# 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) |
|---|---|---|
| December 2020 | 12 May 2021 | 17 May 2021 |

**Website** Not there yet, need to figure out how we do this **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 | 301-975-5538 | Leticia.pibida@nist.gov | December 2020 |

## Secretary (check the right box) Present [X] Not Present [ ]

| First Name | Second Name | Family Name | Affiliation /Address | Membership number | Phone | e-mail address | Date of election |
|---|---|---|---|---|---|---|---|
| Richard | | Kouzes | PNNL | 00089987 | 509-430-0873 | RKouzes@ieee.org | December 2020 |

## 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 |
| Edward | | Walker | Contractor | 97076957 | 865-254-4818 | eewjko@yahoo.com | SA IMS 2020 |

* Please add as many rows as needed

| | | | | | | |
|---|---|---|---|---|---|---|
| Radoslav | Radev | LLNL | 97077496 | 925-575-0928 | radev1@llnl.gov | SA IMS 2020 |
| Sachidananda | Babu | NASA | 41457761 | 240-678-0728 | sachi.babu@nasa.gov | SA IMS 2020 |
| Christina | Forrester | ORNL | 97052109 | 865-755-8551 | forrestercd@ornl.gov | SA IMS 2020 |
| Frank | Sergent | AMETEK/ORTEC | 85007537 | 865-483-2194 | frank.sergent@ametek.com | SA IMS 2020 |
| Richard | Kouzes | PNNL | 00089987 | 509-430-0873 | RKouzes@pnnl.gov | SA IMS 2020 |
| Paul | Johns | PNNL | 93347719 | 509-372-4438 | paul.johns@pnnl.gov | SA IMS 2020 |
| Peter | Chiaro | IB3 Global | 94484218 | 865-314-1214 | peter.chiaro@ib3global.com | SA IMS 2020 |
| Chad | McKee | DOD | 97089971 | 443-910-7846 | chad.b.mckee.civ@mail.mil | SA IMS 2020 |
| Charles | Weaver | DOD | 97088143 | 314-496-6988 | charles.l.weaver57.civ@mail.mil | SA IMS 2020 |
| Mark | Hoover | Contractor | 97075278 | 304-685-2991 | markdhoover@comcast.net | SA IMS 2020 |
| Ron | Keyser | Contractor | 08754301 | 865 607 2608 | ronkeyser@ieee.org | SA IMS 2020 |
| Brian | Young | Contractor | 97086604 | 860-919-0010 | byoung67@gmail.com | SA IMS 2020 |
| Henrik | Persson | Canberra | 96514904 | 203-639-2324 | hpersson@mirion.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 |

**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 radiometrology 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**

* Please add as many rows as needed

- **Disseminate information and knowledge about radiation detection systems, by means of workshops, special sessions in conferences, lectures, and publications.**
- **Maintain liaisons with other committees, groups, societies, and organizations working on radiation detection instrumentation and nuclear applications.**

## TC meetings in the reporting period(*)

| Date (dd/mm/yy) | Online / Face2Face | Attendance (number) | Information sent within 4 months to (Yes/No) TC Members | Chair of TSAC | IM Magazine | Other (specify) |
|---|---|---|---|---|---|---|
| *31/3/2021* | Online | 15 | yes | | | Meeting was put together to train working group chairs that we part of the ANSI N42 Committee before and that will be WG chairs under TC 45 |
| *10/7/2021* | Online | 14 | yes | | | Yearly meeting was put together to go over the IEEE P&P for the TC45 members and the status of the standard under this TC. |

**Minutes of the yearly meeting (separate file)[1]: Did not have one yet, this is a new TC that is still getting organized. Met for WG chair training.**

## 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 Partecipation (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 |
|---|---|---|---|---|
| PN42.22 | *Traceability of Radioactive Sources To NIST* | New | PAR approved 25 March 2021. The standard is still in initial development. | This is a revision of the ANSI N42.22 standard |

[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

| | | | | |
|---|---|---|---|---|
| | *And Associated Instrument Quality Control* | | | |
| PN42.23 | *Measurement and Associated Instrument Quality Assurance for Radioassay Laboratories* | New | PAR approved 25 March 2021. The standard is still in initial development. | This is a revision of the ANSI N42.23 standard |
| PN42.43 | *Standard for Mobile Radiation Monitors for Homeland Security* | New | PAR approved 25 March 2021. The standard moved from the working group following a positive vote to the TC 45 review. It is expected that this step will be completed by July 2021 after which it will move on to the IEEE ballot. | This is a revision of the ANSI N42.43 standard. |
| PN42.61 | *Radiation Data Format for Streaming in Real-Time Data from Radiation Detection Instruments* | New | PAR approved 25 March 2021. The standard is still in initial development with a small group of participants. No additional movement is expected until at least September 2021. | |
| PN42.62 | *Performance Criteria for Passive Radiation Imaging Systems* | New | PAR approved 25 March 2021. The standard is still in initial development with a small group of participants. No additional movement is expected until at least September 2021. | |
| PN42.63 | Recommended Practice for Unmanned Aerial Radiation Measurement Systems (UARaMS) | New | PAR approved 25 March 2021. Group is being formed. This standard is moving forward very well. The working group contains 20 members and has been meeting remotely each week in order to develop the first complete draft. | |
| PN42.38 | *Standard for Spectroscopy-Based Portal Monitors for Homeland Security* | New | PAR approved 22 September 2021. The standard moved from the working group following a positive vote to the TC 45 review. It is expected that this step will be completed by July 2022 after which it will move on to the IEEE ballot. | This is a revision of the ANSI N42.38 standard. |
| PN42.59 | *Standard for Millimeter-Wave Systems for Security Screening of Humans* | New | PAR approved 21 June 2021. The standard moved from the working group following a positive vote to the TC 45 review. It is expected that this step will be completed by July 2023 after which it will move on to the IEEE ballot. | |
| PN42.46 | *Standard for Imaging Performance of X-Ray and Gamma-Ray Systems for Cargo and Vehicle Security Screening* | New | PAR approved 21 June 2021. The standard moved from the working group following a positive vote to the TC 45 review. It is expected that this step will be completed by July 2023 after which it will move on to the IEEE ballot. | This is a revision of the ANSI N42.46 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 |
|---|---|---|---|---|
| CIRMS meeting | 26/04/2021 | 27/04/2021 | ***Gave presentation entitled: Technical Aspects on the Development and Use of Standa*** | This meting was delayed from last year due to COVID. The attendance was approximately 150 people. |

## 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 to complete the P&P for the working groups**
- **Discuss the P&P for the technical committee with the members (include training)**
- **Work on the projects that are being developed under TC45, 2 new PARs were submitted for review and approval**

## 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 TC plans to promote the development of standards and interact with internal standard agencies,**

* Please add as many rows as needed

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.

TC convergence, synergy, cooperation with other TC, from I&M or other societies (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.

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

* Please add as many rows as needed