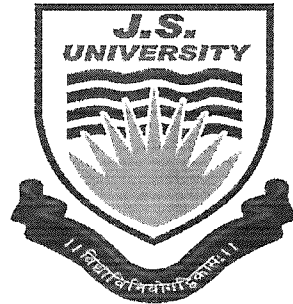# J.S. University, Shikohabad

Established by UP Govt. Act No. 07 of 2015

Recognized by U.G.C. under section 2 (f) of Act-1956

Value Added Course

[VAC-084]

Programmable Logic Controller Training

Faculty of Engineering

Department of Electrical and Electronics Engineering

Programmable Logic Controller training

[VAC-084]

Learning Outcome:

This course will add skill set required to automate various industrial operations.

Duration: 50 Hours. (Theory and Practical)

Course Outcomes: -

Maximum Exposure has to be given on Practical Oriented

After completion of the course the student shall be able to:-

1. Inrtoductry fundamental and I/O devices operations
2. Design and controlling of simple line diagrams
3. Setting up PLCs and Connecting Field devices
4. Observation and manuplation of Edge / trailing edge instructions
5. Advanced instructions, File handling and Comment functions

	J.S. University, Shikohabad Faculty of Engineering	Value Added Course
		AY: 2022-23

Syllabus Outline

1. **Module-1**

PLC Fundamentals - (Block diagram of PLC's)Applications and Types of Transformers Selection of PLC components(Power supply, CPU, I/Os List , Communication bus Various ranges available in PLC's), I/O list selection, Open-Circuit and Short-Circuit Tests

2. **Module-2**

   Types of Inputs & outputs / Source Sink Concepts Parallel Operation of Transformers, Wiring of the I/O devices
   Architectural Evolution of PLC

3. **Module-3**

   Introduction to the field devices, Types of Inputs & outputs / Source Sink Concepts Concept of flags and Scan cycle execution

4. **Module-4**

   Setting up PLCs / Connecting CPU, I/O modules, Rack, Backplane and Communication bus, Connecting Field devices to PLCs I/Os
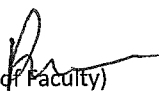   Load /and /or/out / and Read / Write, Compare / Add / Sub /And /Or – Blocks, Edge / trailing edge instructions

5. **Module-5**

   MOVE block application, Timer and Counter Blocks programming, Advanced instructions, File handling and Comment functions
   Master control /set /reset function

(Name of Faculty)

Course Coordinator

(Name of Faculty)

Dean Academics

(Name of Faculty)

Director/Principle/Dean of Faculty/Department