

# 1st Mechanical Engineering AI and IoT Exhibition 2023

NED University of Engineering and Technology hosted an AI and IoT exhibition on the 17th of January 2023, showcasing innovative ideas and projects developed by the final year students of the elective course named AI & IoT(ME-438). The exhibition presented a comprehensive display of the students' projects, which aimed to address some of the most pressing problems related to CO2 emissions, water management, energy conservation, and automatic irrigation.

The exhibition comprised four different IoT projects, each designed to address specific challenges in the field of engineering. The Water Level Detection System, for instance, aimed to detect water levels in a tank and alert the user when the water level reached a critical point. Similarly, the Automatic Water Billing System was developed to automate the billing process for water consumption, making it easier for the water supply company to calculate bills accurately. The Automatic Greenhouse Irrigation System aimed to automate the process of watering plants in a greenhouse, saving time and water. Lastly, the Energy Management System was designed to monitor and optimize energy consumption in a building, reducing energy wastage.

In addition to the IoT projects, the students also presented their AI models, which were developed to predict the CO2 emissions produced by various models of vehicles. The students used Python to train a machine learning model on the given dataset and provide a predictive analysis. The models were trained on a dataset containing information about the vehicles' engine size, fuel type, and other features.

Moreover, the students used Tableau to perform a descriptive analysis of the data, showing how different variables were correlated with CO2 emissions.

The exhibition was attended by prominent figures, including Prof. Dr. Muhammad Tufail, Pro Vice Chancellor, NED University, Prof. Dr. Syed Amir Iqbal, Dean MME, Prof. Dr. Mubashir Siddiqui, Chairperson MED, and NED, and Engr. Abbas Sajid, notable alumnus of NED. The visitors were impressed by the students' innovative projects, and the exhibition was highly appreciated.

The exhibition highlighted the remarkable achievements of NED University's students and their ability to apply AI and IoT technologies to real-world problems. The university takes pride in nurturing and supporting such innovative and talented students who will undoubtedly contribute to the betterment of society. Figure 25 shows the participation in the event.

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Figure 1. 1st Mechanical Engineering AI & IoT Exhibition