Dr. D. Y. Patil Unitech Society's
Dr. D. Y. Patil Institute of Technology, Pimpri, Pune

Title of Activity: Innovative Teaching Learning pedagogy

Date & Day: 06/08/2024 Tuesday

Type of Activity: Role play on Shift Register

Venue: Class room no. 201

Activity conducted by with Designation:
Dr.Mrs. Haripriya Kulkarni,
Professor, Department of Electrical Engineering

Objectives:

- To create interest through participative learning activity
- To provide innovative teaching learning pedagogy to provide peer to peer learning among students.

No. of students attendee: 40

Summary of the event: The event was executed for the students of SE Electrical Engineering AY 2024-25. Identified students had prepared for various types of Shift Registers namely SISO, SIPO, PISO and PIPO. All the four groups presented the operation of circuit and its applications, no. of flip flops used no of clocks required for data write and read etc. It was a participative learning. Students participated enthusiastically and delivered the activity pro-actively. The best performing group is awarded. The assessment is done by Dr. Mrs. Chaya Jadhav madam computer dept. teaching the similar course at comp dept. and Dr. Manasi deore- Academic coordinator of Electrical Dept.

Outcome: Participative learning method of the students to make easy leaning with fun.

Course co-ordinator

DAC

Dr. S.D. Chavan

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PO Mapping Matrix

POs	Justification
PO1: Engineering Knowledge	Students apply fundamental concepts of shift registers (SISO, SIPO, PISO, PIPO) and understand their practical operations through role play.
PO2: Problem Analysis	Students analyze the working mechanism of shift registers by simulating the movement of data (bits) in different types of shift registers.
PO3: Design/Development of Solutions	Students creatively design a role-play activity to represent the functionality of shift registers, enhancing their conceptual grasp.
PO4: Conduct Investigations of Complex Problems	Through role play, students explore and troubleshoot different shift register operations, understanding the impact of various input conditions.
PO9: Individual and Team Work	The activity requires students to work in teams to enact the shift register operation, improving collaboration skills.
PO10: Communication	Students effectively communicate technical concepts by demonstrating bit movement through role play, making learning interactive.
PO12: Life-long Learning	The interactive and innovative approach encourages students to think beyond textbooks and develop a deeper interest in digital electronics.

PSO Mapping Matrix

PSOs	Justification
PSO1: Apply technical and logical skills for modeling, simulating, as well as analyzing electrical systems.	The role play activity helps students model and visualize how shift registers work, simulating data movement and analysing its behaviour in real-time.
PSO3: Apply the concepts of electrical engineering in a multidisciplinary domain.	Understanding shift registers is essential in embedded systems, digital logic design, and computing, making this activity relevant across multiple domains.

Course co-ordinator DAC Dr. S.D. Chavan