Circuits and Clocks

By Circuitology Club

Time: 9:30 am to 3:30 pm

Date: 11th January 2025

Venue: MA107 and MA108, Marwadi University

Objective

The 'Circuits and Clocks' event, organized by the Circuitology Club, aimed to enhance students' understanding of the 555 Timer IC. The event focused on introducing participants to the fundamentals of the component, including its pin configuration, operational principles, and practical applications. Additionally, the event allowed students to explore various circuits incorporating the 555 Timer IC, fostering a deeper comprehension of its versatility and functionality.

Outcomes

PO1 (Engineering Knowledge):
The event deepens students' understanding of the NE555 Timer IC, its working principles, and its applications in circuit design.

PO2 (Problem Analysis):
Participants analyze circuit-related challenges, troubleshoot errors, and optimize timer-based solutions, enhancing their problem-solving skills.

PO3 (Design/Development of Solutions):
Students design and implement circuits using the NE555 Timer IC to develop innovative and functional electronic solutions.

PO9 (Individual and Team Work):
The event encourages both independent thinking and teamwork, as students collaborate to design and test circuits effectively.

PO11 (Project Management and Finance):
Participants manage resources, components, and time efficiently while planning and executing their circuit designs.

PO12 (Life-long Learning):
The event fosters continuous learning by encouraging students to explore advanced applications of the NE555 Timer IC beyond textbook knowledge.

PSO1:
By working with the NE555 Timer IC, students apply their skills in embedded systems and circuit design, aligning with industry-relevant problem-solving in electronics.

Execution

- The 'Circuits and Clocks' event commenced at 9:32 AM with an introduction to the core team. This was followed by an informative presentation on the 555 Timer IC, which covered its fundamentals, functionality, and applications. This session concluded at 11:00 AM.

- At 11:25 AM, students participated in an engaging challenge quiz, where winners were announced. The quiz session concluded at 11:45 AM, after
- which a break was provided from 11:45 AM to 12:45 PM.

- The afternoon session resumed at 1:30 PM with a hands-on activity. Participants were tasked with building circuits using the 555 Timer IC, allowing them to deepen their practical knowledge and gain insights into
- the functionality of their assigned circuits.

- The evaluation round began at approximately 3:15 PM, where students' work was reviewed and assessed. The event concluded successfully between 3:45 PM
- and 4:00 PM, marking the completion of an engaging and educational experience

Learning Outcomes

- Students gained a comprehensive understanding of the 555 Timer IC, including its working principles and wide range of applications.

- Participants had the opportunity to apply their theoretical knowledge by designing and experimenting with various circuits based on the 555 Timer IC, enhancing their practical skills and problem-solving abilities

Photos of the event

Student Feedback

Feedback
The 555 timer IC event overall was very nice. I gained useful insights on the timer IC.
The experience was very good and nice. However, the pace of the explanatory session was a little quick, so I would suggest slowing it down a little.
The explanation provided in the first part proved to be very useful and the quiz quenched our thirst of knowledge.
It was a really great experience for me. I really got to learn many new things.
The explanation was given in a very simple manner such that it was easily understood by us that benefited us during the hands-on session.
The session was very interesting and I specially enjoyed the hands-on the most
The session proved to be very useful for me. It was very interactive yet interesting, although very insightful.

List of Attendees

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