



# ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES

(Permanently Affiliated to AU, Approved by AICTE & Accredited by NBA)

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

DEPARTMENT QUARTERLY NEWS LETTER

[SEPTEMBER 2019 - NOVEMBER 2019]



## A GUEST LECTURE ON “COMMUNICATION SYSTEMS WITH EMPHASIS ON CONTEMPORARY TECHNOLOGY AND REALIZATION THROUGH MATLAB”

A guest lecture by Industry expert, **Dr. RajkumarGoswami, Commodore, Indian Navy, Headquarters, Eastern Naval Command, Visakhapatnam** is jointly organized by department of ECE in association with IETE Student Forum and ACES for the benefit of UG students on “**Communication Systems with emphasis on Contemporary Technology and Realization through MATLAB**”, on **14.09.2019** at ANITS. In his lecture, he discussed in detail about the basics of analog & digital communication systems and various errors & codes used in contemporary systems with simulations run through MATLAB and SIMULINK. The faculty of ECE department, ANITS and the students of ECE department has attended the guest lecture. Dr. RajkumarGoswami was felicitated by Head of the Department Prof. V.Rajya Lakshmi and Prof. G. Manmadha Rao. 145 Students Participated.



## A GUEST LECTURE ON “ELECTRONICS IN INDUSTRY”

A guest lecture by Industry expert, **Mr. U. SrinivasaRao, Project Manager-New Product Development, EATON Power Quality Pvt. Ltd., Pondicherry** is jointly organized by department of ECE in association with IETE Student Forum and ACES for the benefit of UG students on “**Electronics in industry**”, on **11.10.2019** (Friday) at **11:00 AM** at ANITS. In his lecture, **Mr. U. SrinivasaRao** has discussed in detail about the industrial applications of Electronics, Product development life cycle, Manufacturing process flow, PCB assembly and mainly focused on ‘Make in INDIA’. The faculty of ECE department, ANITS and the students of ECE department has attended the guest lecture. Guest was felicitated by Head of the Department Prof. V.Rajya Lakshmi. 114 Students Participated.



## WORKSHOP ON “AUTOMATION ANYWHERE”

Two days workshop on “Automation anywhere” was organized by the department of Electronics and Communication Engineering (ECE) for the Third Year ECE students of ANITS (Anil Neerukonda Institute of Technology and Sciences). Trainers from FACE

Academy, Visakapatnam, conducted the workshop from 29.11.2019 to 30.11.2019. About 150 students from third Year ECE were participated. The workshop is dedicated for beginners who have no previous experience with any RPA software tool. During the course, students were able to watch lecture videos on Automation Anywhere software. The program was conducted in the Project lab (ECE) & Sales force lab (IT). Dr.V.Rajyalakshmi, HOD, ECE and Mr. N. Ramkumar, Workshop Coordinator & Assistant professor of ECE department thanked the trainers for tirelessly supporting & encouraging the students during this Two Days.



### STUDENT INDUSTRY VISIT

III/IV ECE students undergone for industry visit of ALL INDIA RADIO on 11<sup>th</sup> & 13<sup>th</sup> September 2019. 210 Students Participated.

### FACULTY ACHIEVEMENTS

1. Dr.B.SomaSekhar, Assoc.Prof., has been Recognized as CO-Supervisor for P.hD scholar admitted in Andhra university on 26th September 2019.
2. Dr.B.SomaSekhar, Assoc.Prof., has been Recognized as CO-Supervisor for P.hD scholar admitted in Annamalai University, Tamilnadu in September 2019.
3. Dr.G.Manmadharao, Prof., has been Recognized as CO-Supervisor for P.hD scholar admitted in Andhra university on 26th September 2019.
4. Ms.Ch.Anoosha, Asst.Prof., Mr.N.Srinivas Naidu, Asst.Prof., and Mr.N.Ram Kumar, Asst.Prof., ECE are honored by the texas instruments, DST and nominated as a member of the prestigious "Confederation of Elite Academicians of IICDC" design contest by AICTE and IIM Bangalore for outstanding contributions and stellar commitment to inspiring engineering students to innovate and create ground breaking solutions in November 2019.
5. Mr.N.Srinivas Naidu, Asst.Prof, ECE selected as evaluator for DST & Texas Instruments(TI) Inc, Innovative Challenge Design Contest (IICDC 2019) quarter finals on October 2019.
6. Mr.J.BhaskaraRao Asst.Prof., ECE has been reviewer for the article titled "Arabic Handwritten Character Recognition using Machine Learning Approaches" for 5<sup>th</sup> International Conference on Image Information Processing in November 2019.

7. Mr.J.BhaskaraRao Asst.Prof., ECE has been reviewer for the article titled "Hardware Implementation of Fixed Point BRAM FIR Filter for Signal Processing Application Using FPGA" for 5<sup>th</sup> International Conference on Image Information Processing in November 2019.
8. Mr.J.BhaskaraRao Asst.Prof., Dept. of ECE had selected as a technical program committee member for 5<sup>th</sup> International Conference on Education and Technology (ICET 2019) on 15<sup>th</sup> September 2019.
9. Dr.P.Murugapandiyan, Ms.V.Shireesha, Mr.B.Chandra Mouli, got silver in NPTEL online Certification course from IIT Kharagpur in the duration August-October 2019 (8 weeks).
10. Ms.P.ChayaDevi, Ms.V.Shireesha, got silver in NPTEL online Certification course from IIT Madras in the duration August-October 2019 (8 weeks).
11. Mr.R.ChandraSekhar, got silver in NPTEL online Certification course from IIT Kanpur in the duration August-October 2019 (8 weeks).

### NPTEL CERTIFICATION COURSES

1. Dr.P.Murugapandiyan, Assoc.Prof ECE has completed and got silver in NPTEL online Certification course in Accreditation and outcome based learning with a consolidated score of 81% from IIT Kharagpur in the duration August-October 2019 (8 weeks).
2. Ms.V.Shireesha, Asst.Prof ECE has completed and got silver in NPTEL online Certification course in Accreditation and outcome based learning with a consolidated score of 85% from IIT Kharagpur in the duration August-October 2019 (8 weeks).
3. Mr.B.ChandraMouli, Asst.Prof ECE has completed NPTEL online Certification course and got silver certificate in Accreditation and outcome based learning with a consolidated score of 82% from IIT Kharagpur in the duration August-October 2019 (8 weeks).
4. Ms.P.ChayaDevi, Asst.Prof ECE has completed and got silver in NPTEL online Certification course in Introduction to research with a consolidated score of 80% from IIT Madras in the duration August-October 2019 (8 weeks).
5. Ms.V.Shireesha, Asst.Prof ECE has completed and got silver in NPTEL online Certification course in Digital Image Processing with a consolidated score of 80% from IIT Madras in the duration July-October 2019 (12 weeks).
6. Mr.R.ChandraSekhar, Asst.Prof ECE has completed and got silver in NPTEL online Certification course in Principles of Modern CDMA/MIMO/OFDM Wireless Communications with a consolidated score

of 75% from IIT Kanpur in the duration August-October 2019 (8 weeks).

7. Dr.A.LakshmiNarayana, Asst.Prof ECE has completed NPTEL online Certification course in Accreditation and outcome based learning with a consolidated score of 72% from IIT Kharagpur in the duration August-October 2019 (8 weeks).
8. Mr.G.Viswanadh Ravi Teja, Asst.Prof ECE has completed NPTEL online Certification course in Accreditation and outcome based learning with a consolidated score of 55% from IIT Kharagpur in the duration August-October 2019 (8 weeks).
9. Ms.G.Gayatri, Asst.Prof ECE has completed NPTEL online Certification course in Introduction to research with a consolidated score of 62% from IIT Maras in the duration August-October 2019 (8 weeks).
10. Ms.Ch.Anoosha, Asst.Prof ECE has completed NPTEL online Certification course in Principles and Techniques of Modern Radar Systems with a consolidated score of 48% from IIT Maras in the duration July-October 2019 (12 weeks).
11. Ms.M.Nirmala, Asst.Prof ECE has completed NPTEL online Certification course in Microwave Theory and Techniques with a consolidated score of 69% from IIT Bombay in the duration July-October 2019 (12 weeks).
12. Mr.P.DeviPradeep, Asst.Prof ECE has completed NPTEL online Certification course in Sensor and Actuators with a consolidated score of 62% from IISc Bangalore in the duration July-October 2019 (12 weeks).
13. Mr.B.Jena, Asst.Prof ECE has completed and got silver in NPTEL online Certification course in Accreditation and outcome based learning with a consolidated score of 86% from IIT Kharagpur in the duration August-October 2019 (8 weeks).
14. Dr.G.ManmadhaRao, Prof., ECE has completed NPTEL online Certification course in Accreditation and outcome based learning with a consolidated score of 71% from IIT Kharagpur in the duration August-October 2019 (8 weeks).
15. Ms.D.Nagamani, Asst.Prof ECE has completed NPTEL online Certification course in Digital Image Processing with a consolidated score of 73% from IIT Madras in the duration July-October 2019 (12 weeks).
16. Ms.P.Devi, Asst.Prof ECE has completed NPTEL online Certification course in Introduction to research with a consolidated score of 67% from IIT Maras in the duration August-October 2019 (8 weeks).

#### **WORKSHOP's/SEMINAR's ATTENDED BY FACULTY**

1. Dr.P.Murugapandiya, Assoc.Prof ECE has participated in EBSCO-IEEE Lunch & Learn Knowledge Feast Seminar on **“Focused on Achieving Digital Transformation through Engineering Education and IEEE digital Packages”** held at Novotel, Visakhapatnam on 25<sup>th</sup> September 2019.

#### **FACULTY PAPER PUBLICATIONS IN CONFERENCE**

1. Ms.B.Deepa, Asst.Prof., Ms.Ch.Anoosha, Asst.Prof and Ms.P.Chaya Devi Asst.Prof ECE has presented a paper titled **“Smart Agriculture using IoT”** at 6<sup>th</sup> International Conference on Information System Design and Intelligent Applications (INDIA 2019) organized by Department of Computer Science and Engineering, Lendi Engineering College, Vizianagaram during 1<sup>st</sup> – 2<sup>nd</sup> November 2019.
2. Ms.G.Gayatri Asst.Prof ECE has presented a paper titled **“Arrhythmia Recognition and Evaluation of ECG Signal using Signal Processing Techniques”** at 6<sup>th</sup> International Conference on Information System Design and Intelligent Applications (INDIA 2019) organized by Department of Computer Science and Engineering, Lendi Engineering College, Vizianagaram during 1<sup>st</sup> – 2<sup>nd</sup> November 2019.
3. Dr.V.Rajyalakshmi, HOD, Dr.P.MurugaPandian, Assoc.Prof and Mr.N.Ram Kumar Asst.Prof, ECE have presented a paper titled **“High Performance analysis of nanoscale InAlN/GaN High Electron Mobility Transistor High power millimeter wave Applications”** in an International Conference on Chip, Circuitry, Current, Coding, Combustion & Composites (I7C-2019) organized by Sri Sairam College of Engineering (SSCE), Bangalore during 28<sup>th</sup> -29<sup>th</sup> November 2019.
4. Mr.B.Jena, Asst.Prof., ECE had presented paper titled **“A Comparative Study on Multilevel Thresholding using Meta-Heuristic Algorithm”** in an International Conference on Applied Machine Learning (ICAML) organized by Siksha ‘O’ Anusandhan Deemed to be University in Bhubaneswar, Odisha during September 27-28, 2019. DOI 10.1109/ICAML48257.2019.00019. PP: 57-62 (Scopus indexed).

#### **FACULTY PAPER PUBLICATIONS IN JOURNALS**

1. Ms.Ch.Anoosha, Asst.Prof, Ms.PSM.Veena, Asst.Prof and Ms.D.Nagamani, Asst.Prof Dept. of ECE have published a paper titled **“Image Encryption using Substitution-Permutation Chaotic map”** in an international Journal of Information and Computational Science (JOICS), Vol 9, Issue 9, PP: 456-465, September 2019.

2. Dr.P.MurugaPandian, Assoc.Prof and Dr.V.Rajyalakshmi, HOD, ECE have published a paper titled **"Investigation of Quaternary Barrier InAlGaN/GaN/AlGaN Double-Heterojunction High Electron - Mobility Transistors (HEMTs) for High-Speed and High-Power Applications"** Journal of ELECTRONIC MATERIALS, Volume 49, Issue 1, PP:524-529, 10.1007/s11664-019-07731-4 2019 The Minerals, Metals & Materials Society, (Springer- SCI indexed) on 22<sup>nd</sup> October 2019.
3. Mr.G.ViswanadhRaviteja, Asst.Prof ECE published a paper titled **"A 2X2 Millimeter-Wave Microstrip Antenna Array for 5G Applications"** in an international European journal of Engineering Research and Science, Vol 4, No 10, PP: 55-58, October 2019.
4. Mr.G.ViswanadhRaviteja, Asst.Prof ECE published a paper titled **"A Dual-Band Millimeter-Wave Microstrip Antenna Array for 5G Applications"** in an International Journal of Computer Applications, Volume 177, No:15, PP: 48-51, November 2019.
5. Mr.G.ViswanadhRaviteja, Asst.Prof ECE published a paper titled **"A 4-element Corporate Series Feed Millimeter-Wave Microstrip Antenna Array for 5G Applications"** in an international Journal of Electronics and Communication Engineering, Vol 13, No 11, PP:674-677, November 2019.
6. Mr.P.DeviPradeep, Asst.Prof ECE published a paper titled **"Implementation of International Data Encryption Algorithm"** in an International Journal of Engineering Trends and Technology (IJETT), Vol 67, Issue 11, PP: 31-34, November 2019.
7. Dr.P. Murugapandiyan, Assoc.Prof ECE published a paper titled **"Design and Development of high power microwave Tubes- Reltron"** in an International Journal of the Gujarat research society, ISSN: 0374-8588 Volume 21 Issue 8, November 2019. (UGC indexed)
8. Dr.P. Murugapandiyan, Assoc.Prof ECE and Dr.V.Rajya Lakshmi, HOD ECE published a paper titled **"Investigation of AlGaIn/GaN High Electron Mobility Transistors performance for various Al content and barrier layer thicknesses"** in an International Journal of the Gujarat research society, ISSN: 0374-8588, Volume 21 Issue 8s, November 2019. (UGC indexed).

#### **FACULTY & STUDENT JOINT PAPER PUBLICATIONS**

1. Mr.J.BhaskaraRao Asst.Prof., Ms.A.Navya, Mr.D.Sai Kishore, Ms.J.Poojitha and Mr.G.Komal Kumar IV/IV ECE-A Dept.of ECE have published a paper titled **"Implementation of Smart Attendance Using Image Processing Techniques"** in an international Journal of

IUP journal of Electrical and Electronics Engineering, Vol XII, No.4, October 2019.

#### **STUDENT'S SPECIAL ACHIVMENTS**

1. Mr.Srinivas IV/IV ECE got 3rd Prize in Sunrise Indian Innovative Student Hackathon 2019 on September 2019.

#### **NPTEL ONLINE CERTIFICATION COURSES BY STUDENT'S**

1. Mr.S.S.Raviteja III/IV ECE has successfully completed NPTEL online certificate course in **Programming in java** with Elite + Silver 81% during (12 weeks Course) Jul-Oct 2019.
2. Mr.G.Chaitanya Prasad III/IV ECE-A has completed and got Elite + Silver in NPTEL online Certification course in Programming, Data Structures and Algorithms using Python with a consolidated score of 86% from IIT Madras in the duration July-September 2019 (8 weeks).
3. Mr.Ch.S.V.Sai III/IV ECE has successfully completed NPTEL online certificate course in **Programming, Data Structures & Algorithms using python** with Elite + Silver 72% during (8 weeks Course) Jul-Sept 2019.
4. Ms.M.Ashasmitra III/IV ECE has successfully completed NPTEL online certificate course in **Developing soft skills & personality** with Elite 66% during (8 weeks Course) Aug-Oct 2019.
5. Ms.K.Sneha III/IV ECE has successfully completed NPTEL online certificate course in **Python for Data Science** with 49% during (4 weeks Course) Aug-Sept 2019.
6. Ms.G.S.N.Haripriya III/IV ECE has successfully completed NPTEL online certificate course in **Programming, Data Structures & Algorithms using python** with 51% during (8 weeks Course) Jul-Sept 2019.
7. Mr.P.S.Teja III/IV ECE has successfully completed NPTEL online certificate course in **Interpersonal skills** with Elite 74% during (8 weeks Course) Jul-Sept 2019.
8. Mr.K.Kausal III/IV ECE has successfully completed NPTEL online certificate course in **Interpersonal skills** with Elite 71% during (8 weeks Course) Jul-Sept 2019.
9. Mr.Y.VVSAvinashkumar III/IV ECE has successfully completed NPTEL online certificate course in **Programming, Data Structures & Algorithms using python** with Elite 61% during (8 weeks Course) Jul-Sept 2019.
10. Ms.M.Himaja III/IV ECE has successfully completed NPTEL online certificate course in **Python for Data Science** with 53% during (4 weeks Course) Aug-Sept 2019.

11. Ms.G.Anusha III/IV ECE has successfully completed NPTEL online certificate course in **Python for Data Science** with 57% during (4 weeks Course) Aug-Sept 2019.
12. Mr.K.Ravichandra III/IV ECE-A has completed NPTEL online Certification course in Programming, Data Structures and Algorithms using Python with a consolidated score of 70% from IIT Madras in the duration July-September 2019 (8 weeks).
13. Mr.B.SaiAkhilesh III/IV ECE-C has completed NPTEL online Certification course in Control Systems with a consolidated score of 63% from IIT Madras in the duration July-October 2019 (12 weeks).
14. Mr.K.SuryaPavan III/IV ECE-C has completed NPTEL online Certification course in Ecology and Environment with a consolidated score of 70% from IIT Madras in the duration August-October 2019 (8 weeks).
15. Mr.B.SVV. SaiPradeep III/IV ECE-C has completed NPTEL online Certification course in Control Systems with a consolidated score of 63% from IIT Madras in the duration July-October 2019 (12 weeks).
16. Mr.B.KasiVinay III/IV ECE-C has completed NPTEL online Certification course in Digital Circuits with a consolidated score of 60% from IIT Khargpur in the duration July-October 2019 (12 weeks).
17. Mr.K.Abhiram III/IV ECE-C has completed NPTEL online Certification course in Digital Circuits with a consolidated score of 60% from IIT Khargpur in the duration July-October 2019 (12 weeks).
18. Mr.R.Abhishek III/IV ECE-C has completed NPTEL online Certification course in Digital Circuits with a consolidated score of 66% from IIT Khargpur in the duration July-October 2019 (12 weeks).
19. Mr.P.Prudhvi Raj III/IV ECE-C has completed NPTEL online Certification course in Digital Circuits with a consolidated score of 75% from IIT Khargpur in the duration July-October 2019 (12 weeks).
20. Mr.VVSSumanth III/IV ECE completed one month course titled “.Net (Fast Tarack) in Datapro, Viskahapatnam during 1<sup>st</sup> May 2019 – 2<sup>nd</sup> June 2019.
21. Mr.M.S.Pavan Kumar III/IV ECE-A has completed NPTEL online Certification course in Digital Circuits with a consolidated score of 58% from IIT Khargpur in the duration July-October 2019 (12 weeks).
22. Mr.J.Sai Praveen III/IV ECE-A has completed NPTEL online Certification course in Digital Circuits with a consolidated score of 53% from IIT Khargpur in the duration July-October 2019 (12 weeks).
23. Mr.M.J.N.Sandeep III/IV ECE-A has completed NPTEL online Certification course in Digital Circuits with a consolidated score of 67% from IIT Khargpur in the duration July-October 2019 (12 weeks).
24. Ms.M.Ashasumitra III/IV ECE has completed NPTEL online certificate course in Developing soft skills & personality with a consolidated score of 66% during (8 weeks Course) Aug-Oct 2019.
25. Ms.K.Sneha III/IV ECE has completed NPTEL online certificate course in Python for Data Science with a consolidated score of 49% during (4 weeks Course) Aug-Sept 2019.
26. Ms.G.S.N.Haripriya III/IV ECE has completed NPTEL online certificate course in Programming, Data Structures & Algorithms using python with a consolidated score of 51% during (8 weeks Course) Jul-Sept 2019.
27. Mr.P.S.Teja III/IV ECE has completed NPTEL online certificate course in Interpersonal skills with a consolidated score of 74% during (8 weeks Course) Jul-Sept 2019.
28. Mr.S.S.Raviteja III/IV ECE has completed NPTEL online certificate course in Programming in java with a consolidated score of 81% during (12 weeks Course) Jul-Oct 2019.
29. Mr.K.Kausal III/IV ECE has completed NPTEL online certificate course in Interpersonal skills with a consolidated score of 71% during (8 weeks Course) Jul-Sept 2019.
30. Mr.Ch.S.V.Sai III/IV ECE has completed NPTEL online certificate course in Programming, Data Structures & Algorithms using python with a consolidated score of 72% during (8 weeks Course) Jul-Sept 2019.
31. Mr.Y.VVSAvinashkumar III/IV ECE has completed NPTEL online certificate course in Programming, Data Structures & Algorithms using python with a consolidated score of 61% during (8 weeks Course) Jul-Sept 2019.
32. Ms.M.Himaja III/IV ECE has completed NPTEL online certificate course in Python for Data Science with a consolidated score of 53% during (4 weeks Course) Aug-Sept 2019.
33. Ms.G.Anusha III/IV ECE has completed NPTEL online certificate course in Python for Data Science with a consolidated score of 57% during (4 weeks Course) Aug-Sept 2019.

#### **STUDENT PARTICIPATION IN HARDWARE MODEL'S / CONTEST'S**

1. Ms.M.Hemaja, Ms.K.Sneha, Ms.V.Barathi, Mr.S.Tanishq, Ms.Sameera, Ms.M.Nagapujitha, Mr.P.S.Teja, Ms.AbothuPasyanthi Padma Malini, Mr.B.Panthro, Mr.Dheeraj, Ms.B.Gouthami, Ms.P.Manjusha, Ms.M. Anusha III/IV ECE & Ms.G.Jyothsna, Ms.S.Srivalli II/IV ECE has qualified in the primary round of Master Orator Championship organized by Department of ECE, at ANITS, conducted on Aug 3rd 2019.

## WORKSHOP's/ SEMINAR's/EVENT's ATTENDED BY STUDENTS

1. Mr.P.SaiKiran, Mr. P.V.S.Teja III/IV ECE have attended a workshop on “**Machine learning with Artificial Intelligence**” in Tech Byte organized by IIT Hyd during 28th & 29th Sept 2019.
2. Ms. K.Pavani III/IV ECE, Mr.NSS.Charan, Mr.A.Hari Siva Ganesh, Mr.B.Lokesh, Mr.B.sai Siva Harsha, Mr.C.ManiVivek Sri Harsha, Mr.D.DurgaSandeep, Mr.R.N.S.Nikhil, Mr.Somasekhar, Mr.Tirupati, Ms.J.Sarayu Mr.Raghava II/IV ECE-A and Mr. K.Pavani III/IV ECE has attended a workshop on “**Ethical Hacking with Cyber Security**” in Tech Byte organized by IIT Hyd during 28th & 29th Sept 2019.
3. Mr.Y.Pavan Kumar, Ms.D.SatyaSushma, Ms. V.Sravani, Ms. D. Vaishnavi, Ms. B.Pravallika, Mr. ShaikShahid, Ms. B. Goutami, Mr. VVS.saikiran, Ms.P. Vathsalya, Ms. Jayachitra, Ms.M.Deepika III/IV ECE & Ms.S.Sreevalli II/IV ECE have attended a workshop on “**Humanoid Robotics with IOT**” in Tech Byte organized by IIT Hyd during 28th & 29th Sept 2019.



## TREKKING EVENT

Department of ECE organized a trekking event in collaboration with “Vizag Trekking Association” on 24<sup>th</sup> November 2019. Trekking route started from Madhavadhara to Simhachalam Hill (12 Kilometers). 115 Students of ECE, Faculty and Head of the Department Prof. V.Rajya Lakshmi were participated in the event.

## CLUB ACTIVITIES

### PLANTATION



Plantation in the campus is done by Ms. A. Deepika from Swatch Bharat Organisation along with Dr. V. Rajya Lakshmi, HOD, ECE and other faculty members on 23/09/2019.

### WASTE MANAGEMENT



Lecture on Waste management is delivered by Ms. Pavani, Dept. of Smart City, GVMC on 23/09/2019. In her lecture she clearly explained how to prepare manure from Kitchen waste.

## SPORTS CLUB ACTIVITIES