

Lessons Learnt by Raghavender Goud from his conference presentation

Industrial Applications Society (IAS) of the Institute of Electrical and Electronics Engineers (IEEE), Inc., is the sponsor for Electrical Safety Workshop (ESW). IEEE IAS ESW is a technical forum established in 1991 by the IAS Petroleum and Chemical Industry Committee. Since its founding in 1991, the ESW has served to accelerate the dispersion of information and knowledge impacting electrical safety.

The IEEE IAS ESW was held in Jacksonville, Florida, the USA from 4-8 March 2019. The conference was attended by more than 525 stakeholders from 13 countries to discuss on electrical safety. The significant technical discussions were on shock and arc flash hazards, equipment design, human performance, safety programs, maintenance, worker injuries, and standards updates. The ESW provided support to 5 students from various countries to attend the conference and workshops. I was the only student from New Zealand selected for this grant in the history of ESW.

The conference had several technical sessions, workshops, and tutorials, standards working group meetings, industrial expo, and socialization events. I had attended all the technical sessions, two tutorials: Arc flash calculations based on IEEE 1584 – 2018 standard and Grounding & bonding, other events. Also, I had presented my poster titled: “Factors Determining the Effectiveness of a Wind Turbine Generator Lightning Protection System” in a couple of sessions. I won the best student poster award at the conference.

This conference provided me insights of electrical safety for the electrical engineers and technicians at the workplace. There were some thought-provoking presentations on electrical safety; for example, a presentation explained about the importance of communication at the workplace. The application of standards such as IEEE 1584 and NFPA 80 was discussed, and also improvements to the standards are outlined.

The tutorial on Arc flash calculations based on IEEE 1584-2018 standard presented by the team who involved in the development of the standard was an excellent opportunity to understand and apply the new calculation methodology in the Arc flash studies. Guidance for the specification and performance of an arc-flash hazard calculation study, by the process defined in IEEE Std 1584, was explained. The application of these calculations in NZ is vital to prevent hazards.

The conference also allowed me to meet pioneers in the electrical safety industry. Also, I got an opportunity to involve in the discussion on IEEE standards. Finally, I won the Best Student Poster award for my presentation.

I got an opportunity to interact with many pioneers in the field of electrical safety.

Below are a few to name:

1. Mr Daleep Mohla (DCM Elec Consulting) is the chairman of IEEE Std 1584 working group.
2. Mr Albert Marroquin (ETAP), discussed on the short circuit and arc flash calculations.
3. Mr Scott Seaver (TE Connectivity), had a discussion on improving electrical safety of wind turbines.
4. Mr Stephen Wilson (Electrical Safety Committee) is the Finance Chair of ESW-2019, discusses on the organization of safety workshops.
5. Mr Wei-Jen Lee (University of Texas at Arlington) is a Professor at University of Texas at Arlington, he has conducted the practical tests at the University laboratory for IEEE 1584.
6. Mr Payman Dehghanian (George Washington University) is the student program chair of ESW-2019.