

IEEE Sensors Council

Issue Number 16 January 2013

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M. Nurul Abedin, Newsletter Editor-In-Chief
John Vig, Web Editor Editor-In-Chief

IEEE Sensors Council Newsletter-Editors' Corner



M. Nurul Abedin



John Vig

Dear Colleagues:

We (M. Nurul Abedin and John Vig, Newsletter: Editor-In-Chief and Web Editor: Editor-In-Chief, of IEEE Sensors Council Newsletter) are cordially inviting you to contribute a brief technical summary of your specialties for sequence of Newsletter issues.

This newsletter publication is involved in the field of sensor development and its application, information about upcoming, present, and past IEEE sensor conferences, funding agencies, sensor tutorials, and recently published- books, patents, special papers on sensors, and so on. This newsletter is circulated to all sensor council members, AEs, and also sensor professionals twice a year. The deadlines of the two issues are January 31st and July 31st, respectively and these are published through WEB-based for the Advancement of Sensors research and their activities in the above-mentioned areas.

In the newsletter, we use short technical write-ups, which are great assets, convenience, and satisfaction to the sensor communities. Please provide one page write-up with one figure (in word format) before one month of its publication. The actual three-to-four short articles of your specialties are used in the newsletter per issue. We send you a complimentary copy of the newsletter issue in which the article appears.

Thank you for your generous contribution.

Sincerely yours,

M. Nurul Abedin and John Vig.

IEEE Sensors Council Recent Present - Past Officials

Presidents:



(2012 – 2013)

VLADIMIR LUMELSKY



(2013 – 2014)

H. TROY NAGLE (Elect)



(2011-2012)

CHRISTINA M. SCHOBER



(2010 – 2011)

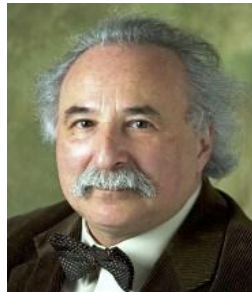
MONA E. ZAGHLOUL

IEEE Sensors Journal Editors-In-Chief:



(2012 - 2015)

KRIKOR OZANYAN



(2009 - 2012)

EVGENY KATZ



(2003 - 2009)

H. TROY NAGLE



FOUNDING EIC

VLADIMIR LUMELSKY

Sensors Council News

- **IEEE Sensors Council Annual Four Different Category Awards:**
 - **Early Career GOLD Award,**
 - **Technical Achievement Award,**
 - **Meritorious Service Award, and**
 - **IEEE Sensors Council Journal Best Paper Award.**

Nominations are due June 15th, 2013.

IEEE Awards Program

- **The 2014 IEEE Medals and Recognitions, Call for nominations are due 1 July 2013, to the IEEE Sensors Council.**

For nomination guidelines and forms, visit <http://www.ieee.org/awards>. Questions? Contact IEEE Awards Activities, 445 Hoes Lane, Piscataway, NJ 08854 USA; tel.: +1 732 562 3844; fax: +1 732 981 9019; e-mail: awards@ieee.org

IEEE Sensors Council Upcoming AdCom Meeting Announcement

- **The IEEE Sensors Council AdCom meeting will be held in Baltimore, MD, USA on November 2-3, 2013 in association with the IEEE SENSORS Conference. The meeting will be held at the Renaissance Baltimore Harbor place Hotel.**

IEEE Sensors Council Positions Opening

Call for Nominations – IEEE Sensors Council 2013 Elections

Nominations are being accepted for the following positions:

- President Elect
- Vice-President for Conferences (2 year term, renewable once)
- Vice-President for Technical Activities (2 year term, renewable once)
- Member-at-Large (2 year term)

The deadline for nominations is September 5, 2013.

For more information please see the [Call for Nominations](#).

2012 Sensors Council Award Winners

- **Technical Achievement Award: Wen H. Ko**
- **Meritorious Service Award: Lina Sarro**
- **Gold Early Career Award: Sinéad O’Keeffe**
- **2012 Best Sensors Journal Paper Award: Youfu Li and Shengyong Chen**
- **2012 Sensors Conference Best Paper Award: Vinayak Pachkawade.**

For paper entitled: A Fully-Differential CMOS-MEMS Resonator Integrated with an On-Chip Amplifier

- **2012 Sensors Conference Best Paper 1st Runner-Up Award: Ryo Shigeta.**

For paper entitled: Ambient-RF-Energy-Harvesting Sensor Node with Capacitor-Leakage-Aware Duty Cycle Control

- **2012 Sensors Conference Best Paper 2nd Runner-Up (Tie) Award: Dominik Moser.**

For paper entitled: Fabrication of Microfluidic Neural Probes with In-Channel Electrodes

- **2012 Sensors Conference Best Paper 2nd Runner-Up (Tie) Award: Yingying Tang.**

For paper entitled: An Ultra-low Noise Switched Capacitor Transimpedance Amplifier for Parallel Scanning Tunneling Microscopy

2011 Sensors Council Award Winners

- **Technical Achievement Award: Thomas W. Kenny**
- **Meritorious Service Award: Thomas F. Wiener**
- **Gold Early Career Award: Bhaskar Choubey**
- **Best Paper Award: Chuji Wang, Armstrong Mbi, and Mark Shepherd.**

For paper “A Study on Breath Acetone in Diabetic Patients Using a Cavity Ringdown Breath Analyzer: Exploring Correlations of Breath Acetone With Blood Glucose and Glycohemoglobin A1C”, IEEE Sensors Journal, Vol. 10, No. 1, Jan. 2010.

- **Best Paper Runner-Up Award: Anuj Dhawan, Yan Du, Fei Ya, Michael D. Gerhold, Veena Misra, and Tuan Vo-Dinh.**

For paper “Methodologies for Developing Surface-Enhanced Raman Scattering (SERS) Substrates for Detection of Chemical and Biological Molecules”, IEEE Sensors Journal, Vol. 10, No. 3, March 2010.

2012 Sensors Conference Moments

IEEE Sensors 2012 Taipei, Taiwan, Oct 28-31, 2012.



From left to right: John Vig, Anil Roy, Atin Jain and Tom Wiener

“Each day, Anil Roy and his student, Atin Jain, captured the day’s presentations, processed them that night, and, by the next morning, the presentations were ready for downloading by conference attendees. Anil and Atin did a fantastic job!” John Vig.

Anil Kumar Roy was selected as a 2012 recipient of the **MGA Leadership Award (IEEE Gujarat Section)** for distinguished leadership and making outstanding contributions as a volunteer serving IEEE for the benefit of its members and the engineering profession.

Sensors Council moments at the 2012 Conference:



Front row (left to right): Fabrice Labeau, Reichl Haskell, John Vig, Mike McShane, Mike Shields, Krikor Ozanyan, George Brasseur

Back row (left to right): Walt Besio, Paul C.P. Chao, Judy Scharmann, Troy Nagle, Chris Schober, Tom Wiener, Greg Stone, Pamela Abshire, Thilo Sauter, Zeynep Celik-Butler, Vladimir Lumelsky, David Horsley, Elfed Lewis, Jin Zhang, Hsiao-Wen Zan, Kiseon Kim, Cecilia Laschi.

(Not photographed: Anil Roy, Andrei Shkel, Lorenzo Lo Monte, Chris Dyer)

Sensor Conferences

- [IEEE SENSORS 2009: The 8th IEEE Conference on Sensors, Christchurch, New Zealand: Oct. 25th - 28th, 2009.](#)
- [IEEE SENSORS 2010: The 9th IEEE Conference on Sensors, Waikoloa, Hawaii: Nov. 1 – 4, 2010.](#)
- [IEEE SENSORS 2011: - The 10th IEEE Conference on Sensors, Limerick, Ireland: Oct. 28-31, 2011.](#)
- [IEEE SENSORS 2012: The 11th IEEE Conference on Sensors, Taipei International Convention Center, Taipei, Taiwan, Oct 28-31, 2012 \(<http://www.ieee-sensors2012.org>\).](#)
- [IEEE SENSORS 2013: The 12th IEEE Conference on Sensors, Baltimore, MD, USA, Nov. 3-6, 2013 \(<http://www.ieee-sensors2013.org>\).](#)

Sensor Books (www.amazon.com)

1. One-Dimensional Nanostructures: Principles and Applications [Hardcover], [Tianyou Zhai](#) (Author), [Jiannian Yao](#) (Author), Publisher: Wiley; 1 edition (October 30, 2012).
2. Semiconductor Nanostructures for Optoelectronic Devices: Processing, Characterization and Applications (NanoScience and Technology) [Hardcover], [Gyu-Chul Yi](#) (Editor), Publisher: Springer; 2012 edition (January 16, 2012).
3. Semiconductor Research: Experimental Techniques (Springer Series in Materials Science) [Hardcover], [Amalia Patane](#) (Editor), [Naci Balkan](#) (Editor), Publisher: Springer; 2012 edition (April 12, 2012).
4. Noise in Semiconductor Devices: Modeling and Simulation (Springer Series in Advanced Microelectronics) [Paperback]. [Fabrizio Bonani](#) (Author), [Giovanni Ghione](#) (Author). Publisher: Springer; 2001 edition (July 31, 2012).
5. Semiconductor Devices: Physics and Technology [Hardcover], [Simon M. Sze](#) (Author), [Ming-Kwei Lee](#) (Author), Publisher: Wiley; 3 edition (May 15, 2012).
6. Semiconductors: From Book to Breadboard [Paperback], [Kevin McGowan](#) (Author), Publisher: Delmar Cengage Learning; 1 edition (August 17, 2011).
6. Terahertz Physics [Hardcover], [R. A. Lewis](#) (Author), Publisher: Cambridge University Press (October 31, 2012).
7. Physics and Applications of Terahertz Radiation (Springer Series in Optical Sciences) [Hardcover], [Matteo Perenzoni](#) (Editor), [Douglas J. Paul](#) (Editor), Publisher: Springer; 2012 edition (September 28, 2012).
8. Terahertz Imaging for Biomedical Applications: Pattern Recognition and Tomographic Reconstruction [Hardcover], [Xiaoxia Yin](#) (Author), [Brian W.-H. Ng](#) (Author), [Derek Abbott](#) (Author), Publisher: Springer; 2012 edition (March 23, 2012).
9. Acoustics: Sound Fields and Transducers [Hardcover], [Leo L. Beranek](#) (Author), [Tim Mellow](#) (Author), Publisher: Academic Press; 1 edition (August 15, 2012).

10. One-Dimensional Nanostructures: Principles and Applications [Hardcover], [Tianyou Zhai](#) (Author), [Jiannian Yao](#) (Author), Publisher: Wiley; 1 edition (October 30, 2012).
11. Highly sensitive fiber Bragg grating biosensors. [Paperback], [Christopher J Stanford](#) (Author), Publisher: ProQuest, UMI Dissertation Publishing (May 4, 2012).
12. Low coherence interferometry: Applications to component metrology and high spatial resolution fiber Bragg grating sensors. [Paperback], [Robert Joseph Espejo](#) (Author), Publisher: ProQuest, UMI Dissertation Publishing (May 25, 2012).
13. Apodized Fiber Bragg Grating Strain Sensor: Investigation of performance Analysis of various apodization profiles for unchirped FBG Strain sensor [Paperback], [Khurram Shahzad Khalid](#) (Author), [Muhammad Zafrullah](#) (Author), [Muhammad Aleem Mirza](#) (Author), Publisher: LAP LAMBERT Academic Publishing (March 20, 2012).
14. Micro Electro Mechanical Systems, Mems: Technology, Fabrication Processes and Applications (Nanotechnology Science and Technology) [Hardcover], [britt Ekwall](#) (Editor), [Mikkel Cronquist](#) (Editor), Nova Science Pub Inc (March 30, 2011).
15. Design and Manufacturing of Active Microsystems (Microtechnology and MEMS) [Hardcover], [Stephanus Büttgenbach](#) (Editor), [Arne Burisch](#) (Editor), [Jürgen Hesselbach](#) (Editor), Springer; 1st Edition (March 29, 2011).
16. Biomaterials for MEMS [Hardcover], [Mu Chiao](#) (Editor), [JC Chiao](#) (Editor), Pan Stanford Publishing (January 1, 2011)
17. Nanotechnology Standards (Nanostructure Science and Technology) [Hardcover], [Vladimir Murashov](#) (Editor), [John Howard](#) (Editor), Springer; 1st Edition (February 1, 2011).