

IEEE Sensors Council Standards Committee (SC-SC)

Meeting Minutes

19 February 2024

Chair: Troy Nagle

Secretary: Chris Schober

1. Call to Order at 10:01 EST

2. Roll Call and Affiliation

Affiliation FAQs: [link](#)

Attendance Registration Form: [link](#)

3. Attendees at meeting.

Quorum was met

- a. Troy Nagle, North Carolina State University
- b. Chris Schober, Actalent/Honeywell
- c. Sean Rocke, The University of the West Indies
- d. Peng Hu, University of Manitoba Canada
- e. James Covington, University of Warwick
- f. Saba Mylvaganam, University of South-Eastern Norway
- g. Gerald Hayes, Wireless Research Center of North Carolina
- h. Fahd Banakhr, Yanbu Industrial College

4. Approval of Agenda

- a. Moved Sean Rocke, 2nd by Gerry Hayes, unanimous approval.

5. Approval of Previous Meeting Minutes

- a. Moved by Peng Hu, 2nd by James Covington, unanimous approval.

6. Working Group Updates

- a. Update on P2520 Odor Monitoring Guide (Troy Nagle)
 - i. Temporarily on hold. PAR expired Dec 2023. Will seek a new PAR once P2520.1 is published.
- b. Update on P2520.1 Odor Monitor Baseline Performance (James Covington)
 - i. Standard is getting close to finishing. But now converting the current working document into the Standard format, for example: equation formats, all figures (must be black line, no color). Then out for another review, testing, pass/fail value updates etc.
 - ii. PAR expires Dec 2024, so need to extend, plan to initiate the extension in Aug/Sept 2024
- c. Update on P2520.2.1 General Outdoor Air Odor Monitoring (Ehsan Danesh)
 - i. Brief report by Troy (Ehsan not at meeting)
 - ii. This standard builds on 2520.1 to define testing protocols for outdoor air applications. Reference odor samples are being designed in Israel. The equipment they were to use was confiscated by the government. They need to test samples, so a vacuum chamber, sampling pump, and cotton material, were sent by the Machine Olfaction Lab at NC State University. Those supplies have been stuck at airport customs in Tel Aviv.
- d. Update on P1451.99 IoT Harmonization (Gopalakrishna Kuppa)

- i. Brief report by Troy as a member of this committee (Kuppa not at meeting)
- ii. PAR expired Dec 2023. They did not get re-authorization before the deadline. Now going through a painful process to have it extended.
- iii. Gopalakrishna in India, and people in Europe are working on this standard.
- iv. This is a very active group. The standard is nearing completion.

7. Unfinished Business/Action Items

- a. SC-SC Policies & Procedures Update (Troy Nagle)
 - i. Presented changes in-process of review at IEEE SA after many changes were requested in 1st draft. They were approved by IEEE-SA on Feb 15. Next, this new version will be submitted to the Council AdCom for final approval. We expect to have several new voting members for our next meeting.
- b. Update on Sensors Council Industry Liaison Committee (Gerry Hayes)
 - i. Gerry is bridge between SC-SC and Industry Liaison committees. Next ILC meeting is in March.
 - ii. Gerry noted that ISOEN is aligned with the standards we are working on because that is where they started. Let Council know if any participation of SC-SC will be at ISOEN conference.
 - iii. James Covington's students are keen on presenting a paper at SENSORS in Kobe Japan.
 - iv. A subgroup (SG) to be set up to search for specific technology areas for new working groups (Fahd Banakhr, James Covington, Gerry, Troy).
 1. Troy/Gerry to follow up with the organization of this SG.
- c. IEEEESA ICAID on Enabling a Smart and Equitable Agriculture Ecosystem (Jack Marck)
 - i. Jack Marck has not been attending to give an update.
 - ii. This an IEEE-SA initiative who requested SC-SC to be their Std home.
 - iii. Troy will ask Stds Assoc to give us an update on their entire ICAID program at our next meeting.
- d. IEEE Std 2700-2017 Sensor Performance Parameter Definitions (Micheal Gaitan)
 - i. Last year, the Stds Assoc asked us to house this standard. We searched for some active volunteers to revive the WG but failed. Ravi Subramaniam is now exploring ways to keep this project alive.
 - ii. Michael Gaitan accepted our invitation to this meeting but was not able to participate. Troy will ask Ravi to give us an update at our next meeting.
- e. AI search for new standard projects (Saba Mylvaganam)
 - i. Update of new research done for SC-SC. Document provided by earlier email.
 - ii. New focus areas highlighted: FLEPS and odor sensing
 - iii. Found very interesting papers, and manufacturers of odor sensors.
 - iv. Saba requests that we all look at his document and send feedback
 - v. Our plan is to build stronger ties (new WGs) with the organizing committees of IEEE conferences:
 1. Our first was ISOEN; our odor monitoring WGs are underway
 2. Next, FLEPS
 3. Then, other conferences sponsored by SC
 4. Finally, other conferences of the Council Member Societies

8. New Business

- a. Sensors Council New Initiative Proposal Submission (Troy Nagle)
 - i. Submitted proposal to SC, to help get standards initiatives going including some help for testing. Goals include:
 1. Create a series of training modules to build interest in the sensor technology community for participating in IEEE Standard Working Groups (WGs).
 - a. Record these and post on the SC You Tube channel
 - b. Offer these as training at tech conferences.
 2. Outcomes, more WG members into current WGs and also create new WGs
 3. 15k 2024 (training, testing), 15k in 2025, totaling \$30K
- b. "IEEE Resources for SC-SC Volunteers" (Troy Nagle)

Troy shared his "crib notes" that he started putting together... This handy reference includes links on what is needed to run the committee. Such as:

 1. IEEE Learning network
 - a. Includes the SA required training for volunteers
 2. Sensor Registry:
 - a. Ravi Subramaniam IEEE would like us to use the Sensor Registry in our Standards work
 - b. May want to use Sensor Registry in our Standards work
 3. IEEE Conformance Assessment Program (ICAP)
 - a. Includes test suite specifications with the how to do it sheets.
 - b. P2520.1 will be moving to ICAP
 4. IEEE TAB Committee on Standards (TCoS)
- c. Peng Hu –Possible TAB committee Standards proposal discussion.
 - i. Project Title: "Standardizing Intelligent sensing on LEO satellites for space sustainability, in-orbit servicing and Internet of Things."
 - ii. Peng Hu proposal is the standardize sensors to support these activities.
 - iii. Planning to submit a proposal via TCoS initiative. Asking SC for support of this initiative.
 - iv. Troy suggested reaching out to the SC 26 member societies Standards committee for support also. This would also help fill out the Working Group.

9. Future Meetings

SC-SC meetings planned for 2024: May 20, August 19, and November 18

10. Meeting Adjourned at 11:06 am EST