



TC ANNUAL REPORTING FORM

IMS Technical Committee

TC 45 Radiation and Nuclear Instrumentation and Systems

Reporting period

Starting date (dd/mm/yy)	Ending date (dd/mm/yy)	Date of submission (dd/mm/yy)
1 January 2024	31 December 2024	10 January 2025

Website <https://iee-ims.org/technical-committees> Last update (mm/yy)

TC Chair or co-Chairs

First Name	Second Name	Family Name	Affiliation /Address	Membership number	Phone	e-mail address	Date of election
Leticia		Pibida	NIST, 100 Bureau Dr. MS 8462, Gaithersburg, MD 20899 USA	96991737 <input type="checkbox"/>	301-975-5538	Leticia.pibida@nist.gov	December 2020
Christina		Forrester	ORNL	97052109	865-755-8551	forrestercd@ornl.gov	August 2024

Secretary (check the right box)

First Name	Second Name	Family Name	Affiliation /Address	Membership number	Phone	e-mail address	Date of election	Present	Not Present
								<input type="checkbox"/>	<input type="checkbox"/>
Richard		Kouzes	PNNL	00089987	509-430-0873	RKouzes@ieee.org	December 2020	<input type="checkbox"/>	<input type="checkbox"/>

TC Membership list^(*)

First Name	Second Name	Family Name	Affiliation /Address	Membership number	Phone	e-mail address	TC assignments (joining year)
Don		Potter	DHS	97076479	703-475-3853	Don.Potter@hq.dhs.gov	SA IMS 2020
Gladys		Klemic	DHS	97044507	630-306-1496	gladys.klemic@HQ.DHS.GOV	SA IMS 2020
Radoslav		Radev	LLNL	97077496	925-575-0928	radev1@llnl.gov	SA IMS 2020

* Please add as many rows as needed



Sachidananda	Babu	NASA	41457761	240-678-0728	sachi.babu@nasa.gov	SA IMS 2020
Frank	Sergent	AMETEK/ORTEC	85007537	865-483-2194	frank.sergent@ametek.com	SA IMS 2020
Edward	Walker	Contractor	97076957	865-254-4818	eewjko@yahoo.com	SA IMS 2020
Chad	McKee	DOD	97089971	443-910-7846	chad.b.mckee.civ@mail.mil	SA IMS 2020
Mark	Hoover	Contractor	97075278	304-685-2991	markdhoover@comcast.net	SA IMS 2020
Brian	Young	Contractor	97086604	860-919-0010	byoung67@gmail.com	SA IMS 2020
Joseph	Rotunda	Rotunda Scientific Technologies® LLC	97037328	330-283-0874	joe@rotundascitech.com	SA IMS 2020
Michael	Unterweger	NIST	03490265	301-975-5536	michael.unterweger@nist.gov	SA IMS 2020
Jack	Glover	NIST	95500869	202 573 5487	jack.glover@nist.gov	SA IMS 2023
David	Sullivan	Mirion	99377351	770-432-2744	dASullivan@mirion.com	SA IMS 2023
Steven	Adams	Self-employed	99735812	702- 521-4549	SRAAdams27183@gmail.com	SA IMS 2024
Logan	Wilcox	liaison TC-01	96442023	314-753-7179	lmwc65@mst.edu	SA IMS
Zhi	Zhang	EPA	100431204	(702) 526-8370	Zhang.Zhi@epa.gov	SA IMS 2024

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

TC 45 develops and maintains standards pertaining to design and construction, design performance criteria, performance testing against design criteria, calibration, and field response testing of radiological protection instruments and radiometry instrumentation.

The goals of this Committee are to:

- Prepare standards related to electrical and electronic equipment and systems for instrumentation specific to radiological and nuclear applications
- Prepare standards that address instrumentation used for the measurement of ionizing radiation in the workplace, to the public, and in the environment for radiation protection purposes
- Prepare standards that address instrumentation used for illicit trafficking detection and identification of radionuclides
- Prepare standards that address instrumentation used for radiation-based security screening

TC meetings in the reporting period(*)

* Please add as many rows as needed



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)
11/07/2024	Online	11	TC45			TC-01 liaison, NRC, FEMA

Minutes of the yearly meeting (separate file): yes, 1 file attached

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

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

NONE

Involvement in standard development(*)

Standard	Working Group	Revision	Activity in the reporting period, including dates	Notes, attendance
PN42.23	<i>Measurement and Associated Instrument Quality Assurance for Radioassay Laboratories</i>	New	PAR approved 25 March 2021. The standard is still in initial development.	This is a revision of the ANSI N42.23 standard
PN42.22	<i>Traceability Of Radioactive Sources To Nist And Associated Instrument Quality Control</i>	New	PAR approved 25 March 2021. The standard is still in initial development.	This is a revision of the ANSI N42.22 standard
PN42.61	<i>Radiation Data Format for Streaming in Real-Time Data from Radiation Detection Instruments</i>	New	PAR approved 25 March 2021. The standard is being developed by the working group. It is expected that this step will be completed by December 2024.	New project
PN42.62	<i>Performance Criteria for Passive Radiation Imaging Systems</i>	New	PAR approved 25 March 2021. The standard was published in 2023.	New project Published 2023
PN42.63	<i>Recommended Practice for Unmanned Aerial Radiation Measurement</i>	New	PAR approved 25 March 2021. The standard was published in 2023.	New project Published 2023

¹ Yes/No, date of the yearly meeting;

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

Systems (UARaMS)

PN42.59	<i>Standard for Millimeter-Wave Systems for Security Screening of Humans</i>	New	PAR approved 21 June 2021. The standard went through the TC ballot and IEEE SA ballot The standard is in the process to be published. Approved as a new standard by the IEEE SA Standards Board on 12 November 2024.	New project
PN42.46	<i>Standard for Imaging Performance of X-Ray and Gamma-Ray Systems for Cargo and Vehicle Security Screening</i>	New	PAR approved 21 June 2021. The standard is being developed by the working group. It is expected that this step will be completed by December 2024.	This is a revision of the ANSI N42.46 standard.
PN42.49-1	<i>Performance Criteria for Non-alarming Personal Emergency Radiation Detectors (PERDs) for Exposure Control</i>	New	PAR approved July 2022. The standard went through the TC ballot and IEEE SA ballot. It is now waiting for publication as N42.49-1. Approved as a new standard by the IEEE SA Standards Board on 12 November 2024	New project
PN323AB	<i>Radiation Protection Instrumentation Test and Calibration, Portable Survey Instruments</i>	New	PAR approved March 2023. Had kick-off meeting in September 2023. WG was created, document was circulated within the WG for comments. The WG was meeting regularly in 2024.	New project
PN42.55	<i>Standard for the Performance of Portable Transmission X-Ray Systems for Use in Improvised Explosive Device and Hazardous Device Identification</i>	New	PAR approved August 2022. The WG is currently working on the standard document.	New project
PN42.35	<i>Standard for Evaluation and Performance of Radiation Detection Portal Monitors for Use in Homeland Security</i>	New	Sent PAR in November 2023. The PAR was approved. The WG is currently working on the standard document	This is a revision of the ANSI N42.35 standard.
PN42.37	<i>Standard for Training for the Radiological/Nuclear Detection Mission</i>	New	Sent PAR in August 2024.	This is a revision of the ANSI N42.437 standard.

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

Program name	Involvement of chapters and sections	Activity in the reporting period, including dates	Notes, attendance
None			

* Please add as many rows as needed



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
None				

Recommended candidates(*)

Type (ADCOM, Fellow, Award -specify-)	First Name	Second Name	Family Name	Affiliation /Address	Motivation
None					

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

Work on the projects that are being developed under TC 45.

Plan to submit 1 new PAR for review and approval.

Work in the transition of the ANSI N42 standards into the IEEE SA IMS TC45.

Reach out to government agencies to assess the use of the N42 standards and the priority to move them into the IEEE SA IMS TC45.

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)

The IEEE SA IMS TC 45 interacts with the IEC TC 45 and SC 45B in the development and harmonization of standards for radiation detection instruments. This is an on-going work as new standards are developed, and old standards are revised.

The TC 45 committee also interacts with the ANSI HPS N13 and ISO TC 85/SC 2 committees as the work performed by these committees complement each other.

* 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)

The TC plans to promote the development of standards and interact with internal standard agencies, users and industry to recognize gaps in the radiation detection instrument and measurement areas. The TC will work in the adoption of the standards developed under the ANSI N42 committee into the IMS TC 45.

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

TC 45 was awarded the 2024 Outstanding Technical Committee Award

* Please add as many rows as needed