The IoT Hackathon, named 'IOT Ignite-2023' (28th November 2023)

The IoT Hackathon, named 'IOT Ignite-2023', was organized by Dr. P Akhendra Kumar and Dr. DV Nair from the ECE Department of FST, IFHE Hyderabad. It was held on November 28th, 2023, at the premises of IcfaiTech, IFHE Hyderabad, with the primary goal of promoting innovation and cooperation among participants within the field of Internet of Things (IoT). This exciting event aimed to bring together individuals with a shared passion for IoT, providing them with a platform to showcase their skills and ideas while cultivating an environment of teamwork and innovation. Complementing the Hackathon, the IOT Ignite-2023 commenced with a two-day workshop. This pre-event aimed to equip participants with foundational knowledge, providing essential guidelines and insights into various IoT devices, sensors, and actuators. Beyond its educational aspect, the workshop was a precursor to fostering innovation and creativity among tech enthusiasts exploring IoT technology. During the Hackathon, 30 groups comprising 90 students across various disciplines at IcfaiTech registered for participation. Eventually, 20 groups of students emerged with real-time innovation projects on the day. The esteemed and proficient panel of judges, included Dr. Rashmi Sahay, Dr. S. Koushik, and was chaired by the Head of the ECE ,IcfaiTech, Dr. Asisa Kumar Panigrahy

The showcased projects underwent rigorous evaluation based on several criteria, including innovation, creativity, technical implementation complexity, practical applicability, viability, and potential real-world impact, along with clarity, effectiveness, and professionalism in presenting the projects. Several noteworthy projects emerged, showcasing exceptional:

Following are the briefs of some presented projects that attracted the attention of the crowd.

AIR-ALERT DRIVE-REAL TIME SAFETY NAVIGATOR
The aim of this particular undertaking is to furnish individuals with up-to-the-minute data regarding the pollution levels in their immediate surroundings, achieved through the utilization of unmanned robots. Robots are equipped with advanced technology and sensors, enabling them to collect and analyze environmental data in real-time. The overarching objective is to improve public awareness and understanding of the state of the environment, as well as to encourage more proactive measures towards reducing pollution levels. We

hope to empower individuals and communities to take appropriate action for a cleaner and healthier surrounding by providing timely and accurate information.

ALEXA POWERED MULTI DEVICE CONTROL SYSTEM
Alexacontrolled home automation involves using Amazon's voice assistant, Alexa, to control various smart devices within a home. Users can interact with Alexa through voice commands to perform tasks like turning lights on and off. This technology enhances convenience and allows for seamless control of various aspects of the home using voice commands.

SMART IRRIGATION SYSTEM
This irrigation system facilitated efficient watering by autonomously adjusting irrigation schedules according to real-time soil moisture data, ensuring optimal conditions for plant growth while conserving water resources.

SMART MOP - USING WiFi CONTROLLED CAR
The presented smart mop system is based on ESP8266 technology, which delivers highly efficient and effective cleaning solution. The system is designed to be controlled through an android app, which enables remote access and management of cleaning tasks from anywhere in house. With this advanced technology, users can easily schedule and monitor their cleaning tasks, making it more convenient than ever before.

RFID SMART DOOR LOCK An RFID
Smart Door Lock utilizing Arduino involves integrating Radio-Frequency Identification (RFID) technology with an Arduino-based system to create a secure and convenient door locking mechanism. Users can gain access by using RFID cards or tags that communicate with the Arduino-controlled locking system. This technology allows for key-less entry and can offer additional features like user access logins, remote access control, and customization options through Arduino programming.

Glimpses of IOT Ignite 2023: