Innovative Projects 2022-23

Sl. No	Project Title	Guide Name	Project Description
1	App Based Real Time Localized Air Quality Monitoring And Prediction Using Ml	Dr. Niranjan R Chougala	This project aims to develop a mobile application that provides real-time air quality monitoring and prediction using machine learning (ML) techniques. The system collects air quality data from IoT-based sensors placed in different locations, measuring pollutants like PM2.5, PM10, CO2, NO2, and VOCs. The data is then processed and analyzed using ML algorithms to predict future air quality levels. Also Received Sponsorship From Karnataka State Council For Science And Technology, Bengaluru
2	Design and Implementation of Women Safety System Using IOT	Dr. Niranjan R Chougala	The Women Safety System using IoT is a smart security solution designed to ensure women's safety by integrating wearable devices, GPS tracking, sensors, and real-time communication. The system continuously monitors the user's location and physiological conditions and triggers an alert in case of emergency. Also Awarded 1st Place in State Level Project Exhibition-TechNova 2k24 [Meraki]
3	Wearable-AI-Enabled Glasses to assist the Blind in walking, detecting objects, Recognising Faces and Performing NLP	Prof. Shiva Kumar Swamy	This AI-Powered Smart Glasses System Is Designed To Assist Visually Impaired Individuals In Walking, Detecting Objects, Recognizing Faces, And Performing Natural Language Processing (NLP) For Voice-Based Interaction. The Glasses Integrate Computer Vision, Iot, AI, And Speech Processing To Provide Real-Time Assistance. Awarded as Best Paper in National Conference on Advancements in Information Technology held at JSS Academy of Technical Education, Bengaluru

4	Agriculture environment-based soil analysis and prediction using machine learning	Prof. Manjunath R	This project focuses on utilizing machine learning (ML) techniques to analyze soil properties and predict crop suitability, soil health, and nutrient levels for improved agricultural productivity. The system collects and processes soil data to provide data-driven recommendations for farmers. Also Awarded as Best Paper of the session in International National Conference on on Computer Science & Technology Allies in Research, Bengaluru

Innovative Projects 2023-24

Sl. No	Project Title	Guide Name	Project Description
1	Smart Iot-Enabled Floral Waste Recycling System For Sustainable Biomaterial Production	Dr. Manjunath R	This Project gives an innovative solution designed to efficiently process floral waste into valuable biomaterials using IoT technology. The system integrates sensors, automation, and data analytics to monitor and optimize waste collection, segregation, and bioconversion processes. Received Sponsorship from Karnataka State Council For Science And Technology, Bengaluru. Also Awarded as Best Paper of the session in International National Conference on on Computer Science & Technology Allies in Research, Bengaluru
2	A Deep Learning Based On Forest Wildfire Detection In Machine Vision Course	Prof. Asha V.	Focuses on developing an AI-powered system to detect wildfires using deep learning and computer vision techniques. The system utilizes convolutional neural networks (CNNs) and other deep learning models to analyze images and videos from satellites, drones, or surveillance cameras to identify fire, smoke, and heat signatures in real time. Also Received Sponsorship from Karnataka State Council For Science And Technology, Bengaluru
3	Blockchain Driven Agricultural Transformation Framework To Enhance Efficiency, Transparency And Sustainability	Dr. Shivakumar Swamy N.	This System uses blockchain technology to improve farming and agriculture. It helps keep records of farming activities, supply chains, and transactions in a secure, clear, and tamper-proof way. This makes the system more trustworthy and efficient for farmers, suppliers, and buyers. Also Received Sponsorship from Karnataka State Council For Science And Technology, Bengaluru

4	Autonomous Mobile Rescue Robot In Disaster Zone Using IoT	Prof. Rashmi R. H	This development is about creating a smart robot that can move on its own to help in disaster areas. The robot has IoT sensors, cameras, GPS, and AI-powered navigation to find survivors, check the environment, and send real-time updates to rescue teams. It uses machine learning and obstacle detection to safely move through dangerous areas, reducing risks for human rescuers. This technology helps make rescue operations faster and more effective. Also Received Sponsorship From Karnataka State Council For Science And Technology, Bengaluru
5	Deepfake Multimedia Creation And Detection Using Deep Learning	Shruthi S	Deepfake technology uses deep learning techniques, such as Generative Adversarial Networks (GANs) and Autoencoders, to create highly realistic fake multimedia, including images, videos, and audio. These models manipulate or synthesize content by learning patterns from real data, enabling applications like face swapping, voice cloning, and video manipulation. Also Awarded 1st Place in State Level Project Exhibition-TechNova 2k24 [Meraki]

Innovative Projects 2024-25

Sl. No	Project Title	Guide Name	Project Description
1	IOT - Driven Railway Crack Detection And Smart Monitoring System	Prof. Kruthi T C, Prof. veena M S	The IoT-Driven Railway Crack Detection and Smart Monitoring System is an innovative project designed to enhance the safety, reliability, and efficiency of railway infrastructure by leveraging modern Internet of Things (IoT) technology. The system focuses on early detection of cracks and real-time monitoring of railway tracks to prevent accidents and ensure smooth train operations. Received Grants From Karnataka State Council For Science And Technology, Bengaluru
2	Human Stress Detection Based On Sleeping Habits Using Machine Learning Algorithm	Prof. veena M S Prof. Veena V	This project focuses on identifying and predicting stress levels in individuals based on their sleeping patterns using machine learning algorithms. With the rise in mental health concerns, particularly stress-related disorders, this system provides a non-invasive, data-driven approach to understanding how sleep affects human stress levels. By analyzing sleep-related data and applying intelligent algorithms, the project aims to support early detection and stress management interventions. Received Grants From Karnataka State Council For Science And Technology, Bengaluru