



**Department of Mechanical Engineering
Academic Year 2021 – 2022 (Odd Semester)**

Degree, Semester & Branch: VII Semester B.E Mechanical Engineering

Course Code & Title: ME8791 Mechatronics

Name of the Faculty member (s): Mr. S. Valai Ganesh & Mr. T. Selva Sundar

Innovative Practice Description

- **Unit / Topic: Unit IV / PROGRAMMABLE LOGIC CONTROLLER**

- **Course Outcome: CO 04**

- **Topic Learning Outcome: TLO 18**

- **Activity Chosen: Color Paper**

- **Justification:**

Students may be able to build fluid power system with the aid of PLC. For this, they may question about the basics of PLC along with logic gates circuits

- **Time Allotted for the Activity: 10 Minutes**

- **Details of the Implementation:**

MCQ was prepared in the presentation slides. There are four color papers handed over to the students. Red color means option ‘A’, Violet color means option ‘B’, Green Color means option ‘C’ and Orange Color means option ‘D’. Questions are shown in the presentation. Students are asked to show their options in the form of any one color paper. Based on the response by the students mostly majority of the color will leads to the right option.

- **CO – PO / PSO mapping:**

CO	PO 01	PO 02	PO 03	PO 10	PSO 02
CO4	2	1	1	1	1

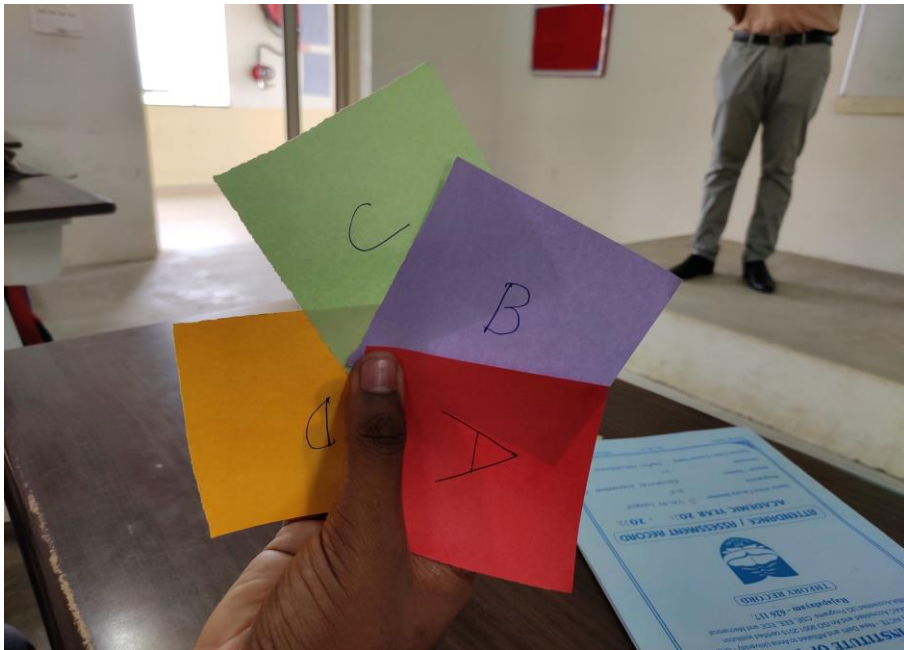
(1 – Low 2 – Moderate 3 – High)

- **PO / PSO mapped:**

Innovative practice	PO 01	PO 02	PO 03	PO 10
	PSO 02	PSO 02	PSO 02	PSO 02
Justification for correlation	Automation circuits will be designed using combined engineering approach	Modify the electrical diagram with ladder logic programming to do automation using PLC	Build programming for the development of applications.	Design programming for various applications using many programming methods and

				understand a logical progression of programming by analysing it.
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• Images / Screenshot of the practice:





Reflective Critique:

❖ ***Feedback of practice from students and other stakeholders:***

Students are feeling good after doing this activity in the classroom session. Their response rate for instant questions has been improved drastically

❖ ***Benefit of the practice:*** (E.g.: Outcome attainment would have increased due to innovative practice over conventional practice)

Students can be able to identify the logical operations of every gate and their applications.

❖ ***Challenges faced in implementation:***

Paper cutting and splitting into equal number of portions for every student before the commencement of this activity. Marks for Individual not able to calculate while live question and answer is going on.

References:

- ❖ Frank Petruzella, “Programmable Logic Controllers”, 3rd Edition Tata McGraw Hill, 2010.
- ❖ Tilak Thakur, “Mechatronics”Oxford Press Publisher, Latest Edition.

Signature of Faculty Member

HOD