

**TC13 Annual Reporting Form
January 2019- May 2020**

IMS Technical Committee	13- Wireless and Telecommunications in Measurements			
Reporting Period	Starting date 01/01/2019 Ending date 26/05/2020; Date of submission: 07/06/2020			
TC Chair or co-Chairs	Chair: Octavian Postolache, 41278977: ISCTE-University Institute of Lisbon and Instituto de Telecomunicacoes Portugal opostolache@lx.it.pt Co-chair: Octavia A. Dobre, Memorial University, Canada, odobre@mun.ca			
Secretary:	Edward Sazonov, University of Alabama, USA, esazonov@eng.ua.edu			
Website	http://ieee-ims.org/content/tc-13-wireless-telecommunications-measurements			
TC Membership List	The TC maintains a mailing list of people that are involved in the main event sponsored by the committee.			
	Name	Role	Affiliation	E-mail
	Octavian Postolache	Chair	ISCTE-IUL, Portugal	opostolache@lx.it.pt
	Octavia Dobre	Co-Chair	Memorial University, Canada	odobre@mun.ca
	Edward Sazonov	Secretary	University of Alabama, USA	esazonov@eng.ua.edu
	Telex Ngatched	Member	Memorial University	tngatched@grenfell.mun.ca
	Muhammad Shakir	Member	University of the West of Schotland	muhammad.shakir@uws.ac.uk
	Hsi-Pin M	Asia Chair delegate	National Tsing Hua University, Taiwan	hp@ee.nthu.edu.tw
	Wlodek Kulesza	Member	Blekinge Institute of Technology, Sweeden	wlodek.kulesza@bth.se
	Maciej Zawodniok,	Member	Missouri Science and Technology, USA	mjzx9c@mst.edu
	Abdulrahman Al-Ahdal,	Member	Umm Al-Qura University, Saudi Arabia	agahdal@uqu.edu.sa
	Niclas Bjorsell,	North Europe Chair Delegate	University of Govle, Sweeden	Niclas.Bjorsell@hig.se
	David Valeriu,	Chair Delegate	Universitatea Tehnica Iasi, Romania,	valdavid@ee.tuiasi.ro
	Marcu Marius	Member	Politehnica University of Timisoara, Romania	marius.marcu@cs.upt.ro
	Julian Oreffioni,	Member	URM, Uruguay,	juliano@fing.edu.uy
	Rafael Sorelo,	Member	URM, Uruguay	rsotelo@um.edu.uy
	Zhai Chao,	Member	UST, China	zhaichao@usct.edu.cn
	Lee G. Fuentes,	Member	Vrije Universiteit Brussel, Belgium	legonzal@vub.ac.be
	Lee Barford,	Member	Samsung, USA	lee_barford@ieee.org
	Cristina Schreiner,	Member	Universitatea Tehnica Iasi, Romania	cschrein@ee.tuiasi.ro
	Valnez Brusamareno,	Member	UFRGS, Brasil	valner.brusamarello@ufrgs.br

	Subhas Mukhopadhyay,	Australia Chair Delegate	Massey University, NZ,	S.C.Mukhopadhyay@massey.ac.nz
	Salceanu Alexandru,	Member	Universitatea Tehnica Iasi, Romania	asalcean@iota.ee.tuiasi.ro
	Mohamed Hamid, Annamaria Varkouyi-Koczy	Member	University of Gavle, Sweden	modhad@hig.se
	Mart Min,	Member	Obuda University, Hungary	koczy@mit.bme.hu
	Marco Parvis,	Member	TTU, Estonia	mina@elin.ttu.ee
		Member	Politecnica di Torino, Italy	marco.parvis@polito.it
		Central Europe Chair		
	Daniel Peters,	Chair Delegate	Physicalisch Technische Bundesanstalt, Germany	daniel.peters@ptb.de
		South America Chair		
	Cleonilson Protásio de Souza	Chair Delegate	Universty of Pavaiba, Brazil	protasio@cear.ufpb.br
	Wuliang Yin,	Member	University of Manchester, UK	Wulian.Yin@Manchester.ac.uk
		Member	University of Applied Sciences of Southern Switzerland	Diego.Barrentino@supsi.ch
	Diego Barrettino,	Member	University of Pannonia, Hungary	simon@dcs.uni-pannon.wa
	Gyula Simon,	Member	Catalonia Institute for Energy Research IRE, Spain,	jehiguera@irec.cat
	Jorge Higuera P.,	Member	University of Ottawa, Canada	VGroza@ulttawa.ca
	Voicu Groza,	Member		
	Jesu-Charles Bolomey,	Member	SUPELEC, France	bolomey@supelec.fr
		Member	Urije Universiteit Brussel, Belgium	Francesco.ferranti@vub.oc.be
	Francesco Ferranti	Member	Polythecnic institute of Setubal, Portugal	Vitor.Viegas@estsetubal.ips.pt
	Vitor Viegas,	Member	Universita Degli Studi di Catania, Italy	Bruno.ando@dieei.unict.it
	Bruno Ando,	Member		
	Domenico Capriglione	Member,	University of Salerno	dcapriglione@unisa.it
	Yang Yongsheng	Member	Shanghai Maritime University	yangys_smu@126.com
	Emiliano Sisinni	Member	University of Brescia	emiliano.sisinni@unibs.it
	Leopoldo Angrisani	Member	University of Salerno	angrisan@unina.it
	Yong Yan	Member	University of Kent	y.yan@kent.ac.uk
	Andrew Taberner	Member	University of Aukland	a.taberner@auckland.ac.nz
	José Miguel Dias Pereira	Member	Instituto Politecnico de Setubal	joseper@est.ips.pt
	Fernando Rangel	Chair D.	University Santa Catarina	rangel.fernando@gmail.com

<p>TC mission – field of expertise (max. 1000 char. Including spaces)</p>	<ul style="list-style-type: none"> - Explore and establish innovative measurement principles for the new and emerging fields of telecommunications, with focus on: modern mobile radio (5G and beyond, WLAN, non-terrestrial and underwater communication systems) and optical telecommunications (fiber-optic based and optical wireless); - Develop and promote new measurement standards for telecommunications; - Develop and promote the application of new telecommunication standards in the field of distributed and smart instrumentation, IoT and its applications, such as smart cities and smart-health; - Apply innovative communication technologies in the field of distributed measurement systems associated with healthcare, environment monitoring, manufacturing, energy; - Promote international research collaboration in the field of application of new telecommunication standards in the field of instrumentation and measurement for healthcare; - Organize seminars, workshops and conferences where emerging instrumentation and state of the art telecommunications technologies with application in measurement and instrumentation systems can be disseminated.
<p>Committee meetings in the reporting period (date; type: online, face-to-face)</p>	<p>All meetings were mainly performed through video-conference (on-line) and face-to-face at the IEEE I2MTC or other events. Last face-to-face meeting was held on May 24, 2019 during the IEEE I2MTC 2019 in Auckland, NZ. During 2019 some on-line meetings were carried out with the chair and co-chair participation.</p>
<p>Participation in Society sponsored Events (Conferences, Symposia, Workshops)</p>	<ol style="list-style-type: none"> 1) Keynote Speaker Octavian Postolache Smart tailored environments for physiotherapy assessment in the Internet of Things era IEEE IMS Distinguished Lecturer at Workshop IEEE IMS SP, University of Oviedo, July 29, 2019, Spain 2) Keynote Speaker Octavia A. Dobre •New advances in underwater acoustic communications, Equinor, Canada, Jan. 2020 3) Keynote Speaker Octavian Postolache Smart tailored environments for physiotherapy assessment in the Internet of Things era IEEE International Conference on Sensing Technology 2019, Macquarie University, Sydney, December 4 2019, Sydney, Australia. 4) Keynote Speaker Octavian Postolache •Smart sensing and applications in IoT era, Invited Talk, Workshop, Guilin University, China, Jan 2020. 5) Invited Talk Octavia Dobre Beyond 5G: When wireless technologies meet artificial intelligence, Invited Talk, Future Wireless Research Workshop, Ottawa, Canada, Nov. 2019.

- 6) Invited Talk
Octavia A. Dobre
 • **Intelligent tactical wireless networks**, CARIC Event at the Canadian Defense Security and Aerospace Exhibition Atlantic, Halifax, Canada, Oct. 2019.
- 7) Invited Talk
Octavia A. Dobre
 • **5G and beyond: When all technologies should work together for good.** University of Cantabria, Spain, July 2019.
- 8) Invited Talk
Octavian Postolache
 • **Wireless sensor network and serious games for physical therapy assessment.** Workshop, Al Farabi National University of Kazakhstan, Oct. 2019.
- 9) Keynote Speaker
Octavia A. Dobre
 • **Non-orthogonal multiple access for 5G and beyond wireless networks.**, IEEE 5th International Workshop on Non-Orthogonal Multiple Access Techniques for 5G, IEEE ICC, Shanghai, China, May 2019
- 10) Invited Talk
Octavia A. Dobre
 • **Blind signal identification for intelligent radios: Classical approaches and new trends.** Northwestern Polytechnical University, Xi'an, China, May 2019.
- 11) Invited Talk
Octavian Postolache
 • **Smart sensing and tailored environments for physical therapy.** Seminar, University of Auckland, New Zealand, May 2019.
- 12) Invited Talk
 Octavian Postolache
 • **Unobtrusive Smart Sensing and Pervasive Computing for HealthCare Cardio-Respiratory and Physical Therapy Assessment.** DL Seminar, "Politehnica" University of Bucharest, Romania, Mar. 2019.
- 13) Invited Talk
 Octavian Postolache
 • **Smart Sensing and Applications in IoT Era, Invited Talk, Workshop,** Guilin University, China, January 2020.
- 14) Invited Talk
 Octavian Postolache
 • **Smart sensing and tailored environments for physical therapy.** Webinar, Trinity College Dublin, August 2020
- 15) Invited Talk
 Octavia A. Dobre
 • **From cognition to intelligence in communications networks,** Plenary Talk, IEEE CCECE, Canada Aug. 2020.
- 16) Plenary Talk
 Octavia A. Dobre
 • **From cognition to intelligence in communications networks** IEEE ComSoc Technical Committee on Cognitive Networks, Aug. 2020.

	<p>17) Invited Talk Octavia A. Dobre Toward intelligent communications networks, IEEE Newfoundland and Labrador section, Aug. 2020.</p>	
<p>Participation in Society sponsored conferences (event name and date, type of involvement - e.g. planning, organization and sponsorship of conference sessions)</p>	<p>Symposium, ISSI 2019 Lisbon, International Symposium on Sensing and Instrumentation in IoT Era, August 29-30, 2019 Conference sponsored by IEEE IMS and supported by TC-13 and TC-37 of IEEE IMS. 1st SmartLife Workshop, Lisbon, September 2020 Sponsored , IEEE IMS Portugal Chapter The next edition will be ISSI 2020, on November 18-20, 2020, Shenzhen, China. Workshop, IEEE IMS PT chapter and IEEE IMS TC-13 organized the 1st Workshop “Technologies for Everyday Life”, ISCTE-IUL Lisbon Portugal, May 13, 2019. Workshop IEEE IMS PT Chapter and TC-13 “1st Workshop Instrumentation and Measurement in Everyday Life” was held at Instituto Superior Técnico, Lisbon, Portugal.</p>	
<p>Involvement in standards development (standard/ /type of involvement)</p>	<p>Telex Ngatched has represented our society in the IEEE 5G Initiative (standards). IEEE 21451.5 initiative, Kang Lee, NIST, collaboration</p>	
<p>Involvement in reviewing papers (number/ type of review, e.g. publication in the Transactions or presented at a Society-sponsored conference)</p>	<p>Most of the TC members are TPC members and reviewers for the IEEE I2MTC papers, as well as reviewers of the IEEE TIM papers. Conferences ICST 2019, Sydney, Australia, more than 10 papers I2MTC 2019, Auckland, NZ, 5 papers Octavia A. Dobre: Editor-in-Chief of the IEEE Open Journal of Communications Society (IEEE Communications Society)</p>	
<p>Recommended candidates for both Society and Institute awards (names, type of award)</p>	<p>IEEE IMS Faculty Course Development Award, 2020</p>	
<p>Participation in the development of Society Educational Programs (number; type of involvement: e.g. distinguished speakers, joint meetings with chapters and sections in whose region Committee meetings occur)</p>	<p>Octavian Postolache is active in the IEEE IMS DLP</p>	

Recommended candidates for the AdCom (number, name)	<p>Octavian Postolache, IEEE member #41278977</p> <p>Octavia A. Dobre, IEEE member #80249536</p>
Recommended candidates for Fellow (name)	<p>Members of the TC submitted applications and were endorsed, but the TC did not explicitly recommend any fellow.</p> <p>On the other hand, our member Octavia A. Dobre, was elevated to IEEE Fellow in 2020. The nomination went through the IEEE Communications Society. However, Octavia is an active member of the IEEE IMS, as well. She was the only IEEE IMS member elevated to the rank of Fellow in the 2020 class.</p>
Sponsored focused Workshops (name, date, co-sponsorship?)	
TC operating Plan: near-term plans for the upcoming year, including scheduled meetings, activities, and so on (max. 1000 char. Including spaces)	<p>The TC plans to prepare a workshop as part of IEEE IMS Conference or to organize a mini-symposium.</p> <p>Participation with Special Session organization at MeMeA 2018 and I2MTC 2018.</p> <p>Increase the number of TC-13 events organized by regional IEEE IMS members and TC-13 members.</p> <p>In 2018, TC-13 in collaboration with TC-37 promoted the first edition of ISSI.</p> <p>Promoting the IEEE TC-13 members by allocating an IEEE TC-13 award for the best organized event during the year.</p>
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)	<p>TC-13 is involved in the IEEE Future Networks initiative (previous IEEE 5G Initiative), with Octavia A. Dobre, Octavian Postolache and Telex Ngatched being active members</p> <p>Octavia A. Dobre has participated in meetings, e.g., at Globecom 2019, also making presentations e.g., at Globecom 2019.</p> <p>Additionally, Telex Ngatched from Memorial University is serving as a member of the Standard Committee in this Initiative. The involvement of the TC-13 in the IEEE Future Networks Initiative will continue.</p> <p>The TC-13 focus will be on the emerging IoT, particularly on the industrial IoT (IIoT), as well as on its connection with beyond 5G networks as strategic areas. It is intended to develop new research directions regarding IIoT and AI associated with telecommunications and measurement.</p> <p>In the epoch of IoT and future Internet-of-everything (IoE), the development of new standards becomes an important objective of TC-13. This work is planned to involve members of the IEEE Instrumentation and Measurement Society (IMS) but also those active in other IEEE societies. Taking into account the specific of the standardization for telecommunications, special attention is granted to the collaboration between IMS and the IEEE Communication Society. TC-13 aims for the development of future standards that bridge the measurement and instrumentation with telecommunications, and fit well with the trends on low-pollution through low-power consumption, thus promoting the class of “green standards.”</p>
TC convergence, synergy, cooperation with other TC, from I&M or other societies (max. 1000 char. Including spaces)	<p>Strengthen the relations with our societies under the IEEE Future Networks initiatives.</p> <p>Fruitful collaborations with the IEEE Communications Society and under IMS with TC-37.</p>