IEEE

INSTRUMENTATION & MEASUREMENT SOCIETY NEWSLETTER

July 2016

In this issue

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About the IEEE Instrumentation & Measurement Society Newsletter

Engineers today start their careers with excellent technical skills and subject matter expertise. The IEEE Instrumentation & Measurement (I&M;) Newsletter includes time sensitive news useful to its members and highlights content of the current issue of *IEEE Instrumentation & Measurement Magazine*.

Benefits of I&M; Membership

Our mission statement says, " The Instrumentation & Measurement Society Administrative Committee strives to provide the most comprehensive and high-quality services to our members and related professionals." The I&M; Society has a wide range of activities and benefits to offer our members. These are detailed on our website highlighting the available services and products.

There also are many opportunities for our members to become involved in volunteer leadership positions that help promote the instrumentation and measurement profession. We invite you to become involved today!

Message Regarding IEEE Constitutional Amendment

The IEEE Board of Directors approved, at its November 2015 meeting, the presentation to the IEEE membership of proposed revisions to the IEEE Constitution. The proposed revisions have the following stated objective, "Create a nimble, flexible, forward-looking organization," and they will be part of the upcoming 2016 IEEE election ballot, which opens 15 August and closes 3 October.

We encourage all of our members to be informed about this proposed amendment, decide for yourself what your position is with regard to the proposed changes, and then

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If you have not yet joined any of these groups, please consider doing so.

IEEE Instrumentation & Measurement Magazine

The latest issue of *IEEE Instrumentation & Measurement Magazine* is in the mail and is retrievable now from IEEE *Xplore*, the IEEE online digital library.

All *IEEE Instrumentation & Measurement Magazine* subscribers can access the online edition using their IEEE Account.

Image of June 2016 IEEE I&M Magazine

Feature articles in this issue include:

- "Women in burkina faso: producing handcrafted shea butter with metrological traces [Legal Metrology]"
- "Instrumentation and measurement for power systems in european projects"
- "Active microwave thermography - a new twist on microwave NDT [In Microwave Women Research]"
- "Uncertainty evaluation for raman shift measurement of fullerene by least square method [In Metrology Women Research]"
- "The coordinated universal time"
- "MIMO OTA test for a mobile station performance evaluation"

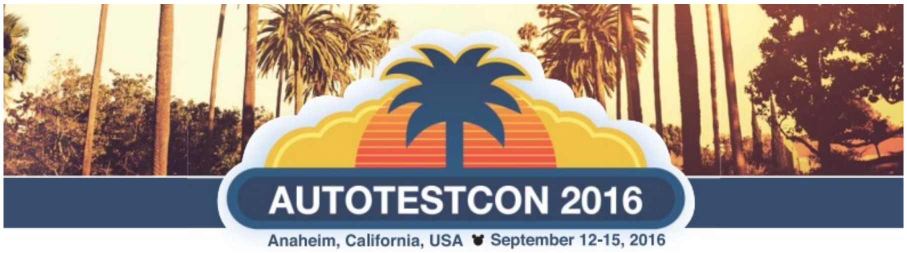
New I&M; Chapter

We would like to welcome two new Chapters joining us in 2016:

exercise your right to vote once the election period is open. Visit our website for more information.

I&M Conference Calendar

We hold numerous workshops throughout the year. Please refer to the I&M; Conference website for a full listing. For more information on any of the conferences, please contact Mark Yeary, VP of Conferences for the I&M; Society.



AUTOTESTCON 2016 will be held in Anaheim, California 12-15 September 2016. AUTOTESTCON is the world's premier conference that brings together the military/aerospace automatic test industry and government/military acquirers and users to share new technologies, discuss innovative applications, and exhibit products and services. It is sponsored annually by IEEE.

Nominations are being accepted for the McGinnis Award, for more information and to nominate please visit the website.

2016 International IEEE Symposium on Precision Clock Synchronization for Measurement, Control and Communication (ISPCS) will be held 4-9 September 2016 in Stockholm, Sweden. As the most influential organization focusing on technologies of precision clock synchronization, ISPCS has chosen Sweden as its next stop because of the fast growing IEEE 1588 (also known as PTP) technologies and applications in particular in the mobile industry. The hosting of ISPCS in Stockholm will help attract more attendees from Europe and provide a good opportunity for full communication of PTP technologies and deployment experience from all over the world.

The ISPCS consists of a Plugfest and a symposium. It provides an outstanding opportunity for attendees to hear about the latest topics, learn about state-of-the-art advancements, and see current solutions in the area of precise clock synchronization. For more information, please visit the ISPCS website.

IEEE International Workshop on Applied Measurements for Power Systems (AMPS) 2016 is held in Aachen, Germany, 28-30 September 2016. AMPS deals with all the aspects related to measurement applications in current power systems and in future Smart Grids. The main goal of AMPS 2016 is to encourage discussion on these topics among

IEEE Portugal Section
Instrumentation and Measurement Society Chapter

Panimalar Institute of Technology
Instrumentation and Measurement Society Student Branch Chapter

I&M; Distinguished Lecturer

Professor Wuqiang Yang delivered a talk during his visit in Kolkata, India 9-12 January 2016. Visit our website to view his report.

2016 I&M; Society Fellow Recognition

Mark Yeary
University of Oklahoma, USA

"for contributions to radar systems for technology"

IEEE Senior Membership

IEEE Senior Membership is the highest grade for which application may be made and requires experience reflecting professional maturity. Candidates need to be an engineer, scientist, educator, technical executive, or originator in IEEE-designated fields in professional practice for at least ten years and shall have shown significant performance over a period of at least five of those years.

An application for Senior Membership requires three references unless nominated by a Senior member, and in that case requires two references.

The following members have been elevated in 2016: Salmiah Ahmad, Sergio Angelo Cruz, Zdenek Bradac, Ana de Almeida, Gordon Deans, Axel Junge, Takehiro Morioka, Amauri Oliveira, Miguel Perez, Briane Ritchie, Norlida Buniyamin, Vittorio Ferrari, Magnus Karlsson, Darren Woodhouse, Seyedreza

experts coming from academia, industry, and utility services.

In conjunction, a full day National Instruments User Workshop will be held on 27 September, in the same location of AMPS. Please visit the AMPS website for further information.

I^2MTC 2017 IEEE International Instrumentation and Measurement Technology Conference
May 22-25, 2017 | Politecnico di Torino | Torino, Italy

2017 IEEE International Instrumentation and Measurement Technology Conference (I^2MTC) will be held in Torino, Italy, 22-25 May 2017. The conference will be held on the Politecnico di Torino campus, with Marco Parvis and Sabrina Grassini serving as the Conference General Co-Chairs. Detailed information about I^2MTC 2017 will be posted soon on the I^2MTC website.

I^2MTC 2020 Bidding Process

Letters of Intent (LoI) for I^2MTC 2020 will open 1 October 2016 and will be accepted until 31 December 2016. Those selected to submit formal bids will be contacted and will have until 1 March 2017 to submit a full bid package. For more information, please see the I^2MTC Bid Package and the Letters of Intent Information.

I&M; Technically Sponsored Conferences

2016 International Conference on Indoor Positioning and Indoor Navigation

The Seventh International Conference on Indoor Positioning and Indoor Navigation (IPIN) will be held in Alcalá de Henares, Madrid, Spain, 4-7 October 2016.

Have a conference you'd like advertised in the I&M; Society Newsletter? Contact Lauren Stockman for details on how to have it included.

IEEE Joseph F. Keithley Award in Instrumentation and Measurement

The IEEE Joseph F. Keithley Award in Instrumentation & Measurement is presented for outstanding contributions in electrical measurements. It was established in 2001 and was presented for the first time in 2004. It is awarded by the IEEE. Sponsored by Keithley Instruments, Incorporated.

The 2017 recipient of the IEEE Joseph F. Keithley Award is Jerome John Blair, Chief Scientist, Keystone International

Abdollahi, Dan Apetrei, Kurt Barbe, Jean-Michel Le Floch, Thomas Simacek, Anthony William Sloman, Anthony Suto, Dr. Ramachandraiah Uppu, Saravanan Veerappan, Donald Hughes, Juliana Johari, Mahanijah Md Kamal

Jerry Blair

"for contributions to test procedures for analog-to-digital and digital-to-analog converters and to enhanced-accuracy gamma-ray spectrometry."

2017 IEEE Joseph F. Keithley in Instrumentation and Measurement Award - Call for Nominations

Nominations are currently being solicited for the 2018 IEEE Joseph F. Keithley in Instrumentation and Measurement Award. The nomination deadline is 31 January 2017. Visit our website for more information.

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Call for I&M Award Nominations

Award Nominations due by 1 August 2016:
J. Barry Oakes Award
Details | Nomination Form
Outstanding Young Engineer Award
Details | Nomination Form
Distinguished Service Award
Details| Nomination Form
Technical Award
Details | Nomination Form
Career Excellence Award
Details | Nomination Form

Award Nominations due by 1 October 2016:

Best Application in Instrumentation & Measurement
Details | Nomination Form

Award Nominations due by 1 February 2017:

Graduate Fellowship Award
Details | Nomination Form
Faculty Course Development Award
Details | Nomination Form

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I&M Chapter Award Nomination Deadlines Extended

The deadlines for the IEEE IMS Outstanding Chapter Award and the IEEE IMS Best Student Chapter Award have been extended until 31 July 2016. The Chapter Chairs and Advisors are still in time to submit an application.

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2016 Education Award Winners

Congratulations to the following 2016 Faculty Course Development Award Winners:

David Macii, University of Trento, Italy
Course Title: Industrial Electronics and Instrumentation

Simona Salicone, Politecnico di Milano, Italy
Course Title: Measurement Architectures for Electric Systems

Congratulations to the following 2016 Graduate Student Fellowship Award Winners:

Paritosh Giri
Project Title: Microwave imaging system with integrated laser technique for nondestructive testing of non-plain concrete and metal structures
Faculty Advisor: Sergey Kharkovsky

Yuan Gao
Project Title: Millimeter Wave Diagnosis of Burned Skin
Faculty Advisor: Reza Zoughi

Shuai Zhang
Project Title: Characterization of Pneumatically Conveyed Pulverized Fuel in Square-shaped Pipes Using Electrostatic Sensor Arrays
Faculty Advisor: Yong Yan

Congratulations to the following I^{2}MTC 2016 Student Travel Award Winners:

Shuai Zhang, North China Electric Power University, China
Yuedong Xie, University of Manchester, UK
Pengbo Zhang, Tsinghua University, China
Xinxin Wu, University of Electronic Science & Technology of China
Xiaojing Bai, North China Electric Power University, China
Bernhard Radler, Montanuniversität Leoben, Austria
Nasrin Afsarimanesh, Massey University, New Zealand
Sarbajit Paul, Donga University, South Korea

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IBM Watson AI XPRIZE Competition

XPRIZE and IBM today announced that registration is open and guidelines are available for the US$5 million IBM Watson AI XPRIZE, a four-year global competition challenging teams to develop and demonstrate how humans can collaborate with powerful artificial intelligence (AI) technologies to tackle some of the world's biggest challenges in areas such as healthcare, education, energy and environment, global development and exploration.

This competition marks a first for XPRIZE: It is an open competition, meaning that teams will define their own goals and create AI applications that address them, allowing for myriad approaches to solving myriad problems. XPRIZE and IBM hope that the open competition format will bring forth the most compelling and powerful ideas in AI, and by challenging teams to go head-to-head, the greatest AI breakthroughs will surface.

For more information, please visit our website.

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Spotlight on the Benefits of Technical Co-Sponsorship

I&M; offers two types of sponsorship: Technical and Financial. In this issue, we would like to briefly focus on technical co-sponsorship. The main benefit of technical co-sponsorship is the knowledge that IMS members share about the field of instrumentation and measurement. Other benefits are:

- Be included in the IEEE Conference Search tool.
- Be encouraged and supported to participate in the IEEE Conference Publications Program (CPP): the primary objective of the CPP is to include the Conference papers in IEEE *Xplore* for the widest dissemination within the technical community.
- Be included in the IMS website.
- Use IMS and IEEE logos to attract qualified attendees.
- Be listed in the IEEE IMS Magazine pages.

Other benefits can be specified in the conference Memorandum of Understanding (MoU). Technical co-sponsorship requires direct and substantial involvement by the IMS in the organization of the conference technical program. Technically co-sponsored Conferences must include IMS members in the technical committees in order to contribute in managing the Call for Papers, the technical program and the review process. In addition, the IEEE IMS logo must be included in all event publications and announcements. In summary, these requirements help to boost the collaboration between the IMS and the primary participants of the conference so that the benefits listed above are maximized.

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Technical Committee News

I&M; has 19 different Technical Committees (TC). Our TCs define and implement the technical directions of the Society. As a fundamental element of the Society all members are invited - and encouraged - to participate in one or more of its technical committees. Please contact Ruqiang Yan, VP Technical and Standards Activities, at ruqiang@seu.edu.cn or any member of the Technical and Standards Activities Committee, if you are interested in membership in one or more of our TCs. To view the complete list of TCs, visit our website.

IMS Welcomes New Technical Committees:

TC-40 Secure and Dependable Measurement
TC-41 Traffic Enforcement Technologies

Summary from the I&M;/TC39 and IEC/TC38 Meeting in Cagliary, Italy

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New Initiative: Recognition of Technical Achievements and Innovations - Announcement of Issued Patents

As seen in the June 2016 issue of *IEEE Instrumentation & Measurement Magazine*, we are finalizing our plans for recognizing I&M; Society member technical achievements and innovations that have resulted in issued patents. Our goal is to showcase this achievement on our website. Soon we will announce the details of the process and information needed from each inventor for this purpose. Please stay tuned. If you have any questions, please contact Reza Zoughi at zoughi@mst.edu for more information.

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IEEE Transactions on Instrumentation and Measurement Metrics

Thomson Reuters has recently released the 2015 metrics for journals. These metrics are extremely important, because they can be seen, globally, as an indicator of the overall quality of the journal. The *IEEE Transactions on Instrumentation and Measurement*, edited by the Instrumentation and Measurement Society, has once again improved on almost all factors, becoming one of the most qualified journals in the field of Instrumentation and Measurement.

The 2015 factors are here reported:
Citable items: 7,991
Impact Factor: 1.808
Impact Factor without self-citations: 1.237
5-year Impact Factor: 1.875
Immediacy Index: 0.303
Citable items: 380
Cited Half-life: 6.7
EF score: 0.01534
Article Influence: 0.546

We are confident that, thanks to the hard work of the Editorial Board, the reviewers and staff, next year the metrics will be even better!

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Attention Book Authors

Advertise your book on the I&M; website! The Instrumentation & Measurement Society provides a list of book titles written by I&M authors on the I&M; website. The Society believes that books are an excellent avenue to disseminate the most advanced state-of-the art within and outside of the community and that the website will help to spread the good news about the hard work of the authors. The guidance governs which titles will be displayed. We look forward to your contributions! Visit our website for terms and guidelines.

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I&M Germany Chapter News

2nd IEEE Nanotechnology for Instrumentation and Measurement Workshop (NANOfIM 2016)

The 2nd IEEE Nanotechnology for Instrumentation and Measurement Workshop will take place 8-9 September 2016.

The workshop is organized by the Technical Committee Nanotechnology in

Instrumentation and Measurement (TC34) of the IEEE Instrumentation and Measurement Society (IEEE I&M;) and supported by the IEEE Nanotechnology Council (IEEE NANO). Its focus is on instrumentation and nanotechnology and includes very interesting topics around this field.

The keynote speakers are:

- Prof. Lukas Eng, TU Dresden
- Prof. Christofer Hierold, ETH Zurich
- Prof. Thomas Seyller, Technische Universität Chemnitz
- Prof. Bernhard Roling, Philipps-Universität Marburg

Further information is available on the website.

International Workshop on Impedance Spectroscopy (IWIS)

The International Workshop on Impedance Spectroscopy (IWIS) is a forum for specialists to exchange about methods and applications of IS on international level. It is organized by the IEEE IM Chapter in Chemnitz, Germany and will be held 26-28 September 2016.

All papers will be peer reviewed on the basis of the submitted abstracts and acceptance will be based on quality, originality and relevance. The Circle of Experts in Impedance Spectroscopy (CEIS) will provide a "Best Paper Award" and a "Best Poster Award" for outstanding contributions. Participants will have the opportunity to publish a paper in a peer reviewed book by De Gruyter within the series Advances in Impedance Spectroscopy (AIS).

The keynote speakers are:

- Prof. Nicole Jaffrezic-Renault, Institut des Sciences analytiques UMR, CNRS, France
- Prof. Ramon Bragós, Universitat Politècnica de Catalunya, Enginyeria Electrònica, Barcelona, Spain
- Dr. Francisco Fabregat-Santiago, Universitat Jaume I, Castelló de la Plana, Spain
- Prof. Dr.-Ing. Ulrike Krewer, TU Braunschweig
- Prof. Dr. Ashok Kumbharkhane, Marathwada University, India

For more information, please visit their website.

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I&M; 2016 Officers

View the full list of 2016 I&M; Officers.

View the full list of I&M; AdCom members.

View the full list of additional AdCom appointments.

The 2016 Spring AdCom meeting took place in Taipei, Taiwan in conjunction with I2MTC 2016. View the full meeting report.

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