MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY

Kalitheerthal kuppam, Madgadipet 605107

NEWSLETTER 2017-18

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.

EDUCATE   **EMPOWER**   **EXCEL**

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...!

EDUCATE   **EMPOWER**   **EXCEL**

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.

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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

EDUCATE   **EMPOWER**   **EXCEL**

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 delivered a lecture on **"e-Waste Management"** at State Level Awareness Programme on Sustainable Waste Management organized by APSCC on 15th and 16th September 2017.
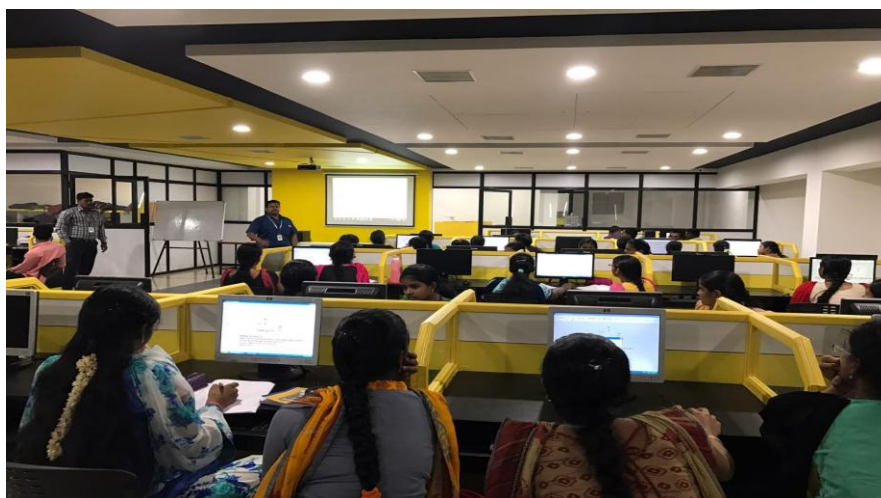
Ms.B.Lakshmi Priya delivered a guest lecture on **"An Insight to Medical Image Processing"** at the department of Surgical Gasteroenterology, JIPMER, Puducherry.

Mr.S.Arunmozhi was invited as jury for paper presentation in the Technical symposium conducted by Sri Venkateswara College of Engineering, Puducherry.

Ms.D.Saraswathi and Ms.S.Padmapriya have attended a Faculty development programme on **"Current Trends in IT"** on 30th May 2017 at TCS ILP Center, Karapakkam, Chennai.

Mr.M.Sivaraj, Ms.T.Valarmathi and Mr.E.Ramasammy attended a Two days Workshop on **"Embedded Systems Using Raspberry Pi Boards (IOT)"** conducted by Jerusalem College of Engineering and Pantech ProEd Pvt.Ltd.
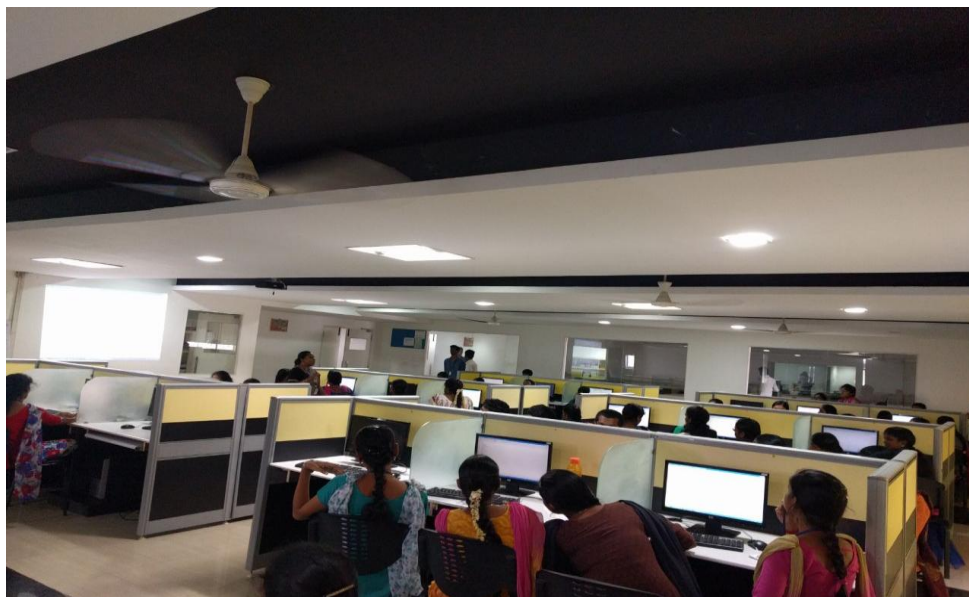
Mr.V.Rajesh, Mr.K.Vivek and Mr.M.Sivaraj were conducted One day workshop on **"LTSPICE"** for II ECE students on 20th and 22nd July 2017 respectively.
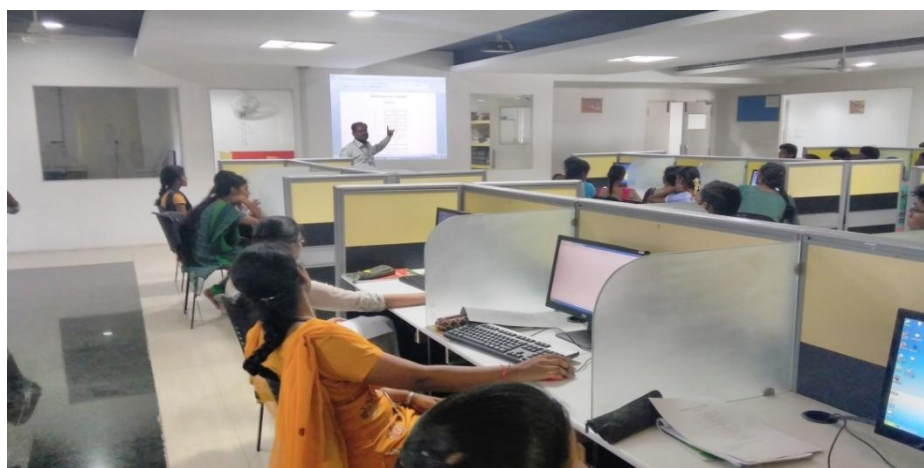
Workshop on "LTSPICE"

Mr.K.Kumaran delivered a special lecture on **"IC Fabrication"** for III ECE students on 22nd July 2017.

Ms.D.Saraswathi, Ms.B.Lakshmi Priya, Ms.G.Sharmila and Ms.S.Padmapriya conducted One day workshop on **"Basics of MATLAB"** for II ECE students on 5th August 2017.

Workshop on "Basics of MATLAB"

One day workshop on **"Digital Design using Verilog"** was conducted for III ECE students on 12th August 2017 by Mr.G.Idayachandran.
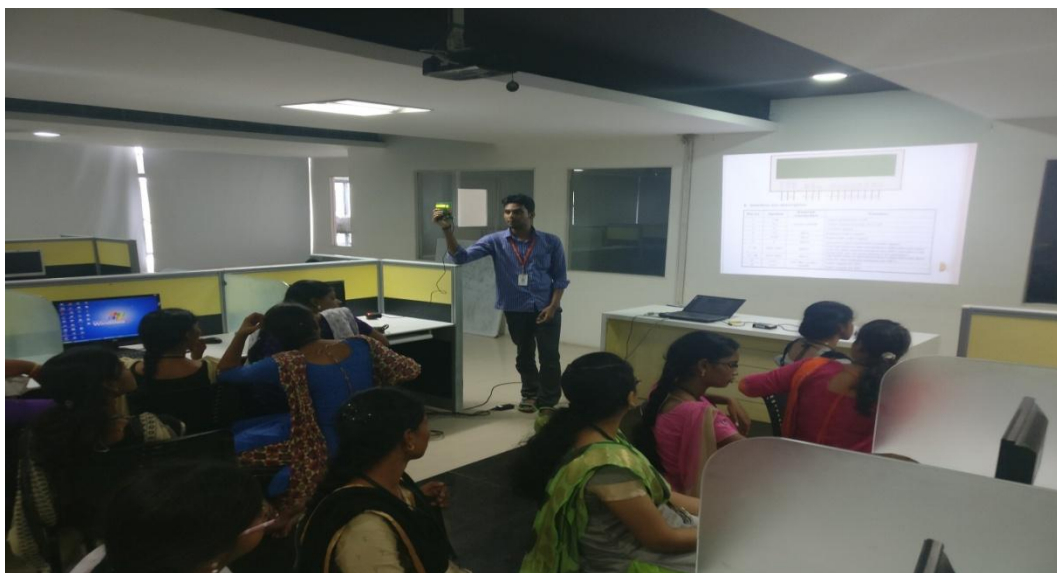
Workshop on "Digital Design using Verilog"

Mr.E.Ramassamy delivered a special lecture on **"Advanced Photonics"** for Final ECE students on 3rd August 2017.

Mr.G.Idayachandran delivered a special lecture on **"VLSI and ULSI Technology"** for final ECE students on 5th August 2017.

Mr.G.Idayachandran, Mr.K.Vivek and Ms.B.Lakshmi Priya attended **NPTEL** exam on **"Design of IoT", "Basic Electric Circuits" and "Introduction to Machine Learning"** on 24th September 2017.

Ms.G.Sharmila and Ms.S.Karthika along with V.Padmanabhan of IV ECE have conducted a one day workshop on **"Keil µ Vision"** for third year students on 16th September 2017.

Workshop on "Keil µ Vision"

Ms.B.Lakshmipriya attended a two day workshop on **"Cognitive Computing Technology and Applications"** at College of Engineering, Guindy on 6th and 7th October 2017.

Three of our faculty, Ms.G.Sharmila, Ms.S.Karthika and Ms.S.Padmapriya attended a faculty development programme on **"Emotional Intelligence"** conducted by ICT Academy

of Puducherry at Rajiv Gandhi College of Engineering and Technology, Puducherry on 23rd and 24th November 2017.

Ms.D.Saraswawthi and Ms.B.Lakshmipriya attended a short term course on "Internet of Everything (IoE): Gaining Greater Insights into an Emerging Digital Drive"conducted at Pondicherry Engineering College from 6th to 10th November 2017.

Mr.K.Kumaran was given special lecture on **Industrial processor** for III year ECE on 6th January 2018.

"Special lecture on industrial processor"

Mrs.D.Saraswathi was given a special lecture on **"Deep learning"** for IV year ECE on 4th January 2018.

"Special lecture on deep learning"

Mrs.D.Saraswathi and Ms.G.sharmila conducted a one day workshop on **"Basics of MATLAB"** for CSE on 19th January 2018.

Mr.Vivek and Mr.Rajesh have conducted a two days workshop on *"Quantum dot cellular automation technology"* for interested students of II ECE on 2nd and 3rd February 2018.

workshop on QCA

Mrs .Valarmathi given a Special lecture on **"Cognitive Radio"** for IV year ECE on 8th January 2018.

Special lecture on **"Energy Harvesting Devices Technology and Application"** by Dr. Idhayachandran for III year ECE on 3rd March 2018.

Special lecture on "**Mobile cloud computing"** was given by Ms.G.Sharmila for IV year ECE on 28th December 2017.

Ms.R.Vithiya, Ms.G.Sharmila, Ms.T.Valarmathi, Ms.S.Karthika, Mr.V.Rajesh, Mr.E.Ramassamy and Mr.M.Sivaraj completed an online course on **"Python 3" and "JAVA"** offered by Sololearn.

Ms.B.Lakshmi Priya has completed an online course on **"Machine Learning Classification Algorithms using MATLAB"** offered by Udemy.

R.Vithiya and M.Sivaraj attended an STTP on **"Contemporary World of Electricity – Solar Energy"** conducted the department of EEE, MIT from 26th November 2017 to 1st December 2017.

Mr.S.Arunmozhi attended the **NPTEL SPOC Workshop** conducted at SSN Engineering College, Chennai on 16th December 2017.

Dr. Padma Priya has given a special lecture on **Evloution from 1G towards 5G** for the 3rd year students on 27th January 2018.

One day workshop on **"Antenna design"** was conducted for III year ECE students by Dr.Idhayachandran on 24th february 2018.

workshop on "Antenna design"

Mrs.D.Saraswathi has given a special lecture on importance of women's Education organized by NSS, MVIT, Puducherry.

STUDENTS ACTIVITIES

Sathiya, Jenifer and Anbarasi of IV ECE A have presented a paper titled "An Automatic **Detection and Segmentation of Cancer Region from CT Lung Image"** and won **Best paper award** at a national conference NCSDES-2017 conducted at CK College of Engineering and Technology.

S.Mukilan, J.Kishore Kumar and Karthikeyan of III ECE were selected for the final round of **NIYANTRA'17** and they received Myrio board from National Instruments for implementing their prototype.

Four students from II ECE A and 12 students III ECE have attended a two days workshop on **"Embedded Systems and ARM Processors"** at VIT Vellore on 21st and 22nd July 2017.

Mathumitha.M, Soundharya and Anitha of III ECE B have attended a one day workshop on **Robotics (BOT 2017),** conducted by Top Engineers, Chennai on 15th July 2017.

Sathiyanandham, R.Vaithianathan, M.Aruntamilselvan, Ramji.P, T.Thinesh Kumar, D.Vinoth and Arunkumar.R of III ECE A attended a two days workshop on **"Applications of Arduino"** Conducted by the department of Robotics and Automation Engineering of PSG College of Technology, Coimbatore on 28th and 29th August 2017.

S.Mukilan, J.Kishore Kumar and M.Karthikeyan of III ECE were conducted One day workshop on "Python Programming" for the MVIT dreams students on 19th August 2017.

Two batches from final ECE and one batch from second ECE have submitted project abstract for **India Innovation Challenge Design Contest 2017,** conducted by Texas Instruments in collaboration with Department of Science and Technology (DST).

Nandhini.S, Varun.S and Murugan.S of II year ECE students have attended **NPTEL** exam on **"Design of IoT"** on 24th September 2017.

10 project batches one from IV year and 9 from II year have participated in National Level Project Contest, **Innovators Day 2017** held at Sri Manakula Vinayagar Engineering College on 14th September 2017.

20 batches of students have participated in **"Electro- Mechanic Expo",** an event to demystify technology conducted by Technical Club on 6th September 2017.

Third year students went for industrial visit to VI Microsystems, Chennai on 8.9.17.

"Industrial visit to VI Microsystems", Chennai

S.Sivaprasath of III ECE A has won third prize in State Level Boxing Championship held at Puducherry during 23- 24 September 2017.

A.Yogalakshmi and A.Niranjani of II ECE A have participated in paper presentation contest conducted at Sri Venkateswara College of Engineering, Puducherry.

K.Pravin, S.Sivaprasath, Kannane, B.Jegan, B.Jayarahul, Praveenkumar and Harish of III ECE A have attended ISOI Sponsored Three Days National Level Workshop "Hands on Training on Applications of IoT and Wireless Sensor Networks using n-Mote Embedded Platform and Zolertia Device" at Sri Ramakrishna Engineering College, Coimbatore During 7th to 9th September 2017 in association with Nihon Communication Solutions Pvt. Ltd, Bengaluru.

Rambabu, Vasanthakumar, Varun and Surya from II ECE B have registered for e-Yantra, a robotic competition conducted by IIT Bombay, and have taken the first round online test.

Nandhakumar and Dharshakkumar from III year ECE got **3rd prize** for **Paper presentation** titled Biobot through technical club at MVIT, puducherry.

3rd prize for Paper presentation

Dharshakkumar from III year ECE won **First prize** in **"LEARNATHON"** competition conducted by ICTACT.

Kuganathan from II year ECE A won **first prize in "components Identification**" contest conducted by technical club, MVIT, Puducherry on 15th march 2018.

Vetrivel and Naresh santhaseelan from III year ECE won first prize in "**Poster Presentation on topic Internet Of Medical Things"** conducted by Signal and Image Processing group.

Poster Presentation on topic "Internet Of Medical Things"

Shobiga and Vaishnavi from III year ECE got **2nd prize for Paper Presentation** held at Pondicherry Engineering college on 15th Feburary 2018.

2nd prize for "Paper Presentation"

Vigneshwar.R from III year ECE won the **first prize in Handball state meet** held at Thirunallar Government school, karaikal on 24th and 25th march 2018.

Around 25 students from II and III ECE students have attended **IoT workshop** on 24th and 25th January 2018 conducted at Pondicherry Engineering College.

Karthikeyan and Hemanthkumar from III year ECE B won **2nd Prize for Paper Presentation** conducted by technical club of MVIT, Puducherry.

2nd Prize for "Paper Presentation"

S.Mukilan and Gokulnath of III ECE have won first place in **TCS Inframind contest**.

"tcs inframind contest"

Students from III year ECE was shortlisted for **"TATA Crucible HACKATHON Prototype challenge",** A National level project competition conducted by TCS held at Bengaluru on 1st March, 2018.

"Tata crucible Hackathon challenge"

14 students from final year ECE department **got offer** letter from Tata consultancy services in the month of October 2017.

S.Mukilan, J.Kishore Kumar and Karthikeyan of III ECE have attended the **Final round** of **NIYANTRA 2017** held at Bangalore on 24th and 25th October 2017.

"**NIYANTRA 2017**"

J.Cyril Antony of IV ECE has submitted a proposal on **"Dialyzer Processing Unit"** to Techpedia for GYTI Awards 2018.

"Dialyzer Processing Unit"

10 teams have submitted solutions for the various problems in **Smart India Hackathon 2018**. Totally solutions for 27 project ideas were submitted.

Vaithinathan and Sathiyanandhan of III ECE have won **Second prize** in "**PC Assembling contest**" conducted by the department of IT on 20th January 2018.

"2nd prize in pc assembling contest"

Students from ECE department conducted **"E-waste management"** awareness programme at various schools in Pondicherry and villupuram.

"E-waste management" awareness in Government Higher Secondary School, Veppari

Niranjani.A for II ECE A has participated in the National Integration Camp held at Govt. Arts Commerce Postgraduate College, Hassan, Karnataka from 25.1.2018 to 31.01.2018 and was awarded as **Best NSS Volunteer**. She also won the following prizes.

Tug of War – 1st Prize

Folk Dance – 3rd Prize

Cultural Performance – 1st Prize

Best NSS Volunteer Award

Final year ECE B students won **Second prize** in **Intra college 5s football tournament** (Stellar trophy) conducted by alumni batch ECE 2013-2017.

"won 2nd prize in football tournament"

PROGRAM ORGANIZED

Program organized

ICMR sponsored Two Days National Seminar on "Advanced Technology for Healthcare – Prospects and Challenges was conducted on April 21st and April 22nd. The programme was coordinated by Ms.D.Saraswathi.

ICMR sponsored Two Days National Seminar on "Advanced Technology for Healthcare – Prospects and Challenges

"Sigarathai Nokki", a career guidance programme for +2 students was conducted at Cuddalore on 22nd April 2017 was coordinated by Mr.S.Arunmozhi.

Ms.Sankari delivered a speech on "Awareness on Civil Service Examination" for III Year ECE students on 21st June 2017.

Dr.Sunil & Dr.Sanjana delivered a guest lecture on "Awareness of stem cells" for III Year ECE students on 21st June 2017.

Guest lecture on "Introduction to CCNA" for 3rd ECE students on 3rd July 2017. The resource person was Mr.M.Shanmugasundaram, Program Executive, Micireds Network Technologies, Puducherry and the arrangements were made by Ms.B.Lakshmi Priya and Mr.V.Rajesh.

Guest lecture on "Introduction to CCNA"

A guest lecture on "Perspective on Industrial Needs" was arranged for MVIT Dreams ECE students on 1st July 2017. The resource person was Mr.Prabhu Muthukrishnan, Project Lead., Mc. Len Technology, Coimbatore.

A guest lecture on "Roadmap to Security" was arranged for 3rd ECE students on 22nd July 2017. The resource person was Mr.S.Selvakumar, Sr.Security Specialist, Axa Technologies, Bangalore and the arrangements were made by Ms.B.Lakshmi Priya.

Guest lecture on "Roadmap to Security"

A guest lecture on "Electromagnetics" was arranged for 2nd ECE students on 15th July 2017. The resource person was Mr.Ramprabhu, Assistant Professor, SSN College of Engineering, Chennai.

Guest lecture on "Electromagnetics"

A guest lecture on "Industrial Processors" was arranged by Ms.G.Sharmila for 3rd ECE students on 15th July 2017. The resource person was Mr.Ashiq Ahamed, Bistate System, Puducherry.

Guest lecture on "Industrial Processors"

Guest lecture on "Basic Electrical Understanding" was conducted for II ECE students on 12th August 2017. The resource persons were Mr.Charles, MD, Universal Electronics and Mr.Manisekar Varma, MD, Corner Stone Energy Solutions, Pondicherry.

Guest lecture on "Basic Electrical Understanding"

Poster Competition on "Application of Electronics" and "Advanced Processors" for II and III ECE students respectively on 31st August 2017 was conducted by Ms. G. Sharmila and Ms. S.Karthika.

Poster Competition on "Application of Electronics" and "Advanced Processors"

    II ECE students have went for an **Industrial visit** to "BSNL, Meenapakkam, Chennai" on 3rd March 2018.

    Mrs.Saraswathi and Ms.Sharmila had arranged a poster competition for II and III year students **"Internet of Medical Things"** on 7th March 2018.

"poster presentation on IOMT"

"**Mini project Expo**" was conducted for ECE students through technical club on 12th March 2018.
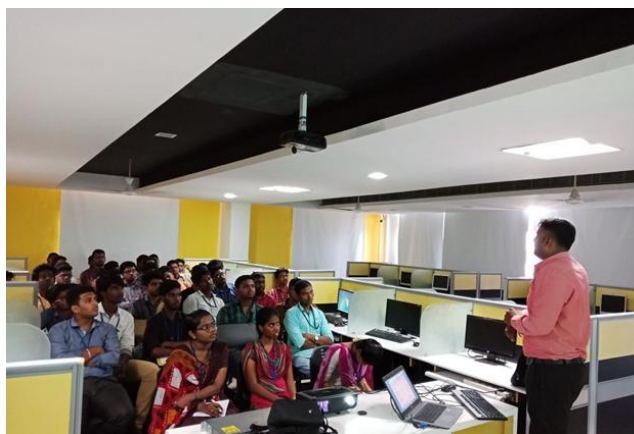

"*mini project expo*"

"**Component identification contest**" was conducted for the ECE students by the technical club on 15th March 2018.
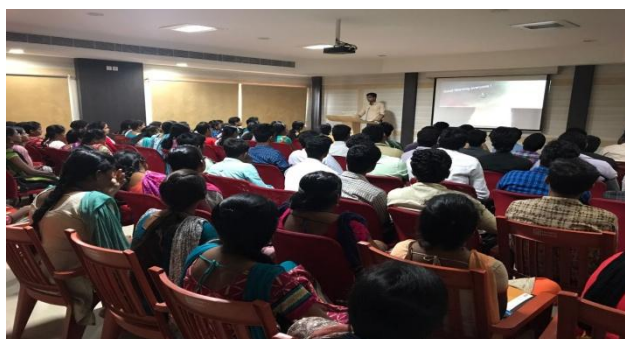

"Component identification contest"

One day workshop on **"Embedded IoT"** was conducted for the faculty of all departments by "ABE Engineering Design" on 14th November 2017.

One day workshop on **"Computer Networking"** was conducted for the III year ECE students by Mr.Shanmugasundaram "Miciredes technology", Pondicherry on 8th March 2018.

"Workshop on computer networking"

Mr.Rajesh arranged a Guest lecture on "**Embedded Product Development"** was arranged for III year ECE on 24th feburary 2018 . The resource person was Mr. Ranjith kumar, Senior embedded engineer, E-con systems,India pvt Ltd, Chennai.

"*Guest lecture on embedded product development"*

Guest lecture on "**Inspiring students in Electronics and briefing their Idealogy"** was arranged for Ist year ECE students on 7th feburary 2018. The resource person was Mr. Charles Manoj Babu, Young Minds, Pondicherry.

"Guest lecture on electronics"

Presentation contest on **"Design of Solar Energy based Consumer Products"** was conducted by Technical Club on 3rd March 2018, which was addressed by Mr.V.Shanmuganandham, Phocos India Pvt Ltd, Pondicherry.

"Presentation on Design of Solar Energy based Consumer Products"

Faculty Development Programme on **"Embedded IoT and IoE"** was organized by the department in association with ISTE from 11th to 15th December 2017. The resource person was Mr.A.Athif Shah, Chairman and Managing Director, ABE Semiconductor Designs, Chennai. 25 faculty members and 9 students from IV ECE attended the FDP.

FDP on "Embedded IoT and IoE"

MoU with , ABE Semiconductor Designs, Chennai was signed on 15th December 2017.

MoU with, ABE Semiconductor Designs

A guest lecture on "Current Trends in LED Technology" was conducted on 20th January 2018 for II ECE students.

Guest lecture on "Current Trends in LED Technology"