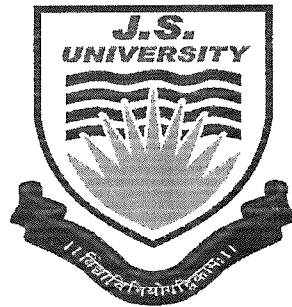


J.S. University, Shikohabad

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-163]

Switch Gear deployment and Protection Codac

Faculty of Engineering

Department of Electrical and Electronics Engineering

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

Switch Gear deployment and Protection Codac [VAC-163]

Learning Outcome:

This course will add skill set needed to deploy Switch Gears in electrical installations.


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. Switch Gear fundamentals, Utility power codes & standards, Installation & maintenance guidelines
2. Design introduction & single line diagrams
3. Different types of Switch Gears (LV, MV, & HV), Design specifications
4. Installation of different types of circuit breakers : Oil type, vacuum type, SF6 circuit breakers
5. Service & maintenance , Safe operations of Switch Gears
6. Safety Engineering, Regulations Permit and safe isolation

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

Syllabus Outline

1. Module-1

Fundamental quality requirements: Selectivity, Speed, Sensitivity, Reliability, Simplicity, Economy, Basic relay terminology- Protective relay, Relay time, Pick up, Reset current, current setting, Plug setting multiplier, Time setting multiplier.

2. Module-2

Protective relays: Electromagnetic disc relay operation, Thermal relay. Block diagram and working of Static relay, over voltage relay.

3. Module-3

Over current relay-Time current characteristics, Microprocessor based protection relays: Block diagram, working and protection features.

4. Module-4

Distance relaying- Principle
 Directional relay: Need and operation with block diagram.

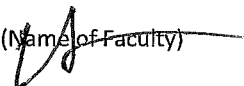
5. Module-5

Operation of current and voltage differential relay, Differential, over current, earth fault, over heating protection, Buchholz relay: Construction, operation, merits and demerits.


 (Name of Faculty)

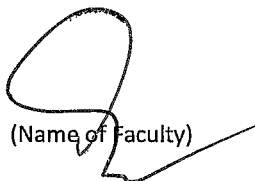
Course Coordinator

Dr. Manoj Kumar


 (Name of Faculty)

Dean Academics

Dr. Akhilesh


 (Name of Faculty)

Director/Principle/Dean of Faculty/Department

Dr. Shaikh Javed