



**IEEE SOLID-STATE  
CIRCUITS SOCIETY**  
Where ICs are in IEEE

**December 2015**

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## **News**

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### **Upcoming Webinar - "Scaling Analog Circuits", Presented by Prof. Peter Kinget**

The webinar, entitled "**Scaling Analog Circuits**" will be presented by Professor Peter Kinget from Columbia University. Please follow the link below to register for the webinar. The webinar is free and open to all SSCS members.



Abstract- CMOS technology scaling has fueled tremendous progress in electronics and has brought about system-on-chip (SoC) products with a broad impact on our society and economy. Technology scaling is very beneficial to increase the performance and density for digital signal processing, computation and memory. Analog circuits remain the critical interfaces to connect the digital cores of SoCs to the physical world and need to satisfy increasing performance demands. At the same time, designing analog functions with scaled devices and reducing supply voltages is getting progressively harder. Meeting more stringent performance requirements with poorer analog devices makes the task of the analog designer very challenging and interesting. I will review scaling challenges for analog circuit performance and contrast them to digital circuit scaling. Next I will discuss design paradigms that address analog circuit scaling, including mixed-domain analog techniques. The talk will also touch upon the novel application opportunities that scaled CMOS technologies enable. Work in collaboration with C.W. Hsu, J. Kuppambatti and B. Vigraham

**[CLICK HERE TO REGISTER!](#)**

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**ISSCC 2016**



The International Solid-State Circuits Conference will be held on January 31 - February 4, 2016 at the Marriott Marquis in San Francisco, California, USA. The theme of this years conference is Silicon Systems for the Internet of Everything.

If you haven't already done so, please make your travel arrangements as soon as possible. More information can be found [here](#).

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## Education

### December 2015 Distinguished Lecturer Tours

December 14-16	Mini Tour - SSCS Indonesia - John Long	Indonesia
December 16	SSCS Central Texas - Tony Chan Carusone	Austin, TX, USA

For more information, [CLICK HERE](#).

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### SSCS Webinar Program at Santa Clara Valley-SSCS Chapter

The Solid-State Circuits Webinar Program was launched to provide access for all SSCS chapters to the most prestigious university researchers, professors and industry leaders. The webinar program covers recent research results as well as tutorial level talks related to integrated circuit design.

The SSCS and the Santa Clara Valley SSCS chapter (SCV-SSCS) are cooperating on this program with the help of Michael Perrott (SSCS Webinar Chair) and Vahid VahidFar (2014-15 SCV-SSCS chair). The webinars are held and recorded at the SCV\_SSCS chapter venue. The meetings generally provide background and technology overviews and then dive into the topic details. For more details about the program and a list of upcoming events, please [click here](#).

Some of the webinars that were held at the SSCS-Santa Clara Valley Chapter are:

1) **CMOS Terahertz Circuits and Systems, Presented by Professor Kenneth O.** Please [click here](#) for abstract and bio. For webinar slides, please [click here](#). The video will be posted on the SSCS website soon.

2 ) **Monolithic Phased Arrays: Radio Frequency to Optical** by Prof. Hossein Hashemi, USC. Please [click here](#) for abstract and bio. This webinar will be broadcasted to SSCS members soon.

3) **The Return of Neuro-Inspired Computing - Why Now?** by Prof. Jan Rabaey, UC Berkeley. Please [click here](#) for abstract and bio. This webinar will be broadcasted to SSCS members soon.

4) **Scaling Analog Circuits**, by Prof. Peter Kinget of Columbia University  
Please [click here](#) for abstract and bio. This webinar will be broadcasted to SSCS members on Monday, January 11<sup>th</sup>. To register for the webinar, please [click here](#). Professor Kinget will be available during the broadcast to answer any questions.

5) **High Performance MEMS Inertial Sensors - A Tutorial Overview** by Derek K. Shaeffer of Apple, Inc. Please [click here](#) for abstract and bio. This webinar will be broadcasted to SSCS members soon.

6) **Back to the Future: Analog Signal Processing**, by Prof. Boris Murmann from Stanford University. Please [click here](#) for abstract and bio. This webinar will be broadcasted to SSCS members soon.

7) **Digital Analog Design: Challenges and Trends**, By Mark Horowitz, Stanford University. Please [click here](#) for abstract and bio. This webinar will be broadcasted to SSCS members soon.

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## Mentoring Opportunities

SSCS strives to offer guidance and support to their young members. We invite SSCS members to volunteer to be mentors for younger SSCS members. This would be a very valuable experience for young members' careers. This is a great opportunity for young members to learn about the benefits of SSCS membership. The main topics that can be discussed are entrepreneurship, career advice, publication advice, etc. If you are interested in being a mentor, please email Emre Ayranci at [emrea@ieee.org](mailto:emrea@ieee.org).

### Upcoming mentoring events -

ISSCC on February 2, 2016 at 6 PM.

For more information, [CLICK HERE](#).

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Virtual Career & Talent Expo



Kick Start Your Career in 2016 at the IEEE Virtual Career & Talent Expo  
January 20, 2016 - 10:00 am - 2:00 pm PDT. Free to all IEEE members. Meet hiring companies like Raytheon, Burns & McDonnell, SEL, GW Electric, Medtronic, and many others. Register today for instant access to jobs and career resources at [www.IEEEexpo.org](http://www.IEEEexpo.org)

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## SSCS Magazine on Collabratec



IEEE is excited to announce a new suite of online tools where technology professionals can network, collaborate, and create - all in one central hub. When inside IEEE Collabratec, search for the [Solid-State Circuits Magazine Community](#). To get started, [click here](#).

## Conferences

### Upcoming

<a href="#"><u>2016 IEEE International Solid-State Circuits Conference (ISSCC)</u></a> San Francisco, CA	January 31 - February 4, 2016
<a href="#"><u>2016 Design, Automation &amp; Test in Europe Conference &amp; Exhibition (DATE)</u></a> Dresden, Germany	March 14 - 18, 2016
<a href="#"><u>2016 International Symposium on VLSI Design, Automation, and Test (VLSI-DAT)</u></a> Taiwan	April 25 - 27, 2016
<a href="#"><u>2016 IEEE Radio Frequency Integrated Circuits Symposium (RFIC)</u></a> San Francisco, CA	May 22 - 24, 2016
<a href="#"><u>2016 Symposia on VLSI technology and Circuits</u></a> Honolulu, HI	June 13 - 17, 2016

For more upcoming conferences, please [click here](#).

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## Call for Papers

[2016 IEEE Radio Frequency Integrated Circuits Symposium](#)  
San Francisco, CA



Paper Submission Deadline: January 8, 2016

### **2016 IEEE Symposium on VLSI Circuits**

Honolulu, HI

Paper Submission Deadline: January 25, 2016

### **EDSSC 2016**

Hong Kong

Paper Submission Deadline: April 1, 2016

### **ESSCIRC-ESSDERC 2016**

Laussane, Switzerland

Paper Submission Deadline: April 18, 2016

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## Upcoming

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### Reading Made Easy

In the next couple of months, we'll be rolling out a new member benefit! Remember those old piles of journals back in the 80's? You'll soon be able to read past versions of JSSC on your tablet. Stay tuned for more details!

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### 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](mailto:Abira.Sengupta@ieee.org). We look forward to receiving your news articles!

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### Feedback

Let us know what you think! Please [click here](#) to send us your comments about the newsletter, what you'd like to see included each month, or any other comments.

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[CLICK HERE TO VISIT OUR WEBSITE](#)

