

**MANAKULA VINAYAGAR** 









## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

## **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

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. Ulmost 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.

# **STAFF ACTIVITIES**

Mrs.K.Alamelu attended a FDP in "ARTIFICIAL INTELLEGENCE IN MEDICINE" from 3<sup>rd</sup> to 5<sup>th</sup> of March 2022 organized by JIPMER, Pondicherry.

Dr.S.Arunmozhi attended a ATAL FDP in "Hands-On Workshop on Software Defined Radios" from 7<sup>th</sup> to 11<sup>th</sup> of March 2022 organized by Shivnadar University.

Mr.R.Sambath kumar attended a TEQIP FDP in "Recent advancement sustainable developments through renewable energy system" from 7<sup>th</sup> to 16<sup>th</sup> March 2022 organized by Engineering College Bikaner.

Dr.S.Arunmozhi published a paper in journal of Healthcare Engineering in the topic of "Biometric Authentication for Intelligent and Privacy-Preserving Healthcare Systems" on 24<sup>th</sup> March 2022.

Dr.S.Arunmozhi Submitted the proposal titled "Milk Vending Machine" under the scheme Hackathon through MSME on 24<sup>th</sup> March 2022.

**Dr.R.Sofia** Submitted the proposal titled "**Medical Waste Disposal**" under the scheme Hackathon through MSME on **25<sup>th</sup> March 2022**.

Mr.S. Gowshameed, Mr.E. Ramassamy and Mr.V. Rajesh attented a Workshop on the topic "PCB designing using Altium Designer" sponsored and organized by ATAL Incubation center-PEC Foundation Pondicherry Technological University on 28<sup>th</sup> to 29<sup>th</sup> March 2022.

Mr.R.Sambath kumar attended an IEEE FDP in "Disruptive Technologies In Communication" from 30<sup>th</sup> to 31<sup>st</sup> March 2022 organized by Sri Sai Ram Institute Of Technology.

Mrs.D.Marygetsy published a book in the topic of "Basics of Electronics and Electrical Engineering" in Notion press on April 2022.

Mr.A.Shankar attended the FDP in the topic of "open-source tool for Embedded systems and Robotics" sponsored and organized by institution Innovation Cell- Christ College of Engineering and Technology, Puducherry on 21<sup>st</sup> May 2022.

## **STAFF ACTIVITIES**

Mr.A.Shankar attended the FDP in the topic of "Seven strategies for scientists to communicate their research and create a brand" sponsored and organized by Elsevier- Researcher Academy on 23<sup>rd</sup> May 2022.

Mrs.D.Marygetsy published the paper in the topic of "Design of a two-tier learning model for congestion control in WSN environment" in IEEE Xplore on May 2022.

**Mrs.K.Alamelu** attended a FDP in "Advances in Modeling of Materials" on 6<sup>th</sup> of June 2022 organized by PTU, Pondicherry.

## **STUDENTS ACTIVITIES**

Students participated in Internal Smart India Hackathon on 19th March 2022.

Students participated in the rally conducted on "World health day", April 2022.

V.Akshaya and Nirmal@nandheswar from 3<sup>rd</sup> year ECE have joined the start-up company SHA\_H TECH under MSME on 4<sup>th</sup> April 2022

Three students from 3<sup>rd</sup> year ECE got placed in ZOHO on 26<sup>th</sup> April 2022

Two students from II ECE have participated in sports event conducted by Pondicherry University on 7<sup>th</sup> & 8<sup>th</sup> May 2022.

Three students have participated in YUGAM competition conducted on 20<sup>th</sup> May 2022.

Four students from III year ECE got placed in VIRTUSA on 9<sup>th</sup> June 2022.

Dr.R.Sofia organised the competition for the students of MVIT conducted on "World Heritage Day", 18th April 2022.



Mrs D.Marygetsy organised the "international dance day" celebration for the MVIT students on 29<sup>th</sup> April 2022.



Dr.S. Arunmozhi, Mr.E. Ramassamy and Alumni students organized 5<sup>th</sup> Stellar's Trophy, chief guest Mr.Vallavan, I.A.S District Collector/District Magistrate,Puducherry facilitate the program on 6<sup>th</sup>& 7<sup>th</sup> May 2022.



Mr.E.Ramassamy organised the industrial visit for III and IV Year ECE to "*Radio Astronomy*" on 13<sup>th</sup> & 14<sup>th</sup> May 2022.



Mr.A.Baskaran organised the field trip for the dream students of ECE to "*Water Expo*" in Chennai Trade Park on 7<sup>th</sup> May 2022.



Mr.V.Rajesh organised the workshop in the topic of "3D Printing" on 20<sup>th</sup> May 2022.



Mr.M.Sivaraj & Mr.R.Vithiya Conducted the Internal workshop in the topic of "Hands on Training for Microwind" on **21**<sup>st</sup> May 2022.



Guest lecture on "*Data Engineering in Industry*" was conducted on 21<sup>st</sup> May 2022. The resource person was Mr.P.Govindhan, Senior System Engineer, INFOSYS, Bangalore.The arrangements were made by Mrs.R.Vithya and Mr.S.Gowshameed.



Guest lecture on "*Why IoT is a Game Changer*" was conducted on 24<sup>th</sup> May 2022. The resource person was Ms.Deepa Vaitheeswaran, Proprietress, Kaivalya Tech Services, Pondicherry.The arrangements were made by Mrs.D.Marygetsy.



Mr.V.Rajesh and Dr.R.Sofia organised the workshop in the topic of "Image Processing using MATLAB" on 25<sup>th</sup> May 2022.



Mr.R.sambath kumar and Mr.Yazhiniyan organised Industrial Visit for II year ECE to "*MSIR India Calibrations*" on 28<sup>th</sup> May 2022.



Guest lecture on "*Future Career*" was conducted on 31<sup>st</sup> May 2022. The resource person was Mr.M.Prasanth, Factory Manager, Kaivalya Technology Pvt.Ltd, Puducherry. The arrangements were made by Mrs.D.Marygetsy.





Mrs.D.Marygetsy organize the field trip for III year ECE to Kaivalya Technologies Private Ltd on 2<sup>nd</sup> June 2022.



Dr.S.Arunmozhi organised a workshop in the topic of "Outcome Based Education Implementation" on 4<sup>th</sup> June 2022 for the faculty members of MVIT.



Mr.A.Baskaran organised a workshop for the internal/external participants in the topic of "PLC" on 6<sup>th</sup> & 7<sup>th</sup> June 2022.



**Dr.S.Arunmozhi** organised the **workshop** in the topic of "**AR**" on 9<sup>th</sup> & 10<sup>th</sup> **June 2022**. The resource person was **Mr.Ashok Kumar** from **PRAYA LABS**.



## Students symposium MITILENCE was conducted on 11<sup>th</sup> June 2022.



Mr.V.Rajesh organised the workshop on the topic of "LTspice" on 16<sup>th</sup> June 2022 for II year ECE.





Mr.Murali organised the inter college competition in the topic of "Component Identification" on 18<sup>th</sup> June 2022.



Dr.S.Yazhinian organised a workshop in the topic of "XILINX-VLSI" on 22<sup>nd</sup> June 2022.



