From the Editors' Desk

The IMS 2009 "Bonus" Issue

■ **Steve McKnight, Kate A. Remley, and Mike Golio**

This special issue of *IEEE Microwave Magazine* represents a new initiative of the IEEE Microwave Theory and Techniques Society (MTT-S) focused on the International Microwave Symposium (IMS) to be held in Boston, Massachusetts, 7–12 June 2009 (IMS 2009). In the pages that follow, you can read about the specific aspects of IMS 2009 and also the technical features that focus on the topics covered in the IMS 2009 panel, focus, and rump sessions. Our intention for this issue is to cover details of the IMS 2009, the Society's biggest meeting and one of the most anticipated events of the year for many microwave engineers, while still providing thought-provoking articles on state-of-the-art topics that will appeal to our readers who won't be attending the symposium.

The IMS 2009 steering committee members have provided articles on new and different aspects of this year's event. In fact, a number of changes in the format of the conference will occur this year. Some of these changes involve its schedule. For example, the plenary session will occur Monday afternoon so that the technical sessions can begin first thing on Tuesday morning. Workshops are scheduled throughout the week and linked to technical tracks so that the attendees can follow their particular interests during the course of the week. There will also be new technologies such as radio frequency identification (RFID)-based admission tags and live virtual participation broadcasts of certain sessions. We include articles that describe many of these changes. We also have reports on traditional aspects of the conference, such as exhibits, the student competitions, as well as updates on the Radio Frequency Integrated Circuit (RFIC) and Automatic Radio Frequency Techniques Group (ARFTG) conferences.

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To provide a technically interesting issue to members who won't be attending as well as those who will, we have also included several technical features and one debate for this issue. These articles, written by organizers of the panel sessions, focus sessions, and rump sessions, provide overview material to give enough technical background for the general engineer to get up to speed on sessions that he or she may wish to attend. At the same time, these articles give an overview for nonattendees of some timely and interesting topic areas.

Two technical features give background on lunchtime panel sessions. A description of how silicon RFICs can be used to produce lower-cost, compact-phased arrays by Gabriel Rebeiz and Kwang-Jin Koh will introduce readers to the concepts that will be discussed in their panel session on this topic (Wednesday, from 12:00 to 13:10 coorganized with Frank van Vliet). Jonathan Wells will introduce readers to the concepts of multi-gigabit per second wireless communications in his article as background for his panel session (Wednesday, from 12:00 to 13:10). Two of the focus sessions are highlighted in this issue as well. An in-depth introduction to microwave superconductor technology

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and full-day workshops covering a large breadth of topics. Some of the topics include circuit and system design techniques for millimeter-wave applications, CMOS power amplifier design, RF circuits for bio and medical applications, digitally assisted analog-and-RF circuit design techniques, and BAW resonators for wireless transceiver implementation.

The conference also includes a plenary session, which is held on Sunday evening. Keynote addresses will be given by two renowned industry leaders, who will share their views and insights on the direction and challenges that the RFIC industry is facing. The first speaker, Christopher Snowden, Ph.D., vice chancellor and chief executive of the University of Surrey, Guildford, United Kingdom, will discuss "Cost-Effective Semiconductor Technologies for RF and Microwave Applications." The second speaker, George W. Everhart, CEO of Alien Technology Corporation, will discuss "Real-World RFID Deployments: What Makes Them Work?" In addition to the keynote addresses, the conference holds a best student paper competition to encourage the publication of innovative research from university students. Consequently, best student paper awards are presented in the plenary session to acknowledge these contributions. The highly anticipated RFIC reception will follow immediately after the plenary session, providing a relaxing time for all to mingle with old friends and catch up on the latest news.

On Monday and Tuesday, the conference will feature lunch-time panel sessions that traditionally draw strong debate between panel members as well as stimulating interaction between attendees and panelists. The Monday panel sessions is titled "Who Will Win the Battle for the Gigabit Wireless in Your Home: Wireless HD, 802.11n, Wireless USB, or UWB?" and the Tuesday panel session is titled "60GHz CMOS Radio: Reality or Fiction?" Be sure to attend these lively and entertaining forums.

Technical papers will be presented during oral sessions throughout Monday and Tuesday. The technical program will conclude with an interactive forum session on Tuesday afternoon, which will feature poster sessions and the chance to speak directly with authors regarding their work.

This year's location also highlights one of the cultural centers of America. Famous for everything from the Red Sox and Paul Revere to "Cheers" and seafood, Boston is a popular destination. The Freedom Trail, a well preserved pedestrian path, weaves in and out of historic neighborhoods. Between landmarks, you can shop stores on Newbury Street, have an authentic Italian meal, or browse the antique shops. Boston also features a renowned aquarium, children's museum, science museum, and several renowned academic institutions.

On behalf of the RFIC steering committee, we look forward to seeing you at the 2009 RFIC symposium in Boston.

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by Marty Nisenoff and Jeff Pond as a preview of their session (Thursday from 15:40 to 17:00). Ken O has organized a session on affordable terahertz electronics using CMOS technology (Tuesday from 15:40 to 17:00). He provides an overview of the papers that will be presented in this session as background for attendees.

We hope that those of you attending IMS 2009 will find this issue of *IEEE Microwave Magazine* useful and interesting.

A rump session scheduled for Tuesday evening (18:30 to 20:30) will delve into the current debate surrounding metamaterials. As a preview, we invited the organizers of this session to allow their members to give us background on the source of the controversy. The title of this column, "Metamaterials: A Rich Opportunity for Discovery or an Overhyped Gravy Train!"(see page 8, this issue) indicates that this is a contentious subject! The column here will prepare attendees for what promises to be a lively discussion.

We hope that those of you attending IMS 2009 will find this issue of *IEEE Microwave Magazine* useful and interesting. Because it contains the entire technical program, as well as features, logistics, and background material, the magazine may be worth carrying with you as you make the rounds during the week. We hope those of you who can't attend will enjoy the issue as well.