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Report on Guest Lecture titled "**IOT and Edge Computing for Industrial Applications**"

Overview

A Guest Lecture titled **IOT and Edge Computing for Industrial Applications** was organized by the Department of Industrial IOT Engineering on 13th December 2024 from 10.30AM to 12.30 PM for the IIOT / ECE / VLSI students and the resource person for the program was **Ms Anandi Giridharan**, Principal Research Scientist, Indian Institute of Science, Bangalore.

The welcome address and Inaugural speech were delivered by the HoD / IIOT by Dr. M.Thilagaraj. The Venue was Seminar Hall (Room No 25).

Figure 1: Resource Person Ms.Anandi Giridharan welcomed by HoD / IIOT

The resource person started the session with an introduction on the industrial revolution 4.0. She defined Industry 4.0 refers to the integration of digital technologies, such as IoT, AI, robotics, Big Data, and Edge Computing, into manufacturing processes. Then she started with the IoT definition as Internet of Things (IoT) refers to the network of physical devices that are connected to the internet, enabling them to collect and exchange data. She discussed in brief the goal of IoT is to create self-reporting devices that can communicate in real time.

Figure 2: Students listening to the session by the resource person.

Then she introduced us to Edge Computing as it is a distributed computing model in which computing takes place near the physical location where data is being collected and analyzed, rather than on a centralized server or in the cloud. Then the transformation happening in industrial operations by IoT and Edge Computing was discussed in brief with enhancing automation, efficiency, and decision-making.

Figure 3: Resource person during her presentation.

Overall, 98 students participated in this guest lecture. This lecture was aan efficient learning experience for all the participants. They had the opportunity to learn and discuss real world examples of IoT & Edge Computing in Industry in General Electric (GE), Siemens and Tesla. The outcome of this Guest Lecture was that the students understood Industry 4.0 is transforming manufacturing and the revolution of Artificial Intelligence.