Lecture Report

The Silizium Society of the Electronics Department organized a talk on 18th December, 2024 in the room no. 117 (Electronics Lab).

Name of Speaker: **Mr. Ravi Payal, Scientist E, CDAC and Dr. Saruti Gupta, Project Engineer, CDAC**

This event aimed to introduce participants to the fundamentals of Artificial Intelligence (AI) and its real-world applications. The event kicked off with an introductory lecture, providing an overview of AI, including key concepts such as machine learning, deep learning, and neural networks—critical components in the development of intelligent systems. The significance of the Turing Test was also highlighted, exploring its role in evaluating a machine's ability to mimic human-like intelligence.

A major focus of the workshop was on **Natural Language Processing (NLP)**, a subfield of AI that enables computers to understand and generate human language. Topics like speech recognition, language generation, and sentiment analysis were covered, emphasizing how NLP is transforming industries by bridging the gap between humans and machines.

Participants were introduced to the various types of AI, ranging from **Narrow AI** (designed to perform a specific task) to the hypothetical **Superintelligent AI**, which could outperform human intelligence across all fields. Discussions also encompassed the current and potential future applications of AI in sectors such as healthcare, autonomous vehicles, and finance, as well as the ethical considerations necessary for the responsible development of AI systems.

The event concluded with an engaging Q&A session, where attendees had the opportunity to explore the implications and future trends of AI technologies in greater depth. This interactive segment was well-received, fostering a dynamic exchange of ideas and encouraging further interest in AI research and innovation.

Overall, the event was a tremendous success, offering valuable insights into AI and sparking enthusiasm for continued exploration in this rapidly advancing field.