VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

TECHINNOVATION

NEWS LETTER

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ECE Department

Department of Electronics and Communication Engineering was started since the inception of Vignan's Institute of Management and Technology for Women during 2008 with an initial intake of 90. The strength was enhanced to 120 during 2010. The Department had added Post graduate programme in VLSI during the year 2011 and Embedded Systems during 2014 with an intake of 18 each.

The Department has state-of-art laboratories equipped with advanced and well maintained equipment, continuously updated application software packages, more than adequate computing systems with 24x7, 30 MBPS internet facility.

Department Vision

To transform the students into technologically competent professionals, with abilities to address the societal challenges of the time through innovative technical practices in electronics & communication engineering.

Department Mission

M1: To foster inquisitive-driven advanced knowledge building among students for reinforcing the domain knowledge, develop capabilities, skills and solve complex engineering problems.

M2: To prepare industry-ready graduates for global Electronics as well as communication-based engineering companies by conducting training programs, workshops and industry visits.

M3: To build entrepreneurship and leadership qualities, research aptitude among students for the contribution of economic and technological development in cutting edge technologies in the national and as well as in the global arena.

Program Educational Objectives

PEO1: To develop the student's ability on technical concepts to design, simulate, and synthesize various electronic and communication circuits & systems for their research advancements.

PEO2: To impart analytical skills and to prepare the students to excel in applying state-of-the-art hardware and software tools to solve complex engineering problems for R&D, Industry, and societal requirements.

PEO3: To prepare the students to work in teams, take independent decisions, and integrate engineering issues for a successful career in a multi-disciplinary environment.

PEO4: To promote entrepreneurship among the students to become successful entrepreneurs with professional ethics.

Program Educational Objectives

A graduate of the Electronics and Communication Engineering Program will be able to

Professional Skills Ability: Identify, design electronics & communication circuits and conduct experiments with electronics & communication systems, analyze and interpret data, formulate and solve electronics & communication engineering problems.

Industrial Skills Ability: Design digital and analog systems, algorithms, fire ware, modern engineering tools, software, etc. as per needs and specifications and work in laboratory and multidisciplinary tasks.

Ethical and Social Responsibility: Communicate effectively in both verbal and written form, will have knowledge of professional and ethical responsibilities and will show an understanding of the impact of engineering solutions on the society, and also will be aware of contemporary issues.

Program Outcomes (Adapted from NBA)

Engineering Graduates will be able to:

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

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.

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.

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.

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.

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.

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

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

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

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.

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.

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.

ORIENTATION DAY CELEBRATIONS









GRADUATION DAY CELEBRATIONS






FACULTY ARTICLE

The article **"DESIGN, FABRICATION AND ANALYSIS OF FULLY AUTOMATIC SOLID WASTE SEGREGATION SYSTEM"** is written by DR. RAJA KRISHNAMURTHY, as Associate Professor.

ABSTRACT: Rapid growth in urban population coupled with economic growth, urbanization and rise in community living standards have resulted in generation of huge quantities of municipal solid waste posing serious problems: to municipalities, and corporations in terms of collection and disposal of solid waste, negative impact on the hygienic. The current project is one of a kind prototype, for the segregation of mixed household, Educational institutions and small industries waste into various components for easy processing of later stages for re-usage, recycling or disposal methods.

CONCLUSION: Automated Waste Segregator Has Been Successfully Implemented For The Segregation Of Waste Into Metallic, Dry And Heavy Weight Waste At Domestic Level. However, The System Can Segregate Only One Type Of Waste At A Time With An Assigned Priority For Metal, Light And Heavy Weight Waste.

FACULTY ARTICLE

The article **"DESIGN AND DEVELOPMENT OF AIR QUALITY INDEX DISPLAY DASHBOARD MONITORING USING ESP32"** is written by MR. CH. NARESH, as Assistant Professor.

ABSTRACT: The non-stop augmentation of pollutants is a hassle that needs to be addressed Straightaway. Pollution affects our fitness in addition to reasons fundamental Environmental modifications like Global warming and climate variations. Air Pollutants are one in all the largest demanding situations that the sector is going Through these days because it has were given negative consequences on human Fitness like lung cancer, breathing, and coronary heart diseases. There is a want to continuously measure, analyze, and screen the air first-rate on a real-time foundation to take suitable measures every time needed. We have proposed a version that makes use of the idea of the Internet of Things to permit the person to recognize approximately the awareness of dangerous gases gift around him and for this reason, permit the person to recognize the first-rate of air. The parameters which might be monitored right here are MQ135, Carbon monoxide (CO), Carbon dioxide (CO2), temperature, and humidity. The values of those parameters are in addition displayed on an IOT platform, ThingSpeak, with inside the shape of a graph in addition to a number. If the awareness of Carbon dioxide exceeds a positive threshold, the buzzer receives triggered.

CONCLUSION: This paper proposes a gadget this is price-efficient, low electricity eating and fairly correct gadget for tracking air first-class on a real-time foundation on a small scale with the assist of committed sensors and indicators humans while its stage is going past a positive restrict and shows the statistics in a manner anybody can understand. Leveraging the idea of IoT, the air across the hooked-up gadget may be monitored via way of means of anybody and from everywhere the usage of a telecall smartphone or a computer. The non-stop updating of statistics permits the customers to take well-timed movements right away on every occasion needed.

FACULTY PUBLICATIONS (2021-22)

S.NO.	AUTHOR(S)	JOURNAL NAME	TITLE OF THE PAPER	ISSN NUMBER
1.	MR. B. DASHARADHA	INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS	DESIGN AND DEVELOPMENT OF AIR QUALITY INDEX DISPLAY DASHBOARD MONITORING USING ESP32	ISSN: 2320-2882
2.	MR. CH. NARESH	INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS	DESIGN AND DEVELOPMENT OF AIR QUALITY INDEX DISPLAY DASHBOARD MONITORING USING ESP32	ISSN: 2320-2882
3.	DR RAJA KRISHNA MOORTHY	JOURNAL OF HEALTHCARE ENGINEERING- HINDAWI	ANOVEL DIABETES HEALTHCARE DISEASE PREDICTION FRAMEWORK USING MACHINE LEARNING TECHNIQUES	ISSN: 2040-2309

PH.D JOINING FACULTY

S.NO.	NAME OF THE FACULTY	DESIGNATION	NAME OF THE INSTITUTE	STATUS
1.	MR. J. SUNILKUMAR	ASSISTANT PROFESSOR	NIT SILCHAR	PRE-PH D COMPLETED
2.	MRS. P. ANUSHA	ASSISTANT PROFESSOR	IIT HYDERABAD	PURSING
3.	MR. K. SIVAKRISHNA	ASSISTANT PROFESSOR	NIT SILCHAR	PRE-PH D COMPLETED
4.	MR. ABDUL FAROOQ BASHA	ASSISTANT PROFESSOR	NIT SILCHAR	PURSING
5.	MS. M. APARNA	ASSISTANT PROFESSOR	VIGNAN UNIVERSITY, GUNTUR	DRC S COMPLETED

STUDENT ARTICLE

The Article **"SELF-DRIVING CAR STEERING ANGLE PREDICTION BASED ON IMAGE RECOGNITION"** is Written By J. DEEPTHI, Roll Num: 18UP1A0468.

ABSTRACT: Self-driving vehicles have expanded dramatically over the last few years. Udacity has release a dataset containing, among other data, a set of images with the steering angle captured during driving. The Udacity challenge aimed to predict steering angle based on only the provided images. We explore two different models to perform high quality prediction of steering angles based on images using different deep learning techniques including Transfer Learning, 3D CNN, LSTM and ResNet. If the Udacity challenge was still ongoing, both of our models would have placed in the top ten of all entries.

CONCLUSION: In examining the final leader board from Udacity our models would have placed fourth (transfer learning model) and tenth (3D convolutional model with LSTM layers). These results were produced solely from the models without any external smoothing function. We have shown that both transfer learning and a more advanced architecture have promise in the field of autonomous vehicles. The 3D model was limited by computational resources, but overall it still provided a good result from a novel architecture.

STUDENTS AWARDED MSME CERTIFICATES

NEWSPAPER ADDS IN VMTW

విద్యతోనే జీవితంలో రాణించే అవకాశాలు

విద్యార్థినులకు పట్టాలను అందజేస్తున్న ప్రొ.రఘు

ఘట్‌కేసర్, డిసెంబర్18: ఉన్నత విద్యతోనే జీవితంలో రాణించే అవకాశాలు ఎక్కువగా ఉంటాయని యూఎస్‌ఏ వాల్డెన్ యూనివర్సిటీ సీనియర్ ప్రొఫెసర్ డాక్టర్ కె.రఘు అన్నారు. ఘట్‌కేసర్ మున్సిపాలిటీ కొండాపూర్ విజ్ఞాన్ మహిళా ఇంజనీరింగ్ కళాశాలలో బీ టెక్ విద్యార్థినులు 250 మందికి సంబంధించి శనివారం గ్రాడ్యుయేషన్ డే నిర్వహించారు. ఈ సందర్భంగా సీనియర్ ప్రొఫెసర్ డాక్టర్ కె.రఘు పట్టాలను అందజేశారు. అనంతరం మాట్లాడుతూ, ఇంతటితో ఆగకుండా పై చదువులతో ఉన్నత శిఖరాలను చేరుకునే అవకాశాల్ని అందిపుచ్చుకోవాలని తెలిపారు. చివరి సంవత్సరం విద్యార్థులు తమ విద్యను మరింత ముందుకు తీసుకపోయి సమాజ సేవకు ఉపయోగపడాలని సూచించారు. ఉన్నత విద్యలో విద్యార్థులు అత్యుత్తమ ప్రతిభను కనబరిచి ఆశించిన పారితోషికాన్ని అందుకోవాలని ఆయన సూచించారు. కార్యక్రమంలో డాక్టర్ రూప్ కుమార్, ప్రిన్సిపాల్ డాక్టర్ జి. అప్పారావు నాయుడు, సీఈఓ కళ్యాణ్ విద్యార్థునులు పాల్గొన్నారు.

రాష్ట్ర స్థాయి త్రోబాల్ క్రీడల్లో రాణించిన విద్యార్థినికి అభినందనలు

పట్టభద్రులు ఉద్యోగాలు పొంది సమాజానికి సేవలందించాలి

Editorial: **Dr. G. Apparao Naidu,** Principal, **Mr. P, Harikrishna,** HOD, ECE., **Mrs. V. Suzan Shalini,** Asst. Professor, BS&H, **Ms. M. Hemalatha,** Asst. Professor, ECE.

Contact Details: Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301
Phone: +91 96529 10002, 96529 10003, Email: info@vmtw.in, www.vmtw.in