IEEE SA Standards Board (SASB) DRAFT Meeting Minutes
24 September 2020
12:00 p.m. – 3:00 p.m. UTC
Teleconference/Webex

Attendees

Chair:
Gary Hoffman

Vice Chair:
Jon Rosdahl

Past Chair:
John Kulick

Secretary:
Konstantinos Karachalios

Members:
Ted Burse
Doug Edwards
Travis Griffith
Guido Hiertz
David Law
Howard Li
Kevin Lu
Paul Nikolich [TAB Rep.]
Damir Novosel
Dorothy Stanley
Mehmet Ulema
Lei Wang
Sha Wei
Philip Winston
Daidi Zhong
Jingyi Zhou

Members Absent:
Grace Gu
Dong Liu
Joe Koepfinger, Member Emeritus

**IEEE Staff:**
Christy Bahn
Adrien Barmaksiz
Madhu Bibikar
Kim Breitfelder
Matthew Ceglia
Sri Chandrasekaran
Rob Craig
Ravindra Desai
Karen Evangelista
Jodi Haasz
Yvette Ho Sang
Soo Kim
Michael Kipness
Vanessa Lalitte
Kristin Little
Jiajia Liu
Kelly Lorne
Karen McCabe
Erin Morales
Adam Newman
Mary Lynne Nielsen
Tania Olabi-Colon
Christian Orlando
Lisa Perry
Dave Ringle, Recording Secretary
Pat Roder
Anasthasie Sainvilus
Jennifer Santulli
Rudi Schubert
Tom Thompson
Lisa Weisser
Jonathan Wiggins
Malia Zaman
Meng Zhao

**IEEE Outside Legal Counsel:**
Claire Topp – Dorsey & Whitney LLP
Guests:
Sudhir Agarwal
Feng Cui
Mark Epstein
Thomas Koshy
Lawrence Kotewa
Joseph Levy
Hung Ling
Xiaohui Liu
Haiying Lu
Jim Matthews
Daleep Mohla
Achime Malick Ndiaye
Francois Ortolan
Glenn Parsons
S. B. R. Rao
Robby Robson
Mark Siira
Neelakantan Subramanian
Yvonne Umutoni
Victoria Wang
Keith Waters
Karl Weber
Constance Weise
Howard Wolfman
Don Wright
Yu Yuan

1 Call to Order

Chair Hoffman called the meeting to order at 12:07 p.m. UTC.

2 Introductions

There was a round of introductions by all present. It was noted that the meeting was quorate.

3 Agenda
3.1 Approval of Agenda
There was a motion to approve the agenda. In the absence of objection, the motion was approved.

3.2 Consent Agenda
3.2.1 Approval of 03-04 June 2020 SASB Meeting Minutes

3.2.2 AudCom Recommendations

Standards Committee P&Ps

**Accepted (standards work authorized):**

- NTC/SC  Nanotechnology Council/Standards Committee
- SASB/SCC20  SASB Coordinating Committees/SCC20 – Test and Diagnosis for Electronic Systems

**Conditionally Accepted (standards work authorized):**

- VT/HSTMSC  Vehicular Technology Society/High Speed Train and Maglev Standards Committee
  [Contingent upon minor editorial corrections, to be completed before SASB meeting]
  NB: This condition has been met.

**New Standards Committee Recognition with Accepted P&Ps**

Motion: Recommend that the SASB recognize the Vehicular Technology Society/High Speed Train and Maglev Standards Committee, to be abbreviated as VT/HSTMSC, as an official Standards Committee, in accordance with IEEE SASB Bylaws 5.2.2.

3.2.3 NesCom Recommendations

**Withdrawal Requests:**

**IEEE Computer Society/LAN/MAN Standards Committee**

**P802.19.2**
Recommended Practice for Local and Metropolitan Area Networks – Part 19: Coexistence of Unlicensed Wireless Systems in a Vehicular Environment
Recommendation: Approve PAR withdrawal

IEEE Engineering in Medicine and Biology Society/IEEE 11073 Standards Committee

P11073-10316
Trial-Use Health Informatics – Device Interoperability – Part 10316: Point-of-Care Medical Device Communication – Device Specialization – Dialysis Device
Recommendation: Approve PAR withdrawal

IEEE Instrumentation and Measurement Society/TC9 – Sensor Technology

P1451.1
Standard for Smart Transducer Interface for Sensors and Actuators – Common Network Services
Recommendation: Approve PAR withdrawal

P1451.2
Recommendation: Approve PAR withdrawal

IEEE-SASB Coordinating Committees/SCC39 – International Committee on Electromagnetic Safety

PC95.4
Recommended Practice for Determining Safe Distances from Radio Frequency Transmitting Antennas when Using Electric Blasting Caps during Explosive Operations
Recommendation: Approve PAR withdrawal

Modified PARs:

IEEE Communications Society/Access and Core Networks Standards Committee

P1910.1
Standard for Meshed Tree Bridging with Loop Free Forwarding
Recommendation: Approve modified PAR
IEEE Communications Society/Mobile Communication Networks Standards Committee

**P1920.1**
Aerial Communications and Networking Standards
**Recommendation:** Approve modified PAR

IEEE Computer Society/Software & Systems Engineering Standards Committee

**P12207-2**
**Recommendation:** Approve modified PAR

IEEE Industry Applications Society/Petroleum & Chemical Industry

**P1017.1**
Recommended Practice for Field Testing Electric Submersible Pump Cable
**Recommendation:** Approve modified PAR

IEEE Instrumentation and Measurement Society/TC9 – Sensor Technology

**P1451.99**
Standard for Harmonization of Internet of Things (IoT) Devices and Systems
**Recommendation:** Approve modified PAR

IEEE Power and Energy Society/Nuclear Power Engineering

**P387**
Nuclear Facilities – Electrical Power Systems – Part 387: Diesel Generator Units Applied as Standby Power Sources
**Recommendation:** Approve modified PAR

**P2411**
**Recommendation:** Approve modified PAR

IEEE Power and Energy Society/Switchgear
PC37.04-2018/Cor 1
Standard for Ratings and Requirements for AC High-Voltage Circuit Breakers with Rated Maximum Voltage above 1000 V – Corrigendum 1
Recommendation: Approve modified PAR

IEEE SA Board of Governors/Corporate Advisory Group

P2777
Recommended Practice for Operation of 300 MW to 600 MW Pulverized Coal Fired Boiler
Recommendation: Approve modified PAR

IEEE Vehicular Technology Society/Intelligent Transportation Systems

P1609.3
Standard for Wireless Access in Vehicular Environments (WAVE) – Networking Services
Recommendation: Approve modified PAR

P2846
Assumptions for Models in Safety-Related Automated Vehicle Behavior
Recommendation: Approve modified PAR

Extension Requests:

IEEE Antennas and Propagation Society/Antennas and Propagation Standards Committee

P149
Recommended Practice for Antenna Measurements
Recommendation: Approve request for an extension until December 2021

IEEE Communications Society/Green ICT Standards Committee

P1922.1
Standard for a Method for Calculating Anticipated Emissions Caused by Virtual Machine Migration and Placement
Recommendation: Approve request for an extension until December 2022

P1923.1
Standard for Computation of Energy Efficiency Upper Bound for Apparatus Processing Communication Signal Waveforms

Recommendation: Approve request for an extension until December 2021

P1924.1
Recommended Practice for Developing Energy Efficient Power-Proportional Digital Architectures

Recommendation: Approve request for an extension until December 2022

P1925.1
Standard for Energy Efficient Dynamic Line Rate Transmission System

Recommendation: Approve request for an extension until December 2022

P1926.1

Recommendation: Approve request for an extension until December 2022

P1927.1
Standard for Services Provided by the Energy-efficient Orchestration and Management of Virtualized Distributed Data Centers Interconnected by a Virtualized Network

Recommendation: Approve request for an extension until December 2022

P1928.1
Standard for a Mechanism for Energy Efficient Virtual Machine Placement

Recommendation: Approve request for an extension until December 2022

P1929.1
An Architectural Framework for Energy Efficient Content Distribution

Recommendation: Approve request for an extension until December 2022

IEEE Communications Society/Mobile Communication Networks Standards Committee

P1918.1
Tactile Internet: Application Scenarios, Definitions and Terminology, Architecture, Functions, and Technical Assumptions

Recommendation: Approve request for an extension until December 2022

P1918.1.1
Haptic Codecs for the Tactile Internet
Recommendation: Approve request for an extension until December 2022

**P1920.1**
Aerial Communications and Networking Standards
Recommendation: Approve request for an extension until December 2022

**P1931.1**
Standard for an Architectural Framework for Real-time Onsite Operations Facilitation (ROOF) for the Internet of Things
Recommendation: Approve request for an extension until December 2022

**IEEE Computer Society/LAN/MAN Standards Committee**

**P802.11ax**
Standard for Information Technology – Telecommunications and Information Exchange Between Systems Local and Metropolitan Area Networks – Specific Requirements Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications Amendment Enhancements for High Efficiency WLAN
Recommendation: Approve request for an extension until December 2021

**P802.11ba**
Standard for Information Technology – Telecommunications and Information Exchange between Systems Local and Metropolitan Area Networks – Specific Requirements Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications Amendment: Wake-up Radio Operation
Recommendation: Approve request for an extension until December 2021

**P802.15.22.3**
Standard for Spectrum Characterization and Occupancy Sensing
Recommendation: Defer request for an extension until the next NesCom meeting; based on whether RevCom and the SASB do not approve the standard

**IEEE Computer Society/Software & Systems Engineering Standards Committee**

**P7002**
Data Privacy Process
Recommendation: Approve request for an extension until December 2021

**P42010**
Standard for Systems and Software Engineering – Architecture Description
Recommendation: Approve request for an extension until December 2021

IEEE Computer Society/Test Technology

P1687.1
Standard for the Application of Interfaces and Controllers to Access 1687 IJTAG Networks Embedded within Semiconductor Devices
Recommendation: Approve request for an extension until December 2022

IEEE Engineering in Medicine and Biology Society/IEEE 11073 Standards Committee

P11073-10406
Health Informatics – Device Interoperability – Part 10406: Personal Health Device Communication – Device Specialization – Basic Electrocardiograph (ECG) (1- to 3-lead ECG)
Recommendation: Approve request for an extension until December 2022

P11073-10471
Recommendation: Approve request for an extension until December 2022

IEEE Industry Applications Society/Industrial & Commercial Power Systems Standards Development Committee

P3001.9
Recommended Practice for the Design of Power Systems Supplying Lighting Systems in Commercial and Industrial Facilities
Recommendation: Approve request for an extension until December 2022

IEEE Instrumentation and Measurement Society/TC10 – Waveform Generation Measurement Measurement and Analysis

P1241
Standard for Terminology and Test Methods for Analog-to-Digital Converters
Recommendation: Approve request for an extension until December 2022

IEEE Power and Energy Society/Electric Machinery
P433
Recommended Practice for Insulation Testing of AC Electric Machinery with High Voltage Rating up to 30 kV at Very Low Frequency
Recommendation: Approve request for an extension until December 2021

P1812
Guide for Testing Permanent Magnet Machines
Recommendation: Approve request for an extension until December 2023

IEEE Power and Energy Society/Energy Development & Power Generation

P666
Design Guide for Electric Power Service Systems for Generating Stations
Recommendation: Approve request for an extension until December 2022

P1010
Guide for Control of Hydroelectric Power Plants
Recommendation: Approve request for an extension until December 2021

P1147
Guide for the Rehabilitation of Hydroelectric Power Plants
Recommendation: Approve request for an extension until December 2022

IEEE Power and Energy Society/Energy Storage & Stationary Battery Committee

P1188
Recommended Practice for Maintenance, Testing, and Replacement of Valve-Regulated Lead-Acid (VRLA) Batteries for Stationary Applications
Recommendation: Approve request for an extension until December 2022

P2405
Standard for the Design of Battery Chargers Used in Stationary Applications
Recommendation: Approve request for an extension until December 2022

IEEE Power and Energy Society/Insulated Conductors

P1407
Guide for Accelerated Aging Tests for 5 kV to 46 kV Extruded Electric Power Cables Using Water-Filled Tanks
Recommendation: Approve request for an extension until December 2021
P2417
Guide to Smoke, Fire, and Explosions in Underground Electrical Structures
Recommendation: Approve request for an extension until December 2022

P2740
Guide for the Selection and Installation of Electrical Cables and Cable Systems in Hazardous (Classified) Locations on Oil & Gas Land Drilling Rigs
Recommendation: Approve request for an extension until December 2021

IEEE Power and Energy Society/Nuclear Power Engineering

P2411
Recommendation: Approve request for an extension until December 2021

P2421
Guide for Designing and Developing Computer-Based Displays for Monitoring and Control of Nuclear Facilities
Recommendation: Approve request for an extension until December 2022

IEEE Power and Energy Society/Power System Instrumentation and Measurements

P1122
Standard for Digital Recorders for Measurements in High-Voltage and High-Current Impulse Tests
Recommendation: Approve request for an extension until December 2022

IEEE Power and Energy Society/Power System Relaying and Control

P1613
Standard for Environmental and Testing Requirements for Intelligent Electronic Devices (IEDs) Installed in Transmission and Distribution Facilities
Recommendation: Approve request for an extension until December 2022

PC37.2
Standard Electrical Power System Device Function Numbers, Acronyms, and Contact Designations
Recommendation: Approve request for an extension until December 2022
**PC37.242**  
Guide for Synchronization, Calibration, Testing, and Installation of Phasor Measurement Units (PMUs) for Power System Protection and Control  
**Recommendation:** Approve request for an extension until December 2021

**IEEE Power and Energy Society/ Surge Protective Devices/ High Voltage**

**PC62.22**  
Guide for the Application of Metal-Oxide Surge Arresteres for Alternating-Current Systems  
**Recommendation:** Approve request for an extension until December 2022

**PC62.82.2**  
Guide for the Application of Insulation Coordination  
**Recommendation:** Approve request for an extension until December 2021

**IEEE Power and Energy Society/ Surge Protective Devices/ Low Voltage**

**PC62.42.2**  
Guide for the Application of Surge-Protective Components in Surge Protective Devices and Equipment Ports – Part 2 Metal-Oxide Varistors (MOV$s$)  
**Recommendation:** Approve request for an extension until December 2022

**PC62.220**  
Guide for the Application of Surge Protective Devices for the Smart Grid  
**Recommendation:** Approve request for an extension until December 2022

**IEEE Power and Energy Society/ Switchgear**

**P62271-37-013**  
**Recommendation:** Approve request for an extension until December 2022

**IEEE Power and Energy Society/ Transformers**

**PC57.160**  
Guide for the Electrical Measurement of Partial Discharges in High Voltage Bushings and Instrument Transformers
Recommendation: Approve request for an extension until December 2022

PC57.164
Guide for Establishing Short Circuit Withstand Capabilities of Liquid Immersed Power Transformers, Regulators, and Reactors
Recommendation: Approve request for an extension until December 2022

IEEE Power and Energy Society/Transmission and Distribution

P516
Guide for Maintenance Methods on Energized Power Lines
Recommendation: Approve request for an extension until December 2021

P1806
Guide for Reliability Based Placement of Overhead and Underground Switching and Overcurrent Protection Equipment Up to and Including 38 kV
Recommendation: Approve request for an extension until December 2021

P1885
Guide for Assessing, Measuring, and Verifying Volt-Var Control Optimization on Distribution Systems
Recommendation: Approve request for an extension until December 2021

IEEE-SASB Coordinating Committees/SCC14 – Quantities, Units, and Letter Symbols

P1541
Standard for Prefixes for Binary Multiples
Recommendation: Approve request for an extension until December 2021

IEEE-SASB Coordinating Committees/SCC20 – Test and Diagnosis for Electronic Systems

P1641
Standard for Signal and Test Definition
Recommendation: Approve request for an extension until December 2022

IEEE-SASB Coordinating Committees/SCC39 – International Committee on Electromagnetic Safety

P63195-1
Measurement Procedure for the Assessment of Power Density of Human Exposure to Radio Frequency Fields from Wireless Devices Operating in Close Proximity to the Head and Body – Frequency Range of 6 GHz to 300 GHz

**Recommendation:** Approve request for an extension until December 2021

**New PARs:**

**IEEE Communications Society/Power Line Communications**

**P1901b**
Standard for Broadband Over Power Line Networks: Medium Access Control and Physical Layer Specifications Amendment: Enhancements for Authentication and Authorization

**Recommendation:** Approve new PAR until December 2024

**IEEE Computer Society/Data Compression Standards Committee**

**P2941**
Standard for Artificial Intelligence (AI) Model Representation, Compression, Distribution, and Management

**Recommendation:** Approve new PAR until December 2024

**IEEE Computer Society/LAN/MAN Standards Committee**

**P802.1ASdn**
Standard for Local and Metropolitan Area Networks – Timing and Synchronization for Time-Sensitive Applications Amendment: YANG Data Model

**Recommendation:** Approve new PAR until December 2024

**P802.11bf**
Standard for Information Technology – Telecommunications and Information Exchange Between Systems Local and Metropolitan Area Networks – Specific Requirements – Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications Amendment: Enhancements for Wireless Local Area Network (WLAN) Sensing

**Recommendation:** Approve new PAR until December 2024

**P802.15.4-2020/Cor 2**
Standard for Low-Rate Wireless Networks – Corrigendum 2: Correction of errors preventing backward compatibility
**Recommendation:** Approve new PAR until December 2024

**P802.15.7a**
Standard for Local and Metropolitan Area Networks – Part 15.7: Short-Range Optical Wireless Communications
Amendment: Higher Speed, Longer Range Optical Camera Communication (OCC)

**Recommendation:** Approve new PAR until December 2024

**IEEE Computer Society/Learning Technology**

**P2247.4**
Recommended Practice for Ethically Aligned Design of Artificial Intelligence (AI) in Adaptive Instructional Systems

**Recommendation:** Approve new PAR until December 2024

**P2961**
Guide for an Architectural Framework and Application for Collaborative Edge Computing

**Recommendation:** Approve new PAR until December 2024

**IEEE Computer Society/Smart Manufacturing Standards Committee**

**P2806.1**
Standard for Connectivity Requirements of Digital Representation for Physical Objects in Factory Environments

**Recommendation:** Approve new PAR until December 2024

**P2934**
Standard for Logistics Operation Process in a Smart Factory

**Recommendation:** Approve new PAR until December 2024

**P2959**
Standard for Technical Requirements of Standard-Oriented Knowledge Graphs

**Recommendation:** Approve new PAR until December 2024

**IEEE Computer Society/Software & Systems Engineering Standards Committee**

**P24748-6**
IEEE Computer Society/Standards Activities Board

**P2807.3**
Guide for Electric-Power-Oriented Knowledge Graph
**Recommendation:** Approve new PAR until December 2024

**P2874**
Standard for Spatial Web Protocol, Architecture, and Governance
**Recommendation:** Approve new PAR until December 2024

**P2937**
Standard for Performance Benchmarking for AI Server Systems
**Recommendation:** Approve new PAR until December 2024

**P2946**
Guide for Electronic Sports (Esports) Integrity
**Recommendation:** Approve new PAR until December 2024

**P2947**
Guide for Broadcasting Electronic Sports (Esports) Events
**Recommendation:** Approve new PAR until December 2024

**P2948**
Standard for Framework and Definitions for Cloud Gaming
**Recommendation:** Approve new PAR until December 2024

**P2949**
Recommended Practice for the Evaluation of Cloud Gaming User Experiences
**Recommendation:** Approve new PAR until December 2024

**P2957**
Standard for a Reference Architecture for Big Data Governance and Metadata Management
**Recommendation:** Approve new PAR until December 2024

**P2963**
Data Formats for Smart Legal Contracts
**Recommendation:** Approve new PAR until December 2024
IEEE SA Standards Association

P3079.1
Motion to Photon (MTP) Latency in Virtual Environments
Recommendation: Approve new PAR until December 2024

P3079.2
Mixed Reality (MR) Standard Framework for Motion Learning
Recommendation: Approve new PAR until December 2024

IEEE Computer Society/Test Technology

P2929
Standard for System-Level State Extraction for Functional Validation and Debug
Recommendation: Approve new PAR until December 2024

IEEE Consumer Electronics Society/Smart Devices Standards Committee

P2951
Technical Requirements and Evaluation Methods for Intelligent Levels of Smart Home Devices
Recommendation: Approve new PAR until December 2024

P2953
Standard for Technical Requirements for Industrial Smart Terminal Devices
Recommendation: Defer new PAR until the next NesCom meeting to provide time for comments to be resolved

IEEE Consumer Electronics Society/Standards Committee

P2861.2
Standard for Mobile Gaming Systems Integration Framework
Recommendation: Approve new PAR until December 2024

P2861.3
Standard for Haptic Interface Enhancement for Mobile Gaming
Recommendation: Approve new PAR until December 2024

P2952
Standard for Secure Computing Based on Trusted Execution Environment
Recommendation: Approve new PAR until December 2024
IEEE Consumer Electronics Society/Virtual Reality and Augmented Reality Standards Committee

**P2048.101**
Standard for Augmented Reality on Mobile Devices: General Requirements for Software Framework, Components, and Integration
**Recommendation:** Approve new PAR until December 2024

IEEE Engineering in Medicine and Biology Society/IEEE 11073 Standards Committee

**P11073-20601a**
Health Informatics – Personal Health Device Communication – Part 20601: Application Profile – Optimized Exchange Protocol Amendment
**Recommendation:** Approve new PAR until December 2024

IEEE Industry Applications Society/Industrial Power Conversion Systems Department

**P2943**
Energy Efficiency Test Methods for Three-Phase Variable Frequency Drive Systems
**Recommendation:** Approve new PAR until December 2024

**P2964**
Standard for Datasheet Parameters and Tests for Integrated Gate Drivers
**Recommendation:** Approve new PAR until December 2024

IEEE Industry Applications Society/Petroleum & Chemical Industry

**P80005-1a**
**Recommendation:** Approve new PAR until December 2024

IEEE Instrumentation and Measurement Society/TC9 – Sensor Technology

**P1588a**
Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems
Amendment: Enhancements for Best Master Clock Algorithm (BMCA) Mechanisms

**Recommendation:** Approve new PAR until December 2024

**P1588b**
Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems
Amendment: Addition of Precision Time Protocol (PTP) Mapping for Transport Over Optical Transport Network (OTN)

**Recommendation:** Approve new PAR until December 2024

**P1588c**
Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems
Amendment: Clarification of Terminology

**Recommendation:** Approve new PAR until December 2024

**P1588d**
Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems
Amendment: Guidelines for Selecting and Operating a Key Management System

**Recommendation:** Approve new PAR until December 2024

**P1588e**
Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems
Amendment: MIB and YANG Data Models

**Recommendation:** Approve new PAR until December 2024

**P1588f**
Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems
Amendment: Enhancements for Latency and/or Asymmetry Calibration

**Recommendation:** Approve new PAR until December 2024

**IEEE Power and Energy Society/Analytic Methods for Power Systems**

**P2882**
Guide for Validation of Software Models of Renewable and Conventional Generators for Power System Studies

**Recommendation:** Approve new PAR until December 2024
IEEE Power and Energy Society/Energy Storage & Stationary Battery Committee

**P2962**
Recommended Practice for the Installation, Operation, Maintenance, Testing, and Replacement of Li-Ion Batteries in Stationary Applications  
**Recommendation:** Approve new PAR until December 2024

IEEE Power and Energy Society/Power System Instrumentation and Measurements

**P2960**
**Recommendation:** Approve new PAR until December 2024

IEEE Power and Energy Society/Surge Protective Devices/Low Voltage

**PC62.43.1a**
Guide for Surge Protectors and Surge Protective Circuits Used in Information and Communication Technology Circuits (ICT), Including Smart Grid – Part 1 Applications  
Amendment 1  
**Recommendation:** Approve new PAR until December 2024

IEEE Power and Energy Society/Switchgear

**PC37.20.7-2017/Cor 1**
Guide for Testing Switchgear Rated Up to 52 kV for Internal Arcing Faults  
Corrigendum 1  
**Recommendation:** Approve new PAR until December 2024

**PC37.30.7** Standard Requirements for High-Voltage Air Switches Rated Above 1000 Vdc  
**Recommendation:** Approve new PAR until December 2024

IEEE Power and Energy Society/Transmission and Distribution

**P2030.13**
Guide for Electric Transportation Fast Charging Station Management System Functional Specification
Recommendation: Approve new PAR until December 2024

P2938
Guide for Economic Loss Evaluation of Sensitive Industrial Customers Caused by Voltage Sags
Recommendation: Approve new PAR until December 2024

P2939
Guide for the Joint Use of Electric Power Transmission & Distribution (T&D) Facilities and Equipment
Recommendation: Approve new PAR until December 2024

P2954
Recommended Practice for Overhead Transmission Line Design
Recommendation: Approve new PAR until December 2024

IEEE Robotics and Automation Society/Standing Committee for Standards

P2940
Standard for Measuring Robot Agility
Recommendation: Approve new PAR until December 2024

IEEE SA Board of Governors/Corporate Advisory Group

P2950
Electric Traction System for High Speed Electric Multiple Units (EMUs)
Recommendation: Approve new PAR until December 2024

P2956
Test Method for Surface Transfer Impedance of Shielded Power Cables and Connectors for Rail Vehicles
Recommendation: Approve new PAR until December 2024

IEEE Sensors Council/Standards Committee

P2520.1
Standard for Baseline Performance for Odor Analysis Devices and Systems
Recommendation: Approve new PAR until December 2024

P2520.2.1
Standard for Machine Olfaction Devices and Systems Used for General Outdoor Odor Monitoring  
**Recommendation:** Approve new PAR until December 2024

**P2520.2.2**  
Standard for Landfill Odor Monitoring Devices and Systems  
**Recommendation:** Approve new PAR until December 2024

**P2520.3.1**  
Standard for Machine Olfaction Devices and Systems Used in General Indoor Air Quality Monitoring  
**Recommendation:** Approve new PAR until December 2024

**P2520.4.1**  
Standard for Performance of Machine Olfaction Devices and Systems for Chemical Manufacture  
**Recommendation:** Approve new PAR until December 2024

**IEEE Vehicular Technology Society/Automated Vehicles Standards Committee**

**P2936**  
Standard for Test Methods of Automotive Lidar Performance  
**Recommendation:** Approve new PAR until December 2024

**IEEE-SASB Coordinating Committees/SCC39 – International Committee on Electromagnetic Safety**

**P62704-2a**  
Standard for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz to 6 GHz – Part 2: Specific Requirements for Finite Difference Time Domain (FDTD) Modelling of Exposure from Vehicle Mounted Antennas Amendment 1  
**Recommendation:** Approve new PAR until December 2024

**PARs for the Revision of Standards:**

**IEEE Communications Society/Standards Development Board**

**P269**
Standard for Evaluating Electroacoustic Performance of Communication Devices

**Recommendation:** Approve PAR for the revision of a standard until December 2024

**IEEE Computer Society/LAN/MAN Standards Committee**

**P802.3**
Standard for Ethernet

**Recommendation:** Approve PAR for the revision of a standard until December 2024

**IEEE Computer Society/Microprocessor Standards Committee**

**P1394**
Standard for a High-Performance Serial Bus

**Recommendation:** Approve PAR for the revision of a standard until December 2024

**IEEE Computer Society/Software & Systems Engineering Standards Committee**

**P15288**
Systems and Software engineering – System Life Cycle Processes

**Recommendation:** Approve PAR for the revision of a standard until December 2024

**P23026**

**Recommendation:** Approve PAR for the revision of a standard until December 2024

**P26531**
Systems and Software Engineering – Content Management for Product Life Cycle, User, and Service Management Documentation

**Recommendation:** Approve PAR for the revision of a standard until December 2024

**IEEE Computer Society/Test Technology**

**P1149.4**
Standard for a Mixed-Signal Test Bus
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**P1581**
Standard for Static Component Interconnection Test Protocol and Architecture
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**IEEE Power and Energy Society/Insulated Conductors**

**P1300**
Guide for Cable Connections for Gas-Insulated Substations
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**P1493**
Guide for the Evaluation of Solvents Used for Cleaning Electrical Cables and Accessories
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**IEEE Power and Energy Society/Power System Relaying and Control**

**PC37.90.1**
Standard for Relays, Relay Systems, and Control Devices Used for Protection and Control of Electric Power Apparatus-Surge Withstand Capability (SWC) and Electrical Fast Transient (EFT) Requirements and Tests
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**PC37.90.3**
Standard Electrostatic Discharge Tests for Protective Relays
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**PC37.95**
Guide for Protective Relaying of Utility-Consumer Interconnections
**Recommendation:** Defer PAR for the revision of a standard until the next NesCom meeting based on lack of replies by the Chair
**PC37.113**
Guide for Protective Relay Applications to Transmission Lines
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**PC37.114**
Guide for Determining Fault Location on AC Transmission and Distribution Lines
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**IEEE Power and Energy Society/Switchgear**

**PC37.20.7**
Guide for Testing Switchgear Rated Up to 52 kV for Internal Arcing Faults
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**PC37.23**
Standard for Metal-Enclosed Bus
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**IEEE Power and Energy Society/Transmission and Distribution**

**P1159.3**
Recommended Practice for Power Quality Data Interchange Format (PQDIF)
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**P1283**
Guide for Determining the Effects of Elevated Temperature Operation on Conductors, Connectors, and Accessories
**Recommendation:** Approve PAR for the revision of a standard until December 2024

**P1409**
Guide for Technology Methods for Power Quality Improvement in Electric Power Systems
**Recommendation:** Approve PAR for the revision of a standard until December 2024
P62704-1
Standard for Determining the Peak Spatial Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz to 6 GHz. Part 1: General Requirements for using the Finite Difference Time Domain (FDTD) Method for SAR Calculations
Recommendation: Approve PAR for the revision of a standard until December 2024

3.2.4 RevCom Recommendations

New:

IEEE Communications Society/Access and Core Networks Standards Committee

P1910.1/Draft 3
IEEE Draft Standard for Meshed Tree Bridging with Loop Free Forwarding
Recommendation: Conditional approval based on the Standards Board approval of the Modified PAR for P1910.1

P1937.1/Draft 7.0
IEEE Draft Standard Interface Requirements and Performance Characteristics for Payload Devices in Drones
Recommendation: APPROVE

IEEE Communications Society/Edge, Fog, Cloud Communications with IOT and Big Data Standards Committee

P1906.1.1/Draft 3
IEEE Draft Standard Data Model for Nanoscale Communication Systems
Recommendation: APPROVE

IEEE Computer Society/LAN/MAN Standards Committee

P802E/Draft 2.0
IEEE Draft Recommended Practice for Privacy Considerations for IEEE 802 Technologies
Recommendation: APPROVE
P802.1Qcr/Draft 2.3
IEEE Draft Standard for Local and Metropolitan Area Networks – Bridges and Bridged Networks
Amendment: Asynchronous Traffic Shaping
Recommendation: APPROVE

P802.15.22.3/Draft 8
IEEE Draft Standard for Spectrum Characterization and Occupancy Sensing
Recommendation: APPROVE

IEEE Computer Society/Learning Technology

P3527.1/Draft 3
IEEE Draft Standard for Digital Intelligence (DQ) – Framework for Digital Literacy, Skills, and Readiness
Recommendation: APPROVE

P3652.1/Draft 6.1
Recommendation: APPROVE

IEEE Computer Society/Software & Systems Engineering Standards Committee

P12207-2/Draft 3
Recommendation: Conditional approval based on the Standards Board approval of the Modified PAR for P12207-2

IEEE Computer Society/Standards Activities Board

P3079/Draft 2
IEEE Draft Standard for Head Mounted Display (HMD) Based Virtual Reality (VR) Sickness Reduction Technology
Recommendation: APPROVE

IEEE Consumer Electronics Society/Blockchain Standards Committee

P2140.1/Draft 3
IEEE Draft Standard for General Requirements for Cryptocurrency Exchanges

**Recommendation:** APPROVE

**IEEE Consumer Electronics Society/Standards Committee**

**P2813/Draft 3**
IEEE Draft Standard for Big Data Business Security Risk Assessment (BD BSRA)

**Recommendation:** APPROVE

**IEEE Electromagnetic Compatibility Society/Standards Development Committee**

**P370/Draft 8**
IEEE Draft Standard for Electrical Characterization of Printed Circuit Board and Related Interconnects at Frequencies up to 50 GHz

**Recommendation:** APPROVE

**IEEE Engineering in Medicine and Biology Society/IEEE 11073 Standards Committee**

**P11073-40101/Draft 5**

**Recommendation:** APPROVE

**P11073-40102/Draft 4**
IEEE Draft Standard – Health Informatics – Device Interoperability – Part 40102: Cybersecurity – Capabilities for Mitigation

**Recommendation:** APPROVE

**IEEE Industrial Electronics Society/Industrial Electronics Society Standards Committee**

**P2660.1/Draft 3**
IEEE Draft Recommended Practices on Industrial Agents: Integration of Software Agents and Low Level Automation Functions

**Recommendation:** APPROVE

**IEEE Industry Applications Society/Industrial & Commercial Power Systems Standards Development Committee**
P3004.3/Draft 3
IEEE Draft Recommended Practice for the Application of Low-Voltage Fuses in Industrial and Commercial Power Systems
Recommendation: APPROVE

IEEE Instrumentation and Measurement Society/TC10 – Waveform Generation Measurement and Analysis

P2414/Draft 2.3
IEEE Draft Standard for Jitter and Phase Noise
Recommendation: APPROVE

IEEE Power and Energy Society/Energy Development & Power Generation

P2760/Draft 8
IEEE Draft Guide for Wind Power Plant Grounding System Design for Personnel Safety
Recommendation: APPROVE

IEEE Power and Energy Society/Transmission and Distribution

P2747/Draft 7
Recommendation: APPROVE

P2821/Draft 6
Recommendation: APPROVE

IEEE Vehicular Technology Society/Intelligent Transportation Systems

P1609.2.1/Draft 15
Recommendation: Conditional approval pending the completion of the documents required to launch both registries included in the standard
IEEE-SASB Coordinating Committees/SCC39 – International Committee on Electromagnetic Safety

**P1528.7/Draft 2**
IEEE Draft Guide to Assess the Electromagnetic Fields (EMF) Exposure of Internet of Things (IoT) Technologies/Solutions
Recommendation: APPROVE

**P62704-4/Draft 4**
IEC/IEEE International Draft Standard – Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body from Wireless Communications Devices, 30 MHz – 6 GHz: Part 4: General Requirements for Using the Finite Element Method (FEM) for SAR Calculations
Recommendation: APPROVE

**PC95.1-2019/Cor 2/Draft 2**
IEEE Draft Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz
Corrigendum 2:PC95.1-2019_Cor2
Recommendation: APPROVE

Revision:

**IEEE Aerospace and Electronic Systems Society/Gyro Accelerometer Panel**

**P952/Draft 9**
Recommendation: APPROVE

**IEEE Antennas and Propagation Society/Antennas and Propagation Standards Committee**

**P356/Draft 4.2**
IEEE Draft Guide for Measurements of Electromagnetic Properties of Earth Media
Recommendation: APPROVE

**P1502/Draft 4.3**
IEEE Draft Recommended Practice for Radar Cross-Section Test Procedures
Recommendation: APPROVE
IEEE Communications Society/Power Line Communications

**P1901/Draft 4.2**
IEEE Draft Standard for Broadband Over Power Line Networks: Medium Access Control and Physical Layer Specifications  
**Recommendation:** APPROVE

IEEE Computer Society/Learning Technology

**P1484.11.2/Draft 6**
IEEE Draft Standard for Learning Technology – ECMAScript Application Programming Interface for Content to Runtime Services Communication  
**Recommendation:** APPROVE

**P1484.12.1/Draft 8**
IEEE Draft Standard for Learning Object Metadata  
**Recommendation:** APPROVE

IEEE Computer Society/Software & Systems Engineering Standards Committee

**P24748-3/Draft 3**
**Recommendation:** APPROVE

IEEE Industry Applications Society/Petroleum & Chemical Industry

**P841/Draft 7** [REMOVED FROM THE SASB CONSENT AGENDA]
IEEE Draft Standard for Petroleum and Chemical Industry — Premium-Efficiency, Severe-Duty, Totally Enclosed Squirrel Cage Induction Motors — 0.75–370 kW (1–500 hp)  
**Recommendation:** DEFER [3=yes, 2=no, 1=recuse]  
There was a motion to defer with the recommendation to work with the two mentors (Law, Koshy) to address RevCom’s concerns

**P1826/Draft 3.6**
IEEE Draft Standard for Power Electronics Open System Interfaces in Zonal Electrical Distribution Systems Rated above 100 kW  
**Recommendation:** APPROVE
IEEE Power and Energy Society/Insulated Conductors

P1637/Draft 4
Recommendation: APPROVE

IEEE Power and Energy Society/Nuclear Power Engineering

P336/Draft 4
IEEE Draft Recommended Practice for Installation, Inspection, and Testing for Class 1E Power, Instrumentation, and Control Equipment at Nuclear Facilities
Recommendation: APPROVE

P60980-344/Draft D2
Recommendation: APPROVE

IEEE Power and Energy Society/Substations

P1623/Draft 6
Recommendation: APPROVE

IEEE Power and Energy Society/Surge Protective Devices/High Voltage

PC62.92.5/Draft 4
Recommendation: APPROVE

IEEE Power and Energy Society/Surge Protective Devices/Low Voltage

PC62.31/Draft 8
IEEE Draft Standard for Test Methods and Preferred Values for Low-Voltage Gas Discharge Tube Surge-Protective Components
Recommendation: APPROVE

PC62.41.3/Draft 5
IEEE Draft Guide for Interactions between Power System Disturbances and Surge Protective Devices
Recommendation: APPROVE

IEEE Power and Energy Society/Switchgear

PC37.121/Draft 1.6
IEEE Draft Guide for Switchgear – Unit Substation – Requirements
Recommendation: APPROVE

IEEE Power and Energy Society/Transformers

PC57.12.01/Draft 10
IEEE Draft Standard for General Requirements for Dry-Type Distribution and Power Transformers
Recommendation: APPROVE

PC57.12.70/Draft 4.1
IEEE Draft Standard for Standard Terminal Markings and Connections for Distribution and Power Transformers
Recommendation: APPROVE

PC57.12.91/Draft 6
IEEE Draft Standard Test Code for Dry-Type Distribution and Power Transformers
Recommendation: APPROVE

PC57.148/Draft 9
IEEE Draft Standard for Control Cabinets for Power Transformers
Recommendation: APPROVE

IEEE Power and Energy Society/Transmission and Distribution

P1531/Draft 5
IEEE Draft Guide for Application and Specification of Harmonic Filters
Recommendation: APPROVE

IEEE-SASB Coordinating Committees/SCC39 – International Committee on Electromagnetic Safety
P62209-1528/Draft 5
Recommendation: APPROVE

4 SASB Standing Committee Reports

4.1 Audit Committee (AudCom)

John Kulick, AudCom Chair, reported.

John thanked Peter Balma, AudCom Baselines Ad Hoc Chair, for his leadership and efforts in regards to the review and update process for the various AudCom-maintained baseline documents.

4.2 New Standards Committee (NesCom)

Dorothy Stanley, NesCom Chair, reported.

Doug Edwards stated that he would like to join the NesCom Ad Hoc on Review Period Timeframes.

4.3 Procedures Committee (ProCom)

Ted Burse, ProCom Chair, reported.

4.4 Standards Review Committee (RevCom)

Travis Griffith, RevCom Chair, reported.

4.4.1 P841

David Law initiated discussion about the P841 RevCom recommendation to the SASB.

RevCom recommendation:

P841/Draft 7
IEEE Draft Standard for Petroleum and Chemical Industry – Premium-Efficiency, Severe-Duty, Totally Enclosed Squirrel Cage Induction Motors – 0.75-370 kW (1-500 hp)

Recommendation: DEFER [3=yes, 2=no, 1=recuse]

There was a motion to defer with the recommendation to work with the two mentors (Law, Koshy) to address RevCom's concerns.

There was a motion to Substitute the following text in place of the text of the RevCom recommendation:

DISAPPROVE with the remedy that:

[1] The scope of the draft be brought into alignment with the scope of the PAR by either:

[a] removing the content of the draft outside the scope of the PAR and then conducting recirculation ballots as necessary; or

[b] submitting a PAR modification request to expand the scope of the PAR to match the scope of the draft, forming a new balloting group due to the expanded PAR scope, and then conducting the entire balloting process on the draft using the new balloting group.

[2] Follow the guidelines for 'Notification Why Comments Associated with a Negative Vote were not Recirculated' found in the RevCom 'Guide for the Submittal of Proposed Standards' for any comments associated with a negative vote that have not been shown to the balloting group via a recirculation ballot.

Two mentors are appointed (Law, Koshy).

There was discussion on the motion to Substitute.

There was a motion to Amend (see updates in yellow highlight):

DISAPPROVE with the remedy that:

[1] The scope of the draft be brought into alignment with the scope of the PAR by either:
[a] removing the content of the draft outside the scope of the PAR and then conducting recirculation ballots as necessary; or

[b] submitting a PAR modification request to expand the scope of the PAR to match the scope of the draft, forming a new balloting group due to the expanded PAR scope, and then conducting the entire balloting process on the draft using the new balloting group; or

[c] referring to the Standards Committee (IAS/PCIC) to evaluate if the scope of the draft standard is within the scope of work authorized by the PAR

[2] Follow the guidelines for ‘Notification Why Comments Associated with a Negative Vote were not Recirculated’ found in the RevCom ‘Guide for the Submittal of Proposed Standards’ for any comments associated with a negative vote that have not been shown to the balloting group via a recirculation ballot.

Two mentors are appointed (Law, Koshy).

In the absence of objection, the motion to Amend was approved.

The vote on the updated main motion then occurred. Travis Griffith recused.

In the absence of objection, the updated main motion was approved. See text below:

DISAPPROVE with the remedy that:

[1] The scope of the draft be brought into alignment with the scope of the PAR by:

[a] removing the content of the draft outside the scope of the PAR and then conducting recirculation ballots as necessary; or

[b] submitting a PAR modification request to expand the scope of the PAR to match the scope of the draft, forming a new balloting group due to the expanded PAR scope, and then conducting the entire balloting process on the draft using the new balloting group; or
[c] referring to the Standards Committee (IAS/PCIC) to evaluate if the scope of the draft standard is within the scope of work authorized by the PAR

[2] Follow the guidelines for ‘Notification Why Comments Associated with a Negative Vote were not Recirculated’ found in the RevCom ‘Guide for the Submittal of Proposed Standards’ for any comments associated with a negative vote that have not been shown to the balloting group via a recirculation ballot.

Two mentors are appointed (Law, Koshy).

5 Standards Coordinating Committee Reports
5.1 SCC Coordinator’s Report

Mehmet Ulema, SCC Coordinator, reported.

Mehmet thanked Rich Hulett and David Law for their leadership as the SCC18 co-chairs.


There was a motion to accept the submitted reports from SCC21 and SCC31. In the absence of objection, the motion was approved.

5.2 Scheduled Reports Due in September:
5.2.1 SCC21 – Fuel Cells, Photovoltaics, Dispersed Generation, and Energy Storage

Mark Siira, SCC21 Chair, reported.

5.2.2 SCC31 – Automatic Meter Reading and Energy Management

Lawrence Kotewa, SCC31 Chair, reported.

6 Old Business

7 Informational Reports
7.1 CAG Report

Don Wright, SASB liaison to the CAG, reported.

7.2 SASB Chair’s Report

Chair Hoffman provided a verbal report.

Chair Hoffman noted two recent deaths:

Patrick Ryan, executive director of the IEEE Power and Energy Society (PES), passed away on 8 September. Pat worked for IEEE in Technical Activities for over 13 years and was a driving force in transforming PES into the second largest society within IEEE.

Donald (Don) W. Zipse passed away on 21 August at age 87. Don was a long-time member of RevCom and the SASB in the 1980s and 1990s.

The SASB held a moment of silence in honor of Mr. Ryan and Mr. Zipse.

8 New Business

8.1 ICCom Transition

Kevin Lu, ICCom Chair, provided a verbal report.

Kevin noted that ICCom now reports to the BOG’s Industry Engagement and Sector Strategies SMDC.

Chair Hoffman thanked Kevin and all of the ICCom members for their dedication and for the work done while ICCom was a standing committee of the SASB.

8.2 SASB Ad Hoc on Terminology

This item occurred after item 8.3.

Chair Hoffman reported.

There was a motion to endorse the Way Forward as noted in slide 6. In the absence of objection, the motion was approved.
The revised scope for the ad hoc:

a) Identify a process for the review of any/all terminology recommended or suggested for potential deprecation by the SASB,
b) Examine what other Standards Setting Organizations have done or are planning to do,
c) Ensure that those in the decision-making process have a fiduciary duty to IEEE,
d) Develop draft text that memorializes the process in the relevant SASB rules document (e.g., SASB OpMan).

Chair Hoffman asked if any SASB or SASB standing committee members wanted to join the ad hoc.

The following individuals indicated that they would like to join the ad hoc: Konstantinos Karachalios, Daleep Mohla, Dorothy Stanley, Lei Wang, Sha Wei, and Don Wright

8.3 March 2021 Meeting as Virtual-Only

This item occurred after item 8.1.

Dave Ringle introduced the topic, noting that the dates for the March 2021 SASB meeting series had previously been approved by the SASB, but that no venue had yet been selected.

Paul Nikolich stated his support for virtual SASB meeting series and suggested that the SASB may want to consider holding fewer in-person meeting series in the future.

There was a motion:
Move that the March 2021 SASB meeting series be held as virtual-only.
In the absence of objection, the motion was approved.

9 Next Meeting

The next SASB meeting is scheduled for 03-04 December 2020 via teleconference/Webex.
10  SASB Resolutions

The SASB recognized the Vehicular Technology Society/High Speed Train and Maglev Standards Committee, to be abbreviated as VT/HSTMSC, as an official Standards Committee, in accordance with IEEE SASB Bylaws 5.2.2.

The SASB updated the Scope of the SASB Ad Hoc on Terminology:
   a) Identify a process for the review of any/all terminology recommended or suggested for potential deprecation by the SASB,
   b) Examine what other Standards Setting Organizations have done or are planning to do,
   c) Ensure that those in the decision-making process have a fiduciary duty to IEEE,
   d) Develop draft text that memorializes the process in the relevant SASB rules document (e.g., SASB OpMan).

11  Executive Session Items
11.1  SASB Oversight Committee RE: a Specific Standards Committee
11.2  Recent Appeal to the SASB

12  Adjournment

There was a motion to extend the meeting by 60 minutes. The motion failed. [Vote: Yes=5, No=7, Abstain=2]

It was noted that an Executive Session SASB meeting will be scheduled to address agenda items 11.1 and 11.2.

As Orders of the Day was called, the meeting was adjourned at 3:05 p.m. UTC.