

## Sensors Council News

- **IEEE SENSORS 2005 Irvine was a great success.** More details with photos will be posted here very soon.
- **[The Sensors Council Research Graduate Scholarship Awarded - Ready Again for '06](#)** The first Sensors Research Graduate Scholarship Award was presented to Zhiyong Fan, University of California Irvine, at the IEEE SENSORS 2005. Fan is studying toward a Ph.D degree in the area of nano-scale devices for sensing applications. Applications were filed from Asia, Europe and North America, making the selection process a challenging one for five reviewers. The scholarship award will be made again in 2006 – applications must be received by Tom Weller ([weller@eng.usf.edu](mailto:weller@eng.usf.edu) – electronic submission only) by August 1, 2006. Application form: [doc format](#), [pdf format](#)
- **The IEEE SENSORS 2005 Best Student Paper Award** Weisong Wang, Louisiana Tech University, was the first prize winner among [ten finalists](#) of the best student paper competition at the IEEE SENSORS 2005 . The title of the paper was "Auto-tunable microlens chip for sensing applications". The two second prizes went to Christine Eun, University of Michigan, and Bo Li, Carnegie Mellon University. The competition will be continued in 2006.
- **Special Recognition: Two Outstanding Individual Elected IEEE Fellow for the Year 2006 in Sensor Systems** [Prof. Asif Khan](#) from University of South Carolina has been elected IEEE Fellows for his pioneering contribution in ultraviolet detectors and emitters and [Dr. Usha Varshney](#) from National Science Foundation has been elected for exceptional technical leadership in Sensor Technologies and Systems. Dr. Varshney is also an Associate Editor of IEEE Sensors Journal.

## Executive Committee Members (2006-2007)



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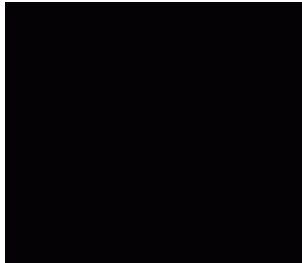


Yoonkee Kim  
Web Editor

## Sensor Technology

### [Ballistic Field Effect Transistors as Possible Detectors of Improvised Explosive Devices](#)

Michael Shur, ECSE, Broadband Center and Terahertz Center, Rensselaer Polytechnic Institute, Troy, NY, USA



The explosive detection is used for screening passengers in airports and, in certain cases, for screening their luggage....[\(more\)](#)

### [Sensor for Terahertz Research at Rensselaer](#)

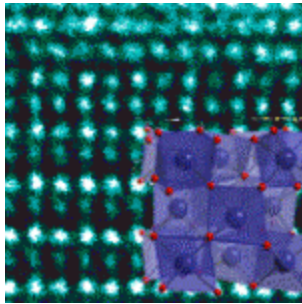
Xi-Cheng Zhang, School of Science, Rensselaer Polytechnic Institute, Troy, NY, USA



The recent developments in THz sensing and imaging technology at Rensselaer are pioneering new ways of seeing and understanding the world. It will soon be possible for us to see images of electrical fields, diseased tissues, the chemical compositions of plants and much more that is currently undetectable by any other existing imaging systems....[\(more\)](#)

## [Sensor Laboratory in Brescia University, Brescia, Italy](#)

Giorgio Sberveglieri, Brescia University, Italy



The activity of the Sensors lab extends from the investigation of basic sensing process to the development of industrial applications. A large variety of semiconducting metal oxides such as SnO<sub>2</sub>, In<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, and composite materials is developed for gas detection....[\(more\)](#)

## Sensor Conferences

- [IEEE SENSORS 2006](#): The 5th IEEE Conference on Sensors, Daegu, Korea, Oct. 22 - 25, 2006
- [Sensor Net / Networking / Ad Hoc Wireless / Systems / Security Conferences, Journals, and Deadlines](#)

## Books on Sensors

- Sensors and Transducers, Third Edition - by Ian Sinclair, Newnes, 2001.
- Quantum Dots (Selected Topics in Electronics and Systems, Vol. 25) - by E. Borovitskaya (Editor) and Michael Shur (Editor), World Scientific Publishing Company, 2002.
- Frontiers in Electronics: Future Chips Proceedings of the 2002 Workshop on Frontiers in Electronics (Wofe-02) st Croix, Virgin Islands, USA 6 - 11 January ... (Selected Topics in Electronics and Systems) - by Yoon-Soo Park (Editor), Michael Shur (Editor), and William Tang (Editor), World Scientific Publishing Company, 2003.
- Handbook of Modern Sensors: Physics, Designs, and Applications (Handbook of Modern Sensors) - by Jacob Fraden, Springer, 2003.
- Terahertz Sensing Technology: Electronic Devices and Advanced Systems Technology - by Dwight L. Woolard, William R. Loerop and Michael Shur, World Scientific Pub Co Inc, 2003.
- Sensor Technology Handbook - by Jon S Wilson, Newnes, 2004.
- Terahertz Optoelectronics - by Kiyomi Sakai (Editor), Springer, 2004.
- Terahertz Sensing Technology: Emerging Scientific Applications & Novel Device Concepts (Selected Topics in Electronics and Systems, Vol. 32) - by Dwight L. Woolard (Editor), William R. Loerop (Editor) and Michael Shur (Editor), World Scientific Publishing Company, 2004.
- Enabling Technologies for MEMS and Nanodevices (Advanced Micro and Nanosystems) - by Henry Baltes (Editor), Oliver Brand (Editor), Gary K. Fedder (Editor), Christofer Hierold (Editor), Jan G. Korvink (Editor) and Osamu Tabata (Editor), John Wiley & Sons, 2004.
- Terahertz And Gigajertz Electronics And Photonics - by R. Jennifer Hwu (Editor), Society of Photo Optical, 2005.
- Terahertz for Military And Security Applications 3 - by R. Jennifer Hwu (Editor), Society of Photo Optical, 2005.
- Micromachined Thin-Film Sensors for SOI-CMOS Co-Integration - by J. Laconte, D. Flandre, and J.-P. Raskin, Springer, 2005.
- Integrated Chemical Microsensor Systems in CMOS Technology (Microtechnology and MEMS) - by Andreas Hierlemann, Springer, 2005.
- Image Sensors And Signal Processing For Digital Still Camera - by Junichi Nakamura (Editor), Taylor & Francis Group, 2005.
- Wireless Sensor Networks - by Cauligi S. Raghavendra (Editor), Krishna M. Sivalingam (Editor), Taieb Znati (Editor), Springer, 2005.

- Biomimetic Sensor Technology - by Kiyoshi Toko, Cambridge University Press; New Ed edition, 2005.
- Encyclopedia of Sensors - by Craig A. Grimes, Elizabeth C. Dickey, Michael V. Pishko, and Michael V. Pishko, American Scientific Publishers, 2005.
- Frontiers in Chemical Sensors : Novel Principles and Techniques (Springer Series on Chemical Sensors and Biosensors) - by Guillermo Orellana (Editor), Maria Cruz Moreno-Bondi (Editor), Springer, 2005.
- Mems And Microstructures in Aerospacev Applications – by Robert Osiander (Editor), M. Ann Garrison Darrin (Editor), and John L. Champion (Editor), CRC Press, 2005.
- CMOS-MEMS: Advanced Micro and Nanosystems – by Henry Baltes (Editor), Oliver Brand (Editor), Gary K. Fedder (Editor), Christofer Hierold (Editor), Jan G. Korvink (Editor), and Osama Tabata (Editor), John Wiley & Sons, 2005.
- Smart Sensors and MEMS – by Sergey Y. Yurish (Editor), Maria T.S.R. Gomes (Editor), Springer, 2005.
- Smart Sensors, Actuators, And Mems II – by Carles Cane (Editor), Society of Photo Optical, 2005.