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# NRCM C@NNECT



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## ABOUT ECE

The Department of ECE was started in the year 2007 with an intake of 60 students. The intake was increased to 120 students from 2008 and 180 students from 2012. The B. Tech Program in ECE has been accredited twice by National Board of Accreditation (NBA). The department has good infrastructural facilities and is equipped with full-fledged laboratories. The curriculum of the program is designed to equip students with the knowledge and skills necessary to address complex problems in the rapidly evolving Global Technology.



## Mother Teresa Block

## VISION

To Emerge as a Centre of excellence in Electronics and Communication Engineering by nurturing skilled professionals through innovative teaching and research, contributing to industry and societal needs with a strong focus on ethics, sustainability, and environmental consciousness.

## MISSION

M1: Adopt innovative teaching methods and advanced infrastructure to foster creativity and Innovation. Transform students into skilled professionals and entrepreneurs who drive socio-economic growth

M2: Foster an innovative ecosystem in Electronics and Communication Engineering through collaboration with academia, industry, experts, and government. Promoting research and development among students and faculty

M3: Offer advanced programs that foster research, higher education and ethical values, encouraging students to apply their knowledge and skills for national development and societal benefit

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## Industrial Visit

The Department of Electronics and Communication Engineering (ECE) organized an industrial visit to Kwaliti Photonics, Hyderabad, on 21st December 2023 for students and faculty members. Kwaliti Photonics, a leading LED manufacturing company, provided students with valuable exposure to LED production processes, quality control standards, and industrial practices. The visit helped students connect theoretical concepts with real-world applications, enhancing their understanding of electronics manufacturing and industry operations.

Department of  
Electronics and Communication Engineering  
*Organizes*  
**INDUSTRIAL VISIT**  
Kwaliti Photonics Pvt. Ltd. 29 A&B, Electronic Complex, Rd Number 11, Hyderabad,  
**Kwaliti PolyWa**  
POWER LEDs  
On 21-12-2023 at 10:30 AM  
For B.Tech ECE II Year Students

**NARSIMHA REDDY ENGINEERING COLLEGE**  
(AUTONOMOUS INSTITUTION-UGC, GOVT.OF INDIA)  
Affiliated to JNTUHI, Approved by AICTE, NBA & NAAC with A - Grade

COUNSELING CODE  
**NRCM**

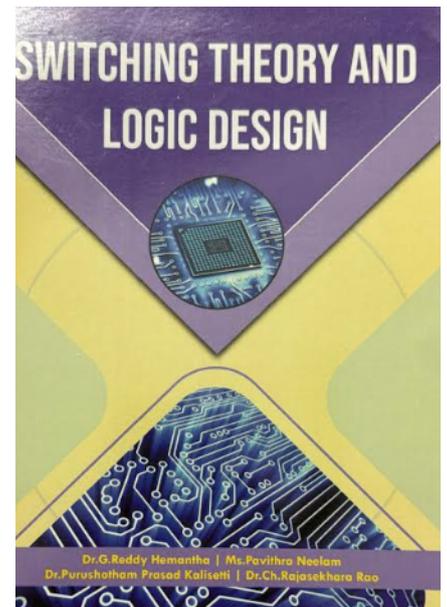


**Text Books Published by the Faculty**

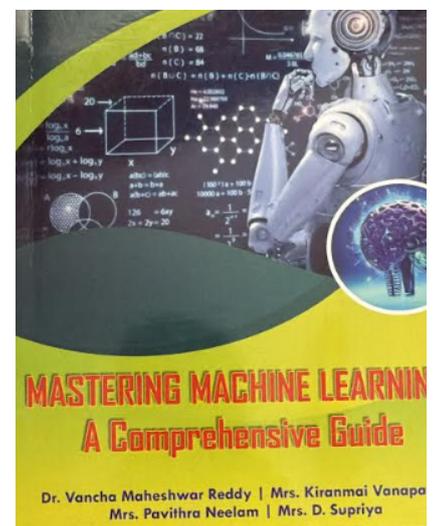
Dr. Purushotham Prasad Professor and HOD has made a significant contribution to the field of emerging technologies through his work on “Blockchain: Decentralized Innovation for a Connected World.” His research highlights how blockchain technology enables secure, transparent, and decentralized digital systems that can transform industries such as finance, healthcare, supply chain management, and governance



Dr K.Purushotham Prasad Professor & HOD,N. Pavithra Assistant professor ECE Department has successfully published a textbook titled Switching Theory and Logic Design. This publication reflects her academic expertise and dedication to advancing knowledge in the field of digital electronics. The book serves as a valuable resource for students and professionals, providing a clear understanding of fundamental concepts and practical applications in switching theory and logic design.



N. Pavithra Assistant Professor ECE Department has published a new textbook titled Mastering Machine Learning: A Comprehensive Guide. This book offers an in-depth exploration of machine learning concepts, techniques, and real-world applications, making it a valuable resource for students, researchers, and professionals in the field.



Patents

Dr. K Purushotham Prasad Professor and HOD has filed a patent titled “A Systematic Analysis of an Image-Based System for Identifying and Classifying Plant Diseases Using Deep Learning Methods.” The patent application number is 202341066000 A, and it was filed on 13 October 2023.

(12) PATENT APPLICATION PUBLICATION	(21) Application No.202341066000 A
(19) INDIA	
(22) Date of filing of Application :01/10/2023	(43) Publication Date : 13/10/2023
(54) Title of the invention : A SYSTEMATIC ANALYSIS OF AN IMAGE-BASED SYSTEM FOR IDENTIFYING AND CLASSIFYING PLANT DISEASES USING DEEP LEARNING METHODS	
(51) International classification :G06N003040000, G06N003080000, G06K009620000, G16H0050200000, G06Q0050020000	(71)Name of Applicant : 1)Arthi A Address of Applicant :Assistant Professor, Computer Science and Technology, Karpagam College of Engineering, Coimbatore, Tamil Nadu - 641032, India ----- 2)Dr. Sunithi Kumar Kuriyal 3)Prof. Indu Tiwari 4)Dr. D.Nagaraju 5)Dr. K Purushotham Prasad 6)Shriniketh Dixit 7)Dr. Khushal N. Pathade 8)Kumar Amarendra 9)Amureelha Sharma 10)Dr. A.Sasi Kumar 11)Shivangini Bihari 12)Dr. Piyush Ranjan Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Arthi A Address of Applicant :Assistant Professor, Computer Science and Technology, Karpagam College of Engineering, Coimbatore, Tamil Nadu - 641032, India ----- 2)Dr. Sunithi Kumar Kuriyal Address of Applicant :Department of Botany, Pt.L.M.S.Sridev Suman Univ. Campus, Rshikesh, Dehradun, Uttarakhand - 246201, India ----- 3)Prof. Indu Tiwari Address of Applicant :Professor, Department of Botany, Than Singh Rawat Government Degree College, Nainitaland, Puri Garhwal, Uttarakhand - 246277, India ----- 4)Dr. D.Nagaraju Address of Applicant :Assistant Professor, Department of Botany, Government City College (A), Nayapal, Hyderabad, Telangana, India ----- 5)Dr. K Purushotham Prasad Address of Applicant :Professor and Head, Department of Electronics and Communication Engineering, Narsimha Reddy Engineering College, Maisammaguda, Dullapally, Secunderabad, Medchal, Telangana - 500100, India -----
(86) International Application No :NA Filing Date :NA (87) International Publication No :NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	

Dr. R Murugesan Associate Professor ECE Department has filed a patent titled “SMART HOME ENERGY MONITORING AND THEFT PREVENTION SYSTEM USING INTERNET OF THINGS (IOT)s.” The patent application number is Application No.202311069400 A, and it was filed on 24<sup>th</sup> November 2023.

(12) PATENT APPLICATION PUBLICATION	(21) Application No.202311069400 A
(19) INDIA	
(22) Date of filing of Application :15/10/2023	(43) Publication Date : 24/11/2023
(54) Title of the invention : SMART HOME ENERGY MONITORING AND THEFT PREVENTION SYSTEM USING INTERNET OF THINGS (IOT)	
(51) International classification :G01R22/06, G16Y10/35, G16Y10/80, G16Y40/10, H04W4/38	(71)Name of Applicant : 1)Dr Srinivasa Rao Balasani Address of Applicant :Principal & Professor of EE, Prasad Institute of Technology, Jaunpur, Uttar Pradesh – 222001, India, ----- 2)M. Umadevi 3)Mukund S Mahagaonkar 4)Dr. Jai Prakash Navani 5)Dr. A.Kalaimurugan 6)Bharath S 7)Dr. Deepak Dalal 8)Dr. Rajesh Bhaskar Survase 9)Dr. Muralidharan J 10)Dr. Dhanusha.C 11)Dr. R Murugesan 12)Dr. Vaddi Naga Padma Prasuna Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr Srinivasa Rao Balasani Address of Applicant :Principal & Professor of EE, Prasad Institute of Technology, Jaunpur, Uttar Pradesh – 222001, India, ----- 2)M. Umadevi Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Karpagam College of Engineering, Coimbatore- 641032, Tamilnadu, India, ----- 3)Mukund S Mahagaonkar Address of Applicant :Assistant Professor, Electrical Engineering department, Walchand College of Engineering, Sangli, Maharashtra, India, ----- 4)Dr. Jai Prakash Navani Address of Applicant :EN Department, AKTU University, Ghaziabad, Uttar Pradesh, India, -----
(86) International Application No :NA Filing Date :NA (87) International Publication No :NA (61) Patent of Addition to Application Number :NA Filing Date :NA	

### Student Publications

- ECE final Year students Srinomula Sai Krishna, Akula Yugander, Sareddygari Bharath Reddy, and Satti Uttej have published a paper titled “An IoT Approach to Designing Wearable Safety Devices for Women” in the International Journal of Data Science and IoT Management System.
- ECE final year Students Mittapally Ajay, Saikumaralluri Leela Sai, G Yashwanth, and Nune Rajashekhar Reddy have published a paper titled “Electronic Warfare in Radar Systems: A Comparative Analysis of ECM and ECCM” in the International Journal of Data Science and IoT Management System.

### faculty Attended Conference

- Mr. A Srinivas, Assistant Professor in the ECE Department, has published a paper titled “IoT and Sensor-Based Technique to Track and Monitor the Work of Street Sweepers” in the 4th International Conference on Smart Electronics and Communication (ICOSEC-2023), held in September 2023.
- Dr. R Murugesan, Associate Professor in the ECE Department, has published a paper titled “Comparative Study of Implementation of Very Deep Resolution Neural Network and Bicubic Interpolation for Single Image Super-Resolution Quality Enhancement” in the 3rd International Conference on Applied Electromagnetics, Signal Processing, and Communication, held in November 2023.

- Dr. K.Purushotham Prasad , Professor and HOD ECE Department, has has published a paper titled “Machine Learning and IoT-Driven Precision Agriculture for Indian Crop Selection” in the 3rd International Conference on Artificial Intelligence summit Towards Smart Sustainability Society, held on 3 December 2023.

### Internships

The Third year ECE students successfully completed the internship in the Company ARMTRONICSC on Raspbery PI And ARM & 7 concepts

S. No	Roll Number	Name of	Duration
1	20XA04041	Niharshini	14/11/2023 to
2	20XA04042	Anuja Yashini	14/11/2023 to
3	20XA04043	Anandi Kughan	14/11/2023 to
4	20XA04044	S.S. Charan	14/11/2023 to
5	20XA04045	Bollapalli	14/11/2023 to
6	20XA04046	B. Supraja	14/11/2023 to
7	20XA04047	Bodeha Rohith	14/11/2023 to
8	20XA04048	Chandan Teja	14/11/2023 to
9	20XA04049	Chaparalla	14/11/2023 to
10	20XA04050	Chari Sai Riya	14/11/2023 to
11	20XA04051	Dasari Siva	14/11/2023 to
12	20XA04052	Gollapudi Jaya	14/11/2023 to
13	20XA04053	Govinda	14/11/2023 to
14	20XA04054	Gutti Abhishek	14/11/2023 to
15	20XA04055	Jangala Satya	14/11/2023 to

The Third year ECE students successfully completed the internship in the organization DRO on Basic instrumentation in missile systems

S. No	Roll Number	Name of the Student	Duration
1	20XA04041	Kasukanti Jyothi	01/11/2023 to 30/11/2023
2	20XA04042	Lakkana Pooja	01/11/2023 to 30/11/2023
3	20XA04043	Mamidi Soumya	01/11/2023 to 30/11/2023
4	20XA04044	Mekala Mallikarjun Reddy	01/11/2023 to 30/11/2023
5	20XA04045	Mr. Savula Sai	01/11/2023 to 30/11/2023
6	20XA04046	Mulagala Asritha	01/11/2023 to 30/11/2023
7	20XA04047	Nandula Harshitha Reddy	01/11/2023 to 30/11/2023
8	20XA04048	Nagulapa Anitha	01/11/2023 to 30/11/2023
9	20XA04049	O. Praveen	01/11/2023 to 30/11/2023

## Awards and Participation

The ECE Department students D.ARAVIND,G.NAGENDRA,B.KUMAR SWAMY Participated in September 2023 conducted at St peters engineering College Hyderabad



The ECE department students Doma Arvind Kumar, Gobburu Srishanth, and Neeraj Kumar Guptha participated in Hack-O-Mania, conducted at Vidya Jyothi Institute of Technology on 23 November 2023. Their participation reflects enthusiasm and active involvement in technical innovation and collaborative problem-solving



**Chief Editors Message**

Professor & HOD-ECE

**Chief Editor**

It is a pleasure to present the Electronics and Communication Engineering edition of NRCM Connect – Technical Newsletter. This issue highlights the academic achievements, research activities, and technical initiatives of our students and faculty. Through innovation, industry interaction, and continuous learning, the ECE department at NRCM strives to prepare future-ready engineers. We hope this newsletter inspires knowledge sharing and technical excellence.

**Editorial Board Members**

**Mr K.Karthik**  
**Assistant professor**  
**ECE Department**

**Sai Kiran**  
**Gangshree**

**21X05A0430**

**Mr B Raju**  
**Assistant Professor**  
**ECE Department**

**PALLAPU NAVEEN KUMAR**  
**21X01A0496**