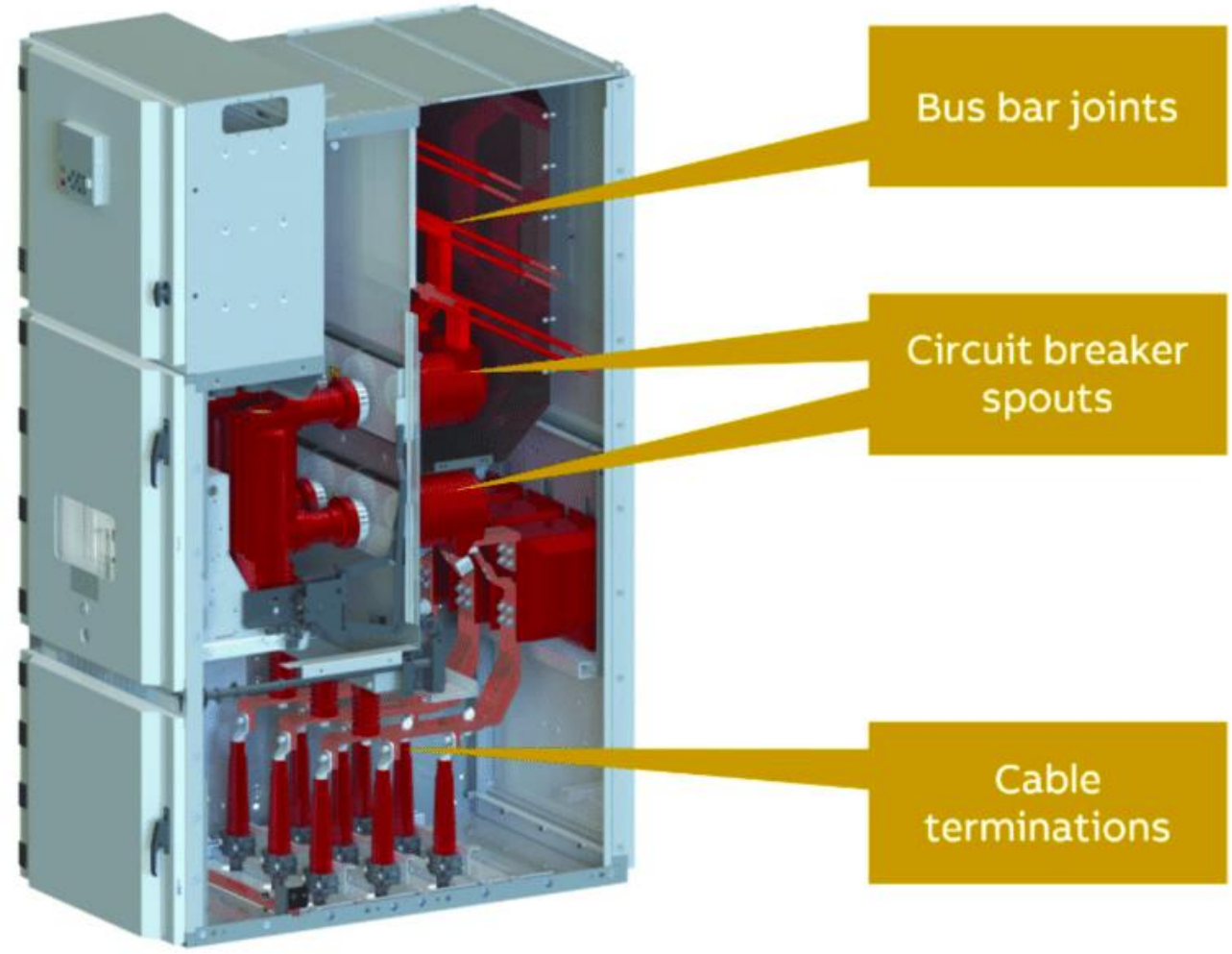
GANDHI SCHOOL OF ENGINEERING,BHABANDHA,BERHAMPUR

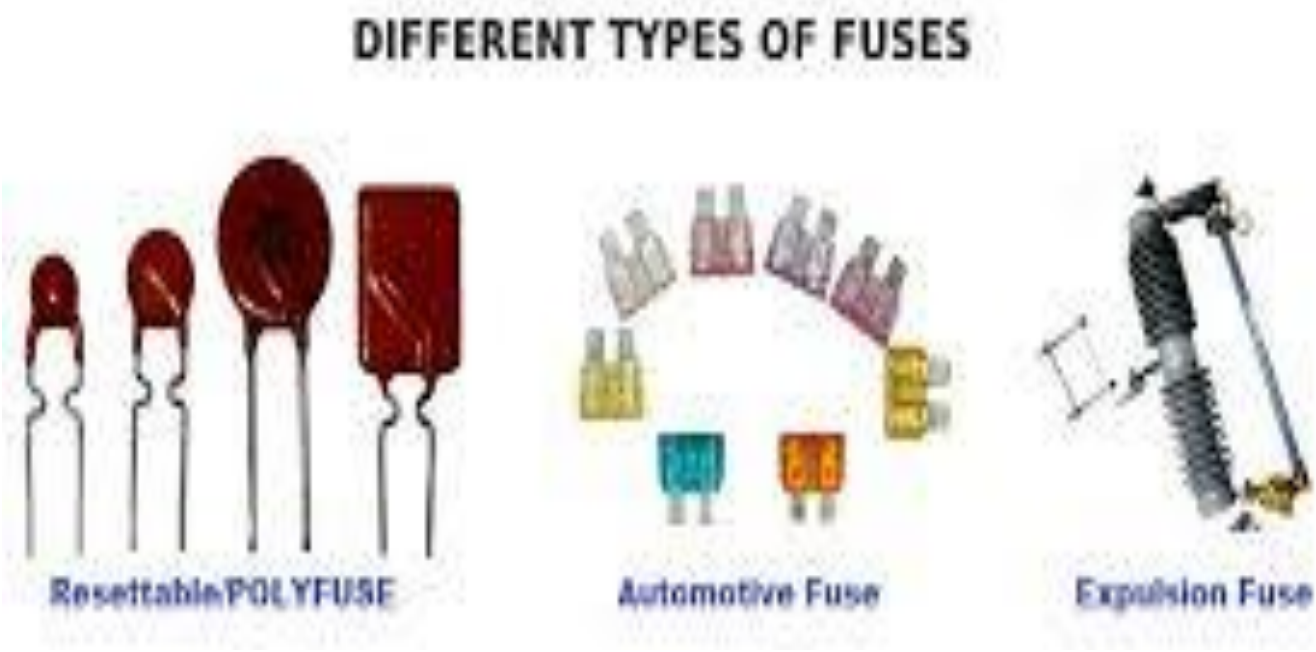
SUBJECT: SWITCH GEAR AND PROTECTIVE DEVICES
SEMESTER: 6TH

SUBMITTED BY:-ER.GIRIDHAREE PRADHAN &ER.DEEPAK KUMAR MAHARANA

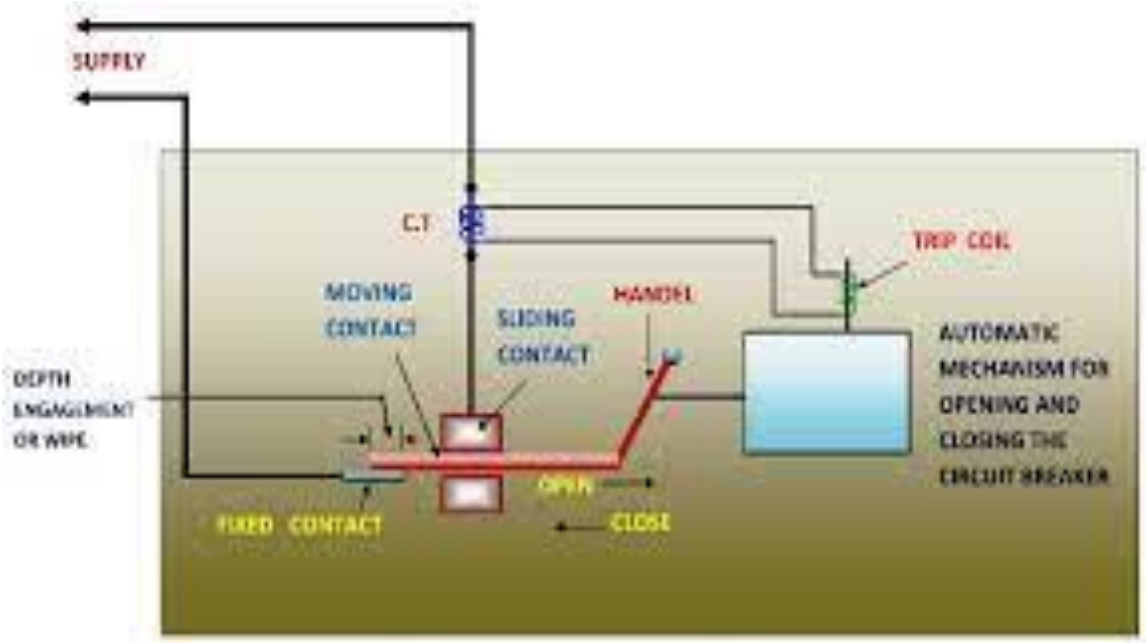
CHAPTER-1:INTRODUCTION TO SWITCHGEAR



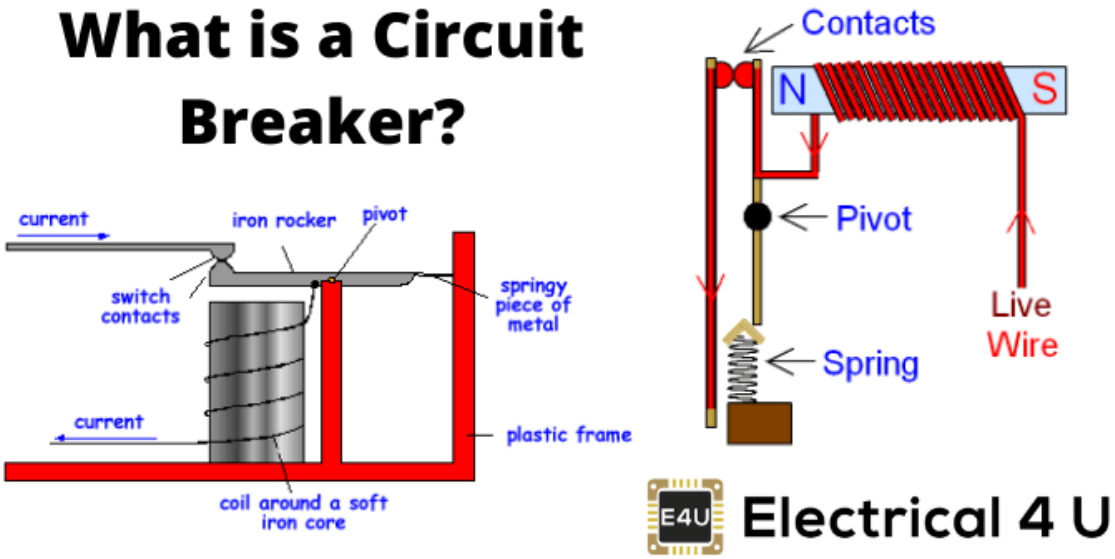
CHAPTER-3: FUSES



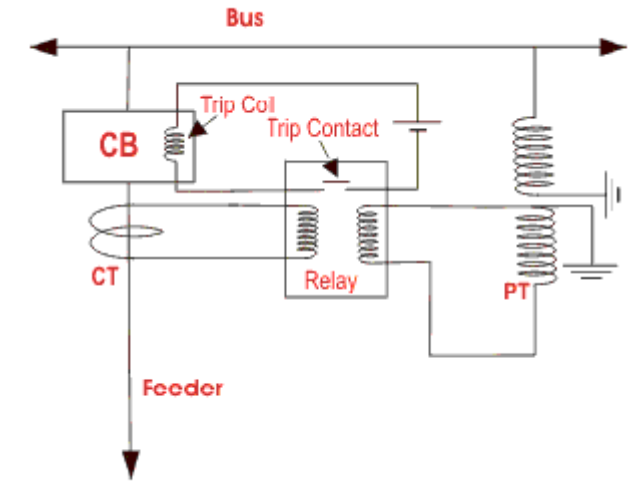
CHAPTER-4: CIRCUIT BREAKERS



Schematic diagram of a circuit breaker

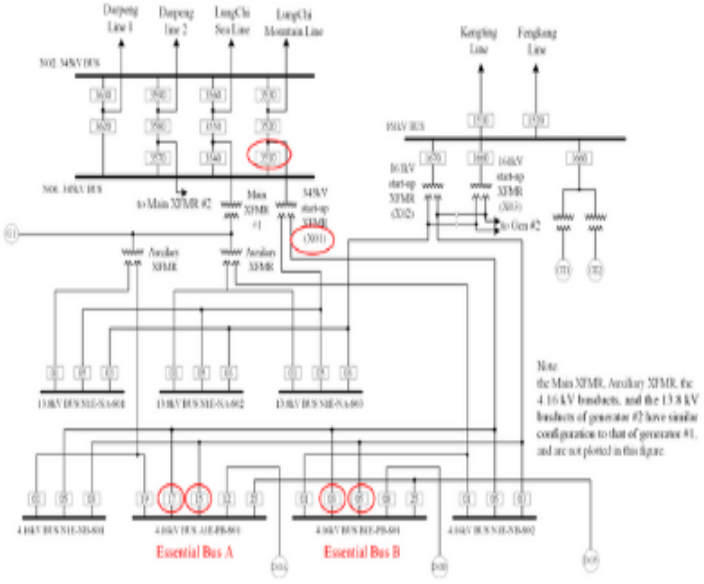


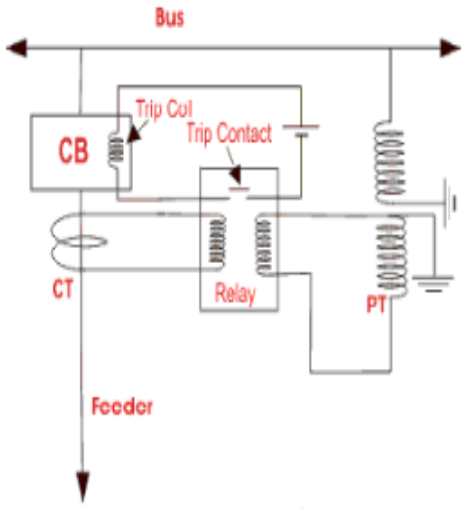
CHAPTER-5: PROTECTION OF ELECTRICAL POWER EQUIPMENT AND LINES



Basic connection diagram of protection relay

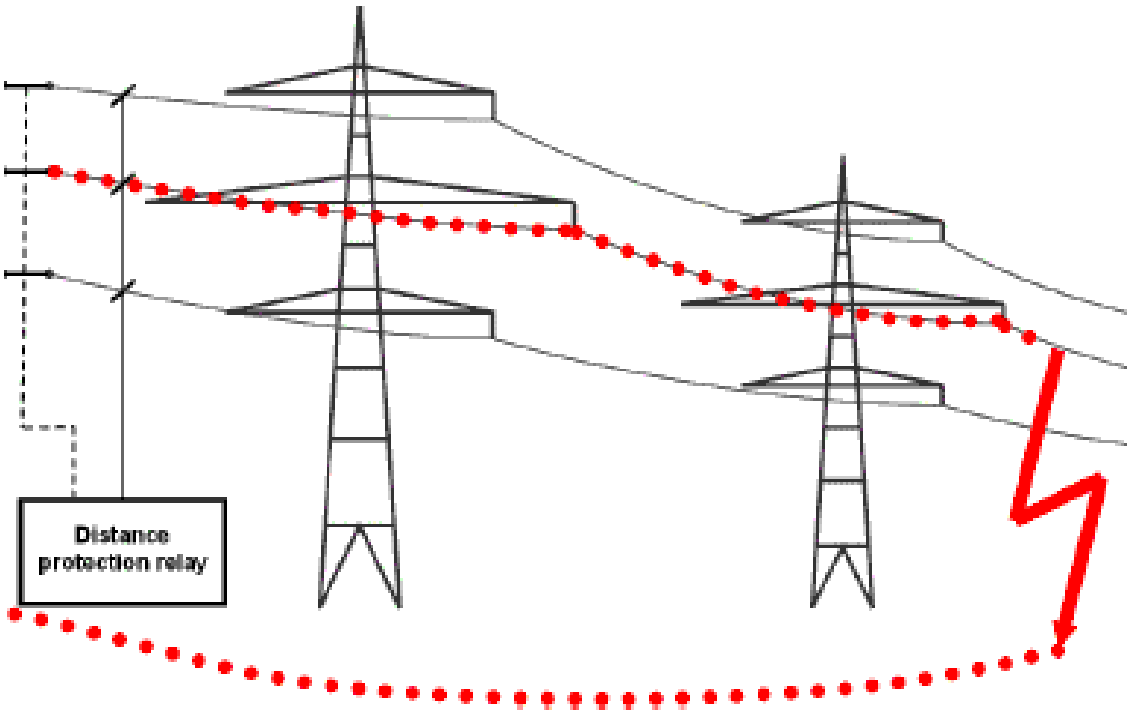
Power System Protection Systems





Basic connection diagram of protection relay

Electrical 4 U



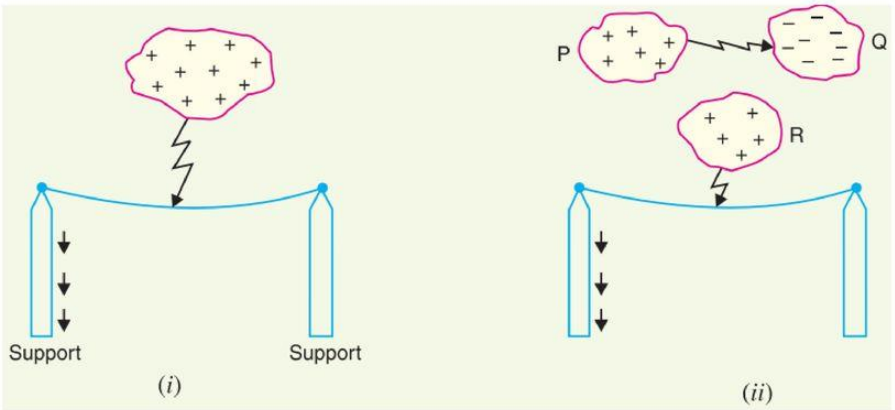
CHAPTER-5: PROTECTION AGAINST OVER VOLTAGE AND LIGHTING

Types of Lightning Strokes

There are two main ways in which a lightning may strike the power system (*e.g.* overhead lines, towers, sub-stations etc.), namely;

→Direct stroke
→Indirect stroke

Direct stroke



Different types of lightning arrester

Horn Gap lightning arreste

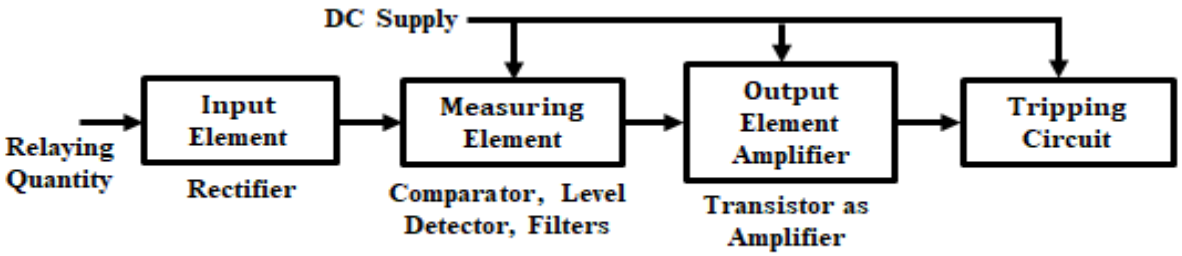
Rod Gap lightning arrester

Multiple Gap lightning arrester

Oxide film lightning arrester

Thyrite lightning arrester

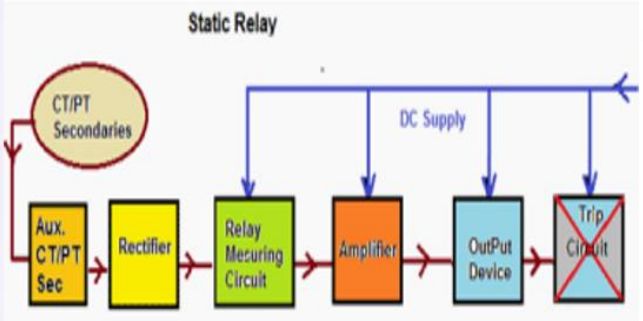
CHAPTER-5: STATIC RELAY



Block Diagram of Static Relay

EM

Static Relay



The relay which does not contain any moving parts is known as the static relay. In such type of relays, the output is obtained by the static components like magnetic and electronic circuit etc. The relay which consists static and electromagnetic relay is also called static relay because the static units obtain the response and the electromagnetic relay is only used for switching operation.