

# Chapter-1

## (Concepts of Switch Gear)

Presented By Hasan Murad Munna

## Introduction:

The apparatus used for controlling, regulating and switching on or off the electrical circuit in the electrical power system is known as switchgear. The switches, fuses, circuit breaker, isolator, relays, current and potential transformer, indicating instrument, lightning arresters and control panels are examples of the switchgear devices.

## Importance of switch gear protection of Electrical system:

- Switchgear essentially consists of switching and protecting devices such as switches, fuses, isolators, circuit breakers, protective relays, control panels, lightning arrestors, current transformers, potential transformers, auto reclosures, and various associated equipment.
- Protective devices are important because they ensure that under fault conditions, a high fault current cannot flow – as well as protecting the installation this, more importantly, ensures that consumers are not injured or killed as a result of an electrical fault.

# List of Different Type of Switch Gear:

- A switchgear assembly has two types of components:
- Power-conducting components, such as switches, circuit breakers, fuses, and lightning arrestors, that conduct or interrupt the flow of electrical power.
- Control systems such as control panels, current transformers, potential transformers, protective relays, and associated circuitry, that monitor, control, and protect the power-conducting components.