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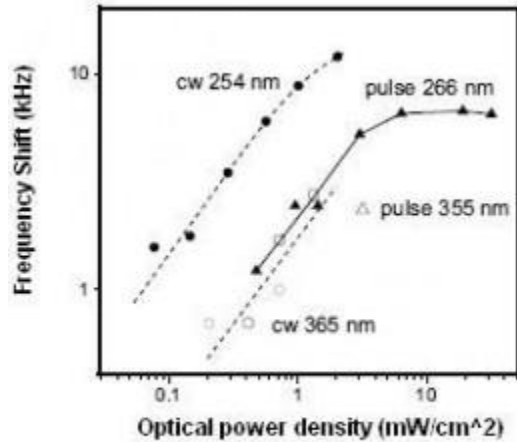
Sensors Council News

- [Call for Nominations for the SC Awards](#), Deadline August 15, 2008
Recently the Sensors Council established [SC Awards](#).
- Nomination form for Technical Achievement ([doc pdf](#))
- Nomination form for Meritorious Service Award (doc, pdf)
- Nomination form for IEEE Sensors Journal best published paper Award for year 2008 ([doc](#), [pdf](#))
- Nomination form for Presidents Award ([doc pdf](#))
- The 2007 awards were given during the Banquet of [the 2007 IEEE SENSORS Conference](#)
- [IEEE SENSORS 2007 Atlanta, Georgia.](#)

Call for Papers

- IEEE Transactions on Instrumentation and Measurement Special Issue on Biometric Instrumentation and Measurement
 - Submission period is February 15- March 1, 2009.
 - Questions should be directed to Dr. Fabio Scotti (fabio.scotti@unimi.it)
 - More information can be found in the original document ([doc pdf](#))
- IEEE Systems Journal -Special Issue on Biometrics Systems
 - Submission deadline is January 15, 2009.
 - Questions should be directed to Prof. Vincenzo Piuri (vincenzo.piuri@unimi.it)
 - More information can be found in the original document ([doc pdf](#))

Sensor Technology



[Wide Bandgap Semiconductor Surface Acoustic Wave UV Sensors](#)

Prof. Michael S. Shur, Prof. Daumantas Ciplys, and Mr. Venkata S. Chivukula

Surface acoustic wave (SAW) UV sensors based on wide bandgap semiconductors such as GaN and related III-V nitride semiconductors have been investigated for development of SAW visible-blind and solar-blind UV sensors. The RF output from nitride based SAW UV sensors allows for remote wireless operation, which is an important advantage over more conventional nitride UV sensors based on p-n junction, p-i-n, Schottky diode, and metal-semiconductor-metal (MSM). Our group was first to report GaN-based and AlGaN-based SAW oscillators for UV detection [1, 2]. We proposed using such oscillators for solar-blind [3] and visible-blind [4] remote UV sensor applications...[\(more\)](#)

[Prof. Gert Cauwenberghs](#)

Gert Cauwenberghs



Prof. Gert Cauwenberghs (GC) and his group of graduate students have performed research on the design, implementation, and experimental characterization of analog and digital VLSI microsystems for adaptive neural computation and sensory information processing, from neuromorphic systems engineering and kernel-based learning machines to micropower implantable neural interfaces, acoustic microarrays, adaptive optics and biometric identification. Examples of previous work by GC's group include a sub-microwatt analog signal processor for speaker verification [Chakrabarty et al, 2007], and a 300mW mixed-signal VLSI processor for a MEMS/VLSI integrated microphone that adaptively separates speech signals based on Independent Component Analysis [Celik et al, 2006]. ...[\(more\)](#)

[Prof. Ralph Etienne-Cummings Talks About His Research](#)

Prof. Ralph Etienne-Cummings



My research over the past 12 years has developed through three main phases. In the early part of my career, I studied biologically inspired sensors and sensory computation systems, primarily in the form of vision sensors. Typically, these systems were implemented with Very Large Scale Integrated (VLSI) technology and were used to extract information about the environment and to guide the “attention” of other computation systems. In the middle part of my career, I studied how these systems can be hosted onto robots. At that point I also started to model spinal neural circuits in silicon, and develop robots to study legged locomotion....[\(more\)](#)

[How to Become an IEEE Fellow](#)

Frank Romano

Do you know an IEEE colleague who has made outstanding contributions to the electrical and electronics engineering profession? If so, consider nominating him or her as an IEEE Fellow. The deadline for receipt of complete IEEE Fellow nominations for the Class of 2010 is 01 March 2009. At the time the nomination is submitted, a nominee must be an IEEE Senior Member whose membership is current and who has completed five years of service in any grade of membership. *Note: IEEE affiliate membership does not apply.* The nominee can come from any field, including academia, government and industry....[\(more\)](#)

Sensor Conferences

- [IEEE SENSORS 2007](#): The 6th IEEE Conference on Sensors, Atlanta, Georgia, Oct. 28 - 31, 2007
- [IEEE SENSORS 2008](#): The 7th IEEE Conference on Sensors, Lecce, Italy, Oct. 26 - 29, 2008
- [Sensor Net / Networking / Ad Hoc Wireless / Systems / Security Conferences, Journals, and Deadlines](#) by A. D. Wood, UVA

New Books on Sensors

- Chemical Sensors: An Introduction for Scientists and Engineers (Hardcover) by [Peter Gründler](#) (Author), Publisher: Springer; 1 edition (February 21, 2007).
- Terahertz Spectroscopy: Principles and Applications (Optical Science and Engineering

Series) (Hardcover) by [Susan L. Dexheimer](#) (Editor), **Publisher:** CRC (December 22, 2007).

-Terahertz Science And Technology For Military And Security Applications (Selected Topics in Electronics and Systems) (Selected Topics in Electronics and Systems) (Hardcover) by [Dwight L. Woolard](#) (Editor), [James O. Jensen](#) (Editor), [R. Jennifer Hwu](#) (Editor), [Michael S. Shur](#) (Editor), **Publisher:** World Scientific Publishing Company (September 27, 2007).

-Terahertz Sensing Technology: Emerging Scientific Applications & Novel Device Concepts (Selected Topics in Electronics and Systems, Vol. 32) (Hardcover) by [Dwight L. Woolard](#) (Editor), [William R. Loerop](#) (Editor), [Michael Shur](#) (Editor), **Publisher:** World Scientific Publishing Company (June 2004).

-Terahertz Frequency Detection and Identification of Materials and Objects (NATO Science for Peace and Security Series B: Physics and Biophysics) (Paperback) by [R.E. Miles](#) (Editor), [X.-C. Zhang](#) (Editor), [H. Eisele](#) (Editor), [A. Krotkus](#) (Editor), **Publisher:** Springer; 1 edition (September 20, 2007).

-Transducers and Arrays for Underwater Sound (Underwater Acoustics) (Underwater Acoustics) (Hardcover) by [Charles H. Sherman](#) (Author), [John L. Butler](#) (Author), **Publisher:** Springer; 1st ed. 2007. Corr. 2nd printing edition (February 15, 2007).

-.Piezoelectric Transducers and Applications (Hardcover) by [Antonio Arnau](#) (Editor), [Antonio Arnau Vives](#) (Author), **Publisher:** Springer; 1 edition (May 25, 2007).

-High-Operating-Temperature Infrared Photodetectors (SPIE Press Monograph Vol. PM169) (Press Monograph) (Paperback) by [Jozef Piotrowski](#) (Author), [Antoni Rogalski](#) (Author), **Publisher:** SPIE Publications (March 28, 2007).

-Detection of Low-Level Optical Signals: Photodetectors, Focal Plane Arrays and Systems (Solid-State Science and Technology Library) (Hardcover) by [M.A. Trishenkov](#) (Author), **Publisher:** Springer; 1 edition (August 15, 1997).

-Mid-infrared Semiconductor Optoelectronics (Springer Series in Optical Sciences) (Hardcover) by [Anthony Krier](#) (Editor), **Publisher:** Springer; 1 edition (May 23, 2006).

-Physics of Semiconductor Devices (Hardcover) by [Simon M. Sze](#) (Author), [Kwok K. Ng](#) (Author), **Publisher:** Wiley-Interscience; 3 edition (October 27, 2006).

-Fabless Semiconductor Implementation (Hardcover) by [Rakesh Kumar](#) (Author), **Publisher:** McGraw-Hill Professional; 1 edition (March 26, 2008).

-The Materials Science of Semiconductors (Kindle Edition) by [Angus Rockett](#), **Publisher:** Springer; 1 edition (November 30, 2007).

-Quantum Kinetics in Transport and Optics of Semiconductors (Springer Series in Solid-State Sciences) (Springer Series in Solid-State Sciences) (Hardcover) by [Hartmut Haug](#) (Author), [Antti-Pekka Jauho](#) (Author), **Publisher:** Springer; 2nd rev. ed. edition (December 12, 2007).

-Fiber Optic Sensors, Second Edition (Optical Science and Engineering Series) (Hardcover) by [Shizhuo Yin](#) (Editor), [Paul B. Ruffin](#) (Editor), [Francis T.S. Yu](#) (Editor), **Publisher:** CRC; 2 edition (March 27, 2008).

-Analysis of Biological Networks (Kindle Edition) by [Björn H. Junker](#), **Publisher:** Wiley-Interscience (March 31, 2008).

-MEMS: A Practical Guide to Design, Analysis, and Applications (Hardcover) by [Jan G. Korvink](#) (Editor), [Oliver Paul](#) (Editor), **Publisher:** William Andrew Publishing (November 14, 2005).

-Foundations of MEMS (Illinois Ece Series) (Paperback) by [Chang Liu](#) (Author),
Publisher: Prentice Hall; US Ed edition (September 5, 2005).

-Tradeoffs and Optimization in Analog CMOS Design (Hardcover) by [David Binkley](#)
(Author), Publisher: Wiley-Interscience (August 25, 2008).

-Smart CMOS Image Sensors and Applications (Optical Science and Engineering)
(Hardcover) by [Jun Ohta](#) (Author), Publisher: CRC (September 19, 2007).