# NARAYANA ENGINEERING COLLEGE

**NELLORE** **(AUTONOMOUS)**

A+ NAAC

# Newsletter

# e-Orbit

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

**Jul- Dec 2020**  **Volume - V**

### Editorial Board Member
## Dr. K. Murali,
**Professor & HOD, Dept. of ECE**

### Student Editors
**K. Bhanuteja,** IV ECE
**M. Bhavesh Raju,** IV ECE
**M. Sanjana,** III ECE
**T. Harshit,** II ECE

## COLLEGE

### Vision of the Institute

To be one of the nation's premier Institutions for Technical and Management Education and a key contributor for Technological and Socio-economic Development of the Nation.

### Mission of the Institute

To produce technically competent Engineers and Managers by maintaining high academic standards, world class infrastructure and core instructions.

To enhance innovative skills and multi disciplinary approach of students through well experienced faculty and industry interactions.

To inculcate global perspective and attitude of students to face real world challenges by developing leadership qualities, lifelong learning abilities and ethical values.

## ECE Department

### Vision of the Department

To produce technically competent and creative engineers who can cater to the industry and societal requirements in the field of Electronics & Communication Engineering.

### Mission of the Department

M1: To impart quality engineering education to students to enhance ability to pursue knowledge by providing core competency and state of the art infrastructure.

M2: To provide industry oriented learning for empowering and facilitating the learner through industry institute interaction and leadership qualities.

M3: To promote participation in research and extension activities for addressing the social needs by providing value based education along with life-long learning abilities.

## Program Educational Objectives (PEOs)

PEO_1: Attain professional excellence or gain higher degree to face challenges posed by industry and society.

PEO_2: Address complex problems in a responsive and innovative manner.

PEO_3: Gain reputation by functioning effectively to address social and ethical responsibilities.

## Program Outcomes (POs)

Engineering Graduates will be able to:

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. 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.

3. 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.

4. 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.

5. 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.

6. 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.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge and need for sustainable development.

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. 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.

11. 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.

12. 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.
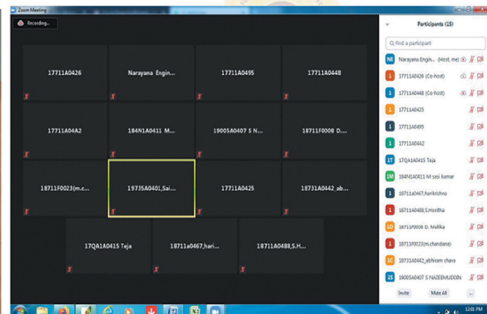
## PSOs of the Department

1. Domain Specific Knowledge: Implement electronic systems related to Electronics Devices &Circuits, VLSI, Signal processing, Microcomputers, Embedded and Communication Systems to fulfill the solutions to real world challenges.

2. Hardware Product Development: Apply the software and hardware tools in Analog and Digital Electronic circuit design to address complex Electronics and Communication engineering problems.

## A One Day National Level Students Technical Symposium EITRONS 2K20

The departments of Electronics and Communication Engineering & Electronic and Instrumentation Engineering have jointly organized EITRONS 2K20, A one day National level students technical symposium on 30.09.2020 , in association with IETE in online mode. The Inauguration of the technical symposium started by 10:00 am.

The head of the department, ECE Dr. K. Murali, has delivered the welcome address. He also emphasized the importance of conducting these types of technical symposiums in today's competitive world. The Principal Dr. G. Srinivasuslu Reddy, NECN delivered the felicitation address and wished all the participants. Dr. AVS. Prasad, Director of Narayana Engineering Colleges and Narayana Pharmacy College delivered the special address and congratulated all the organizers. Mr. M V Sumanth, HoD/EIE,NECN delivered felicitation address and wished everyone all the very best.

Around 800 students participated in all the events from various engineering colleges. Geetanjali Institute of Science and Technology, VBR VIST college, NEC, Gudur, Sri Venkateswara College of Engineering , Nellore,  are some of the Institutions from which huge number of students participated.

# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

## Paper Presentation:

| S No | Name | College Name | Prize |
|------|------|--------------|-------|
| 1 | P Heesha Misritha | Narayana Engineering College, Nellore | First Prize |
| 2 | Akhila Matli | Visvodaya Engineering College, Kavali | Second Prize |
| 3 | Matli Sony | Visvodaya Engineering College, Kavali | Second Prize |
| 4 | Kedari Venkat | Narayana Engineering College, Nellore | Third Prize |

## General Quiz:

| S No | Name | College Name | Prize |
|------|------|--------------|-------|
| 1 | Chava Sai Mrudhula | P. B. R Visvodaya Institute of Technology and Science, Kavali | First Prize |
| 2 | Mande Nimishasai | Geethanjali Institute of Science and Technology, Nellore | Second Prize |
| 3 | Kante Bhanu Teja | Narayana Engineering College, Nellore | Third Prize |
| 4 | Prathyusha Lokireddy | Visvodaya Engineering College, Kavali | Third Prize |

## Short Film:

| S No | Name | College Name | Prize |
|------|------|--------------|-------|
| 1 | Manikanta Sai | Geethanjali Institute of Science and Technology, Nellore | First Prize |
| 2 | Naga Sai Varun | Krishna Chaitanya Degree College, Nellore | Second Prize |

## Circuit Design Context:

| S No | Name | College Name | Prize |
|------|------|--------------|-------|
| 1 | Nellore Harikrishna | Narayana Engineering College, Nellore | First Prize |
| 2 | Sk Nazimuddin Basha | JNTUA | Second Prize |

## Poster Presentation:

| S No | Name | College Name | Prize |
|------|------|--------------|-------|
| 1 | D. Kavya | Narayana Engineering College, Nellore | First Prize |
| 2 | K. Venkat | Narayana Engineering College, Nellore | Second Prize |
| 3 | K. Ruchitha | Narayana Engineering College, Nellore | Third Prize |

# Online STTP on "Applications of Signal, Image And Video Processing in VLSI using Xilinx System Generator [ Phase - I ]"

Department of Electronics & Communication Engineering, Narayana Engineering College, Nellore, orgaa nized a "ONLINE STTP ON APPLICATIONS OF SINGAL, IMAGE AND VIDEO PROCESSING IN VLSI USING XLINX SYSTEM GNERATOR". The STTP was conducted on the following dates: 14 – 09 – 2020 to 19 – 09 – 2020. The total number of participants attended the faculty development program is 57. The purpose of this STTP is to bring together researchers & PG students from Academia and Engineers & Scii entists from industry and R&D institutes to have discussions on the recent advances in Applications of signal, image & Video processing in VLSI using Xilinx System generator. High end image or video pro cessing applications are easy to solve in MATLAB..


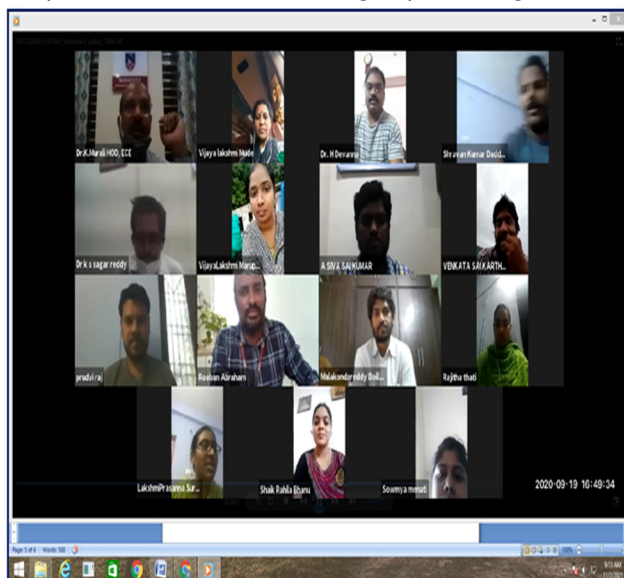


The following members are the resource persons for the programme.

1. Dr.Farukh Hashmi, NIT Warangal
2. Nagendra Bandi, CoreEL Technologies
3. Dr. P. Srihari Rao, NIT Warangal
4. Dr. P. Muralidhar, NIT Warangal

Mr. Nagendra Bandi, CoreEL Technologies addressed the participants about the following topics using laboraa tory:

1. Vivado Design Flow for Logic
2. Generating Bit – Stream and Programming Hardware
3. Designing System using DSP Blocks
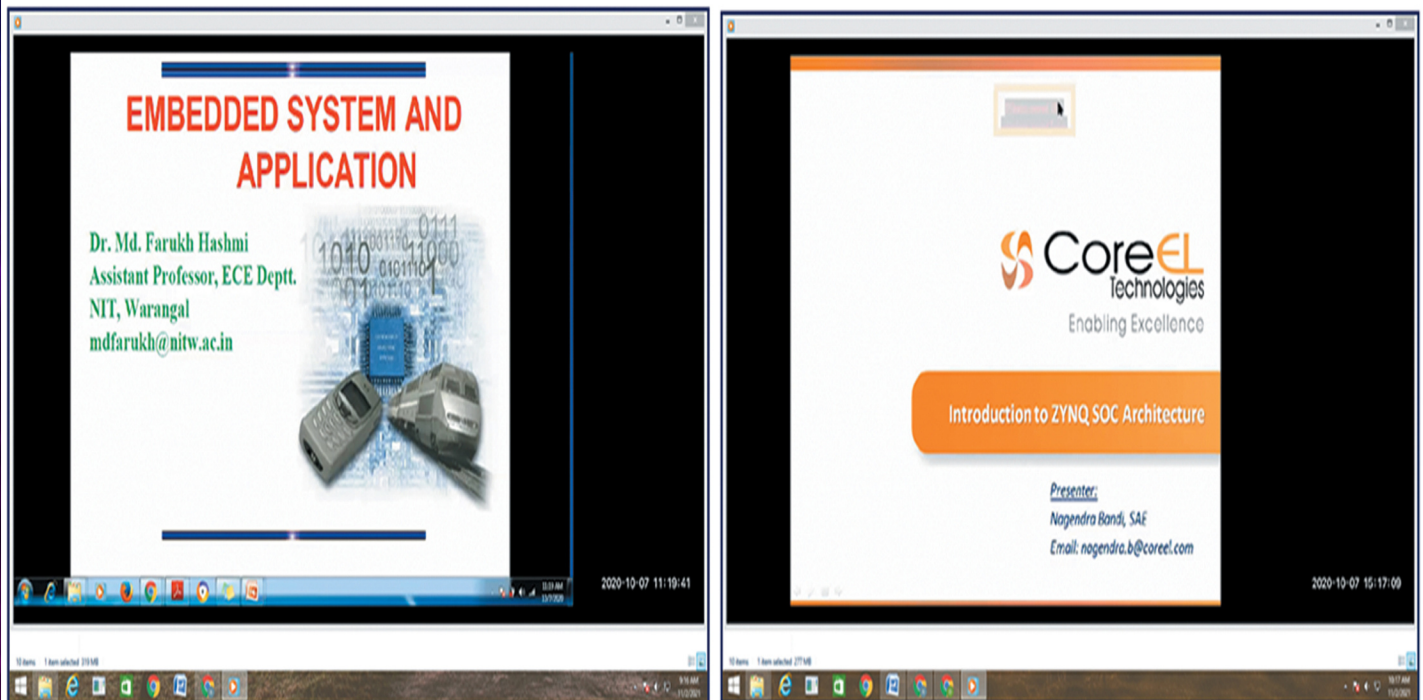4. Implementation of DSPs on Hardware.

Dr. P. Srihari Rao, NIT Warangal addressed the participants about the overview of VLSI DSP, and IC Design for VLSI Comm munication. Dr. Farukh Hashmi, NIT Warangal addressed the participants about the overview of signal processing methods, DSP Algorithms and Image Processing Algorithm. She discussed about the different architecture with examples. Dr. P. Muralidhar, NIT Warangal addressed the participants about the following topics: FPGA Architecture and VLSI Architectures for Video Processing Algorithms.

# Online STTP on "Applications of Signal, Image And Video Processing in VLSI using Xilinx System Generator [ Phase - II ]"

Department of Electronics & Communication Engineering, Narayana Engineering College, Nellore, organized a "ONLINE STTP ON APPLICATIONS OF SINGAL, IMAGE AND VIDEO PROCESSING IN VLSI USING XLINX SYSTEM GNERATOR". The STTP was conducted on the following dates: 05 – 10 – 2020 to 10 – 10 – 2020. The total number of participants attended the faculty development program is 72. The purpose of this STTP is to bring together researchers & PG students from Academia and Engineers & Scientists from industry and R&D institutes to have discussions on the recent advances in Applications of signal, image & Video processing in VLSI using Xilinx System generator. High end image or video processing applications are easy to solve in MATLAB.



Dr. Farukh Hashmi, NIT Warangal addressed the participants about Embedded Systems, IoT and DSP Processor Architecture. She discussed about the different architecture with example. Finally, she discussed about the application of DSP architecture.
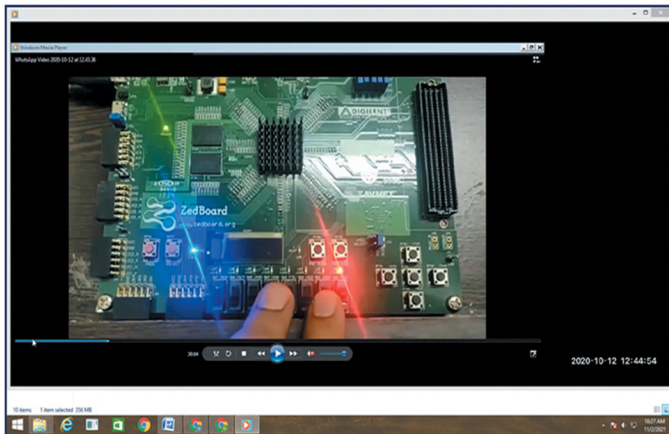
Mr. Nagendra Bandi, CoreEL Technologies addressed the participants about the following topics using laboratory:

1. Introduction to ZYNQ SOC
2. Introduction to ZYNQ SOC and IP Integrator
3. Configuring ZYNQ Processor and FPGA
4. Writing Application and Implementing on Hardware
5. Creating Custom IP for DSPs and Validation
6. Adding Custom IP to Block Diagram and Implementing Application

# Online STTP on "Applications of Signal, Image And Video Processing in VLSI using Xilinx System Generator [ Phase - III ]"
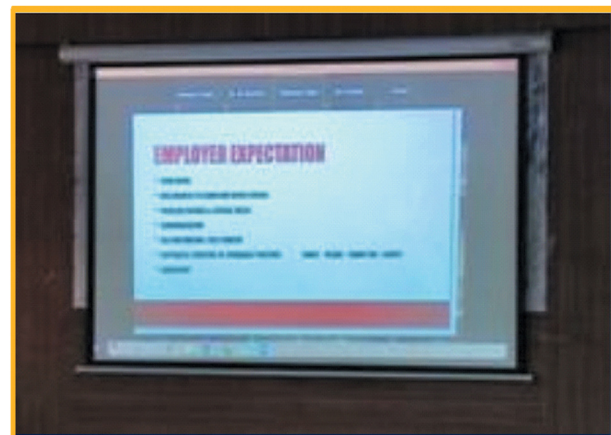
Department of Electronics & Communication Engineering, Narayana Engineering College, Nellore, organized a "ONLINE STTP ON APPLICATIONS OF SINGAL, IMAGE AND VIDEO PROCESSING IN VLSI USING XLINX SYSTEM GNERATOR". The STTP was conducted on the following dates: 02 – 11 – 2020 to 07 – 11 – 2020. The total number of participants attended the faculty development program is 69. The purpose of this STTP is to bring together researchers & PG students from Academia and Engineers & Scientists from industry and R&D institutes to have discussions on the recent advances in Applications of signal, image & Video processing in VLSI using Xilinx System generator. High end image or video processing applications are easy to solve in MATLAB.



# Online Webinar on "Career awareness and opportunities in electronics industry"

Department of Electronics and Communication engineering has conducted an online webinar on "Career Awareness and Opportunities in Electronics Industry" under IIIC for IV B.Tech students on 23-12-2020. The Resource Person for the event is Mr. P. Chaitanya, Associate Manager, Accenture.

In this they focused on team work, willingness to learn and being flexible, problem solving and logical skills, communication, self motivation/starter, soft skills &leader ship.



Team work: Teamwork is the collaborative effort of a group to achieve a common goal or to complete a task in the most effective and efficient way. This concept is seen within the greater framework of a team, which is a group of interdependent individuals who work together towards a common goal.

Willingness to learn: Willingness to learn is a key behavior that helps us get on in life, whether personally or professionally. Simply put, it's being open to – or seeking out – new experiences, skills and information that improve our abilities and enjoyment.

Being Flexible: To be flexible means to be willing to adapt to change. Being flexible in your work requires that you keep an open mind. ... Working as a team takes a certain amount of flexibility by each employee.

# STUDENTS ASSOCIATION ACTIVITIES

## Pseducode Competition

The department of Electronics and Communication Engineering has conducted "Pseducode Competition on behalf of "IETE" (students association) ISF on 28/12/2020. Students of II, III and IV Year B.Tech students exhibited their talents and came forward to participate in this event. In this competition world all the companies are looking for graduates who have fantastic grip over CODING and have additional skills, IETE is training the students by conducting this activity.



# STUDENT ACHIEVEMENTS

✔ Shaik Thaseen of III B.Tech ECE Secured Second Prize in "National Level E Quiz on Engineering Mathematics " organized by Geethanjali Institute of Science & Technology, Nellore on 06-11-2020.

✔ Thota Jyothirmayi of III B.Tech ECE Secured Second Prize in "National Level E Quiz on Engineering Mathematics " organized by Geethanjali Institute of Science & Technology, Nellore on 06-11-2020.

✔ Thirakala Narasimha and Shaik Rahamthunisa of III B.Tech ECE Secured Third Prize in " Quiz on "Mobile Robotics" organized by Sri Krishna College of Engineering & Technology, Chennai on 09-09-2020.

# STUDENT PARTICIPATION

✔ SK.Arshiya, Madaraju Sai Ashitha, Mohammed Sana & Shaik Mahin Kousar of II ECE and Pallapu Rakshitha, Nellore Immanuel Vijay Raj & Pandala Bhavya of III ECE participated in Online Quiz on Effective Communication Skills organized by English Language Teachers Association of India on 01-07-2020.

✔ Sd. Arshad Ahmed of IV ECE participated in Paper Presentation organized by PBR Visvodaya Institute of Technology & Science, Kavali on 21-09-2020.

✔ J.Jahnavi of II ECE and Inukonda Anjalika, Shaik Thaseen, Udatha Tejaswi & Thota Jyothirmayi of III ECE participated in National Level E Quiz on Engineering Mathematics organized by Geethanjali Institute of Science & Technology, Nellore on 06-11-2020.

✔ Lasya Reddy.K, Kayala Sadhvika, Shaik Afrin and Shaik Afrin of III ECE participated in E-Quiz competition on 'Technical Haunt 2020' organized by N. B. K. R Institute of Science and Technology, Vidyanagar on 07-09-2020.

✔ K.Sai sivani, Patan Chandni, Polipaka Manasa and Vennapusa Kalyani of III ECE participated in The Essay Writing Competition organized by Dr.Lankapalli Bullaya College of Engineering, Visakhapatnam on 02-10-2020.

✔ A. Harshitha, D. V. S. S. Revanth, K. Sandeep Kumar, G.V. Suresh, M.Bavesh Raju, N. Premkanth, R. Vikas and G. Avinash of IV ECE participated in Paper Presentation organized by N. B. K. R Institute of Science and Technology, Vidyanagar on 20-09-2020.

✔ Karimala Udaykumar, Kola Sumanika, Mummaneni Sai Sanjana, Thirakala Narasimha, Shaik Rahamthunisa, Samala Honitha, Jayakrishna Bharadwaj Pemmaraju, Thota Jyothirmayi and Kedari Venkat of III ECE participated in Quiz on "Mobile Robotics" organized by Sri Krishna College of Engineering & Technology, Chennai on 09-09-2020.

# FACULTY EXTERNAL PARTICIPATIONS

✔ Dr. K. S. Sagar Reddy Participated in five day faculty development program on "VLSI & Embedded system Design For Aerospace and Defence Applications" organized by Sri Venkateswara College of Engineering and Technology, Chittoor.

✔ Dr. K. Murali Participated in five day faculty development program on "VLSI & Embedded system Design For Aerospace and Defence Applications" organized by Sri Venkateswara College of Engineering and Technology, Chittoor.

✔ Mr. C. Leela Mohan Participated in five day faculty development program on "Outcome Based Curriculum " organized by Sri Venkateswara College of Engineering and Technology, Chittoor.

✔ Mr. A. Siva Sai Kumar Participated in five day faculty development program on "Challenges and Research Opportunities in the area of Communication & Signal Processing" organized by CMR Engineering College, Hyderabad.

✔ Mrs. M. Shanthi Participated in five day faculty development program on "Trends and challenges in design and implementation of reconfigurable antennas" organized by Velagapudi Ramakrishna Siddartha Engineering College, Vijayawada.

✔ Mrs. P. Sahithi Participated in five day faculty development program on "Evolving Research Trends in Electronics & Communications" organized by Talla Padmavathi College of Engineering, Kazipet, Warangal.

✔ Mr. O. Sreenath Participated in five day faculty development program on " Trends and Challenges in Design and Implementation of Reconfigurable Antennas for Increased Spectrum Access in Cognitive Radio Communication" organized by Velagapudi RamaKrishna Siddhartha Engineering College, Vijayawada.

✔ Mrs. I. Divya Participated in five day faculty development program on "Evolving Research Trends in Electronics & Communications " organized by Talla Padmavathi College of Engineering, Kazipet, Warangal.

# PLACEMENTS

| S. No | Name of the Company | No. of Students Selected |
|---|---|---|
| 1. | Accenture Solutions Pvt. Ltd | 12 |
| 2. | Bosch | 01 |
| 3. | Capgemini Technology Services India Limited | 01 |
| 4. | Cigniti Technologies Limited | 01 |
| 5. | Cognizant Technology Solutions India Private Limited | 10 |
| 6. | EMedEvents India Pvt. Ltd | 01 |
| 7. | Global Logic India Pvt Limited | 01 |
| 8. | HCL TECH LTD | 12 |
| 9. | IBM India Private Limited | 03 |
| 10. | IDBI Federal Life Insurance Co. Ltd | 02 |
| 11. | Infosys Limited | 01 |
| 12. | Innoswift Solutions | 02 |
| 13. | Just Dial | 02 |
| 14. | Legato Health Technologies | 01 |
| 15. | PricewaterhouseCoopers Service Delivery Center – Bangalore Private Limited | 02 |
| 16. | Prowess Software Services Private Limited | 02 |
| 17. | Ramsoft | 02 |
| 18. | TATA Consultancy Services Limited | 04 |
| 19. | Tech Mahindra Limited | 08 |
| 20. | ThinksynQ | 03 |
| 21. | Wipro Limited | 02 |