



MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY
Kalitheerthal kuppam, Madgadipet 605107

NEWSLETTER-EVEN SEM (20_21)



**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

The Department was established in the year 2008 with a key focus to advance the skills of modern youth in the field of Electronics and Communication Engineering. Adequate emphasis is given to electronic design using innovative teaching methodologies. Emphasis is also given to the digital processing of information for efficient communication. Utmost care is taken in the perspective of imparting more practical knowledge to the student's community in the field of Electronics and Communication.

An expert team from National Board of Accreditation conducted on-site evaluation of the program from 24th to 26th August 2018; ECE department has been accredited for 4 years.

VISION

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

MISSION

Department of Electronics and Communication Engineering is committed

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

Competency: To provide training on cutting-edge 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

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.

PROGRAMME OUTCOMES

Engineering Graduates 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.

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.



STAFF ACTIVITIES

1. An MoU with Micireds Network Technologies, Puducherry was signed on 11th November 2020.
2. Dr.S.Arunmozhi attended STTP on “Research and Development in Wireless Communication Application using NetSim and MATLAB” at PEC on 2.11.2020 to 7.11.2020.
3. G.Sharmila, J.Franklin, S. Gowshameed attended ATAL FDP on Block chain Technology at Bangalore Institute of Technology on 23.11.2020 to 27.11.2020.
4. Dr.S.Arunmozhi attended FDP-SI UHV Online Workshop day FDP AICTE Incorporating Universal Human Values in Education on 14 to 18 December 2020.
5. Mr.Kumaran K attended 3D Printing & Design NIT PATNA on 7 Dec 2020 to 11 Dec 2020.
6. Dr.R.Sofia attended Augmented Reality Vs Virtual Reality IIT, Patna 4 December 2020.
7. Dr. S. Padmapriya ,Mr.E.Ramassamy, Mr.S .Gowshameed, Mr.J.Franklin, Dr.R.Sofia attended FDP on Advanced Communication Engineering at BharatiVidyapeeth College of Engineering, Navi Mumbai on 7 Dec 2020 to 11 Dec 2020.
8. Dr.S. Arunmozhi organized seminar on patent invention by Mr. Jayakumar on 20 Jan 2021.
9. Dr.R.Valli organized a program for housewife’s at Embalam village through women’s empowerment cell with the faculty Dr.S.Padmapriya and G.Sharmila on 23rd Jan 2021.
10. Dr.S.Malarkkan and Dr.R. Valli organized the Inauguration of IGNITE Labs with final year student K.Manojkumar and G.Seenuvasan along with second year students inaugurated by chairman shri.M.Dhanasekaran and chief guest Shri.Jayaprakash A.Gandhi on 28th Jan 2021.
11. Dr.R.Sofia published the paper “Trauma Identification Using Image processing and Feedforward Neutral Network “in the conference SSRN on Jan 2021.
12. Dr.R.Valli, Dr.S.Padmapriya and G.Sharmila attended the UBA program through women’s empowerment cell on 11 FEB 2021.
13. K.Mahendran published the paper ” A novel square fractal dual port MIMO antenna with tri band rejection capabilities” in the journal of Ambient Intelligence and Humanized Computing on 13thMarch 2021.



STAFF ACTIVITIES

14. Dr.S.Arunmozhi has given a Guest talk in the National Conference on Advanced Research and Innovation in Information and Communication Engineering at Sai Ram Institute of Technology on 9th April 2021.
15. Dr.R.Valli has given a lecture on IoT and its Application for Faculty Development Program held at Annamalai University on 29th April 2021.
16. OBE online lecture series delivered by Dr.S.Arunmozhi from 28th April 2021 in MIT.
17. Dr.R.Valli has given a Guest lecture on Emerging Trends and Technology at Mailam Engineering College on 25th may 2021.
18. Dr.S.Arunmozhi delivered the speech about Alternate Medicine organized by cultural club on 07 May 2021 in MIT.
19. Dr.S.Vinoth published the paper “Optical manipulation of nebulizer spray pyrolysis fabricated ZnS thin films for photo detector applications: An effect of Al, Sn, Sb doping” in the journal Optical materials, Elsevier on May 2021.
20. K.Mahendran published the paper “Gain Enhancement of Triangular Multiband antenna using a combination of RIS, FSS and DGS” in IEEE- International conference on Emerging Technology (INCET 2021) on May 2021.
21. Dr.R.Valli has given a invited talk on **Product to IP** at Patrician College of Arts and Science Chennai on 10th June 2021.
22. Dr.R.Valli has given a guest lecture on Innovation, Incubation and Patenting at Karim City College, Jamshedpur on 28th June 2021.
23. Dr.S. Malarkkan, Principal Awarded as Indian Most Dynamic Achievers from Friendship forum on June 2021
24. The Workshop on “3D Printing” through IIC was held on 19th June 2021.
25. Dr.S.Vinoth published the paper “Tuning the optoelectronic properties of n-CdO-Fe/p-Si photodiodes” in the journal Applied physics B, Springer nature on June 2021.
26. The faculty of our department have attended more than 60 ATAL FDP’s and 40 number of workshops in various organisations.



STUDENTS ACTIVITIES

1. 26 Student got short listed in HCL conducted on 28th Jan 2021.
2. 73 Students appeared in WIPRO drive conducted on 29,30&31 Jan 2021.
3. 13 Student got placed in HCL on 4th March 2021.
4. 8 Students got placed in TCS through Inframing Competition on March 2021.
5. 1 Team of Students attended final round in Vishwakarma on 10th May 2021.
6. 1 Team of Students attended IEEE WIE HACKATHON on 22 & 23rd May 2021.
7. One Batch got selected for finals in TOYCATHON on 22nd June 2021.
8. Poster Presentation Competition on Ethics was held on 24th June 2021.
9. Two batches of students have got selected in National level IEEE Project Competition conducted by GSSS Institute of Engineering and Technology for Women on 26th June 2021.
10. IEEE student branch received appreciation certificate from IEEE in the month of July 2021.
11. Two batches of ECE Students headed by K.Seenuvasan and M.Bharathi have been shortlisted for final round in AICTE Vishwakarma Awards 2020 mentored by Dr.Valli and V.Rajesh.
12. More than 67 Students have offers in companies like TCS, ZOHO, WIPRO, HCL, AVAssoft, and so on. In the Academic year 2020-21 as on date.

PATENTS

1. The department of ECE has 25 Design Grants and has filed 10 Product Patents as on Date.

PROGRAM ORGANIZED

1. Dr.S. Arunmozhi organized seminar on **Patent Invention** and Mr. Jayakumar delivered the Lecture on 20 Jan 2021.

2. Alumni students conducted the 4th Stellar's Trophy a inter college football tournament and Mr.Narassingame deputy director of sports and youth service felicitated the program on 5th& 6th Feb. 2021 .



4th Stellar Trophy (Inter college foot ball Tournament)

3. IPR Inauguration followed by guest lecture was given by the guest Mr.Thiyagaraja Gupta, Patent officer, Kolkata on 24 FEB 2021.

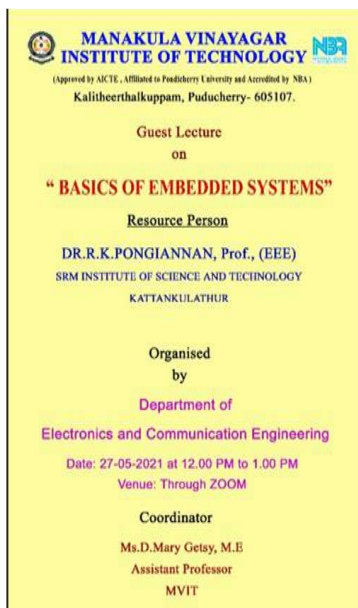
4. FDP on EDWIN-XP for Faculty conducted by Mr.Vinay from Bangalore on 16th March 2021.

5. Workshop on Prototype Design was conducted by Dr.S.Arunmozhi for the first year students on 15th March 2021.

PROGRAM ORGNIZED

6. A guest lecture on “Advanced Network Security” was conducted on 26th May 2021. The resource person was V.Kadhirvelu, Hardware and Network Engineer, IMPACTIVA, Chennai and the arrangements were made by Mr.E.Ramassamy.

7. A guest lecture on “Basics of Embedded System” was conducted on 28th May 2021. The resource person was Dr.R.K.Pongiannan, Professor (EEE), SRM institute of technology, Kattankulathure, Chennai and the arrangements were made by Mrs.D.Marygetsy.



A guest lecture on “Basics of Embedded System”

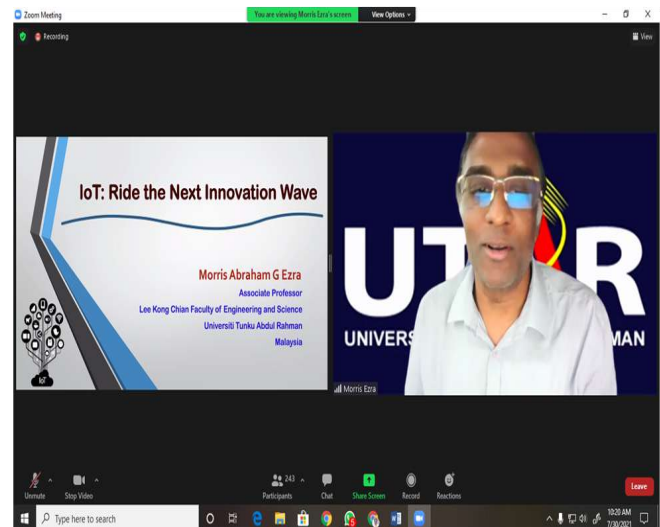
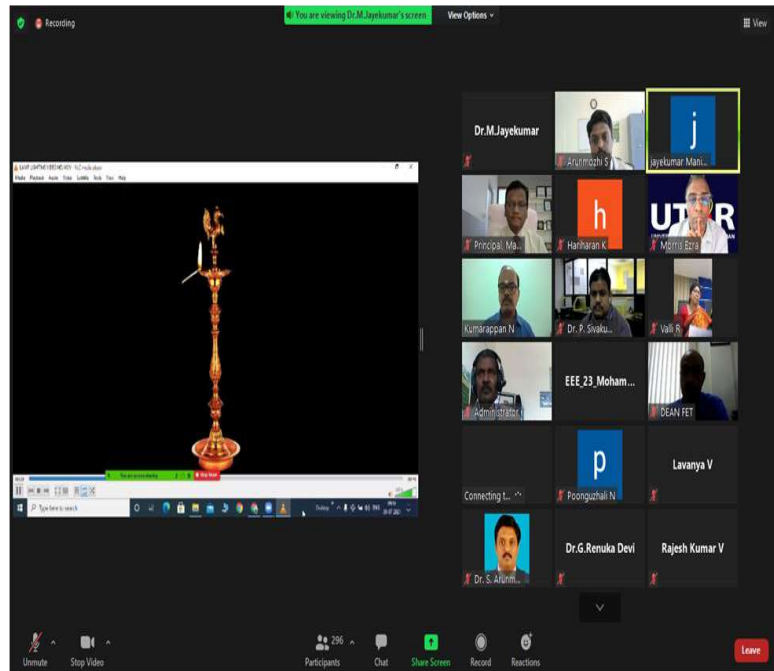
8. A guest lecture on “Industrial needs in Embedded System &VLSI” was conducted on 29th May 2021. The resource person was Mr.R.Manikandan, Technical Manager, HCL Technology LTD, USA and the arrangements were made by Mr.V.Rajesh.

9. Mr.V. Rajesh conduct a Workshop on “Introduction to Verilog using Modelsim” on 24th June 2021.

10. A guest lecture on “Data Science and Industry 4.0” was conducted on 26th June 2021. The resource person was Mr.S. Prasana, Data Science, Lead Engineer, HCL, Chennai.The arrangements were made by Mrs.G. Sharmila and Dr.R. Sofia.

PROGRAM ORGNIZED

15. Session on “Angel Investment/VC funding opportunity for early stage entrepreneur “delivered by Dr.S.Arunmozhi through IIC on 23rd July 2021.
16. 4th International IEEE Conference ICSCAN 2020 was conducted on 30 and 31st July 2021.



ICSCAN Inauguration on 30th July 2021.
Chief Guest Dr.N.Kumarappan (chairman IEEE Madras section) and
Dr.Moris Ezra (Professor, Univ. of Tunku Abdul Rahman, Malaysia)