SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

scope of subject electrical safety

ELECTRICAL SAFETY

Electrical Safety is subjected to preventive care towards a careless malpractices on electrical live circuit, over the decades this matter of subject is addressed by different researchers to make electrical safety augmented with equipped safety devices, but till now very less research studies have shown that new advancement in this field is small in possible. Electrical hazards are the prime cause of unsafe operations in electrical domain, hot line workers and electrician are also very much susceptible to this safety concern as Electrical injuries can be serious and even fatal.

ELECTRICAL SAFETY

There are two major hazards of electricity**:**

1. ***Electric Shock*** : Injuries that can result from electric shock are as follows:

•Cardiac arrest due to the electrical effect on the heart

•Muscle, nerve, and tissue destruction from a current passing through the body

•Thermal burns from contact with the electrical source

•Falling or injury after contact with electricity

2. ***Arc Flash*** *:* Injuries that can result from arc flash are as follows:

•Burns from the high temperatures produced by the arc

•Blindness from the ultra-violet light produced by the arc

•Hearing loss caused by the pressure wave from the arc blast

ELECTRICAL SAFETY

Electrical negligence can result in

•Electrical shock injuries occur when electric current passes through the body. The person will receive a shock, which can result in tingling sensations, muscle and nerve damage, and even cardiac arrest.

•Electrical burns can result in injuries that vary in severity, including flash burns, flame burns, as well as low and high voltage burns.

•Electrocution is used to describe a fatal electrical injury and always means that the victim passed away as a result.

ELECTRICAL SAFETY

To protect yourself at work. Good health & safety measures include:

- Examining all electrical machines or tools before use
- Wearing personal protective equipment (PPE) when using electrical items
- Turning off all equipment when it is not in use
- Avoiding water or dampness when using equipment
- Not using equipment with wire damage
- Stop using tools or machinery if it is not working properly
- Using an RCD (Residual Current Device)
- Examining walls and floor plans for wires before drilling into surfaces
- Avoid overloading plug sockets
- Taping extension cords to the floor or to the wall instead of allowing them to hang or lay loose
- Avoiding the use of conductive materials like metals around high voltages
- Ensuring that the equipment that is in use is rated for the level of voltage and current that you are using
- Regularly inspecting cords and electrical connections (outlets, plugs) for wear or other signs of damage, and replacing them if necessary
- Checking potentially current-carrying wires and metal surfaces with a multi-meter

THANK YOU