IEEE SOLID-STATE CIRCUITS SOCIETY

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August 2016

EDUCATION

Upcoming Webinar - "Wireless Bioelectronics", Presented by Professor Ada Poon

Tuesday, September 6th @ 12:00 PM EST.

Continuing Education Certificates can be requested for this webinar. See news section for more details

CLICK HERE TO REGISTER!

Professor Poon will be available during the webinar to answer any questions. Please follow the link to register for the webinar. The webinar is free and open to all SSCS members.

Abstract: Miniaturized electronics, when placed inside the body, can wirelessly monitor and modulate internal activity and thus hold promise as a new class of treatments for disorders. The development of such bioelectronic medicines requires wireless interfaces that are tiny and operate deep in a complex electromagnetic environment. In this talk, I will describe a new method for electromagnetic energy transfer that exploits near-field interactions with biological tissue to wirelessly power tiny devices anywhere in the body, including the heart and the brain. I will discuss engineering and experimental challenges to realizing such interfaces, including a pacemaker that is smaller than a grain of rice and a fully internalized neuromodulation platform. These devices can act as bioelectronic medicines, capable of precisely modulating local activity, that may be more effective treatments than drugs, which act globally throughout the body.

Bio: Ada was born and raised in Hong Kong. She received her B.Eng degree from the EEE department at the University of Hong Kong and her Ph.D. degree from the EECS department at the University of California at Berkeley in 2004. Upon graduation, she spent one year at Intel as a senior research scientist. Then, she joined her advisor's startup company, SiBeam Inc., architecting Gigabit wireless transceivers leveraging millimeter-wave and MIMO technologies. After two years in industry, she returned to academia and joined the faculty of the ECE department at the University of Illinois, Urbana-Champaign. Since then, she has changed her

research direction from wireless communications to integrated biomedical systems. In 2008, she moved back to California and joined the faculty of the Department of Electrical Engineering at Stanford University. She is a Terman Fellow at Stanford University. She received the Okawa Foundation Research Grant in 2010 and NSF CAREER Award in 2013.

Upcoming Distinguished Lecturer Tours

SEPTEMBER	SPEAKER	CHAPTER/LOCATION	TOPIC
September 5	Pieter Harpe	SSCS Taipei - Taipei	Topic: "Basics of low-power SAR ADCs" For more details please click here
September 6	Pieter Harpe	SSCS Hong Kong - Hong Kong	Topic: "Ultra low-power analog front-end design For more details please click here
September 8	Pieter Harpe	SSCS Macau - Macau	Topics: "Power-efficient, high-resolution and reconfigurable SAR ADCs" "Ultra-low power analog front-end design" For more details please click here
September 16	Hideto Hidaka & Makoto Ikeda	SSCS Italy - University of Milan	Topics: "Embedded Memory Technology, Applications and Prospects in Embedded Systems" "Smart Image Sensors and Applications to 3D Range-Finding" For more details please click here
September 19	Hideto Hidaka & Makoto Ikeda	SSCS Benelux - KU Leuven	Topics: "Embedded Memory Technology, Applications and Future Prospects" "Basics of CMOS Image Sensors For more details please click here
September 23	Pavan Hanumolu	SSCS/CAS Atlanta - Georgia Tech	Topic: "Time-based signal representation and its applications to data conversion, filtering, and

			control" For more details please click here
September 24	Hideto Hidaka	SSCS/ED/MTT Penang - Penang	Topics: "Embedded Flash Memory: Technology, Circuits to Systems and MCU/SOC Applications" "Smart Imge Sensors and Applications to 3D-Range Finding" For more details please click here
September 26	Hideto Hidaka	SSCS/ED Bangalore - Indian Institute of Science	Topic: "Embedded Flash Memory for Embedded Systems: Technology, Circuits to Systems and MCU/SOC Applications For more details please click here

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

CONFERENCES

Upcoming Conferences/Call for Papers

ESSCIRC-ESSDERC 2016 Switzerland Call for Papers: **PASSED**	September 12 - 15, 2016
2016 IEEE Bipolar/BiCMOS Circuits and Technology Meeting - BCTM New Jersey Call for Papers: **PASSED**	September 25 - 27, 2016
IEEE Dallas Circuits and Systems Conference 2016 Texas Call for Papers: **PASSED**	October 9 - 10, 2016
2016 IEEE Biomedical Circuits and Systems Conference (BioCAS) Shanghai Call for Papers: **PASSED**	October 17 - 19, 2016
2016 IEEE Compound Semiconductor Integrated Circuit Symposium (CSICS) Texas Call for Papers: **PASSED**	October 23 - 26, 2016
2016 IEEE Asian Solid-State Circuits Conference (A-SSCC) Japan Call for Papers: **PASSED**	November 7 - 9, 2016
2017 IEEE International Solid-State Circuits Conference (ISSCC) San Francisco Call for Papers: September 12, 2016	February 5 - 9, 2017
2017 IEEE Custom Integrated Circuits	April 24 - 26, 2017

Conference (CICC) Texas **Call for Papers: November 7, 2016**	
IEEE 2017 Wireless Power Transfer Conference (WPTC) Taipei **Call for Papers: February 6, 2017**	**May 10 - 12, 2017**
IEEE Radio Frequency Integrated Circuits Symposium (RFIC) Honolulu **Call for Papers: January 9, 2017**	**June 4 - 6, 2017**

NEWS

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**.

ISSCC 2017 Call for Papers: New Double-Blind Paper Review

New for ISSCC 2017: Double-Blind Paper Review. The paper selection for ISSCC 2017 will follow a double-blind review process, meaning that both the authors and reviewers will remain anonymous during the paper selection process. The ISSCC 2017 conference theme is "Intelligent Chips for a Smart World".

The Submission Deadline is Monday, September 12, 2016 at 3:00 PM Eastern Daylight Time (19:00 GMT).

For more information, please **CLICK 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 Spring 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.

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