



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)
30/09/20	01/10/21	15/10/21

Website

<http://tc10.ieee-ims.org/tc10-home>

Last update (mm/yy)

2020

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
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TC Membership list^(*)

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

* 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)
21 June 2021	on-line	25	See list in appended meeting minutes			

Minutes of the yearly meeting (separate file)¹: (see appended meeting minutes)

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

Involvement in standard development^(*)

Standard	Working Group	Revision	Activity in the reporting period, including dates	Notes, attendance
Std 181	Pulse Tech	2011	No activity	
Std 1057	Waveform recorder	2017	No activity	
Std 1241	ADC	2010	Initiated revision process. Four meetings thus far.	
Std 1681	DAC	2011	Initiated revision process. Three meetings thus far.	
Std 2414	Jitter	2020	Recently published – no activity	
Std 1696	Probe standards	2021	Not yet started but planned to start in Fy2022.	

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

Program name	Involvement of chapters and sections	Activity in the reporting period, including dates	Notes, attendance
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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
recruitment	Aug 2020	On-going	1. In coordination with IEEE SA, published a request for membership and have been adjudicating membership submissions 2. In coordination with IEEE SA, developing a blog post to solicit interest in the IEEE TC10	Successful process. Have recruited about a dozen or so new members.

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

- Establish valid membership list
- Hold periodic on-line TC10 WebEx meetings
- Maintain IEEE TC10 and IEEE SA web sites

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)

- Increase TC-10 membership, in collaboration with IEEE SA
- Increase TC10 visibility, in collaboration with IEEE IMS and IEEE SA
- Increase interest in participation as an officer

^{*} 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

Minutes of 21 June 2021 meeting:

IEEE Waveform Generation Measurement and Analysis Technical Committee (TC10)
DRAFT Meeting Minutes
21 June 2021 / 11:00 AM –12:15 PM (EDT)

1. Call to Order
2. Introductions and Roll Call
 - a. Nick Paulter, TC10 chair, presided
 - b. Jerry Blair, TC10 Secretary, took minutes
3. Roberts Rules of Order Overview
 - a. This was provided via e-mail.
4. Approval of the Agenda
 - a. Motion for agenda approval was provided and seconded. Agenda was approved unanimously.
 - b. The approved agenda will be made available on iMeetCentral (<https://ieeee-sa.imeetcentral.com/login>).
5. TC10 Policies and Procedures (P&P) Review
 - a. Standards Committee P&P
 - i. The TC10 P&P was recently approved. It will be made available to the TC10 members on iMeetCentral.
 - b. Common Individual based WG P&P
 - i. The TC10 working group (WG) officers collectively agreed to have one common WG P&P. This document will be made available to the TC10 members on iMeetCentral.
6. IEEE SA eTools
 - a. Vanessa Lalitte (Program Coordinator, IEEE SA) provided a brief description of the electronic tools listed below that are available to TC10 members. She demonstrated navigation of iMeetCentral.
 - b. Listserv – email reflector
 - i. IM-WMA-TC10@LISTSERV.IEEE.ORG
 - ii. IM-WMA-TC10-OFFICERS@LISTSERV.IEEE.ORG
 - c. WebEx – for virtual mtgs
 - d. myProject - <https://development.standards.ieee.org/myproject-web/public/view.html#landing>
 - e. iMeet Central – document repository <https://ieeee-sa.imeetcentral.com/login>
 - f. WordPress – TC10 website <https://sagroups.ieee.org/im-wma-tc10/>
 - i. IEEE IMS website <http://tc10.ieee-ims.org/tc10-home>
 - ii. Vanessa noted that WG web sites are not populated

7. Working Groups Updates

- a. Revision of IEE Std 181, IEEE Standard for Transitions, Pulses, and Related Waveforms
 - i. Lead: Nick Paulter
 - ii. PAR: <https://development.standards.ieee.org/myproject-web/app#viewpar/12338/8862>
 - iii. Nick provided brief update stating that he will wait until August timeframe to have a kick-off meeting so as not to overburden members who are also involved with the Std 1241 revision.
- b. Revision of IEEE Std 1241, IEEE Standard for Terminology and Test Methods for Analog-to-Digital Converters
 - i. Lead: Nick Paulter (acting)
 - ii. PAR: <https://development.standards.ieee.org/myproject-web/app#viewpar/5745/5745>
 - iii. Nick provided a brief update stating that 1241 Working Group (WG) will have a restart meeting (WebEx) on 29 June and that, during that meeting, review of the first sections of the 1241 will be started. The current schedule for the review is conservative and may be expedited pending comments and inputs from the WG members.
- c. Revision of IEEE Std 1658, IEEE Standard for Terminology and Test Methods of Digital-to-Analog Converter Devices
 - i. Lead: Luca DeVito
 - ii. PAR: <https://development.standards.ieee.org/myproject-web/app#viewpar/6538/6538>
 - iii. Luca stated that the revision was converted to the new SA-standards format, he provided initial comments/changes to the 1658 to initiate discussion, and will meet in July. He plans to have the revision complete by the end of the 2021 calendar year. Since the PAR expires at the end of 2022, this schedule should provide plenty of time to address any comments that arise during balloting.
 - iv. It was recommended that he also provide the draft standard in an e-mail attachment to facilitate WG member review and comment.
- d. Revision of IEEE Std 1696, IEEE Standard for Terminology and Test Methods for Circuit Probes
 - i. Lead: John Jendzurski
 - ii. PAR: <https://development.standards.ieee.org/myproject-web/app#viewpar/12343/8867>
 - iii. John stated that he has set up the IEEE SA e-tools (see item 6) with the assistance of Vanessa Lalitte. He is targeting a mid-August 2021 kick-off meeting. This meeting must be preceded by a call for participation (CFP), which is developed by the IEEE SA. The lead time for creating a CFP is about four weeks.
- e. Other information
 - i. Review of the PAR, standards development, and standards revision processes was provided by Vanessa Lalitte. A detailed description of the process can be found at <http://standards.ieee.org/develop/overview.html>

8. Future Meetings

- a. Frequency: accord to meet once every three months. This will be via web-based meeting unless a majority of TC10 members request a face-to-face meeting.
- b. Duration: accord to have one-hour meetings
- c. Content: accord to include what is listed below
 - i. General Information
 - ii. Working Groups/Subcommittee Updates
 - iii. Related activities in other Standards Development Organizations

9. Questions asked

- a. Who provides assistance with IEEE SA e-tools?
 - i. Contact Vanessa Lalitte (v.lalitte@ieee.org)
- b. To whom are comments on Std 1241 sent? (Although this question was for a particular WG and its standard, the answer is applicable, with appropriate modification, to all working groups and their associated standards.)
 - i. Send to Nick Paulter until 1241 Working Group kick-off meeting. After that time, you may send to Nick and/or the WG members.

10. Adjourn

- a. Motion to adjourn was made and seconded.
- b. Meeting was adjourned early, at approximately 1215 instead of the planned time of 1400.

11. Tasks

- a. John Jendzurski
 - i. Provide to Vanessa the text for the CFP (see item 7d) by 25 June 2021.
- b. Nick Paulter
 - i. Upload approved agenda
 - ii. Upload approved IEEE TC10 Policies and Procedures (P&P)
 - iii. Upload approved IEEE TC10 Working Group Common P&P
 - iv. Circulate meeting minutes for approval
 - v. Set up recurrent WebEx meetings per agreed-upon schedule
- c. Jerry Blair
 - i. Provide meeting minutes
- d. Luca De Vito
 - i. Send drafts of documents via e-mail to WG members
- e. Vanessa Lalitte
 - i. Verify TC10 Listserv e-mail list
- f. WG chairs
 - i. Review web pages (<https://sagroups.ieee.org/im-wma-tc10/>) for content

Attendee list with affiliation:

Attendee name	Affiliation
Allan Belcher	Signal Conversion, Ltd, UK
Jerome Blair	Keystone International, Inc, USA
John Calvin	Keysight Technologies, USA
Fritz Capsers	CERN, Switzerland
Charles Cerny	USAF Research Laboratory, USA
Razvan Ciocan	Draper, USA
Paolo Crovetto	Polytechnic University of Turin, Italy
Dominique Dallet	IMS Laboratory - Bordeaux INP
Pasquale Daponte	University of Sannio, Italy
Luca De Vito	University of Sannio, Italy
Yossi Ehrlichman	IEEE, USA
Yuji Gendai	THine Electronics, Japan
Nicola Giaquinto	Polytechnic University of Bari, Italy
John Jendzurski	National Institute of Standards and Technology, USA
Gregory Kyriaszis	National Institute of Metrology Standardization and Industrial Quality, Brazil
Vanessa Lalitte	IEEE Standards Association
Fabio Leccese	Roma Tre University, Italy
Kruno Milicevic	University of Osijek, Croatia
Alessandro Mingotti	University of Bologna, Italy
Antonio Moschitta	University of Perugia, Italy
Gearold ohEidhin	GE Renewables, UK
N Paulter	National Institute of Standards and Technology, USA
Sergio Rapuano	University of Sannio, Italy
PierAndrea Traverso	University of Bologna, Italy
Han Woong Yoo	Automation and Control Institute, Austria

Attendee name	Affiliation
Allan Belcher	Signal Conversion, Ltd, UK
Jerome Blair	Keystone International, Inc, USA
John Calvin	Keysight Technologies, USA
Fritz Capsers	CERN, Switzerland
Charles Cerny	USAF Research Laboratory, USA
Razvan Ciocan	Draper, USA

* Please add as many rows as needed

Paolo Crovetti	Polytechnic University of Turin, Italy
Dominique Dallet	IMS Laboratory - Bordeaux INP
Pasquale Daponte	University of Sannio, Italy
Luca De Vito	University of Sannio, Italy
Yossi Ehrlichman	IEEE, USA
Yuji Gendai	THine Electronics, Japan
Nicola Giaquinto	Polytechnic University of Bari, Italy
John Jendzurski	National Institute of Standards and Technology, USA
Gregory Kyriaszis	National Institute of Metrology Standardization and Industrial Quality, Brazil
Vanessa Lalitte	IEEE Standards Association
Fabio Leccese	Roma Tre University, Italy
Kruno Milicevic	University of Osijek, Croatia
Alessandro Mingotti	University of Bologna, Italy
Antonio Moschitta	University of Perugia, Italy
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