



# 2013 IEEE



## Compound Semiconductor IC Symposium



INTEGRATED CIRCUITS and DEVICES in  
GaAs, InP, GaN, SiGe, and other compound semiconductor and CMOS technologies



October 13–16, 2013

Portola Hotel & Spa at Monterey, California, USA



Sponsored by the IEEE Electron Devices Society  
Technically co-sponsored by the Solid State Circuits Society  
and the Microwave Theory & Techniques Society



## FINAL CALL FOR PAPERS

### 2013 CSIC Symposium

From its beginning in 1978 as the GaAs IC symposium, the IEEE Compound Semiconductor IC Symposium (CSICS) has evolved to become the preeminent international forum for developments in compound semiconductor integrated circuits and devices, embracing GaAs, InP, GaN, SiGe, and more recently CMOS technology. Coverage includes all aspects of the technology, from materials, device fabrication, IC design, testing, and system applications. CSICS provides the ideal forum to present the latest results in high-speed digital, analog, microwave, millimeter wave, THz, mixed-mode, and optoelectronic integrated circuits. First-time papers addressing the utilization and application of InP, GaAs, GaN, Silicon, Germanium, SiGe, and other compound semiconductors in military and commercial products are invited. Specific technical areas of interest include:

- Innovative device concepts in emerging technologies
  - Nitrides, InP, III-V on Si, Ge on Si, Graphene
- Analog, RF, mixed-signal, mm-wave, THz circuit blocks and ICs in III-V, CMOS, SiGe BiCMOS
- Power conversion circuits and technologies
- Optoelectronic and photonic devices and ICs
- System applications
  - Wireless handsets and base stations
  - Vehicular and military RADAR
  - High-speed digital systems
  - Fiber optics and photonics
- Device and circuit modeling / EM and EDA tools
- Thermal simulation and advanced packaging of high-power devices and ICs
- Device and IC manufacturing processes, testing methodologies, & reliability

### Symposium Highlights

High quality technical papers will be selected from worldwide submissions for oral presentation and publication in the Symposium Digest. Invited papers and panel sessions on topics of current importance to the Compound Semiconductor IC community will complete the program. Extended versions of selected papers from the Symposium will be published in a special issue of the *IEEE Journal of Solid State Circuits*.

### RFIC Design Primer Course

The Symposium will offer an all new primer course, "Introduction to Si RFIC Design," an introductory-level class intended for those wishing to obtain a broad and fundamental understanding of the growing Si-based RFIC and High-Speed Analog-Mixed Signal technology. The Sunday evening course will provide an overview of the CMOS transistor and passives emphasizing key concepts in modeling and noise behavior. The course will also provide insight into the design of the principal RF building blocks, namely PAs, LNAs, Mixers and Oscillators, emphasizing the specific background needed for participants to understand and appreciate the papers presented in the Symposium Technical Program.

### Short Courses

Two short courses will be held on Sunday, October 13, 2013. Organizer: Charles Campbell, TriQuint. Ph: +1 972-994-3644, Email: ccampbell@tqs.com.

### Deadline for Electronic Receipt of Papers is

**Close of Business, April 22, 2013**

Authors must submit a paper (not more than 4 pages including figures and other supporting material) of results not previously published or not already accepted by another conference. Papers will be selected on the basis of the content and measured results.

**The paper must concisely and clearly state:**

- a) **The purpose of the work**
- b) **What specific new results have been obtained**
- c) **How it advances the state-of-the-art or the industry**
- d) **References to prior work**
- e) **Sub-committee preference:**
  - **Analog, RF, Microwave ICs**
  - **mm-wave and THz ICs**
  - **High-speed Digital, Mixed-signal & Optoelectronic ICs**
  - **Advanced Devices and Modeling**

The paper must include: the title, name(s) of the author(s), organization(s) represented, corresponding authors' postal and electronic addresses, and telephone number. A paper template is available from <http://www.csics.org>. Please indicate your preference for subcommittee review. The program committee will honor the authors' preference where possible, but reserves the right to place the paper in other review categories.

**All company and governmental clearances must be obtained prior to submission of the paper.**

Authors must submit their papers in PDF format electronically using the [www.csics.org](http://www.csics.org) web page. They will be informed regarding the results of their submissions by June 21, 2013. Authors of accepted papers will be required to submit to the IEEE their final manuscript by July 26, 2013 for publication in the Symposium Technical Digest. The accepted papers may be used for publicity purposes. Portions of these papers may be quoted in magazine articles publicizing the Symposium. Please note on the paper if this is not acceptable.

Further questions on paper submission may be addressed to the Symposium Technical Program Chair:

Douglas S. McPherson  
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Ph: +1 613-670-3371  
dmcphers@ciena.com

All Symposium information, including paper submission instructions and a link to our paper submission address is available on the CSICS website at:

<http://www.csics.org>

## 2013 Compound Semiconductor IC Symposium Exhibition

As in past years, the Symposium will sponsor an exhibition of products from various vendors of materials, IC products, processing equipment, test equipment, CAD tools, and foundry services specifically addressing the Compound Semiconductor industry. Numerous vendors will be on-hand to discuss their products and to answer questions.

Inquiries concerning the exhibits should be addressed to:

**Harry Kuemmerle**  
VIP Meetings & Conventions  
Tel: 310-459-4691  
harry.k@vipmeetings.com

The following members of the Technical Program Committee are available for guidance or for answering questions regarding paper preparation:

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