



# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत

A GOVT. AIDED UGC AUTONOMOUS & NAAC ACCREDITED INSTITUTE, AFFILIATED TO R.G.P.V BHOPAL (M.P)

## Department of Electrical Engineering

### Industrial Automation Excellence Center

Department of Electrical Engineering has established an “Industrial Automation excellence center” in collaboration with M/s. Smart controls Pvt Ltd, Gwalior on 17<sup>th</sup> January 2021.

In AICTE, a flexible curriculum scheme department is running an elective course on “Industrial Automation” for UG III Year students. In this course the students will learn different types of Programmable Logic Controllers (PLC), network protocols, ladder logic programming and integration of sensors & loads with the PLC.

It is important to expose students and provide hands on experience in the area of automation which will make them an Industry ready professional.

After working on the set-ups in the proposed automation lab, the students will be able to write ladder logic programs for PLCs, run and troubleshoot various set ups & experiments in the area of automation.

SCAN or Click Links given below



<https://youtu.be/ilnEdNgpYyI>



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### Department of Electrical Engineering

#### Laboratory Experiments

1. Realization of Logic Gates using PLC ladder programming.
2. To observe the Timer and Counter operation in PLC using toggle switch.
3. Realise the Door bell operation using push buttons at door or main gate.
4. To observe the performance of starter control for 3 phase slip ring induction motor.
5. To control the sequential operation of four motors with delay times.
6. To observe the traffic light control in different traffic density.
7. To observe the automatic parking system with sensors control.
8. To understand working model of lift elevator simulator using PLC control.
9. To understand working model of Conveyer belt using PLC control.
10. To understand working model of Rotary Transfer Unit using PLC control.

Lab Manual Click Link or  
Scan below



<https://drive.google.com/file/d/1WOgFX0vLW1sYdvisaw3VtADIXzhpp6mE/view?usp=sharing>



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## Department of Electrical Engineering

### Activities Done under MoU

#### ACTIVITY : 01

A group of faculty members had visited **M/s. Smart controls Pvt Ltd on 12 February 2020**. Mr. Vijay Singh Bagel, Senior Technical Engineer has demonstrated the live PLC panels of SEIMENS in their industry and trained faculty members for establishment of excellence centre.



*Mr. Vijay Singh Bagel, Senior Technical Engineer has demonstrated the live PLC panels of SEIMENS in their industry and trained faculty members for establishment of excellence centre.*



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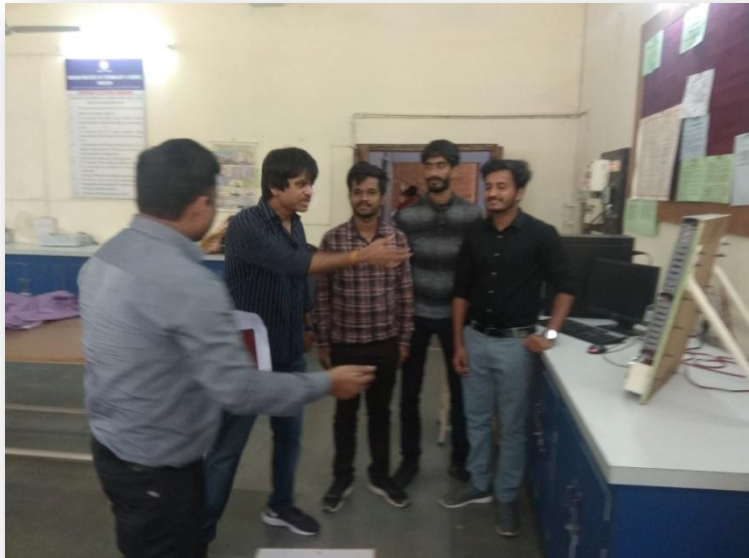
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### Department of Electrical Engineering

#### Activities Done under MoU

#### ACTIVITY : 02

**Late Mr.Ashutosh Chincholikar ,Ex-CEO and Managing director, M/s. Smart Controls India Ltd, Gwalior has guided few group of students of final year in order to develop the prototype panel of Industrial Automation**







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## Department of Electrical Engineering

### Activities Done under MoU

#### ACTIVITY : 03

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