Arivazhagi, Jana.G.V and S.Thasbeeha Thasleem from III year were participated in "Garnishing Talent" a training program to educate the Industry knowledge to the students which was organized by CII and Eaton Quality Power Pvt. Ltd., Puducherry on all Saturdays from 3rd August to 28th September 2019.



MVIT Dream Students at "Garnishing Talent" sponsored by CII and Eaton Quality Power Pvt. Ltd., Puducherry

ManojKumar.K and Seenuvasan.G won **First prize** in MINDSPARKATHON'19 a technical fest conducted at **IFET college of Engineering, Villupuram** on 24th August 2019.



Project Contest conducted at IFET college of Engineering

ManojKumar.K from III Year ECE has participated and Won **First Prize** in YESIST-12, an **International project competition** organized by the **IEEE Education Society** to inspire and acknowledge the upcoming engineers across the globe conducted at Kongu Engineering College on 6th July 2019.

6 batches of students submitted their ideas for green business ideas competition "Climate Launchpad". 2 teams, S.Dharanidharan and P.Vijayshree of III ECE, A.Yogalakshmi and A.Niranjani of IV ECE were shortlisted for next round.

Janani.R, Geetha Mahalatchoumy, Suhas.E, Vijay Balaji and S.Monicka from III year have attended the boot camp organized by Climate launchpad team conducted at Pondicherry University.

Arjunraam, Gurunathan, Aswin Sam and Abinash of II ECE A participated in Machine Learning in Image Processing at Kongu Engineering College on 8th and 9th July 2019.

P.Manjari of IV ECE B got job offer in HCL Technologies, in the recruitment drive conducted at SMVEC on 21st August 2019.

IV and III year students shortlisted for 3rd round of TCS Humain contest have submitted their video presentation.

II and III YEAR ECE students participated in Idea Presentation Contest on "Technology for Rural India" conducted by Technical Club on 17th September 2019.



MVIT Technical Club conducted a Presentation Contest on "Technology for Rural India"

Angela Sherlin from IV year ECE shortlisted in TCS Code Vita Season 8 and got job offer in TCS through this competition.

Guest lecture on "Robotics and Automation" was organized on 12th June 2019. The resource person was Mr. Baskar from Corner Stone Technologies.



Guest lecture on "Robotics and Automation" given by Mr.Baskar from Corner Stone Technologies

Guest lecture on "CCNA" for III ECE students was conducted on 12th July 2019. The resource person was Mr.Subbaih, Dynamic Networking Institute, Puducherry.



Mr.Subbaih, Dynamic Networking Institute given Guest lecture on "CCNA"

Third year Students from ECE department undergone Industrial visited to ISRO (VSSC), Trivandrum on 23rd August and Keltron, Trivandrum on 24th August 2019.

Three Days workshop on "Industrial Automation – PLC & SCADA" was conducted for the interested students of II and III ECE from 18th to 20th July 2019. The resource person was Mr.Baskaran, Corner Stone Technologies, Puducherry.



Three Days workshop on "Industrial Automation – PLC & SCADA"

Webinar on "Basic VLSI Design" by Maven Silicon, Bangalore was conducted for II and III ECE on 10th and 17th July 2019 respectively. The arrangements were made by Dr.S.Padmapriya and Ms.G. Sharmila, AP/ECE



Webinar on "Basic VLSI Design" by Maven Silicon

Dhristri online contest was conducted for II, III, IV year students on 23rd March 2019. The contest was organized by Dr.S.Padmapriya and Ms.G.Sharmila.

A Guest Lecture on "Introduction to AutoCAD" was conducted for the students of II and III ECE students on 22nd July 2019. The resource person was Mr.Jagan, Vector Solutions, Puducherry.



Guest Lecture on "Introduction to AutoCAD"

Guest lecture on "Electric Fuse Technology" was conducted for the student of II and III ECE on 27.07.2019. The resource person was Mr.K.Vassanthan, Senior Engineer, New Product Development, Eaton Quality Power Pvt. Ltd., Puducherry. The arrangements were made by Ms.B.Lakshmi Priya.



Industrial Guest lecture on "Electric Fuse Technology" from Eaton Quality Power Pvt. Ltd., Puducherry.

Poster competition on "Sensors" was conducted for II and III ECE students on 27th July 2019. The arrangements were made by Mr.K.Kumaran and Mr.M.Sivaraj.



Students Poster Presentation on "Sensors"

34 students from the Batch of 2016-2020 were placed in TCS through TCS Ninja Recruitment Process.



TCS Placed Students

A guest lecture on "VLSI – Current Trends and Opportunities" was conducted for the students of III ECE on 6th September 2019. The resource person was Mr.Seetharaman Vasu, Project manager, ALTRAN Technologies, Bangalore. The arrangements were made by Dr.G.Idayachandran.



Guest lecture on "VLSI – Current Trends and Opportunities" given by Mr.Seetharaman Vasu ALTRAN Technologies, Bangalore.

Electronics Workshop was conducted II ECE A and B students on 20th and 21st August 2019 respectively. The resource person for the workshop was Mr.Raja, from Raja Electronics, Cuddalore.



Two days workshop on "BASICS OF ELECTRONICS"

Poster presentation on "Applications of Electromagnetics" and "Advanced Processors" was conducted for II and III ECE students respectively on 4th September 2019. The event was organized by Ms.R.Vithiya.



Poster presentation on "Applications of Electromagnetics" and "Advanced Processors"

Students from final year have attended Six days training on "Sales force ADX.205" from 02.09.2019 to 09.09.2019 which was conducted by ECE department in collaboration with ICT academy.



ICT Academy given Training on "Sales force ADX.205"

II year Students from ECE department were participated in the Road show on **"Social impacts due to New Innovations"** conducted by CII-YI on 10th July 2019.



Road Show on "Social impacts due to New Innovations"

LADURAIURIES



Electronic Devices Lab



Communication Lab



Advanced Communication Lab



R &D Lab



Digital Lab



Microprocessor Lab



Simulation Lab



Sensor & IOT Lab

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