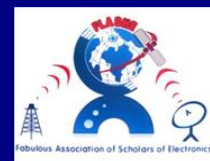# MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY

Kalitheerthal kuppam, Madgadipet 605107

NEWSLETTER 2016-17

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

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.

DEPARTMENT OF
ELECTRONICS &
COMMUNICATION ENGINEERING

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 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.

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

Mr.S.Arunmozhi has attended a 3day workshop on "Signal Processing for Cooperative Diversity Wireless Network" at TCE Madurai from 12 to 14 May 2016.

Mrs. D.Saraswathi and Ms. B.Lakshmi Priya have attended a 2 day Hands-on Training Programme on 'Artificial Neural Networks (ANN), Fuzzy Logic and Evolutionary Computing using MATLAB" conducted by Scientific Computing Solutions at Puducherry from 13 to 14 May 2016.

Mr.S.Arunmozhi has attended a 3day workshop on "Coopertaive 4G/5G MIMO Wireless Communications" at IIT Kanpur from 27 to 29 May 2016.

Mr. V.Surender has attended DST-SERB sponsored 2 day workshop on " Opportunities and Challenges in Industrial Automation using PLC and SCADA" at Sri Manakula Vinayagar Engineering College on 25th and 26th April 2016.

Mrs.D.Saraswathi has participated in a faculty development programme on "Recent Trends in Signal and Image Processing" at PSG College of Technology, Coimbatore from 6th to 12th June 2016.

Mrs.B.Lakshmi Priya has attended an STTP on "Biosignal Processing for Telemedicine Applications" at Pondicherry Engineering College, Puducherry from 27th June to 2nd July 2016.

Mrs.D.Saraswathi and Mrs.B.LakshmiPriya have conducted two day Handson – Programme on "MATLAB for Image Processing" for the interested students of final year ECE on 29th and 30th July 2016 by.

Mr.S.Arunmozhi has attended a 3 day workshop on "Mathematical Tools for Signal and Image Processing" on 15th, 16th and 17th July 2016 at VIT, Vellore.

Mrs. B.Lakshmi priya & Mrs.D.Saraswathi have conducted two days workshop "Digital Image processing" for Internal and External Participants at simulation lab on 29.7 2016.

Two day workshop on "Ardiuno" was arranged by Mr V.Rajesh for III year students 27th and 29th july 2016.

Ms.B.lakshmipriya has attended the "Technical Skills Programme on Surgical simulator for Engineers" at JIPMER on 20.8.2016, conducted by department of Surgical gastroenterology, JIPMER.

Ms.B.Lakshmipriya has presented paper on "An Effective Liver Cancer Diagnosis Technique Through Multi – Temporal Fusion and Decorrelation Stretching" in IEEE International Conference on Advances in Computational Intelligence in Communication (CIC 2016) at Pondicherry Engineering College, Pondicherry during 19-20,Oct 2016.

Ms.D.Saraswathy has presented paper on "Detection of Microcalcifications in Digital Mammograms using Fuzzy Euler Graph Segmentation Method" in IEEE International Conference on Advances in Computational Intelligence in Communication (CIC 2016) at Pondicherry Engineering College, Pondicherry during 19-20,Oct 2016.

Mr.G.Idayachandran has conducted one day workshop on "Xilinx" for III year students by on 20th August 2016.

Mr.B.Ashvanth and Mr.E.Ramassamy have attended a National Level Workshop on "Labview Applications for Communication Engineers" on 7th and 8th November at Prathyusha Engineering College, Chennai.

Mrs.B.Lakshmi Priya has attended an AICTE – QIP sponsored FDP on "Recent Trends in Soft Computing" from 4.12.16 to 9.12.16 at Pondicherry Engineering College.

Mr.G.Idayachandran has submitted a research proposal entitled "Design and development of low profile UHF antenna for TV white space communication" to Science, Engineering and Research Board on 31st December 2016 seeking a financial assistance of Rs.6,79,200/-.

All faculties have completed LATEX & SCILAB online test on 31st December 2016 conducted by Spoken Tutorial Project.

Mr.S.Arunmozhi delivered a special lecture on "Internet of Things" for III ECE students on 5th January 2017.

Special lecture on "Internet of Things"

Ms.B.Lakshmi Priya delivered a special lecture on "Electronics for Surgical Simulation" for II ECE students on 7th January 2017.

Mr.S.Arunmozhi presented a paper on "Performance of Quadrature Spatial Modulation Based Cooperative Relaying MIMO Networks" in International Conference on Inventive Systems and Control (ICISC 2017) organized by JCT College of Engineering and Technology, Coimbatore. Mrs.D.Saraswathi presented a paper on "Performance Analysis of Mammogram CAD System using SVM and KNN Classifier" in International Conference on Inventive Systems and Control (ICISC 2017) organized by JCT College of Engineering and Technology, Coimbatore.

Mrs.D.Saraswathi submitted a Seminar Grant proposal on "Advanced Technology in Health Care: Prospects & Challenges" to Indian Council of Medical Research (ICMR)

Mrs.B.Lakshmi Priya submitted a Seminar Grant proposal on "Fusion Techniques for Improved Analysis of Medical Images" to Science, Engineering and Research Board (SERB).

Mrs.D.Saraswathi and Ms.G.Sharmila have conducted a one day workshop on "Basics of MATLAB" for MVIT Dreams students of II ECE students on 18th February 2017.

"*Matlab Workshop*"

Mr.S.Arunmozhi and Mrs.B.Lakshmipriya have conducted a one day workshop on "MATLAB for Communication System" for interested students of III ECE students on 24th February 2017.

Mr.S.Arunmozhi delivered a special lecture on "Shortcut Methods in Filter Design" on 18th February 2017.

Mr.S.Arunmozhi presented a paper entitled "Performance Analysis of Multiple Access Relay Channel over Cellular Networks" in the international conference ICCPEAT 2017 organized by Pondicherry Engineering College.

Mr.G.Idayachandran organised "Antenna Design Contest" for IIIrd Year ECE students on March 1st and 2nd 2017.

"*Antenna Design Contest*"

STUDENTS ACTIVITIES

Mr. K. Baranichandran and Periyamohan Kumar of IV ECE have secured fourth place in TCS Testimony competition and got offer letter.

Baranichandran and Periyamohan Kumar Ranked 4th in TCS testimony

Ardiuno workshop was conducted for the students of 3rd year A and B sections on 27th and 29th July 2016 respectively. The workshop was conducted by G.Nandha, P.S.Harikumar, V.Gokularaman, M.Sitharth, Uma Maheswari and Souriya of final ECE A.

A.Nadeesh from III ECE student has won Rs.2000/- cash prize in photography event conducted at JIPMERand PIMS.

A.Cyril Antony from III ECE student has won Rs.750/- cash prize in Ardiuno Expo conducted at Manakula Vinayagar Institute of Technology.

Chandrapratheepan and Masook Ahamed from III ECE have won Rs.20,000/- cash prize in South India Inner Engineering College Circket Tournament conducted at SR Engineering College, Hydraded.

A. Cyril Antony and his team from III ECE students have developed quad copter and demonstrated during the remembrance function of Dr.A.P.J.ABDUL KALAM.

A.Cyril Antony from III ECE student has won Ist prize in Technical Quiz conducted at CK College of Engineering.

R.Vigneshwar from II ECE has won Ist prize in Open State Championship Handball at PS. Palayam Government Higher Secondary School.

■ பி.எஸ்.பாளையம் பாரதிதாசன் அரசு மேல்நிலைப் பள்ளியில் நடந்த மாநில ஹேண்ட் பால் போட்டியில், வெற்றி பெற்ற அணிகளுக்கு மண்ணாடிப்பட்டு வட்டார காங்., தலைவர் கண்ணன் பரிசு வழங்கினார்.

R.Vigneshwar from II ECE has won Ist prize in HandBall

Rathi from IV ECE student has selected one among the top 10 finalist of YOUTHTALK 2016.

S.Sivaprasanth from II ECE has won "BROZE Medal" in National Kick boxing Championship 2016 in Kerala organized by Keranadu Association of Kickboxing Organizations (KAKO).

G.Nandha, K.Surendiran, M.A.Sitharth, P.S.Harikumar, Kathiravan, M.Kameshwaran, Archana and Ilamathi of Robotics Club of ECE have conducted a One day workshop on "Designing Maze Solving Robots using Arduino development board" for the +1 students. The programme was conducted at Seventh Day Adventist Hr.Sec.School, Wiseman Hr.Sec. School, Blessed Mother Theresa Hr.Sec. School, Vidya Bhavan Hr.School, Anthoniar Govt. Aided High School and Amalorpavam Hr.Sec.School, Puducherry during the month of January 2017.

"Workshop on Designing Maze Solving Robots using Arduino development board"

Arun.J, A.Karthikeyan, S.Clement Joshua, Loganathan.R, Surender.K and B.Thomas of Final year have won 2nd prize in Robo War held at IIT Kharagpur during 27th to 29th January 2017.

J.Cyril Antony and team of III ECE have conducted a two day Arduino workshop, Brain – O – Botics, for first year students on 3rd and 4th February 2017. 11 batches of 40 students have participated and the workshop was organized by technical club in association with IETE student chapter.

"Arduino workshop"

J.Cyril Antony and team of III ECE have conducted a two day Arduino workshop, Brain – O – Botics, for external participants on 27th and 28th February 2017. 10 batches of 40 students have participated and the workshop was organized by technical club in association with IETE student chapter.

"Brain – O – Botics"

II and III ECE students have participated in SCIMIT project expo. Totally 10 projects were displayed.

II ECE students have went for an industrial visit to "Doordharshan Kendra, Chennai" on 24th February 2017.

" Industrial Visit to Doordharshan Kendra"

Arun.J, A.Karthikeyan, S.Clement Joshua, Loganathan.R, Surender.K and B.Thomas of Final year students have won 1st prize in Robo War held at Kumaraguru College of Technology, Coimbatore held on 9th February 2017.

M.Prithiviraj, Bhuvaneshwar, Varadharaja, Balaji, Aravind.R and Akilesh of III ECE A have participated in Two days workshop on "Cloud Computing" organized by SASTRA University, Thanjavur on 24th and 25th February 2017.

Students have participated in National Level Technical Symposium held at Sri Ganesh College of Engineering and Technology, Pondicherry and won prizes as mentioned below.

P.Agnetta and Vithya : I prize in Paper Presentation

G.Anusuya and A.Monalisa: II Prize in Technical Quiz

P.Kiruthiga and Devasena: I Prize in Technical Connexions

"P.Agnetta and Vithya won Ist prize in Paper Presentation"

Shaleha Begum and Renuka of III-ECE B students conducted a "Motivation Lecture" in Goverment school, Ariyankuppam on 28th February 2017.

"Motivation Lecture"

Mohan Raju, Loganathan, Anbarasan and Nadeesh of IIIrd Year ECE B won the runner of BANCQUEST 2K17 held on 9-10th March 2017 in Pondicherry University.

"Won as Runner in BANCQUEST 2K17"

Nadeesh of IIIrd ECE B got selected as one among the ten people all over the India in Photography contest conducted by National Geographic Channel.

"Photography contest by National Geographic Channel"

PROGRAM ORGANIZED

Seed training was conducted for III and IV year students from 8.8.2016 to 12.8 2016.
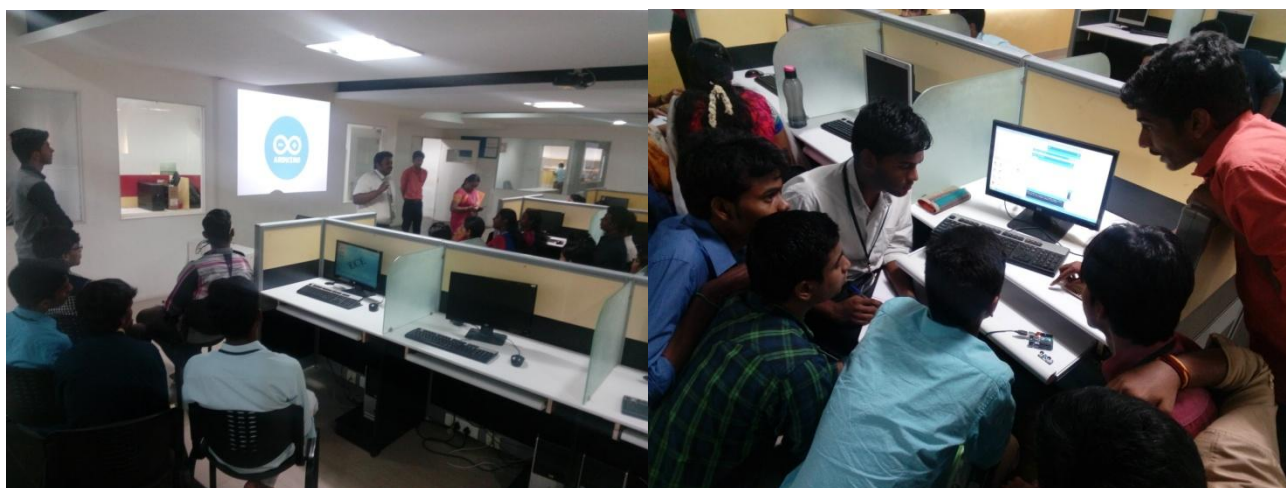
Guest lecture on "Project guidance in Robotics" was arranged for IV ECE students on 26th July 2016. The resource person was Mr.Balachander, Institute of Cyber Mech Robotics.

Guest lecture on "Robotics" was conducted for II ECE students on 26th July 2016 by Mr.Balachander, Institute of Cyber Mech Robotics.

Guest lecture on "Cyber Security" was arranged for II and III year students on 11th July 2016. Mr.Sriram, CEO, Secure Engine, Pondicherry was the resource person.

FOSS workshop on " C and C++ " was conducted for third year students on 23.7.16.

Workshop on "Ardiuno" was conducted for III year students on 27th and 28th July 2016.

Arduino Workshop

Guest lecture on "PCB DESIGN & ARM PROCESSOR" was conducted for III year students on 27.08.2016. The resource person was Mr. G. Kannan from CEO, Exhibit Electronics, Chengalpet.

Demo session was given on Technologies like PLC SCADA , VLSI and Embedded system by Mr. Shyam of CETPA technologies a pioneer in UP, Knowledge on Core opportunities was given to third year students.

Workshop on "Xilinx" was conducted for III year Students on 20th August 2016. Staff in-charge Mr.G.Idhyachandran

Mr.Idhyachandran/Asst.Prof/ECE Conducted the workshop on VLSI

Guest lecture on the topic "Industrial Automation" was conducted for III Year students on 6th august 2016.

Workshop on "LT SPICE" was conducted for II Year Students on 13th August 2018. Staff incharge Mr K.Vivek, Assistant Professor,ECE.

Poster presentation was conducted for II and III   Year students on the topic "Application of Electronics" and "Advanced Microprocessor" on 18th August 2016.

Poster presentation on Application of Electronics" and "Advanced Microprocessor

Guest lecture on Ethical Hacking   was arranged for III Year students by Mr.SelvaKumar, Security Specialist, AXA technologies, Bangalore on 12th August 2016.

Ethical Hacking handled by Mr.SelvaKumar

Workshop on "Medical Electronics" was arranged for IV year students on 11.8.2016. The resource person was Mr.Shribalaji Kumaran, Biomedical Engineer, JIPMER medical equipment Sector.

Two day Handson – Programme on "MATLAB for Image Processing" was conducted for the interested students of final year ECE on 29th and 30th July 2016 by Mrs.D.Saraswathi and Mrs.B.LakshmiPriya. 52 students and 6 faculty from the department of Mathematics have attended the programme.

15 of our final year students got placed in TCS campus recruitment.

Ms.Vigneshwari from IV ECE got placed in L&T Infotech off campus held at Pondicherry Engineering College(PEC).

Guest lecture on "PCB design and ARM processor "was conducted for 3rd ECE students on 27.8.2016. the resource person was Mr.G.kannan, CEO, Exhibit Electronics, Chengalpet.

Mr.Charles, a public speaker gave a motivational lecture for MVIT Dreams students on 3rd November 2016.

"Design Thinking Workshop" was arranged for MVIT Dreams students in association with Polaris, Chennai on 4th November 2016.

16 ECE students were placed in Sutherland Global Services, in the recruitment drive conducted on 5th November 2016.

15 ECE students were placed in Mobius Knowledge Services, in the recruitment drive conducted on 12th November 2016.

17 ECE students were placed in IDBI, in the recruitment drive conducted on 15th and 16th November 2016.

3 ECE students were placed in OFS, in the recruitment drive conducted on 25th November 2016.

All placement eligible IV ECE students have taken up the Cocubes online test held on 23rd November 2016 and P.Vigneshwar of IV ECE A has secured first rank in the college level.

Two Day Workshop on "Understanding Mathematics in Engineering Perspective" was conducted for the faculty members of Mathematics department on 15th and 16th December 2016.

Value added course on "Core Java" was conducted for II year ECE students from 22.12.2016 to 5.1.2017.