"Technology will not replace great teachers, but technology in the hands of great teachers can be transformational"
- George Couros

VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

An Autonomous Institute, NAAC Accredited with A^{++} grade, Approved by AICTE, New Delhi, Affiliated to JNTUH. Recognized as "College with Potential for Excellence" by UGC.

Department of Electronics and Communication Engineering

"Education is the most powerful weapon which you can use to change the world"
- Nelson Mandela

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEEREERING

WELCOME TO THE DEPARTMENT

The Department of Electronics and Communication Engineering was established in the year **1995**. Department offers B. Tech and two M. Tech programmes (VLSI System Design & Embedded Systems). Both the programmes are accredited by NBA. The department is recognized as "Research Centre" by JNTU Hyderabad. The department has well experienced qualified teaching faculty and supporting staff. The department received grants of Rs. 312.30 Lakhs from various funding agencies like AICTE, UGC, DST, MeitY, BIRAC, IISc-MSME.

The department indulges in cutting edge research in the areas of Biomedical Signal Processing for Health care applications, Wireless Sensor Networks, Wireless Communications, RF MEMS, Microstrip Antennas, Internet of Things, Low Power VLSI, Device Modelling, Cognitive Radio, Speech/Audio and Video processing.

18 well equipped laboratories established at a cost of Rs. 4.48 Crores, catering to the fields of Communication, Embedded Systems, Bio Medical Signal & Image Processing, VLSI System Design and IoT. Computing facilities include 382 computer systems equipped with various softwares such as MATLAB R2018b with unlimited toolboxes (Campus wide license), Advance Design Systems, Code Composer Studio, Xilinx-Vivado, Mentor Graphics-HEP 1 & HEP2, Synopsys tools, Keil µVision 4, SPICE-Based Analog Simulation Program-TINA software which are well used in research activities. The hardware laboratories are supported by Texas Instruments, EdGate, Advanced Industrial Computing India Pvt Ltd and Intel Foundation for Innovation Collaborative Education.

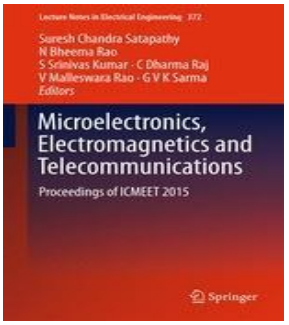
Students explaining their project at the event Project Expo

FACULTY AND STAFF

ECE department has 61 well experienced faculty members, among them 22 are Ph.D holders (from IITs, NITs,State and National Universities) and 36 are pursuing Ph.D. 8 faculty were recognized as research supervisors by various universities and are guided/being guided 41 research scholars. 35 faculty members have more than 10 years of teaching experience and 11 have industrial experience too. 2 faculty members have registered for Ph.D in IITs through QIP. 4 faculty have been qualified in NET and 35 have been certified with NPTEL where 7 are the national toppers. Faculty make use of various teaching -learning methodologies: POGIL, WIT & WIL, Lab Protocol, Story Board in order to enhance the learning potential of the students.

The faculty are members of various professional bodies like IEEE, ISTE, IETE and VSI. The faculty actively organized 35 - Programs. Faculty members got benefited by participating in FDP's, Workshops through the sponsorship from the department. They are reviewers for various national and international journals and conference proceedings. Faculty have good interaction with Industries and Institutions.

RESEARCH AND INNVOATION



Faculty members have published 800+ publications. Also published 5 books and 31 book chapters. 14 patents have been published and 4 granted. The total citations in the department is 2500+ and average h-index is 11.

Department has research projects sponsored by government and industry. The department has applied for 53 projects worth Rs. 1165.78 Lakhs. Faculty and students are encouraged to start companies to commercialize their research innovations. Numerous opportunities are offered to students and faculty to interact with industry through research centers. In addition to all the theoretical and practical courses, the undergraduate and postgraduate students actively contribute to the ongoing research in the department. Department has good synergy with industrial experts and have MoU with 18 leading technology domain training and development industries. 35 Students got benefited through Technology Entrepreneurship Program.

PLACEMENTS & INTERNSHIPS

- 653 students were selected for internships since 2012 at various MNCs.
  Percentage of placements for the year 2021-22 – 97.95%.
- Highest pay package – Rs. 44.15 Lakhs per Annum.
- Average pay package –Rs. 6.8 Lakhs per Annum.
- Core Placements – Amazon, Qualcomm, Synopsys, Hyundai Mobis, NCR Corporation, TCS Digital, Tata Elxsi, ACS solutions, Vayatronics, VEM Technologies, NTT Data, ZF India Technology, Medha Servo Drives.

STARTUPS INCUBATED

SolBots Robotic Solutions: Solbots vision is to provide technology driven solutions in health care and industrial sectors. Solbots prior mission is to develop automated prosthetic hand which can fulfill basic needs of a customer.

Salcit Digital Health Solutions: Leverage technology in reducing mortality rate and disease spread rate for respiratory diseases by providing best in class digital health solutions. Take the state-of-the-art research on respiratory health through proper experiments, field trails by involving all stakeholders in the entire ecosystem through a well outlined execution strategy.

MMRFIC Technology Pvt. Ltd.: MMRFIC's unique expertise in MMIC and RFIC enables the world's most integrated, robust, reliable and easiest-to-use MMW and RFIC solutions. By leveraging digitally assisted circuits for MMW and RF Front End (RF-FE), many discrete components are eliminated and it enables value-rich features in competitive area and power quantities as well as quicker time to market.

INFRASTRUCTUTRE

Department has Academic Domain and Cross Domain Labs. Cross Domain Laboratories and Centre's have been organized to facilitate research that extends traditional boundaries. The department has 18 well equipped laboratories, 18 class rooms including UG and PG, 03 tutorial rooms, 04 seminar halls and department library.

STUDENTS

Presently, the department has an intake of 240 Students for B.Tech Programme and an intake of 18 students for M.Tech Programme in VLSI System Design and Embedded Systems respectively. Apart from trainings they receive, students get exposure at the National and International level platforms through internships and participation in conferences and competitive events. Over the years, our graduates and post graduates got hired in leading National and International organizations and many of our students have made us proud through the achievements in their professional career.

191 projects were exhibited in Open House event for the last 5 years by ECE students and have secured first prize twice and second prize once. Apart from academics, students also excel in ECA, CCA, NSS activities and brought many laurels.

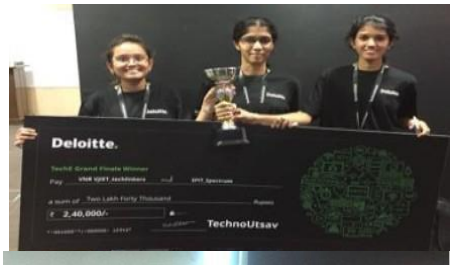
AWARDS & ACHIEVEMENTS

- 3 girl students won SEEDS 2022, a flagship programme Synopsys
- M. Sai Sucharitha (2015-19), got first prize in JP Morgan Contest "Code for Good".
- 4 students received "TCS Academic Excellence Awards".
- Dr. S. Rajendra Prasad is honoured as the Editorial Board member of International Journal of VLSI Design & Communication System (VLSICS).

- Dr. Y. Padma Sai is a member of Admission Committee for selecting the candidates for Ph.D. programme in Bio-medical engineering department at Osmania University, Hyderabad.-Dated: 24/04/2018.
- 5 Students received ISTE "Ideal Student of Talent and Excellence Award" from Engineering Colleges in A.P & T.S during last 5 years. Mr. Satya Sai Mano (III Year) and team received "Phillippine Gold Award" from Manila Young Inventors Association to student Innovators for "Semi Automated Prosthetic hand" in2017.ECE III B.Tech students were winners in Smart India Hackathon 2019 Hardware edition organized by AICTE & MHRD.

- Mr. T. Mahidhar and team received ISTE "Best Student Innovator" Award for "Cough classification and interpretation of Respiratory Pathology" in 2017.
- 5 students got admission in IIM's during last five years.
- Dr. Y.Padma Sai has been nominated as Vice-Chairman for Women in Engineering Affinity Group, 2018, IEEE Hyderabad Section.

- Dr. Y. Padma Sai has been nominated as Secretary cum Treasurer of ISTE Telangana Section for the duration 2015-19.
- Mr. S. V. N. Narayana Rao and team received BIRAC Innovation Challenge Award- "Cough and Wheeze Analyser for Respiratory Digital Health services" - 2018



- Dr.C.D.Naidu received "Best Engineering College Principal" award from ISTE A.P and T.S section - 2017.
- Dr. Y. Padma Sai and team received Silver Medal at IIA-International Innovation Fair - 2017 AP Innovation Society.

- Mr. S. V. N. Narayana Rao, Dr. Y. Padma Sai, and Mr. V. Naveen Kumar won Bronze medal from China Association of Inventions for the innovation "Cough and Wheeze Analyzer for Respiratory Digital Health Services" in 2017.
- Innovative Excellence award by "The United Inventors Association of the USA", Seoul to Dr. Y. Padma Sai for presenting her research work in "CSA-BOT, A Device for Cognitive Status Assessment" -2016.

ALUMNI

The alumni association provides good platform for the students to stay in touch with one another and maintain their association with the Institute. They occasionally visit the Institute and also provide career guidance and create awareness on latest technologies, industry requirements to students.

ACTIVITIES

Students participated in MAKE-A-THON

Numerous activities and groups are available that complement academic pursuits and provide opportunities for students to grow and develop new interests. Not only limited to academic activities, students are given opportunities to serve the society through various social activities. The department periodically organizes various workshops, guest lectures, industrial visits for keeping abreast of the developments in the various fields and so as to make the students industry ready. Conducted Hackathons 3 times and 347 students got benefited. 301 Students certified in various courses of National Programme on Technology Enhanced Learning (NPTEL).

For Further Information, Please Visit

http://www.vnrvjiet.ac.in/ece.php

VNRVIGNANAJYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY
Vignana Jyothi Nagar, Pragathi Nagar,
Nizampet (S.O), Hyderabad 500 090
TS, India.