



INSTITUTE OF ENGINEERING AND TECHNOLOGY (Approved by A.I.C.T.E & Affiliated to JNTU, Kakinada) Accredited By NACC With "A" Grade

Jonnada (Village), Denkada (Mandal), Vizianagaram Dist. – 535 001

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SEM-1

ECE DEPARTMENT PROFILE



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG

2018-19



ABOUT DEPARTEMENT

"Electronic communication is an instantaneous and illusory contact that creates a sense of intimacywithout the emotional investment that leads to close friendships." Department of Electronics and Communication Engineering was established the year 2008 with an initial intake of 60 students and securedapproval for additional intake of another 120 students at B.Tech level.Post-Graduation M.Tech program in Embedded Systems & Design was introduced in 2014 – 2015 with an intakeof 18 seats. Department is mainly focused upon creation of technocrats having strong fundamentals in Electronics and Communication Engineering domain. Department is consisting of five professors, eight associate professors, one senior assistant professor and 24 assistant professors pursuing research works in various domain areas like Digital Systems, Antennas, Control Systems, Signal& image Processing, Microwaves, Microprocessor Applications, Computer Systems and Communication Engineering, Embedded Systems and VLSI Design. Students of department are guided by ¬experienced and dedicated faculty team with strong commitment towards engineering education, who work with zeal andenthusiasm to provide an optimum learning environment. Collaborative learning is made a part of the curriculum for making the students excel in today's competitive environment. Students are driven towards thrust areas of research like Microwave Antennas, Signal and Image Processing, Mobile Communication, VLSI, Embedded Systems etc., under the guidance of faculty to publish papers in various national & amp; international journals and conferences. On campus professional student chapters such as IEEE, IETE and IE (India) enable the students to enrich their knowledge levels by organizing guest lectures and workshops with eminent personalities from IITs, different universities and other reputed organizations for bridging the gaps between academics and industry requirements. Training for competitive examinations like GATE and GRE are provided for aspirants.

The department is containing excellent infrastructure comprised of licensed software's such as Mentor Graphics, IOT, XilinxVivado Design Suite, MATLAB, Code Composer Studio, ORCAD PSPICE etc. In addition the department is incorporated with an Embedded Systems and VLSI Design Excellence center to train the students in using different ARM-926 Cortex Microcontroller boards and ZED-FPGA Universal kits for various real time industrial applications.

The department is equipped with a simulation lab having 50 computers connected to 10Mbps leased line Internet facility. A full-fledged e-class room with LCD projectors for efficient and Smart teaching is established in the department. Further, the department is containing well equipped Laboratories has EDC, Embedded Systems, Communication, and IC&PDC laboratories with full-fledged latest equipment.

VISION OF THE INSTITUTE

Producing globally competent and quality technocrats with human values for the holistic needs of industry and society.

MISSION OF THE INSTITUTE

- Creating an outstanding infrastructure and platform for enhancement of skills, knowledge and behaviour of students towards employment and higher studies.
- Providing a healthy environment for research, development and entrepreneurship, to meet the expectations of industry and society.
- ☐ Transforming the graduates to contribute to the socio-economic development and welfare of the society through value based education.

VISION OF THE DEPARTMENT

Emerge as a Centre of Eminence in Electronics and Communication Engineering to impart quality education towards competent and skilled engineers.

MISSION OF THE DEPARTMENT

☐ Offering an inspiring and conducive learning envi-
ronment to prepare skilled and competent engineers
by having good infrastructure, laboratory facilities,
and effective teaching-learning process.

- ☐ Fostering culture to face complex technological challenges through Internships, Projects and Industry-Institute Interactions in order to enhance employability skills.
- ☐ Creating an environment for higher studies and entrepreneurship by way of imparting quality education and promoting research activities.
- ☐ Imparting professional behaviour and strong ethical values towards societal issues by encouraging socially relevant activities.

Guest Lectures

Digital Signal Processing by Dr.G Prasad Scientist-G NRSA ,21-07-18



Advnaced Antenna Applications"by Dr K.Chandra Bhushana RaoProfessor JNTU VZM 04-09-18



PROGRAMME EDUCATIONAL OBJECTIVES

PEO1: Graduates shall have strong knowledge and technical skills in core and allied fields of Electronics and Communication Engineering to become globally competent engineers and researchers.

PEO2: Graduates shall comprehend latest tools and techniques in the field of Electronics and Communication Engineering to analyze, design and develop novel systems and products to address the needs of real life problems/issues.

PEO3: Graduates shall have professional attitude, ethical values, teamwork and good communication skills, to adapt the rapidly changing technologies in Electronics and Communication Engineering through life-long learning

NSS STUDENTS MESSAGES

I feel really blessed to be a part of NSS

This is the best platform to serve our nation and also there is a chance for us to learn many things which is important for our students and in this platform we never found any gender discrimination and partialitylast but not least LOVE one thing in "NSS" "NOT BE BUT YOU"



Niharika 3rd ECE -A

NSS is a great platform where every individual can learn new things. It aims at to inculcate social welfare in students and through the community services. It really helps in building their personality. With the experience from NSS I am sure that we will learn how to lead a life of dignity with positive mindset and contributes to the growth of nation by some or the other way.



V.Harita 4th ECE-C

FACULTY ACHIEVEMENTS

Ph.D awards:



Dr.D.NareshKumar, Associate Professor, Ph.D Degree awarded in August from JNTUK in 2018

Publications:

- 1. Naresh Kumar Darimireddy, R Ramana Reddy, A.M Prasad "A Miniaturized Hexagonal-Triangular fractal Antenna for Wideband Applications" in IEEE Antennas and Propagation Magazine, vol. 60, no.2, April 2018. (Indexed in SCI-Expanded, Impact factor 3.007) Citations: 3.
- 2. A.PramodKumar; "Design and Implementation of a Zero Voltage Transition Bidirectional DC-DC Converter for DC Traction Vehicles" in Proc. Journal of international Transaction on Electrical Energy Systems, Accepted and published in 2019 SCI indexedWiley impact factor 1.619.
- 3. Naresh Kumar Darimireddy, R Ramana Reddy and A.M Prasad, "Asymmetric Triangular Semi-Elliptic Slotted Patch Antennas for Wideband Applications," in Radioengineering Journal, vol. 27, no. 1, April 2018. (Indexed in SCI-Expanded, Impact factor: 1.048) (Journal is a Member of IEEE Communications Society) Citations: 1
- 4. A.Pramod Kumar; "Design and Analysis of New Zero Current Transition Bidirectional DC-DC Converter for Energy Storage Systems" in Proc. Journal of ELEKTRONIKA IR ELEKTROTECHNIKA published in Issue 4,Vol 24,in 2018,pp 08-14 SCI indexedimpact factor 1.088.
- 5. Naresh Kumar Darimireddy, R Ramana Reddy and A.M Prasad, "Asymmetric Dual L-Slot Coupled Circularly Polarized Dielectric Resonator Antennas for Multiband Applications," in International Journal of RF and Microwave CAD-Wiley Periodicals, vol. 28, no. 8, Oct. 2018. (Indexed in SCI-Expanded, Impact factor: 1.306)

6. A.Pramod Kumar; "Estimation of Power and Delay in CMOS Circuits using Leakage Control Transistor" in Proc. Carpathian journal of Electronics and Computer Engineering, Vol 11, Issue 2 in 2018.pp 25-28

7. Naresh Kumar Darimireddy, R Ramana Reddy and A.M Prasad, "Asymmetric and Symmetric Bow-Tie Slotted Circular Patch Antennas for Circular Polarization," in Wiley-Electronics and Telecommunications Research Institute (ETRI) Journal, vol. 40. no. 5, pp. 561-569, Oct. 2018. (Indexed in SCI-Expanded, Impact factor: 1.116)

8. A PAPER ON "IMPLEMENTATION of Low-Power Split- Radix FFT Processor" in IJMTE ISSN NO 2249-7455

International Conferences:

- 1.A.Pramod Kumar; "Estimation of Power and Delay in CMOS Circuits using Leakage Control Transistor" in Proc. IEEE Springer Conference on Latest Innovation in Materials Engineering and Technology (ICLIET) in 2018.
- 2 M. Sujatha, R Ramana Reddy, J. Bhargavi, Naresh K. Darimireddy, "Coupled Line and Coupled Line Fractal MicrostripBandpass Filters" in 49th MID TERM SYMPOSIUM (MTS-2018) on Recent Trends in Wireless Communications, 8-9 April 2018, AUCE(A), Visakhapatnam.
- 7. N. Rajasekhar, R Ramana Reddy, Naresh K. Darimireddy, "Performance Analysis of Dualband Triangular Dielectric Resonator Antenna" in 49th MID TERM SYMPOSIUM (MTS-2018) on Recent Trends in Wireless Communications, 8-9 April 2018, AUCE(A), Visakhapatnam.
- 8. M. Kalpana, R Ramana Reddy, Naresh K. Darimireddy, N. Rajasekhar "Design of Pentagonal Dielectric Resonator Antenna for X-Band Applications" in 49th MID TERM SYMPOSIUM (MTS-2018) on Recent Trends in Wireless Communications, 8-9 April 2018, AUCE(A), Visakhapatnam.

Patents Published in National Patents Journal Office-India:

- A Compact Hexagonal-Triangular Fractal Antenna for Wideband Applications. Application No. 201641043763, Filed Dt. 22-12-2016 and Published Dt. 28-03-2018. By D. Naresh Kumar
- A Modified Bow-Tie Slotted Circular Patch Antenna. Application Number: 201741034823,
 Filed on Dt.29.09.2017 and Published on Dt. 28-03-2018.By D.Naresh Kumar
- A Quad-band Asymmetric Dual L –Slot fed Dielectric Resonator Antenna (DRA) with Circularly Polarized Bands. Application Number: 201741035252, Filed on Dt.05.10.2017and Published on Dt. 28-03-2018.By D.Naresh Kumar
- Curvy Rectangular Slotted Substrate Integrated Cylindrical DRA with Wide CP Bandwidth and Enhanced Gain. Application Number: 201741035257, Filed on Dt.05.10.2017 and Published on Dt. 28-03-2018. By D.Naresh Kumar

JNTUK Best Researcher Award:

1.Dr.D.Naresh Kumar from ECE department



Best Teacher Award:

1.Mr.V.NancharaiahReceived department best teacher award for the academic year 2017-18



NPTEL Certificate Courses:

- 1. Analog Communications completed course successfully By Dr.A.PramodKumar
- 2.Digital image processing Secured ELITE Certificate by Mr. V Y S S SUDIR PATNAIKUNI
- 3. Architecture design of Digital Integrated Circuits completed course successfully Y. Yaminidevi
- 4. Switching Circuits & Logic Designand Secured ELITE Certificate by R.DivyaKanthi
- 5. Switching Circuits & Logic Designand Secured ELITE Certificate by Md. Azima
- 6. Microprocessors and Microcontrollers secured Elite certification by Y.Yaminidevi
- 7. Switching Circuits and Logic Design secured Elite certification Y. Yaminidevi
- 8. Semiconductor Devices and Circuits Circuits completed course successfullyMr.D.Suresh Kumar

NPTEL Mentor Certificate:

- 1. Microprocessors and Microcontrollers by
- Y. Yaminidevi
- 2. Digital circuits by Y. Yaminidevi
- 3.Digital Circuits by R.DivyaKanthi4. Digital Circuits by Md.Azima

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- 2. Digital circuits by Y. Yaminidevi
- 3.Digital Circuits by R.DivyaKanthi4. Digital Circuits by Md.Azima

STUDENTS ACHIEVEMENTS:

G.Rohini II ECE selected for JNTUK netball player





NATIONAL LEVEL KARATE CHAMPION.



2ND BEST ARTICLE AWARD AT IN-STITUTE OF ENGINEERS (IE) VISHAKAPATNAM



BASKETBALL INTERCOLLEGE TOURNAMENT

INDUSTRIAL VISITS:



• 2nd year students of ECE have visited All India Radio Station located at siripuram through IEI (Institution of Engineers) chapter.

BEST PROJECT

QUADCOPTER

The goal of my project is to design and build an autonomous quadcopter . This means going through the process of researching previous models, performing calculations, purchasing individual parts, testing those parts, designing the final product, and finally fitting everything together. All this is to be done with the minimum amount of outside help (i.e. using pre-determined code, buying a boxed set of materials). After deciding how big we wanted our quadcopter to be and purchasing the appropriate parts there were four primary design steps on the way to the final product. First I had learned to control the ESCs using setup board. Next I used a spring-mass test setup to determine a relationship between force and displacement, and thereby determined the relationship between force and pulse width of the signal going into the ESC. Once we felt comfortable with our ability to communicate with the ESC we used another test setup comprised of a rotating bar suspended between two beams to practice stabilizing the system in 1 degree of freedom (roll). And by developing this model we can used for several applications as follows, Inspection & Monitoring, Surveying & Mapping, Precision agriculture.



J.GOWTHAM KUMAR(4th YEAR, ECE)



G. Vaishnav 15KD1A0446 **CAT SCORE : 96 PERCENTILE**

These four enlightening years at Lendi have transformed me from a careless child to a responsible adult.

They have developed in me new avenues of interest, giving me the purpose needed to lead my life henceforth.

They gave me the courage to risk falling in this pursuit, and I promise to give my best in the future to make this college proud. For all this, I will forever be indebted to Lendi.

> Apscdc conducted a workshop on BASICS OF PLC & PROCESS OF INSTRUMENTATION for 1 week in ANDHRA UNIVERSITY (VIZAG) .20 members are QULIFIED

NEWS LETTER EDITORS

Mr.N.Rajsekhar Mr.Sudheer Mrs.Sujatha V.Venu Venkatesh A.Ashishi Rahul Naveen