On its 45th anniversary, the IEEE S3S Conference continues to grow and attract more attention from the industrial and academic arenas. The race to develop the right technology for the 5G and IoT markets is revolutionizing the semiconductor industry. With more than 20 billion smart connected devices expected by 2021, the demand on ultra-low power operation, 3D integration, millimeter-wave connectivity, computational efficiency and design flexibility is going to unprecedented edges. These aspects of technology have been covered by the IEEE S3S Conference for years, and this year is no exception.

This year, the conference delivers more than 100 invited and contributed presentations throughout 20 technical sessions and a full-day short course dedicated to FDSOI circuit design.

**Plenary Speakers:**
*Monday, October 14, 8:30 – 10:40 am*

**Vida Ilderem,** VP, Intel Labs and Director, Wireless Communications Research, Intel, “5G: Ultra Reliable and Low Latency Communication.”

**Hans Stork,** Senior Vice President and CTO, ON Semiconductor, “Technology Requirements of Power Constrained Sensor and Connectivity Applications.”

**Yoon-Jong Lee,** Senior Vice President and CTO, DB HiTek, “Highly Resistive Substrate (HRS) as an Alternative to SOI for RF Front-End Applications.”

**Keynote Session: FDSOI Ecosystem**
*Tuesday, October 15, 8:30 – 10:40 am*

**Jon Cheek,** Engineering Manager, NXP Semiconductors, “Accelerating Industry Adoption of SOI against a Backdrop of a Slowing Moore’s Law.”

**Subramani Kengeri,** CTO and Vice President of World Wide Client Solutions, GLOBALFOUNDRIES, “Challenges and Opportunities in Transition to 5G.”

**Tomasz Brozek,** Fellow, PDF Solutions, “Characterization Challenges and Solutions for FDSOI Technologies.”

**Keynote Session: Low-Power Circuits**
*Wednesday, October 16, 8:30 – 10:40 am*

**Andreia Cathelin,** Fellow, STMicroelectronics, “FD-SOI and the Exciting New Life of the Analog/RF Designers with Body Biasing Techniques.”


**Rob Cosaro,** Fellow, NXP Semiconductors.

**Rump Session: AI at the Edge: Driving the Next Wave of Semiconductor Growth or Yet another Hype**
*Monday, October 14, 8:00 – 10:00 pm*

**General Chair**
Mostafa Emam, Incize
mostafa.emam@incize.com

**Technical Program Chair**
Bich-Yen Nguyen, Soitec
bich-yen.nguyen@soitec.com

**Conference Manager**
Joyce Lloyd
manager@s3sconference.org
Short Course: Emerging Applications of FDSOI Technology

Thursday, October 17

This 2019 edition will be featuring a panel of world-renowned experts from the Semiconductor industry who will further explore the FDSOI Design new directions, covering a wide scope of topics ranging from technological standpoint or new targeted applications to low power design solutions and more specifically applied to FDSOI design. The goal of this short course is also to encourage networking and trigger potential partnerships for future collaboration.

Course Organizer:
Philippe Flatresse, Dolphin Integration
Joerg Winkler, GLOBALFOUNDRIES, “FDSOI Platform and Process Technology.”

Koji Nii, Floadia Corporation, “Embedded Flash Memory Technologies and Applications in Advanced Nodes Memories.”
Vincent Huard, Dolphin Integration, “Adaptive Body Biasing.”


Michael Reiha, Soitec, “SOI for 5G Infrastructure.”

Focus Session: FDSOI Platforms and Products

Tuesday, October 15, 1:30 – 5:30 pm


Jeff Cunningham, NXP Semiconductors, “FDSOI Device Selection and Creation and What It Means for Your Next Design.”

Brian Chen, GLOBALFOUNDRIES, “22FDX® Embracing IoT, 5G, and Automotive Applications - A Perspective Through Global Research.”

Phil Morris, ARM, “The New Era of eMRAM-enabled Smart IoT Devices for the Connected World.”

