December 2016

EDUCATION

Upcoming Webinar

High Performance MEMS Inertial Sensors – A Tutorial

Derek K. Shaeffer, Ph.D.

"High Performance MEMS Inertial Sensors," Presented by Derek K. Shaeffer

Tuesday, January 3 @ 12:00 PM EST.

Professional Development Hours can be requested for this webinar. See news section for more details

CLICK HERE TO REGISTER!

Derek K. Shaeffer will be available during the webinar to answer any questions. Please follow the link to register for the webinar which is free and open to all SSCS members.

Abstract: Over the past few years, MEMS-based inertial sensors such as gyroscopes and accelerometers have proliferated into a wide variety of consumer products. Today, these sensors are found as standard components in smart phones, tablets, gaming systems, remote controls, toys and digital still cameras. Emerging applications include wearables, health and fitness monitoring and the 'Internet of Things'. This talk will provide a tutorial overview highlighting some of the important design challenges to be faced when realizing high performance MEMS sensors.

Bio: Derek K. Shaeffer received the BSEE degree from the University of Southern California in 1993, the MSEE degree from Stanford University in 1995 and the Ph.D. degree from Stanford University in 1999, for which he did early work in the field of RF CMOS, demonstrating the world's first CMOS GPS receiver. His 1997 paper on CMOS

low-noise amplifiers is one of the most frequently cited papers in the history of the IEEE Journal of Solid-State Circuits with over 1500 citations to-date. He is the author or co-author of twenty-two issued patents and several pending patents, twenty-two papers, multiple tutorials and a book on CMOS RF design. He has worked professionally in the fields of test instrumentation, semiconductor memory, optical communications, wireless communications and MEMS inertial sensors. Dr. Shaeffer has also served as Guest and Associate Editors of the IEEE Journal of Solid-State Circuits. For the past several years, he has been Sr. Director, IC Development with InvenSense, Inc.

Upcoming Distinguished Lecturer Events in January

	SPEAKER	CHAPTER	TOPIC
Janauary 26	Pieter Harpe	SSCS UK & Ireland	Topic: "Power-efficient, high-resolution and reconfigurable SAR ADCs" For more details, **please click here**.

For more information on upcoming Distinguished Lecturer Tours, **CLICK HERE.**

CONFERENCES

Upcoming Conferences/Call for Papers

2017 IEEE International Solid-State Circuits Conference (ISSCC) San Francisco	**February 5 - 9, 2017**
2017 Design, Automation & Test in Europe Conference & Exhibition (DATE) Switzerland	**March 27 - 31, 2017**
2017 International Symposium on VLSI Technology, Systems and Application (VLSI-TSA) Taiwan	**April 24 - 27, 2017**
2017 International Symposium on VLSI Design, Automation and Test (VLSI-DAT) **Taiwan**	**April 24 - 27, 2017**
2017 IEEE Custom Integrated Circuits Conference (CICC) Texas	**April 30 - May 3, 2017**
IEEE 2017 Wireless Power Transfer Conference (WPTC) Taipei	**May 10 - 12, 2017**
IEEE Radio Frequency Integrated Circuits Symposium (RFIC) Honolulu	**June 4 - 6, 2017**
2017 Symposia on VLSI Technology and Circuits Kyoto	**June 5 - 9, 2017**

2017 IEEE/ACM International Symposium on Low Power Electronics and Design (ISLPED) Taiwan	July 24 - 26, 2017
2017 European Solid-State Circuits Conference (ESSCIRC) Belgium	Sept 11 - 14, 2017

RFIC 2017 Call for Papers

The 2017 IEEE Radio Frequency Integrated Circuits Symposium (RFIC 2017) welcomes technical papers. The conference will solicit papers describing original work in RFIC circuits, system engineering, design methodology, RF modeling and CAD simulation, RFIC technologies, devices, fabrication, testing, reliability, packing and modules to support RF applications in areas such as, but not limited to:
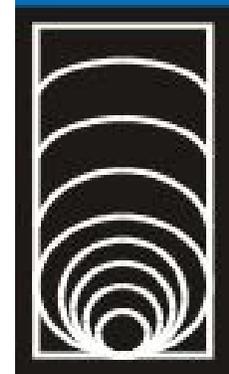
- Wireless cellular & connectivity ICs
- Low Power transceivers
- RF front-end ICs
- Mixed-signal RF and analog baseband circuits
- Reconfigurable and tunable front-ends
- Large-signal circuits
- VCOs and frequency multipliers
- Frequency generation circuits
- Modeling, CAD and testing
- Process, Device and packing technologies
- mm-Wave circuits and systems
- High-Speed data transceivers

Submission Deadline - January 9, 2017

For further information, please click **here**.

2017 Symposium on VLSI Circuits - Call for Papers

The 2017 Symposium on VLSI Circuits welcomes the submission of original papers on all aspects of VLSI Circuits. The Symposium on VLSI Technology will overlap with the Symposium on VLSI Circuits and will be held at the same location. Papers are welcome in the following areas:

- Innovative system directions
- Digital circuits, processors and architectures, including circuits and techniques
- Memory circuits, architectures and interfaces
- Frequency generation and clock circuits
- Analog and mixed-signal circuits
- Wireline receivers and transmitters
- Wireless receivers and transmitters
- Power conversion circuits
- Imagers, displays, sensors, VLSI circuits and systems
- and other related topics

Submission deadline: January 23, 2017

Click **here** for more details and submission instructions

2017 IEEE Wireless Power Transfer Conference - Call for Papers

The 2017 IEEE Wireless Power Transfer Conference (WPTC) is a conference on wireless powering. The meeting is intended to cover a broad range of areas related to devices, integrated circuits, systems and applications of WPT across the elctromagnetic spectrum. WPTC welcomes submissions of original work on:

- Technologies for wireless power transfer and energy harvesting
- Power transmitters and receivers for wireless power transfer and energy harvesting
- Integrated circuits and systems for wireless power transfer and energy harvesting
- Applications of wireless power transfer and energy harvesting
- Other device, system or application topics related to wireless power
- and other topics

Submission deadline: February 6, 2017

Click **here** for more details

2017 International Symposium on Low Power Electronics and Design - Call for Papers

The 2017 International Symposium on Low Power Electronics and Design (ISLPED) is the premier forum for the presentation of innovative research in all aspects of low power electronics and design, ranging from process technologies and analog/digital circuits, simulation and synthesis tools, system-level design and optimization, to system software and applications. ISLPED welcomes submissions of original work on the topics below and more. A full list of acceptable topics can be found **here**.

- Technologies: Low-power technologies for device, interconnect, logic, memory, 2.5/3D
- Circuits: Low-power digital circuits for logic, memory, reliability, clocking, power gating
- Logic and Architecture: Low-power logic and microarchitecture for SoC designs, processor cores, cache
- CAD Tools and Methodologies: CAD tools and methodologies for low-power and thermal-aware design addressing power estimation, optimization, reliability and variation impact on power
- Systems and Platforms: Low-power, power-aware, and thermal-aware system design including data-center power delivery and cooling
- Software and Applications: energy-efficient, energy-aware, and thermal-aware software and application design
- Industrial Design Track: These papers have the same submission deadline as regular papers and should focus on similar topics, but are expected to provide a complementary perspective to academic research by focusing on challenges, solutions, and lessons learnt while implementing industrial-scale designs. Industrial design papers that focus on any of the topics mentioned **here** are welcome.

Abstract Submission Deadline: February 27, 2017

Click **here** for more details

NEWS

JSSC 50th Anniversary

The IEEE Journal of Solid-State Circuits, the flagship journal of the solid-state circuits community, also known as the "red rag" to many, has reached half a century of age. The IEEE Institute has written about the milestone in special article. **Click here to read**.

Keep an eye out for the **special 50th anniversary issue of**

JSSC and the **special Solid-State Circuits Magazine** issue on the anniversary.

IEEE Event Finder

The new free IEEE Event Finder mobile app lets you search for an IEEE event not only by the event name, but also by city, state, or province. Events can even be searched by IEEE region, section, chapter or by the IEEE society sponsoring the event. The event makes it easy to add any IEEE event to your mobile calendar. You can also share its URL via social media, email, or text message. You can download the free app from the **Apple App** or **Google Play** store.
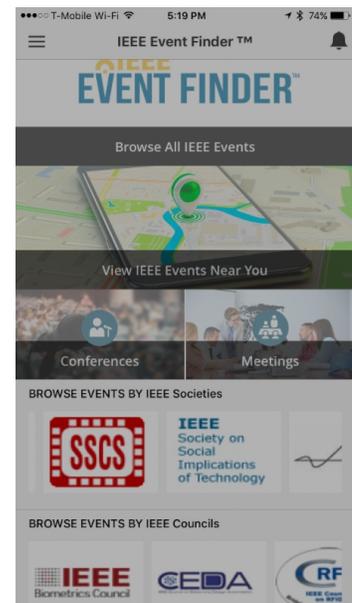
Earn Continuing Education Hours

Have you attended an SSCS webinar? Attendees of upcoming and past webinars have the opportunity to earn professional development hours. Certificates of completion are offered to participants who view a

webinar. A certificate of completion confirms one hour of professional development. After you attend the webinar, you may request a certificate of completion by completing the form **HERE**.

Seeking News

Please send any chapter news or happenings (Distinguished Lecturer visits, events hosted by your SSCS chapter, awards received by members, etc) to Abira Sengupta, SSCS Magazine News Editor, for inclusion in an upcoming issue of the magazine. Please email - **Abira.Sengupta@ieee.org**. We look forward to receiving your news articles!

For more chapter news, check out the Fall 2016 issue of the Solid-State Circuits Magazine.

FEEDBACK

Let us know what you think! Please **email us** to send us your comments about the newsletter, what you would like to see included each month, or any other comments.

CLICK HERE TO VISIT OUR WEBSITE

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