KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

Opp : Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506 015, Telangana, INDIA.

काकतीय प्रैद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६ ०१५ तेलंगाना, भारत

కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - ౫౦౬ ౦౧౫ తెలంగాణ, భారతదేశము

(An Autonomous Institute under Kakatiya University, Warangal)

(Approved by AICTE, New Delhi; Recognised by UGC under 2(f) & 12(B); Sponsored by EKASILA EDUCATION SOCIETY)

Estd-1980

KITSW

DEPARTMENT OF INFORMATION TECHNOLOGY

HEARTY WELCOME TO NAAC PEER TEAM

Research & Education Centre

DATA SCIENCE LAB

About the Research and Education Center

- Equipped with high-end systems acquired in 2022, this facility serves as a pivotal resource for our ITD students, supporting various curriculum-related experiments and research works.
- Plays a crucial role in facilitating minor and major projects for PG students and final-year UG students, allowing them to delve into cutting-edge technologies such as Machine Learning, Artificial Intelligence, Block Chain Technology, Cloud Computing, Cybersecurity, and more.

Primary functions of the centre

- Conducting original research across various disciplines to contribute new knowledge, insights, and innovations to the academic community and society at large.
- Providing a platform for faculty and students to engage in collaborative research projects, fostering a culture of inquiry, and promoting academic excellence.
- Encouraging collaboration and interdisciplinary research initiatives that involve faculty and students.
- Facilitating the transfer of research findings and innovations from the academic setting to practical applications in industry, healthcare, or other sectors.
- Providing training programs, workshops, and mentorship opportunities to enhance the research skills of PG & UG students.

Major equipment

- 36 NODES with the following configurations:
    - Intel Core i5 10th Gen,
    - 8GB RAM, 1TB HDD, Keyboard, Mouse,
    - 2GB Graphic card, 18.5 LED Monitor,
    - 24 Port 10/100/1000 Gigabyte 2 No's Switches (D-LINK)
- Good Ambience with Carrier Inverter split AC's, Projector, White Board

Major software

TensorFlow	TensorFlow is an open-source machine learning framework released under the Apache License 2.0.
PyTorch	PyTorch is an open-source deep learning framework with a permissive license.
Scikit-learn	Scikit-learn is an open-source machine learning library released under the 3-clause BSD license.
Keras	Keras is an open-source high-level neural networks API that is now part of TensorFlow.
RapidMiner	RapidMiner offers a free and open-source version of its software, known as RapidMiner Go. It provides basic data science and machine learning capabilities.
H2O.ai	H2O.ai provides an open-source version of its platform called H2O-3, which is free to use. It includes machine learning and predictive analytics tools.

Ongoing Projects

Healthcare Projects:

- Brain Tumor Classification Using Fine-Tuned GoogLeNet Features and Machine Learning Algorithms: IoMT Enabled CAD System.
- MRI brain tumor detection and classification using parallel deep conventional neural networks
- Stroke Risk Prediction With Hybrid Deep Transfer Learning Framework
- Identification of major depression patients using machine learning models based on heart rate variability during sleep stages for pre-hospital screening
- Heart Disease Identification Method Using Machine Learning Classification in E-Healthcare
- Detection of Cardiovascular Diseases in ECG Images Using Machine Learning and Deep Learning Methods
- A Guided Neural Network Approach to Predict Early Readmission of Diabetic Patients
- A Smart Chatbot Architecture based NLP and Machine learning for health care assistance
- Intelligent and Interactive Healthcare System (I2HS) Using Machine Learning

Ongoing Projects

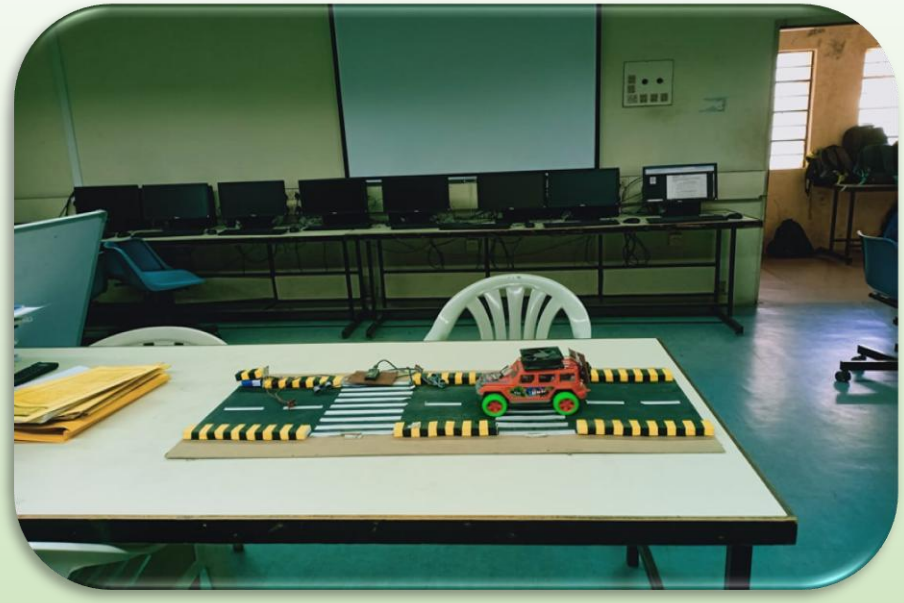
Smart Cities Projects:

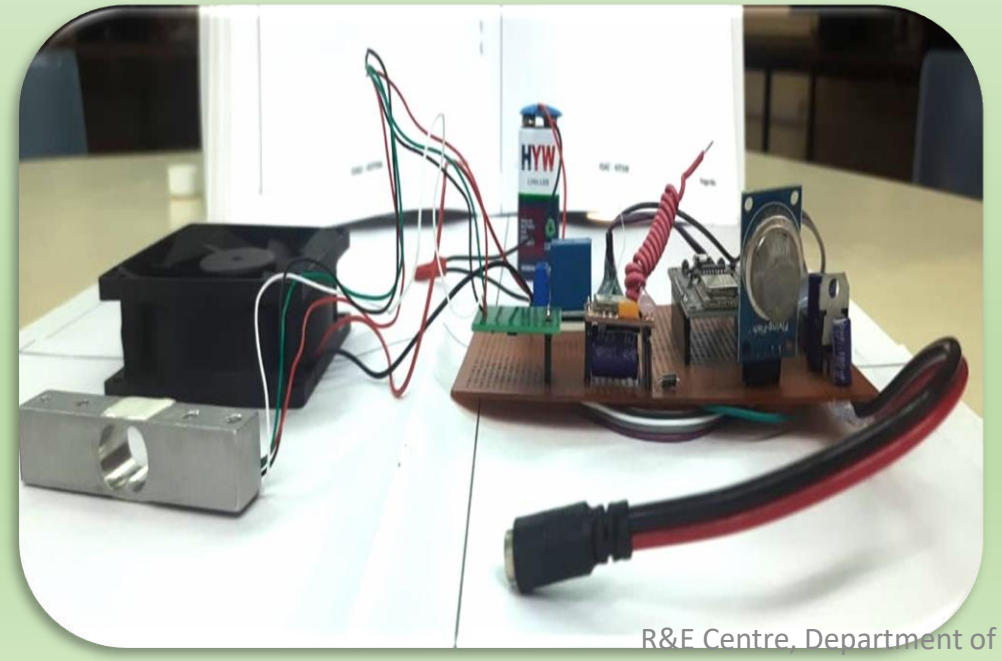
- A fast and scalable authentication scheme in IOT for smart living
- Control of pests and diseases in plants using IOT Technology
- Camera-Based Smart Parking System Using Perspective Transformation
- Web Design and Application Programming Interface (API) Smart Farming Application
- Vehicles detection and counting based on internet of things technology and video processing techniques

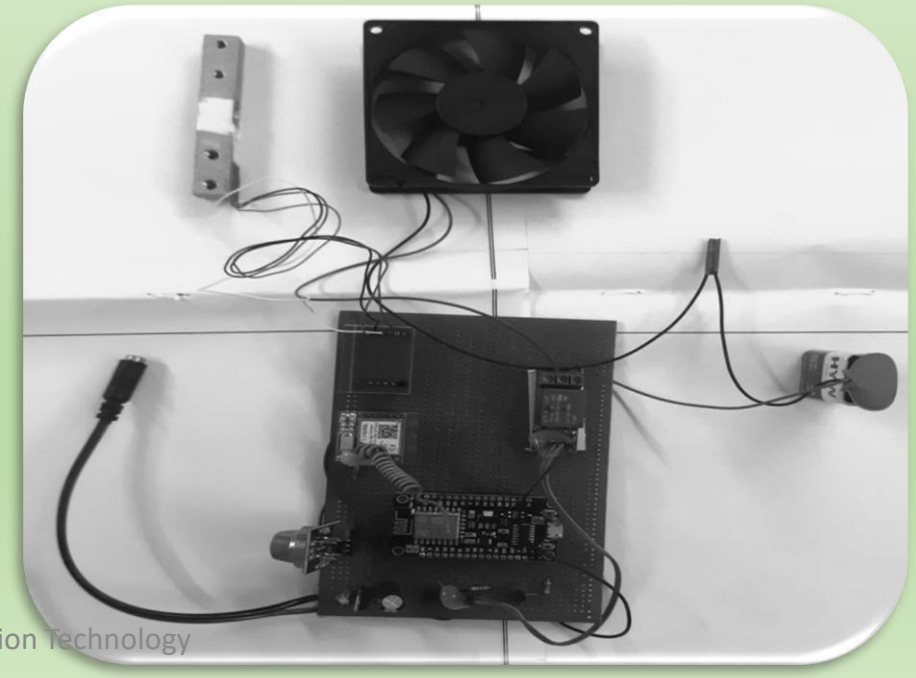
Ongoing Projects

Machine Learning and Deep Learning projects:

- CNN Learning Strategy for Recognizing Facial Expressions
- Long Term Energy Savings Through user behavior modelling in smart homes
- A Novel Multi-objective medical feature selection compass method for binary classification
- Machine Learning Approaches for Combating Distributed Denial of Service Attacks in Modern Networking Environments
- Using Data Mining Techniques to Predict Student Performance to Support Decision Making in University Admission Systems
- Efficient Distributed Denial of service attack defence in SDM based Cloud
- An Integrated Scalable frame work for Cloud and IoT Based Green Health care System
- An Attention-Based Convolutional Neural Network for Intrusion Detection Model
- A Systematic Study on the Recommender Systems in the E-Commerce
- Smart office automation using R-CNN based face recognition and internet of things
- Credit Card Fraud Detection Using State-of-the-Art Machine Learning and Deep Learning Algorithms







KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE
WARANGAL
ERASILA EDUCATION SOCIETY
Estd-1980
KITSW

THANK YOU