

## **(0401730) Electrical Networks Automation and Protection**

The aim of this course is to understand the basic philosophy and elements of protection system, review of relay types, technologies, settings, characteristics, and protection requirements, study the theory and practice of modern power system protection and numerical protective relaying, relay design and protection schemes for power systems, relay co-ordination in transmission and distribution systems, issues affecting protection scheme characteristics and operation, system stability and out-of-step relaying, reclosing and synchronizing, load shedding, frequency relaying, analysis of disturbances and fault location, recent advances in power system protection and substation automation. Automation strategies and protection systems of distribution networks. Criteria for design and manage protection systems and automation strategies in the medium voltage and low voltage electrical networks.