



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

ACADEMIC YEAR 2022-23ODD

Internal IEEE Faculty Seminar– Report

Title of the seminar : “Arc Flash Hazards & Electrical Safety”

Date : 30.11.2022

Resource Person : Mr.S.R.Karthikeyan, AP/EEE, KCE

No. of Participants : EEE Faculty Members- 7

Venue :Power Electronics Laboratory

On behalf of the Department of EEE, IEEE Branch organized an Internal Seminar on “Arc Flash Hazards & Electrical Safety” for faculty members of the EEE Department on 30.11.2022. The main objective of the internal seminar is to provide exposure to our faculty members on various research areas in arc flash hazards & electrical safety.

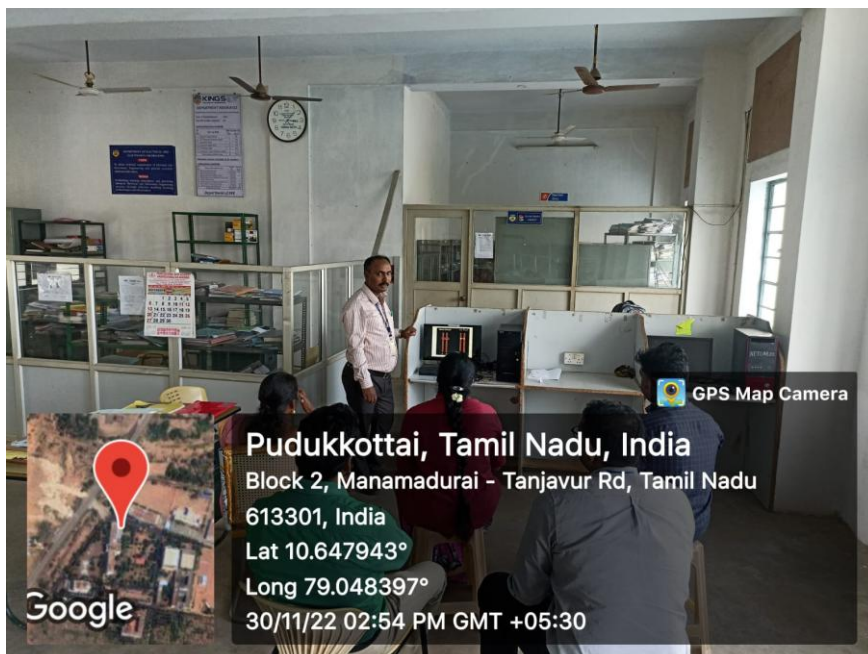
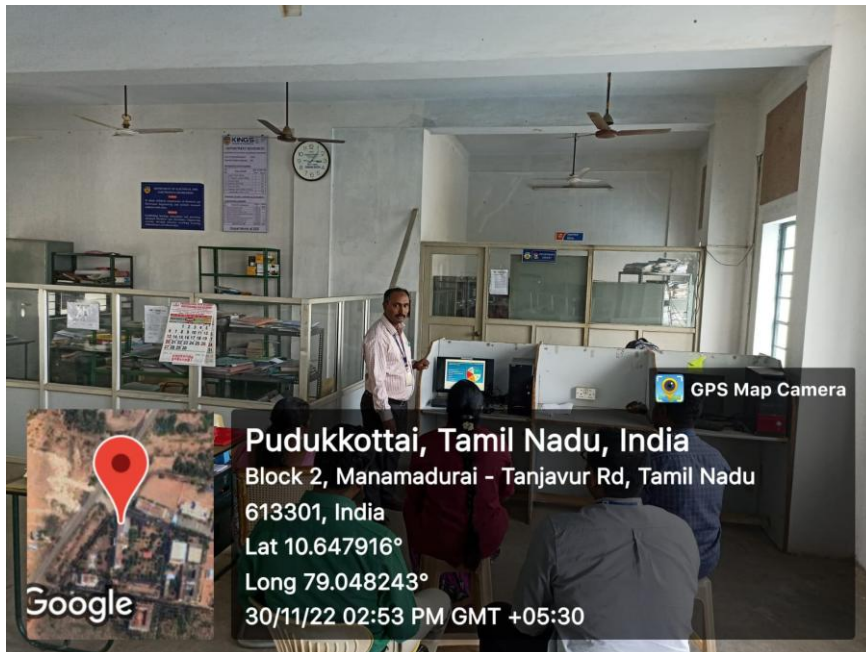
The following points were discussed during the session:

- Arc flash
- Arc blast
- Laboratory controlled arc blast
- Short circuit and arc fault
- Electrical arc flash
- Circuit protection
- Industry standards for arc flash prevention
- Purpose of safety programme
- Minimum required labeling
- Personal Protective Equipment (PPE)
PPE - safety glasses or safety goggles, hearing protection (ear canal inserts), voltage rated gloves with leather protectors. Clothing - Arc-rated long-sleeve shirt and pants or arc-rated coverall, arc-rated face shield or arc flash suit hood, arc- rated jacket, parka, rainwear, or arc-rated hard hat liner.
- Prohibited clothing
- **IEEE 1584** is an accepted industry standard that provides procedures and methods to calculate arc-flash incident energy to which workers may be exposed. The results obtained from the incident energy calculations can be used to determine appropriate arc-flash PPE as specified in NFPA 70E.
- An **arc flash** is the light and heat produced as part of an arc fault, a type of electrical explosion or discharge that results from a connection through air to ground or another voltage phase in an electrical system.

- **Human error** is the most common cause of arc flash. After a worker has performed the same task over and over without incident, they may bypass a maintenance step or develop a procedural workaround to save time.

Conclusions:

- Arc flash awareness is an important part of any electrical workers training.
- The Standards used are to protect qualified electrical workers and the unqualified.
- Proper PPE should always be used for the Hazard category established.



Snapshot from Seminar

