

IEEE P2520.2.1 Working Group
Kick-off Meeting Minutes
08 FEBRUARY 2021 / 10:00 AM – 12:00 PM (EST)
WG Chair: Ehsan Danesh
WG Secretary: H. Troy Nagle
Teleconference Meeting link:

<https://ieeesa.webex.com/ieeesa/j.php?MTID=m98d4992fbda7fb878b83b36e9a2e4beb>

1. Call to Order

Chair called meeting to order at 10:00 AM EST and asked all participants to enter their names and affiliations into the Chat window. He also announced that the meeting is being recorded for the purpose of preparing minutes'

2. Roll Call and Disclosure of Affiliation

Affiliation FAQs: <http://standards.ieee.org/faqs/affiliation.html>

The Chair directed participants to this link

(<https://docs.google.com/forms/d/e/1FAIpQLSdQRByKyKZcksMhJ-5NUfPfoyzlKrHSlwJ1hmq8v6jD9AfiA/viewform>) in the Chat window. All participants

were asked to register into a Google form their names, email, affiliation, and WG membership request. A few minutes were allowed for participants to access and complete the registration process.

3. Establishment of Working Group Membership

The Chair released this link

(<https://docs.google.com/spreadsheets/d/1yGo90jnxm2QAxDnvHTvHv1PhBhD-LVP7Q3boyswBCKU/edit#gid=22145284>)

making the registration information clearly available to all participants. WG list of participants may be found in **Attachment A**.

4. Approval of Agenda

The Chair displayed the announced agenda and asked for a motion to approve. Troy Nagle made the Motion to approve. The motion was approved without objection.

5. Review of Working Group Policies & Procedures (P&Ps)

The Chair referred the WG to the proposed P&P Manual that was distributed earlier to the group. He then reviewed the following sections of the WG's P&P Manual in some detail.

- a. Hierarchy (1.4)
- b. Appointment of officers (3.1)
- c. Membership and Attendance at Meetings (4.1 & 4.2)
- d. Subgroups (5.0)
- e. Quorum (6.1)

- f. Voting - majority versus 2/3 vote (7.1.1 & 7.1.2)
6. Establishment of Officers
 - a. Appointment of Officers (Vice-Chair, Secretary, Treasurer)

The Chair called for self-nominations for Vice Chair and Secretary. After some discussion, Susan Schiffman (schiffmansusan@gmail.com) was appointed Vice Chair. Stephen Okwiri (okwiristephen@IEEE.ORG) volunteered to serve Secretary. Troy Nagle (t.nagle@ieee.org) agreed to assist in preparing the minutes of this meeting and to assist in future meetings if needed until a new WG Secretary is appointed.
 7. IEEE Patent Policy
 - a. Call for Patents
<https://development.standards.ieee.org/myproject/Public/mytools/mob/slide-set.pdf>

Per standard IEEE-SA WG meeting practice, the Chair reviewed the required policy regarding potentially essential patents. No one raised concerns for consideration.
 8. IEEE Patent & Copyright Policies
Per standard IEEE-SA WG meeting practice, the Chair reviewed the following standard policies:
 - a. Copyright Policy <https://standards.ieee.org/jpr/copyright-materials.html>

Per standard IEEE-SA WG meeting practice, the Chair reviewed the required policy regarding copyrights. There were no questions or concerns.
 9. Technical Presentation(s) and Discussion
 - a. *Standards Development*: Vanessa Lalitte of the IEEE-SA staff gave an overview of the IEEE-SA Standards development process.
 - b. *IEEE P2520 Overview*: The Chair reviewed the numbering scheme for the IEEE P2520 standards series dated 6/2020 (see **Attachment B**).
 - c. *General Brainstorming*: A number of interesting issues were suggested from the new WG members. Can we differentiate the equipment devices that measure odor perception? Which classes of devices will we cover (online/offline, specific/non-specific, etc.)? The standard should cover all aspects from sample capture, sensor response, signal processing and analysis, and data reporting and visualization via the man-machine interface. Should we focus early on specific toxins like H₂S for which exposure limits are set by government agencies? Frequency of annoyance was also identified as an important factor in odor perception. Could we focus on sensors systems designed to protect workers in specific industry applications. Establishing and

adopting a standard set of terminology for the IEEE P2520 standard series was also recommended.

- d. *Action Plan*: The Chair presented a possible timeline with milestones (**Attachment C**). Working subgroups are planned. Potential subgroups areas of focus are sample collection, sample concentration, signal processing, and important application areas. All devices should satisfy IEEE P2520.1 (Baseline Performance).

10. Next Meeting

The Chair announced that WG meetings will be once per month (on the 2nd Monday of each month at 10 AM ET). SGs can set their own meeting schedules. The next meeting of the WG will take place on March 8.

11. Adjournment

- a. The WG Chair adjourned the meeting at 11:52 AM.
- b. Minutes submitted by: H. Troy Nagle (13 Feb 2021)

Attachment A: Meeting Participants (see below)

Attachment B: IEEE P2520 Numbering Scheme (see below)

Attachment C: Project Timeline (Excel sheet included in the zip file)

Attachment A: Meeting Participants

First Name	Last Name	Affiliation	Country
Santiago	Marco	Institute for Bioengineering of Catalonia	Spain
Edgar	Sotter	The CSA Group	Canada
Laura	Capelli	Politecnico di Milano	Italy
Michael	McGinley	St. Croix Sensory, Inc.	USA
John	Saffell	Alphasense Ltd.	UK
Domenico	Cipriano	Ricerca sul Sistema Energetico (RSE)	Italy
Ravi	Subramaniam	IEEE (Conformity Assessment)	USA
Susana	Palma	NOVA university of Lisbon	Portugal
Fabio	Leccese	Science Department - Università degli Studi "Roma Tre"	Italy
David	Johnson	South Coast Science	UK
Hirenkumar	Gami	Miami University - OH	USA
Cyntia	Izquierdo	Olores.org website	Spain
Jesus	Lozano	Universidad de Extremadura	Spain
Scott	Adams	Deakin University	Australia
Ioannis	Kymissis	Columbia university	USA
Debejyo	Chakraborty	General Motors	USA
Abhinav	Chopra	University of Auckland	New Zealand
Cynthia	Burham	University of Texas at Austin	USA
Wolfhard	Reimringer	3S - Sensors, Signal Processing, Systems GmbH	Germany
Anna	Prakash	Intel Corporation	USA
James	Covington	Professor, School of Engineering, University of Warwick	UK
KO CHUNG	WONG	Oxford Technology	Tokyo
Bhavik	Jain	IEEE?	India
Yin	Sun	?	USA
Thierry	Livache	Aryballe Technologies	France
STEPHEN	OKWIRI	CHAIR - IEEE TECHNICAL UNIVERSITY OF KENYA	Kenya
Vinayak	Kamble	IISER Thiruvananthapuram	India
Radislav	Potyrailo	GE Research	USA
Mary	Ahuna	Technical University of Kenya	Kenya
Ehsan	Danesh	Alphasense Ltd	UK

Susan	Schiffman	North Carolina State University	USA
Lucas	Lopez	Volatile AI	Lithuania
Palanichamy	Mohan Kumar	PSNA College of Engineering and technology	India
Hari	Prasad	Zellab Dynamics Pvt. Ltd.	India
Kishore	Kuna	Honeywell Technology Solutions	India
Magnovaldo	Carneiro	IEEE Sensors Council	Brazil
Louis-Ray	Harris	The University of the West Indies (Mona Campus)	Jamaica
Chakravarthy	VVSSS	Raghu Institute of Technology	India
María Deseada	Esclapez	Depuración de Aguas de Mediterráneo, S.L.	Spain
Avid	ROMAN-GONZALEZ	Business on Engineering and Technology S.A.C. (BE Tech)	Peru
Troy	Nagle	ECE, NC State University	USA
Hua-Yao	Li	Huazhong University of Science and Technology	China
Allen C	Chen	IEEE IES Standards Technical Committee Chair	USA
Sandrine	Isz	Alpha MOS	France
Cyril	Herrier	Aryballe	France
Etienne	Bultel	Aryballe	France
Félix	Borner	Aryballe	France
Rahul	Chopra	Office of Rahul Chopra JP, Auckland University of Technology	New Zealand
Chris	Blackman	University College London	UK
Bruno Renato	Huayta Rodriguez	FLSMIDTH	Peru
Jean-Christophe	MIFSUD	RUBIX SI	France
Jean-Michel	GUILLLOT	IMT Mines Ales	France
Christian	Mantey	3S GmbH	Germany

Attachment B: IEEE P2520 Numbering Scheme (Version 06 Mar 2020)

*Currently approved PARs in red

- P2520:** **Testing Machine Olfaction Devices & Systems [Susan Schiffman]**
Overview of standard series and definition of what devices/systems are covered
- P2520.1:** **Baseline Performance [James Covington]**
- P2520.1.1:** Humidity and temperature impacts on single-gas detection
 - P2520.1.2:** Concentration curves, response and recovery times, and ternary chemical mixtures
 - P2520.1.3:** Sensor system recovery from high concentration exposure
 - P2520.1.4:** Odour measurement repeatability in the presence of pairs interfering chemicals
- P2520.2:** **Outdoor Odour Nuisances and Pollutants**
- P2520.2.1:** **General Outdoor Air Quality [Ehsan Danesh]**
 - P2520.2.2:** **Landfill odour [Susan Schiffman]**
 - P2520.2.3:** Residential Water Supply
 - P2520.2.4:** Sewage Treatment (outdoor and downwind)
 - P2520.2.5:** Animal Confinement (outdoor and downwind)
 - P2520.2.6:** Travel-Based Air Pollution (automotive/rail/planes)
 - P2520.2.7:** Workplace Satisfaction
- P2520.3** **Indoor Odour Nuisances and Pollutants**
- P2520.3.1:** **General Indoor Air Quality [Ehsan Danesh]**
 - P2520.3.2:** Refrigerator Food Spoilage
 - P2520.3.3:** Cooking/Oven Odours Monitoring
 - P2520.3.4:** Kitchen Odours
 - P2520.3.5:** Bathroom Odours
 - P2520.3.6:** Basement Mould
 - P2520.3.7:** Workplace Satisfaction
- P2520.4:** **Industrial Application Processes and Quality Control**
- P2520.4.1:** **Chemical Manufacturing [Susana Palma]**
 - P2520.4.2** Petroleum Refinement
 - P2520.4.3** Paper Mills
 - P2520.4.4:** Animal Rendering
 - P2520.4.5:** Perfumery
- P2520.5:** **Personal Health and Hygiene**
- P2520.5.1:** Body Odour
 - P2520.5.2:** Breath Odour
 - P2520.5.3:** Foot Odour
 - P2520.5.4:** Hair Odour
- P2520.6:** **Safety Protection**

- P2520.6.1:** Electrical Short-Circuit Odour
- P2520.6.2:** Gas Leaks (gasoline, pipelines, natural gas)
- P2520.6.3:** Fire Odour Alarms
- P2520.6.4:** Animal Confinement Structures (animal and operator safety)

- P2520.7:** **Medical Applications**
- P2520.7.1:** Cancer Detection
- P2520.7.2:** Sensory Impairment Quantification
- P2520.7.3:** Hospital Patient Room Air Quality
- P2520.7.4:** Pharmaceutical Quality
- P2520.7.5:** Allergy Alerts