



TC ANNUAL REPORTING FORM

IMS Technical Committee

TC10, Waveform Generation, Measurement, and Analysis

Reporting period

| Starting date (dd/mm/yy) | Ending date (dd/mm/yy) | Date of submission (dd/mm/yy) |
|--------------------------|------------------------|-------------------------------|
| 01/01/24 | 31/12/24 | 11/01/24 |

Website

<https://iee-ims.org/technical-committee/tc-10>

Last update (mm/yy)

2024

TC Chair or co-Chairs

| First Name | Second Name | Family Name | Affiliation /Address | Membership number | Phone | e-mail address | Date of election |
|------------|-------------|-------------|---|-------------------|------------------|---------------------------|------------------|
| Nicholas | G | Paulter, Jr | NIST 100 Bureau Dr. Gaithersburg, MD 20899 USA | 41340692 | 240-483-5947 (c) | nicholas.paulter@nist.gov | 2018 |

Secretary (check the right box)

Present

Not Present

| First Name | Second Name | Family Name | Affiliation /Address | Membership number | Phone | e-mail address | Date of election |
|------------|-------------|-------------|----------------------|-------------------|-------|----------------|------------------|
|------------|-------------|-------------|----------------------|-------------------|-------|----------------|------------------|

TC Membership list^(*)

| First Name | Second Name | Family Name | Affiliation /Address | Membership number | Phone | e-mail address | TC assignments (joining year) |
|------------|-------------|-------------|----------------------|-------------------|-------|----------------|-------------------------------|
|------------|-------------|-------------|----------------------|-------------------|-------|----------------|-------------------------------|

(AVAILABLE FROM IEEE, also attached)

* Please add as many rows as needed

TC mission – field of expertise (max. 1000 char. Including spaces)

Develop, promote and support standards for specifying and measuring waveforms, and for specifying and testing instrumentation used for waveform measurement or generation;

Promote effective practices of waveform measurement, generation, and analysis through workshops, review papers, etc.;

Maintain liaison with other groups, societies, and standards organizations working in the same area.

TC meetings in the reporting period^(*)

| Date (dd/mm/yy) | Online / Face2Face | Attendance (number) | TC Members | Information sent within 4 months to (Yes/No) | | |
|--------------------|-----------------------|------------------------|--|--|-------------|-----------------|
| | | | | Chair of TSAC | IM Magazine | Other (specify) |
| 16 Jan 2024 | on-line | 09 | see official meeting minutes, attached | | | |
| 16 Apr 2024 | on-line | 14 | see official meeting minutes, attached | | | |
| 16 Jul 2024 | on-line | 14 | see official meeting minutes, attached | | | |
| 15 Oct 2024 | on-line | 15 | see unofficial meeting minutes, attached | | | |

Minutes of the yearly meeting (separate file)¹

meetings are held quarterly, three approved meeting minutes are attached, unapproved 4th quarter meeting minutes are attached

Participation in Society sponsored Events (Conferences, Symposia, Workshops)

(*)

¹ Yes/No, date of the yearly meeting;

* Please add as many rows as needed

| Name of the Event | Starting date (event) (dd/mm/yy) | Ending date (event) (dd/mm/yy) | Date Participation (dd/mm/yy) | Type of participation (Yes/No) | | | |
|-------------------|----------------------------------|--------------------------------|-------------------------------|--------------------------------|---------|----------|---|
| | | | | Sponsorship | Session | Tutorial | Other (specify) ² |
| I2MTC-2024 | 20 May 2024 | 23 May 2024 | | | | | TC10 Special session: "Waveform acquisition and analysis" |

Involvement in standard development^(*)

| Standard | Working Group | Revision | Activity in the reporting period, including dates | Notes, attendance |
|----------|-------------------|----------|---|-------------------|
| Std 181 | Pulse Tech | 2011 | Several web-based meetings conducted. Revision in progress. | |
| Std 1057 | Waveform recorder | 2017 | No activity | |
| Std 1241 | ADC | 2023 | Recently published (2023). No activity. | |
| Std 1681 | DAC | 2023 | Recently published (2023). No activity. | |
| Std 2414 | Jitter | 2020 | No activity. | |
| Std 1696 | Probe standards | 2013 | Several web-based meetings conducted. Revision in progress. | |

Participation in the development of Society Educational Programs^(*)

| Program name | Involvement of chapters and sections | Activity in the reporting period, including dates | Notes, attendance |
|--------------|--------------------------------------|---|-------------------|
|--------------|--------------------------------------|---|-------------------|

Other Activities (tutorials, teaching, career, cooperation, publications, joint activity with chapters or sections) ^(*)

| Type of activity | Starting date (dd/mm/yy) | Ending date (dd/mm/yy) | Activity in the reporting period | Notes, attendance |
|---|--------------------------|------------------------|----------------------------------|-------------------|
| Article updating TC10 activities was published in Oct 2024. (L. De Vito, J. Jendzurski, S. Rapuano, W. B. Boyer, J. Blair and N. G. Paulter, "The IEEE Technical Committee 10: The Waveform Generation, Measurement, and Analysis Committee, Update 2023," in IEEE Instrumentation & Measurement Magazine, vol. 27, no. 7, pp. 26-30, September 2024, doi: https://doi.org/10.1109/MIM.2024.10700738 .) | | | | |
| Article on the early history of the TC10 was published in Oct 2024. (W. Boyer, "Early History of the IEEE Technical Committee 10 from 1981 to 2007," vol. 27, no. 7, pp. 19-25, October 2024, doi: 10.1109/MIM.2024.10700735 .) | | | | |

² For example, Involvement in reviewing papers (and indicate approximate number of paper reviews for the listed event)

* Please add as many rows as needed



Recommended candidates^(*)

| Type (ADCOM, Fellow, Award –specify-) | First Name | Second Name | Family Name | Affiliation /Address | Motivation |
|---------------------------------------|------------|-------------|-------------|----------------------|------------|
|---------------------------------------|------------|-------------|-------------|----------------------|------------|

TC operating Plan: near-term plans for the upcoming year, including scheduled meetings, activities, and so on (max. 1000 char. Including spaces)

- Maintain valid membership list
- Hold periodic on-line TC10 WebEx meetings
- Maintain IEEE TC10 and IEEE SA web sites
- Convene TC10-related I2MTC-2024 Special Sessions:
 - "TC10 Special Session on the Measurement, Modeling, and Prediction of Jitter in Space-grade Optical Transceivers"
 - "Rydberg Arrays for Enhanced Direction Finding - Sponsored by TC10"

TC operating plan: long term vision from 2-5 years out, based on IMS Strategic Plan, including areas of strength , areas for improvement, how is the subject area going to change, planned actions for lifting achievement succession plans etc. (max. 1000 char. Including spaces)

- Maintain current TC-10 membership and broaden industry involvement
- Increase TC10 visibility, in collaboration with IEEE IMS and IEEE SA
- Increase interest in participation as an officer
 - Luca De Vito accepted WG1694 chair position
 - Charles Cerny accepted WG1241 chair position
 - Identify chair for 181 Working Group
 - Identify TC10 chair

^{*} Please add as many rows as needed



TC convergence, synergy, cooperation with other TC, from I&M or other societies (max. 1000 char. Including spaces)

Comments/Suggestions (max. 1000 char. Including spaces)

* Please add as many rows as needed

IEEE Waveform Generation Measurement and Analysis Technical Committee (TC10)
Approved Meeting Minutes
16 January 2024 / 11:00 AM –13:00 PM (UTC-5)

1. Call to Order
2. Introductions and Roll Call
 - a. Nick Paulter, TC10 chair, presided and took minutes
3. Approval of the Agenda
 - a. Motion for agenda of this meeting (16 January 2024) approval was provided by Sergio Rapuano and seconded by Gearóid ó hEidhin. No dissent to this motion.
 - b. The approved agenda is available on iMeetCentral (<https://ieee-sa.imeetcentral.com/tc10-general/folder/WzIwLDE0NDI3NzE4XQ/WzIsODUzMTQzMjBd/>).
4. Approval of minutes from 17 October 2023 meeting
 - a. Motion for minutes approval was provided by Ioan Tudosa and seconded by Paolo Carbone. No dissent to this motion.
 - b. The approved minutes are available on iMeetCentral (<https://ieee-sa.imeetcentral.com/tc10-general/folder/WzIwLDEzMjA3MTQwXQ/WzIsODUzMTQzMjZd/>).
5. TC10 administrative
 - a. Next meeting will be 16 April 2024 starting at 1100 UTC-5 (1600 UTC+0).
 - b. Chair positions
 - i. Charles Cerny (USAF Research Laboratory, USA) has been approved by the TC10 officers as the Std 1241 Working Group chair.
 - ii. Chair for Std 181 Working Group is being sought from TC10 membership.
 - c. Reminder to reviewers of manuscript submitted to TC10 Special Session, “Waveform acquisition and analysis,” for the I2MTC-2024.
 - d. Reminder for TC10 officers to contribute to annual TC10 document describing updates to TC10 activities.
6. Discussion topics
 - a. IEEE TC10 history – Bill Boyer
 - i. The document has been uploaded to TC10 iMeetCentral for general review (<https://ieee-sa.imeetcentral.com/tc10-general/folder/WzIwLDEzMjA3MTMyXQ/WzIsODUzMTQzMjFz/>). Contact Bill to provide input at db1505@comcast.net.

7. Working Groups Updates
 - a. Revision of IEE Std 181, IEEE Standard for Transitions, Pulses, and Related Waveforms
 - i. Lead: Nick Paulter
 - ii. The kick-off meeting is scheduled for 18 January 2024 at 1100 (UTC-5).
 - b. Revision of IEEE Std 1241, IEEE Standard for Terminology and Test Methods for Analog-to-Digital Converters
 - i. Lead: Nick Paulter
 - ii. Status: Published. IEEE SA provided a link to download a complimentary copy for working group members.
 - iii. Charles Cerny is the new 1241 Working Group chair. All communication regarding the Std 1241 and the Working Group should be directed to Charles at dr.c.c@ieee.org.
 - c. Revision of IEEE Std 1658, IEEE Standard for Terminology and Test Methods of Digital-to-Analog Converter Devices
 - i. Lead: Luca DeVito
 - ii. Status: Published. IEEE SA provided a link to download a complimentary copy for working group members.
 - d. Revision of IEEE Std 1696, IEEE Standard for Terminology and Test Methods for Circuit Probes
 - i. Lead: John Jendzurski
 - ii. Status:
 1. The first five clauses have been reviewed. There are two more clauses to review.
 2. Current par expires December 2025.
8. Adjourn
 - a. Motion to adjourn was made by Nick. Gearóid seconded the motion. No dissent for this motion was given.
 - b. Meeting adjourned around 1230 (UTC-5).
9. Tasks
 - a. Outstanding tasks (not completed from previous lists)
 - i. WG chairs - review web pages (<https://sagroups.ieee.org/im-wma-tc10/>) for content
 - b. New
 - i. Nick Paulter - upload agenda and draft minutes of today's meeting
 - ii. Nick Paulter – upload approved minutes of 17 Oct 2023 meeting
 - iii. Identify volunteer to provide presentation at upcoming (16 April 2024) meeting
 - iv. Nick Paulter – identify chair candidates for the 181 Working Group.

Attendee list with affiliation:

| Attendee name | Affiliation |
|----------------------|---|
| Fritz Caspers | CERN, Switzerland |
| Paolo Carbone | University of Perugia, Italy |
| Grazia Iadarola | Polytechnic University of Marche, Italy |
| Patrycja Jarosz | IEEE, USA |
| Alessandro Mingotti | University of Bologna, Italy |
| Gearóid ó hEidhin | GE Renewables, UK |
| Nicholas Paulter | National Institute of Standards and Technology, USA |
| Sergio Rapuano | University of Sannio, Italy |
| Ioan Tudosa | University of Sannio, Italy |
| Han Woong Yoo | Automation and Control Institute, Austria |

IEEE Waveform Generation Measurement and Analysis Technical Committee (TC10)
Approved Meeting Minutes
16 April 2024 / 11:00 AM –13:00 PM (UTC-5)

1. Call to Order
2. Introductions and Roll Call
 - a. Nick Paulter, TC10 chair, presided and took minutes
 - b. Introductions were not deemed necessary as all attendees were familiar with or knew of each other.
3. Approval of the Agenda
 - a. Motion for approval of the agenda of this meeting (16 April 2024) was provided by Sergio and seconded by Grazia. No dissent to this motion.
 - b. The approved agenda is available on iMeetCentral (<https://ieee-sa.imeetcentral.com/tc10-general/folder/WzIwLDE0NDI3NzE4XQ/WzIsODUzMTQzMjBd/>).
4. Approval of minutes from 16 January 2024 meeting
 - a. Motion for approval of the minutes of the 16 Jan 2024 meeting was provided by Ioan and seconded by Gearóid. No dissent to this motion.
 - b. The approved minutes are available on iMeetCentral (<https://ieee-sa.imeetcentral.com/tc10-general/folder/WzIwLDEzMjA3MTQwXQ/WzIsODUzMTQzMjZd/>).
5. TC10 administrative
 - a. No comments or problems reported using IEEE SA e-tools (iMeetCentral, ListServ).
 - b. Next meeting will be 16 July 2024 starting at 1100 UTC-5 (1600 UTC+0).
 - c. Chair positions
 - i. Chair for Std 181 Working Group is being sought from TC10 membership.
6. Discussion topics
 - a. IEEE TC10 history – Bill Boyer
 - i. Several modifications have been made. Plan is to submit to IEEE I&M Magazine.
 - b. I2MTC Special Session, “Waveform acquisition and analysis”
 - i. Five papers accepted for presentation.
 - ii. Several TC10 members will be present, try to assemble for dinners and/or lunches.
 - c. I&M Magazine
 - i. TC10 has been providing annual updates on its activities and status of its documentary standards for the last few years.
 - ii. Authors have been TC10 officers.
 - iii. The 2023 update was submitted to the Magazine in early April 2024 by Nick.
 - d. I2MTC poster
 - i. Each technical committee (TC) is allowed one poster up to the maximum number of posters.
 - ii. TC10 submitted a poster that was developed by the TC10 officers.
 - e. DVM & ADC – Allan
 - i. In the True8Digit (<https://true8digit.eu/>) project, Allan has noted discrepancies in the definition (and maybe method of measurement) of integral nonlinearity for digital volt meters and analog-to-digital converters. Once this project is complete, it may warrant a

new documentary standard to address these discrepancies that could logically be within the purview of the IEEE TC10.

7. Working Groups Updates
 - a. Revision of IEE Std 181, IEEE Standard for Transitions, Pulses, and Related Waveforms
 - i. Lead: Nick Paulter
 - ii. The kick-off meeting and one other meeting has occurred.
 - iii. Each clause has been assigned up to three reviewers. Upon completion of reviews, Nick will compile and provide to WG 181 members for final review.
 - b. Revision of IEEE Std 1696, IEEE Standard for Terminology and Test Methods for Circuit Probes
 - i. Lead: John Jendzurski
 - ii. Status:
 1. Review being completed by clause.
 2. New members have joined.
 3. Will schedule a July meeting.
8. Guest presentation:
Fritz Caspers, CERN, “History and development of bench measurement techniques for impedance evaluation”
9. Adjourn
 - a. Meeting adjourned around 1220 (UTC-5).
10. Tasks
 - a. Outstanding tasks (not completed from previous lists)
 - i. none
 - b. New
 - i. Nick - upload agenda and draft minutes of today’s meeting
 - ii. Nick– upload approved minutes of 16 Jan 2024 meeting
 - iii. Nick - Identify volunteer to provide presentation at upcoming (16 July 2024) meeting
 - iv. Nick– identify chair candidates for the 181 Working Group.

Attendee list with affiliation:

| Attendee name | | Affiliation |
|---------------|--------------------|--|
| Last | First | |
| Belcher | Allan | Signal Conversion Ltd, UK |
| Boyer | Bill | Sandia (retired), USA |
| Carbone | Paolo | University of Perugia, Italy |
| Caspers | Fritz | CERN, Switzerland |
| Ciocan | Razvan (Secretary) | Draper Laboratories, USA |
| De Vito | Luca | University of Sannio, Italy |
| Gendai | Yuji | THine Electronics, Inc., Japan |
| Iadarola | Grazia | Polytechnic University of Marche, Italy |
| Jarosz | Patrycja | IEEE, USA |
| Jendzurski | John | National Institute of Standards and Technology, USA |
| Kyriazis | Gregory | INMETRO, Brazil |
| ó hEidhin | Gearóid | GE Renewables, UK |
| Paulter | Nicholas (Chair) | National Institute of Standards and Technology, USA |
| Rapuano | Sergio | University of Sannio, Italy |
| Renczes | Balázs | Budapest University of Technology and Economics, Hungary |

IEEE Waveform Generation Measurement and Analysis Technical Committee (TC10)
Approved Meeting Minutes
16 July 2024 / 11:00 AM –13:00 PM (UTC-5)

1. Call to Order
2. Introductions and Roll Call
 - a. Nick Paulter, TC10 chair, presided and took minutes.
 - b. Introductions were given.
 - c. Quorum achieved: 11/14 members attending.
3. Approval of the Agenda
 - a. Motion for approval of the agenda of this meeting (16 July 2024) was provided by Sergio and seconded by Pasquale. No dissent to this motion.
 - b. The approved agenda is available on iMeetCentral (<https://ieee-sa.imeetcentral.com/tc10-general/folder/WzIwLDE0NDI3NzE4XQ/WzIsODU4OTM4NjFd/>).
4. Approval of minutes from 16 April 2024 meeting
 - a. Motion for approval of the minutes of the 16 April 2024 meeting was provided by Ioan and seconded by Allan. No dissent to this motion.
 - b. The approved minutes are available on iMeetCentral (<https://ieee-sa.imeetcentral.com/tc10-general/folder/WzIwLDEzMjA3MTQwXQ/WzIsODU4OTM4NjRd/>).
5. TC10 administrative
 - a. No comments or problems reported using IEEE SA e-tools (iMeetCentral, ListServ).
 - b. Next meeting will be 15 October 2024 starting at 1100 UTC-4 (1500 UTC+0).
 - c. Chair positions
 - i. Chair for Std 181 Working Group is being sought from TC10 membership.
6. Discussion topics
 - a. IEEE TC10 history – Bill Boyer
 - i. Several modifications have been made. Submitted to and accepted for publication by IEEE I&M Magazine.
 - b. I2MTC
 - i. I2MTC-2024 TC10 Special Session, “Waveform acquisition and analysis”
 1. Well attended. Deemed a successful TC10-sponsored special session.
 - ii. Recurrent TC10 special sessions at I2MTC
 1. Nick asked if the 2024 special session was sufficiently successful to warrant proposing a special session for the I2MTC-2025.
 2. Sergio suggested that the TC10 should propose a special session at each I2MTC.
 - c. I&M Magazine
 - i. TC10 has been providing annual updates on its activities and status of its documentary standards for the last few years.
 1. The 2023 update was submitted to the Magazine in early April 2024 by Nick and approved for publication.
 - ii. Sergio described a “standards” track for the Magazine, which intends to publish four articles per year on IEEE standards. The purpose is to expose Magazine readership to IMS documentary standards.
 1. Sergio is asking for volunteers for these papers.

2. Luca volunteered to provide a paper.
 - d. Other outreach
 - i. IEEE 2024 International Workshop on Technologies for Defense and Security (<https://techdefense.org/>)
 1. Nick and Pasquale are organizing a special session on directed energy weapons.
 2. TC10 members are encouraged to attend.
 - ii. IMEKO TC6
 1. Ioan will provide details at 15 October meeting.
7. New standards proposal
 - a. Ioan Tudosa presented a proposal for a new TC10 documentary standard that would address the terminology and test and evaluation methods for clocks and oscillators. It was generally agreed that such a standard would be useful and is within the purview of the TC10.
 - b. Ioan will:
 - i. Identify working group of interested parties and potential contributors.
 - ii. Draft a scope with the working group.
 - iii. Develop the Project Authorization Request.
8. Working Groups Updates
 - a. Revision of IEE Std 181, IEEE Standard for Transitions, Pulses, and Related Waveforms
 - i. Lead: Nick Paulter
 - ii. The revision is progressing. Currently in the process of completing the terminology-related clauses.
 - b. Revision of IEEE Std 1696, IEEE Standard for Terminology and Test Methods for Circuit Probes
 - i. Lead: John Jendzurski
 - ii. Status:
 1. Review of entire document is complete. All suggest changes are editorial.
 2. John is planning to address resolution of comments. Plans to have the document ready for ballot by the end of CY2024.
 3. Patrycja presented an e-balloting option.
9. Guest presentation:

John Jendzurski, National Institute of Standards and Technology, “Design and Measurement of a Dynamic Through-Barrier Radar Calibration Target”
10. Adjourn
 - a. Meeting adjourned around 1235 (UTC-4).
11. Tasks
 - a. Outstanding tasks (not completed from previous lists)
 - i. Nick– identify chair candidates for the 181 Working Group.
 - b. New
 - i. Nick - upload agenda and draft minutes of today’s meeting.
 - ii. Nick– upload approved minutes of 16 Apr 2024 meeting.
 - iii. Nick - Identify volunteer to provide presentation at upcoming (15 October 2024) meeting.

Attendee list with affiliation:

| Attendee name | | Affiliation |
|---------------|--------------------|---|
| Last | First | |
| Belcher | Allan | Signal Conversion Ltd, UK |
| Boyer | Bill | Sandia (retired), USA |
| Ciocan | Razvan (Secretary) | Draper Laboratories, USA |
| Daponte | Pasquale | University of Sannio, Italy |
| De Vito | Luca | University of Sannio, Italy |
| Gendai | Yuji | THine Electronics, Inc., Japan |
| Jarosz | Patrycja | IEEE, USA |
| Jendzurski | John | National Institute of Standards and Technology, USA |
| Kyriazis | Gregory | INMETRO, Brazil |
| ó hEidhin | Gearóid | GE Renewables, UK |
| Paulter | Nicholas (Chair) | National Institute of Standards and Technology, USA |
| Rapuano | Sergio | University of Sannio, Italy |
| Tudosa | Ioan | University of Sannio, Italy |

IEEE Waveform Generation Measurement and Analysis Technical Committee (TC10)
unApproved Meeting Minutes
15 October 2024 / 11:00 AM –13:00 PM (UTC-5)

1. Call to Order
2. Introductions and Roll Call
 - a. Nick Paulter, TC10 chair, presided and took minutes.
 - b. Introductions were given.
 - c. Quorum achieved: 12/15 members attending.
3. Approval of the Agenda
 - a. Motion for approval of the agenda of this meeting (15 October 2024) was provided by Gearóid and seconded by Sergio. No dissent to this motion.
 - b. The approved agenda is available on iMeetCentral (<https://ieee-sa.imeetcentral.com/tc10-general/folder/WzIwLDE0NDI3NzE4XQ/WzIsODYzNjkxMzZd/>).
4. Approval of minutes from 16 July 2024 meeting
 - a. Motion for approval of the minutes of the 16 July 2024 meeting was provided by Sergio and seconded by Yuji. No dissent to this motion.
 - b. The approved minutes are available on iMeetCentral (<https://ieee-sa.imeetcentral.com/tc10-general/folder/WzIwLDEzMjA3MTQwXQ/WzIsODYzNjkxMzZd/>).
5. TC10 administrative
 - a. No comments or problems reported using IEEE SA e-tools (iMeetCentral, ListServ).
 - b. Next meeting will be 21 January 2025 starting at 1100 UTC-5 (1600 UTC+0).
 - c. Chair positions
 - i. Chair for Std 181 Working Group is being sought from TC10 membership.
6. Discussion topics
 - a. I2MTC
 - i. I2MTC-2025 TC10 Special Session proposed
 1. Charles Cerny – Rydberg arrays for atomic clocks
 2. Razvan Ciocan – jitter in space-grade optical transceivers
 - b. I&M Magazine – no discussion
 - c. Other outreach
 - i. IEEE 2024 International Workshop on Technologies for Defense and Security (<https://techdefense.org/>)
 1. Nick and Pasquale are organizing a special session on directed energy weapons.
 - a. Nick will need to adjust participation.
7. New standards proposal
 - a. Ioan Tudosa presented a proposal for a new TC10 documentary standard that would address the terminology and test and evaluation methods for clocks and oscillators. It was generally agreed that such a standard would be useful and is within the purview of the TC10.
 - b. Ioan will: (no progress as of 15 Oct 2024)
 - i. Identify working group of interested parties and potential contributors.
 - ii. Draft a scope with the working group.
 - iii. Develop the Project Authorization Request.

8. Working Groups Updates
 - a. Revision of IEE Std 181, IEEE Standard for Transitions, Pulses, and Related Waveforms
 - i. Lead: Nick Paulter
 - ii. The revision is progressing. Currently reviewing Clause 5, which is the second longest clause in the standard and includes parameter calculation algorithms.
 - b. Revision of IEEE Std 1696, IEEE Standard for Terminology and Test Methods for Circuit Probes
 - i. Lead: John Jendzurski
 - ii. Status:
 1. Motion and second to submit for ballot was received.
 2. MEC has provided comments. John will correct the draft accordingly.
 3. John will send a request to WG181 for approval to submit for ballot.
9. Guest presentation:
Grazia Iadarola, Polytechnic University of Marche, Italy, “Physiological monitoring by wearable sensors: outcomes from Compressed Sensing”
10. Adjourn
 - a. Meeting adjourned around 1240 (UTC-4).
11. Tasks
 - a. Outstanding tasks (not completed from previous lists)
 - i. Nick– identify chair candidates for the 181 Working Group.
 - b. New
 - i. Nick - upload agenda and draft minutes of today’s meeting.
 - ii. Nick– upload approved minutes of 16 Jul 2024 meeting.
 - iii. Nick - Identify volunteer to provide presentation at upcoming (21 January 2025) meeting.

Attendee list with affiliation:

| Attendee name | | Affiliation |
|---------------|----------------------|---|
| Last | First | |
| Belcher | Allan | Signal Conversion Ltd, UK |
| Boyer | Bill | Sandia (retired), USA |
| Calvin | John | Keysight Technologies, USA |
| Ciocan | Razvan (Secretary) | Draper Laboratories, USA |
| Daponte | Pasquale | University of Sannio, Italy |
| De Vito | Luca | University of Sannio, Italy |
| Gendai | Yuji | THine Electronics, Inc., Japan |
| Iadarola | Grazia | Polytechnic University of Marche, Italy |
| Jarosz | Patrycja | IEEE, USA |
| Jendzurski | John | National Institute of Standards and Technology, USA |
| Miličević | Kruno | University of Osijek, Croatia and Random Red, Croatia |
| ó hEidhin | Gearóid (Vice chair) | GE Renewables, UK |
| Paulter | Nicholas (Chair) | National Institute of Standards and Technology, USA |
| Rapuano | Sergio | University of Sannio, Italy |
| Tudosa | Ioan | University of Sannio, Italy |
| Yoo | Han Woong | Automation and Control Institute, Austria |

| TC10 Member List 2024 | | |
|-----------------------|--------------------|----------------------|
| Alessandro Mingotti | Gregory Kyriazis | Paolo Carbone |
| Allan Belcher | Gearoid O H Eidhin | Paolo Crovetti |
| Pasquale Daponte | Ioan Tudosa | Pier Andrea Traverso |
| William Boyer | Jerome Blair | Sergio Rapuano |
| Luca De Vito | John Jendzurski | Razvan Ciocan |
| Donald Larson | John Calvin | Balázs Renczes |
| Charles Cerny | Kruno Milicevic | Han Woong Yoo |
| Fritz Caspers | Martin Hudlicka | Yuji Gendai |
| Grazia Iadarola | N Paulter | |