

TC ANNUAL REPORTING FORM

IMS Technical Committee

25 Medical and Biological Measurements

Reporting period

Starting date (dd/mm/yy)	Ending date (dd/mm/yy)	Date of submission (dd/mm/yy)
January 2023	December 2023	01/02/2024

Website <https://ieee-ims.org/technical-committee/tc-25> Last update (06/23)

TC Chair or co-Chairs

First Name	Second Name	Family Name	Affiliation /Address	Membership number	Phone	e-mail address	Date of election or appointment
Sergio		Rapuano	University of Sannio	41333078	+39 082 4305600	rapuano@unisannio.it	2020
Voicu		Groza	University of Ottawa	40275238	+1 613 745 7550	VGroza@uOttawa.ca	2008

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 or appointment
Sabrina		Grassini	Politecnico di Torino	92667897		sabrina.grassini@polito.it	2020

TC Membership list^(*)

First Name	Second Name	Family Name	Affiliation /Address	Member ship number	Pho ne	e-mail address	TC assignments (joining year)
Marco		Parvis	Politecnico di Torino, Italy			marco.parvis@polito.it	Chair to 2019
Sergio		Rapuano	University of Sannio, Italy			rapuano@unisannio.it	Chair from 2020
Voicu		Groza	University of Ottawa, Canada			vgroza@uottawa.ca	Co-Chair

* Please add as many rows as needed

Pasquale	Daponte	University of Sannio, Italy	daponte@unisannio.it	Chairman of MeMeA Steering Committee
Gregorio	Andria	Politecnico di Bari, Italy	andria@misure.poliba.it	Member
Eulalia	Balestrieri	University of Sannio, Italy	balestrieri@unisannio.it	Member
Diego	Barrettino	University of Applied Sciences and Arts of Southern Switzerland	diego.barrettino@supsi.ch	Member
Kurt	Barbè	Free University of Bruxelles (VUB)	Kurt.Barbe@vub.ac.be	Member
Miodrag	Bolic	University of Ottawa, Canada	mbolic@uottawa.ca	Member
Sandro	Carrara	École Polytechnique Fédérale de Lausanne Switzerland	sandro.carrara@epfl.ch	Member
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Imad	H. Elhajj	American University of Beirut, Lebanon	ie05@aub.edu.lb	Member
Banakhr	Fhad	Loughborough University Loughborough, UK	fbyic@hotmail.com	Member
Rafiq	Goubran	Carleton University, Canada	Rafik.Goubran@sce.carleton.ca	Member
Sabrina	Grassini	Politecnico di Torino, Italy	sabrina.grassini@polito.it	Secretary
Jiabin	Jia	University of Edinburgh, UK	Jiabin.Jia@ed.ac.uk	Member
Baki	Karaböce	TÜBİTAK UME, Turkey	baki.karaboce@tubitak.gov.tr	Member
Anna	Maria Lucia Lanzolla	Politecnico di Bari, Italy	lanzolla@misure.poliba.it	Member
Aimè	Lay-Ekuakille	University of Salento, Italy	aime.lay.ekuakille@unisalento.it	Member

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Francesco	Lamonaca	University of Sannio, Italy	flamonaca@unisannio.it	Member
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Anirban	Mukherjee	Indian Institute of Technology Kharagpur, India	manirban@ieee.org	Member
Emil	Petriu	University of Ottawa, Canada	petriu@site.uottawa.ca	Member
Adam	Polak	Wroclaw University of Science and Technology	adam.polak@pwr.edu.pl	Member
Octavian	Postolache	Instituto Universitário de Lisboa and Instituto de Telecomunicações, Portugal	octavian.postolache@gmail.com	Member
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Iadarola	Grazia	Polytechnic University of Marche	g.iadarola@staff.univpm.it	Member

* Please add as many rows as needed

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

- Sensors for the measurement of clinical and/or biological parameters. Many new or improved sensors are continuously developed that allow new and more accurate measurements and diagnoses to be performed.
- Data processing either conventional or non-conventional. The enormous amount of data generated by different kinds of instruments, such as TAC and NMR, requires processing strategies, which help the physicians to extract the most important features of each exam.
- Instrument and procedure characterization. Medical instruments and related data processing deeply interact with the physician who emits the diagnoses. This is a remarkable difference with respect to other 'conventional' instruments where standard accepted procedures are used for the uncertainty expression.
- Instrument interoperability and interconnection. Most diagnoses are obtained by combining tests results generated by different instruments. The 'data fusion' is often performed by the physician only at the end of the measurements process, but an easier possibility to access raw data generated by the different instruments could greatly improve the diagnosis quality.
- Measurement techniques for athletic performance. Assessing the athletic performance as well as discovering abnormal behavior due to as an example doped performers requires combining sensor, data processing and instruments and represents a challenge of increasing importance.
- Instruments and devices for impaired people. The advances in the digital processing and the micro and nanotechnology open new and surprising possibilities to help people who need help. This is a highly ethical research everyone should be committed to.
- Maintain liaisons with other committees, groups, societies, and organizations working on soft-computing technologies and in the applications fields.

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)
MeMeA steering committee (15/05/2023)	Telecon	17	15	Yes	
MeMeA steering committee (14/06/2023)	Face2Face	15	12	Yes	

Minutes of the yearly meeting (separate file)¹

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)			Other (specify) ²
				Sponsorship	Session	Tutorial	
<i>I2MTC 2023</i>	22/05/23	25/05/23	all				Peer review of papers and coordination of Special Sessions
<i>MeMeA 2023</i>	14/06/23	16/06/23	all	X		X	Organizing entity

Involvement in standard development^(*)

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

Standard	Working Group	Revision	Activity in the reporting period, including dates	Notes, attendance
IEEE P1721	SCOBPM	PAR Withdrawn		

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
DLs	<i>several</i>	<i>several</i>	Jacob Scharcanski used to be a very active DLs of the Society with many trips per year before COVID	
DL	<i>several</i>	<i>several</i>	Antonio Esposito – DI for 2023-2025 for novel human-computer interactions	

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)

The TC sponsored and organized the MeMeA 2024 in Eindhoven, The Netherlands, on June 2024. TC-25 is one of the two TCs that realized a teaser video to recruit new members. The new version of the video actually published on the TC web page, will be disseminated on Youtube. One short paper for I&M Magazine have been submitted and published in November 2021. The second one has been published in October 2022. A reorganization of the TC has been approved in the annual meeting 2022 with the formation of three sub-committees: nominations and appointments, publications and publicity, young researchers. The committee started they work and they actively participate to the TC activities.

* Please add as many rows as needed

During the last year the Standard Association reviewed the TC Policies and Procedures and asked for an update. The revised Policies and Procedures have been submitted and approved.
We plan to improve our visibility on the Society web site and on social media.

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 continue to sponsor the successful series of the MeMeA symposia in the next years and to look for the opportunity to start a new PAR about the blood pressure measurement in the long term. To that aim the new Procedures and Policies document has been submitted to Standards Association and has been approved.

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

The TC had valuable synergies with the Italy Chapter of IMS for a parallel event to MeMeA 2016 and with the Minneapolis Chapter for the organization of MeMeA 2017.

MeMeA is included in the Education Committee strategic plan as a potential venue for new joint initiatives: the IMS Tutorials, the IMS Open Day and the Short Courses. The MeMeA steering committee and the whole TC will contribute to the initiatives.

Some DL volunteers from the TC are often presented to the DL selections of the Education Committee and one of them used to be very active DL of the Society before COVID.

The TC-25 is involved in the Publications Committee initiatives to publish papers to raise the awareness of the IEEE members on the IMS technical activities. A paper "Instrumentation and measurement in medical, biomedical, and healthcare systems", by S. Shirmohammadi, K. Barbè, D. Grimaldi, S. Grassini and S. Rapuano, was published on the IEEE Instrumentation and Measurement Magazine, vol. 19, no. 5, pp. 6–12, 2016. Two more papers "Updates about TC-25: the Technical Committee on Biological and Medical Measurements" and "TC-25: The Latest Activities of Technical Committee on Biological and Medical Measurements" have been published to introduce the TC-25 interest fields and activities.

Three AdCom members-at-large are TC-25 members, the TC-25 Chair is currently VP TSAC and the TC Secretary is currently VP Membership.

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

* Please add as many rows as needed