

SCIENCE**HARMFUL & SAFETY MEASURES OF ELECTRICITY****DANGER OF ELECTRICITY**

Electricity can be dangerous if not used safely. Following are the various hazards that can happen due to Electricity,

- (1) Overloading,
- (2) Short circuit,
- (3) Electric Shocks and Electrocutation

Overloading

1. When many appliances are connected to a single socket the circuit draws a large amount of current from the mains causing excessive heating of the connecting wires and the circuit.
2. It can lead to short-circuiting.

Short circuit

1. A short circuit occurs when the live wire touches the neutral wire providing an alternate path for the current to flow through
2. A large amount of current flowing through the wire can cause overheating and may result in fire.
3. A short circuit can also damage an appliance.

Electric Shocks and Electrocutation

1. The death of a person caused by an Electric shock when an electric current passes through the body is called Electrocutation.

To prevent such Accidents we use Safety devices or components in electrical connections

- i. Electric Fuse

- ii. Miniature Circuit Breakers(MCBs)
- iii. Earthing

SAFETY MEASURES IN USING ELECTRICITY

- (1) You should never touch electrical appliances with wet hands as this may cause charge to flow from the electric appliance to your body. This can result in shock.
- (2) All the heavy devices carrying electricity should be regularly checked. If there is a break in circuit, or any other such problem it can cause a short circuit. This might also lead to fire.
- (3) Wires or cords that are faulty or bare should not be used for safety. Using these types of wires or cords can cause problems in electric circuits. They can even lead to heavy damage.

ADDITIONAL INFORMATION:

Following are some more safety measures:

- If you are working near electricity be cautious.
- Never touch any electrical device if it is wet.
- Do not repair electrical equipment without complete knowledge. Call an electrician to do the same.
- If you are in a vehicle and some overhead wire drops, then continue moving until you reach far away from the place.

NOTE: Electrical safety is a system that prevents workers from harmful and dangerous effects of electric current, electric arc, electromagnetic field and static electricity. Electricity is a boon but at the same time it can become hazardous. So taking precaution is utmost important.