TECH TRENDS

WE EXPLORE WE EXHIBIT

MALLA REDDY
COLLEGE OF ENGINEERING

MALLA REDDY
COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Volume: 07 Issue No.: 01

EAMCET CODE : MRCE

Permanently affiliated to JNTUH | Approved by AICTE | Accredited by NBA & NAAC

Institution Vision & Mission

Vision

- To emerge as a Centre of Excellence for producing professionals who shall be the leaders in technology innovation, entrepreneurship, management and in turn contribute for advancement of society and human kind.

Mission

- **M1 :** To provide an environment of learning in emerging technologies.
- **M2 :** To nurture a state of art teaching learning process and R&D culture.
- **M3 :** To foster networking with Alumni, Industry, Institutes of repute and other stakeholders for effective interaction.
- **M4 :** To practice and promote high standards of ethical values through societal commitment.

Department of Computer Science and Engineering

Department Vision & Mission

Vision

- To impart futuristic knowledge in Computer Science and to produce highly skilled, imaginative and socially mindful experts who can contribute to industry and architect research fit for working in worldwide condition.

Mission

- To promote strong academic growth by providing fundamental domain knowledge and offering state of art technology for having an excellence in research & development.
- To create an environment for learning analytical skills, advanced programming languages using modern tools and to equip for higher studies.
- To undertake collaborative projects for understanding need of team work in real time environment and to improve communication and inter personnel skills for better employability.
- To promote high standards of ethical values through societal commitment.

Computer Science & Engineering PO's

Engineering Graduates will be able to:

- **PO.1.Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **PO.2.Problem analysis:** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO.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.
- **PO.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.
- **PO.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.
- **PO.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.
- **PO.7.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.
- **PO.8.Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **PO.9.Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PO.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.

- **PO.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.
- **PO.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.

Computer Science & Engineering PEO's

- **PEO1 –** To make the students understand and implement the engineering concepts in multiple domains.
- **PEO2 –** To provide knowledge based services so as to meet the needs of the society and industry by usage of modern tools.
- **PEO3 –** To understand engineering processes for design and development of software components and products efficiently for improving employability.
- **PEO4 –** To educate students in disseminating the research findings to create interest for higher studies.
- **PEO5 –** To inculcate knowledge with due consideration for ethical and economic issues.

Computer Science & Engineering PSO's

- **PSO1:** Professional Skills: The ability to understand, analyze and develop computer programs in the areas related to algorithms and System Software.
- **PSO2:** Problem Solving Skills: The ability to apply standard practices and strategies in software project development to deliver a quality and defect free product.
- **PSO3:** Employability Skills: The ability to employ modern computer languages and technologies, so as to be industry ready and for better employability and research.

MALLA REDDY COLLEGE OF ENGINEERING

About CSE Department

The Department of Computer Science and Engineering at Malla Reddy College of Engineering is a dynamic and innovative hub of technology and education. We are committed to fostering an environment that encourages creativity, critical thinking, and hands-on learning. Our mission is to equip students with the knowledge and skills needed to excel in the ever-evolving field of computer science and engineering.

Department Editorial Committee Members

S.No	Name of the Faculty/Student	Position
1.	Dr.G RadhaDevi	Chief editor
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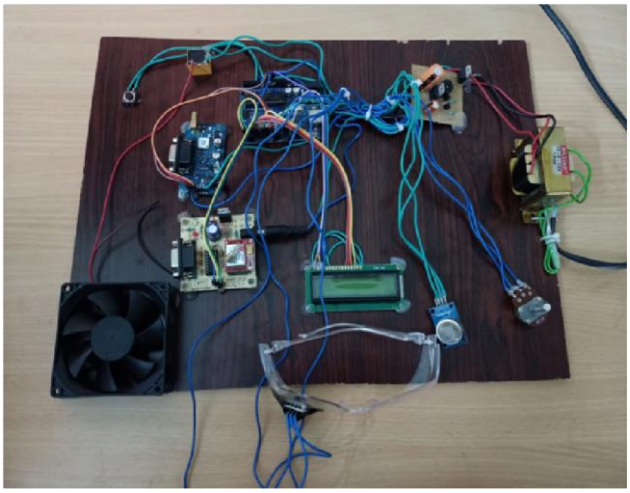
5.	Kola Varun Kumar	Student advisor
6.	L Bhanu Prakash Reddy	Student advisor
7.	L Ankitha	Student advisor
8.	K Pavan	Student advisor
9.	A Ravi Kiran	Student advisor

MALLA REDDY COLLEGE OF ENGINEERING

SMART DRIVER MONITORING SYSTEM

K.saiHaritha, M.L manogna, S.Prathyusha, G.divya,

Now a days the road accidents percentage is growing exponentially. One of the main causes of the road accidents are human errors such as alcohol consumption, drowsiness, over-speed, distraction,lack of knowledge and in attention. To avoid that human error in the causes of road accidents we are implementing a project named Smart Driver Monitoring System. There are some existing methods to solve this problem like manually detecting alcohol by the traffic police, drowsiness video sensors, alcohol detection system. The drawbacks of existing methods are the traffic police have to check each and every person manually, so the time is wasted and some persons may skip the traffic policer and only alarming system is included in the previous methods. In our project we solved the human errors in accidents such as alcohol consumption, over-speed of the driver by using the sensors and we sent a message to the traffic police mobile phone about the vehicle details and the location of the vehicle using GPS and GSM technologies.



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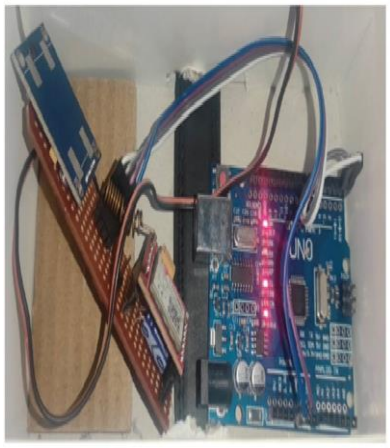
Contiguous Cattle Tracking Device for protection against larceny and enigmatic animal behaviour

B.MaheshBabu, J.V RaviTeja, K.VenkataNageswar Rao, K.Tejasri,

The number of cattle that are missing is increasing day by day. The reason behind this might be due to cattle theft, or due to animals forgot the directions to their owner's place or some other problem. Currently to identify the owner of the lost cattle, the radio-frequency enabled ear-tag (RFID) with a 12-digit unique identification number is used, like the Aadhaar, affixed as a yellow tamper-proof tag inside the ear of animals like cows and buffaloes. But there is no existing solution to find the Geo-location of the lost cattle in forest areas, hills, drowned in water bodies, or stuck in some places of surrounding places. This problem can be solved if we have a method that could keep track of the animals based on its location, more precisely Geolocation. We implemented a small device like a GPS tracking unit along with GSM technology with the help of IOT concepts implemented into a tracking collar that can be used for cattle, and a mobile application that could keep track of the cattle's Geo-location that were tagged. The animals that are to be tagged are well known to owner of the cattle than us because of his knowledge on his cattle.



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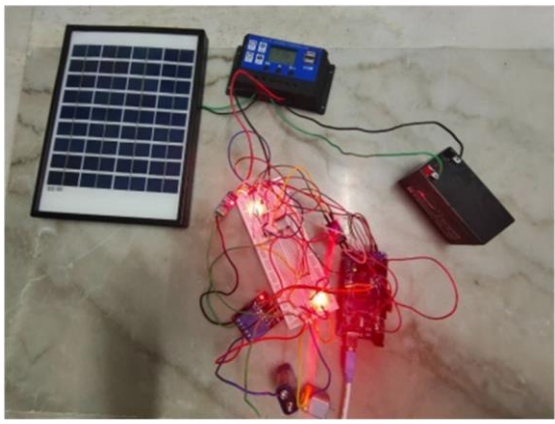
Efficient Smart Micro Scale Solar Power Management System for Rechargeable Nodes

Saran TejaMallela, G.Satya Dinesh Kumar, Y. Tejaswi,

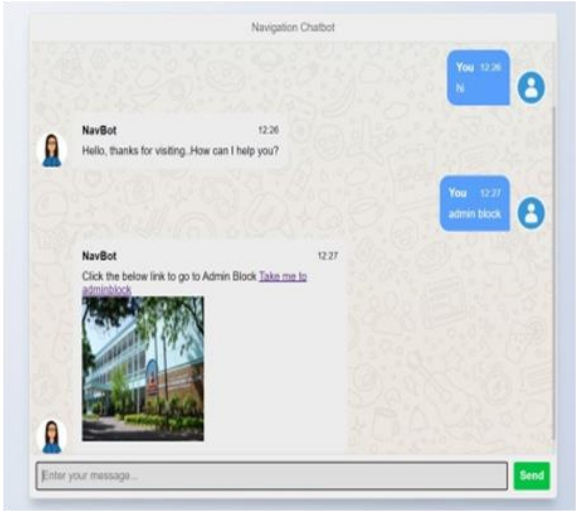
An IoT based model that can divert the excess solar power produced from the solar panel based on the solar battery percentage. This type of diverting solar power to the neighbours will save us a lot of energy by avoiding stepping up in transformers and uses the solar panels to their full extent.



Navbot-College Navigation Chatbot using Deep Neural Network

A.Yamini, K.Hindu, Y.Lakshmi Narayana,

The proposed Chabot will search the processed query in the knowledge base and respond with the corresponding answer using a sequential DNN model with five hidden layers. User interface of the Chabot is developed using Hyper Text Mark-up Language (HTML), Cascading Style Sheets(CSS) and Java Script. The proposed model will help in navigating people inside the college to different blocks.



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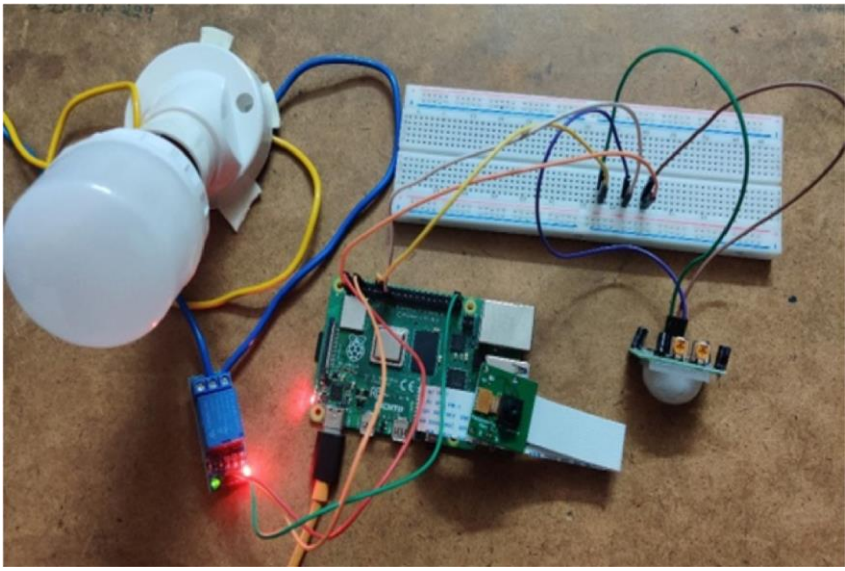
Auto-Monitor for Smart Classrooms

P.Pavithra,P. Baby Likitha,Y. Venkayya

Reduction in Power wastage has been a primary concern for large academic institutions and business organizations alike. Unoccupied classrooms might still have electrical appliances running leading to unnecessary consumption of power and wastage of resources. Our aim is to reduce the wastage of that amount of energy. So our project proposes a Wireless Sensor based Power Management System that monitors and controls the functionality of electrical equipment inside the classroom to automatically turn off without human intervention when the room is unoccupied. Motion detection is used with the help of motion sensors and camera to detect human presence inside the room. If the room is unoccupied, our system automatically switches off all the equipment inside. This a cost effective system because expenditure involved in implementing the system is very less compared to the power costs incurred.



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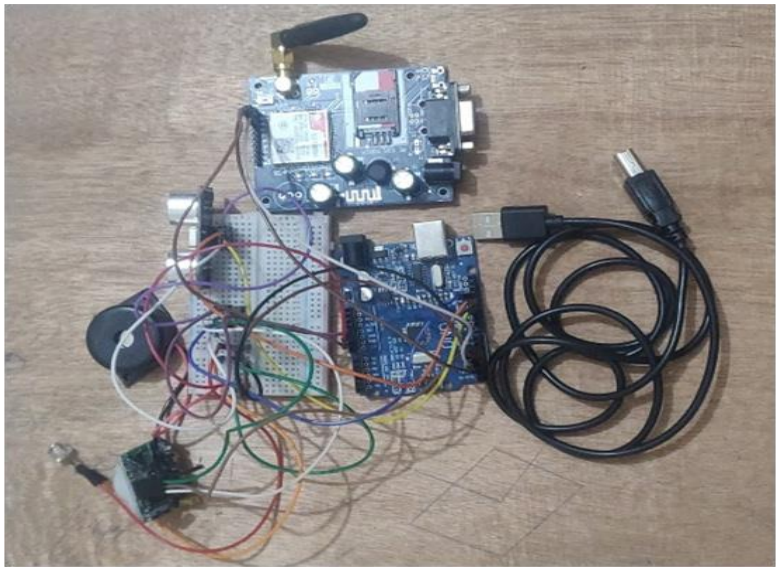
Crop Protection From Animal Attacks Using IOT

M.V Sai Lakshmi Jahnavi,V.Mythili,D.Krishna Reddy, Gv.Vanetha,

Wild animal attacks on crops are reducing crop yields in the agricultural sector. The most important issue is to prevent animals from migrating from the forest to agricultural land, which has become a growing factor affecting agriculture. Our project's purpose is to protect crops from animal damage and to divert animals without harming them. An animal identify system job is to identify the staying of animals and deliver a message. In our project, we are using a camera module and ultrasonic sensors for the detection of animal movement and transmit a signal to the controller. It distracts the animal by emitting a sound and signal, which is then transmitted to GSM, immediately notifying farmers right away. An Internet of Things based animal identification system is used to send a message to the farmer when an animal enters the farm. In this project, we use a camera based identification system to detect an animal and a GSM module to contact or



A Smart Watch for Women Safety and Protection Against Paedophiles

P. VenkataUday Kiran, Ch. Lokesh, K. Naga Vivek

Developed a smart wearable watch that acts as a location tracker. When women or children are in a tough situation, they just need to press the button provided on a smart watch, then the location of that smart watch will be sent to their family member's mobile number. So that they can reach out to the place quickly. No one can find out this as a location tracker, as it looks like a real watch. GPS technology is used to trace the location and Twilio is an API that helps to send SMS to the family member's mobile phone. This is a small-sized, low-cost, simple-to-use smart watch. So that even children can use it.