IEEE I&CPS Conference | May 2023

IEEE Education and Healthcare Facilities Committee

Summary of Activity 2022-2023

At $108 billion (March 2023) educational facilities are the second- largest building construction market in the United States. As a whole, the education industry in the United States is undergoing significant change; much of reflected in the facility spend. This committee is in the right place at the right time, given the importance of electrotechnologies needed to contribute to this industry's safety and sustainability goals.

The 4 times monthly teleconferences were hosted with about 20 different attendees clicked in to 48 of them from May 2022 to May 2023. Productive, insightful discussion about how IEEE can contribute to the safety and sustainability of nearly all occupancy classes that are present in schools, colleges, universities and hospitals. Both Listserve rosters are stable.

MA is the only electrical engineer in regular attendance at International Code Council meetings of the Building Code Action Committee which is the oversight body for all other ICC codes and standards. It would be nice to have some help because there are many, many electrical issues that are being handled by fire safety officials and regulators (such as electric vehicles, microgrids, solar panels, etc.)

Continued promotion of @IEEE generally through @IEEECampus

Southeastern Michigan received Outstanding Section Award for its student related activities such as the annual field trips to the Thomas Edison & Henry Ford Hydropower Plant

Continued database research and maintenance: Bibliography of IEEE literature relevant to this facility class, Campus power outages, Electrical Design Guidelines, Electrical Master Plans

Because of IEEE storage limitations; and limitations in the style editor of its Wordpress 6.2.1 implementation, some content is being migrated to Standards Michigan where it can be more easily managed. For example, here is the link to the workspace for preparing proposals for the next revision of the National Electrical Code:

2026 NFPA 70 Workspace

Accomplishments:

At least two proposals to get IEEE 3000-collection titles into the 2023 NEC accepted. The remaining 20+(non-3000 series) were rejected; possibly because of snags in NFPA/IEEE copyright/permissions communication during the pandemic.

One proposal for the 2023 National Electrical Safety Code was accepted-in-principle though the language was changed and moved to a different section.

Mike published a review of Giuseppe Parise's research in the inaugural edition of Harvard Business School's new Journal of Healthcare Management Standards.

Contributed some original, "serviceable" content on campus outdoor lighting systems to Gary Fox's project: Recommended Practice for the Design of Power Systems Supplying Lighting Systems in Commercial and Industrial Facilities

MA got an Autocad subscription which now makes it possible to create IEEE content with an effective balance of words and figures that was needed in the outdoor lighting chapter.

Relevant to many IAS/PES stakeholders: MA (personal) comment on proposed Department of Energy regulation of building distribution transformers.

Keeping Bob Arno's USACE Homeland Power Security Project visible.

Forward:

NFPA 110 and NFPA 72 public comments on first drafts are both due May 31. Also NFPA 150 (Animal Safety). Public input due June 1, 2023 for NFPA 780 (Lightning)

MA continued assistance as Matt Dozier's Alternate on CMP-15 (Article 517-540) on IAS/PES JTCC Committee

Papers in process: Impedance grounding for campus medium voltage distribution grid, athletic stadium scoreboard case study, significance of ASHRAE 90.1 scope expansion to facility electrical engineers.

Continuation of education facility industry feeder and branch circuit load project begun in 2017. Mazetti Associates is hosting a follow up meeting on June 6th to prepare proposals for the 2026 NEC for hospital plug loads.

It would be nice to do an example solar panel calculation for the 2026 NEC to show up in Appendix D. MA has a coarse calculation but it needs a review by a full time designer who is more expert in this field.

MA would like some backup to train other members how to get IEEE technical literature to be references in other standard developer catalogs such as ASHRAE and the catalogs of the International Code Council, Illumination Engineering Society in addition to federal and state electrotechnical regulations