



Aloha from the IMS2017 Technical Program Committee Chairs

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The IEEE Microwave Theory and Techniques Society (MTT-S) International Microwave Symposium (IMS) is the premier international conference for the MTT-S. Participants typically include several thousand engineers, researchers, and technical leaders representing industry, academia, and government agencies from all over the world. The technical program showcases advances in research and development in RF, microwave, millimeter-wave, and terahertz technologies. Complementing the technical program is a large exhibi-

tion with several hundred companies and universities represented.

Over 40 dedicated members of the IMS2017 Technical Program Committee (TPC) have been working hard to deliver a world-class technical program that will bring RF/microwave researchers and practitioners from around the world to Honolulu in June 2017. As with previous gatherings, IMS2017 will offer technical sessions, interactive forums, plenary and panel sessions, workshops, short courses, applications seminars, an RF Boot Camp, and a wide variety of other technical and social activities. We will also continue to advance online and mobile application capabilities for the technical program to enrich attendees' overall experience.

sive and active components, systems, and applications. These areas are organized into color-coded tracks throughout the technical program (see the preliminary program preview beginning on page 151 of this issue) to help attendees identify the sessions that may be of most interest to them. The emerging technologies and applications area comprises papers that report state-of-the-art results in technical areas that fall outside the scope of those specifically listed in the call for papers or that may be new to the symposium but are of interest to our attendees. We look forward to learning more about new technical innovations.

Technical Papers

Three-page paper summaries (continuing the policy implemented with IMS2012) were submitted for review in early December 2016. We have continued the approach adopted by IMS2013,

Technical Areas

The IMS2017 technical program covers 38 technical areas, spanning microwave theory, devices and circuits, pas-

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where the final accepted papers appearing in the *IMS2017 Symposium Digest* could be increased from three to four pages if the authors wished. The purpose of this option is to encourage timely reporting of the latest industry and academic research and development results, while maintaining the opportunity for authors to expand papers for possible journal publication.

The IMS offers three types of presentations:

- Full-length (20 min) papers report significant contributions, advancements, or applications in a formal presentation format with limited audience interaction.
- Short (10 min) papers typically report specific refinements or improvements in the state of the art in a formal presentation format with limited audience interaction.
- Interactive forum papers provide an opportunity for authors to present their work in a more informal, conversational setting. Theoretical and/or experimental developments and results are presented in an electronic poster format, which facilitates the use of videos and interactive media. In addition, authors have the opportunity to display hardware, perform demonstrations, and conduct discussions with interested colleagues.

This year we received 1,075 technical paper submissions—the third highest in IMS history—with 68% coming from outside the United States. It was the task of Technical Paper Review Committee (TPRC) members to read and review the papers assigned to their subcommittees and ultimately determine which papers would be included in the technical program. Papers were evaluated on the basis of originality, quantitative content, clarity, and interest to the MTT-S membership.

An outstanding group of 270 RF and microwave experts in academia and industry from around the world served as members of the TPRC, assigned to subcommittees in the various technical areas. Authors were informed of

decisions on their papers in late January. The acceptance rate was approximately 52% (consistent with the historical acceptance rate for the IMS), resulting in the second highest number of accepted papers in the 60-year history of the IMS. Six interactive forum sessions (contain-

ing 126 interactive forum papers) and 85 oral technical sessions were formed. Student Paper Competition (SPC) finalists were also nominated by the TPRC subcommittees and will be evaluated at a special SPC interactive forum session on Wednesday of Microwave Week.

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Power PHEMT	Gate Size (μm)	I_{dss} (mA)	GAIN (dB)	$P_{1\text{dB}}$ (dBm)	PAE (%)
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BCP030C	0.25 x 300	90	13.5	24.5	60
BCP040C	0.25 x 400	110	13.5	25.5	60
BCP060C	0.25 x 600	190	12.0	27.5	60
BCP080C	0.25 x 800	245	11.0	28.5	60
BCP120C	0.25x1200	380	11.0	30.5	60
BCP160C	0.25 x 1600	510	10.0	31.5	55
BCP240C	0.25 x 2400	780	9.0	33.0	55

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BCF030T	0.25 x 300	90	13.5	21.5	35
BCF040T	0.25 x 400	120	13.0	23.0	37
BCF060T	0.25 x 600	170	12.5	25.0	39
BCF080T	0.25 x 800	240	11.2	26.0	40
BCF120T	0.25 x 1200	340	11.2	28.0	42
BCF240T	0.25 x 2400	720	9.8	30.4	45

All specifications are typical at 12 GHz



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These SPC finalist posters are in addition to the standard session presentations in the technical program.

As in past years, IMS2017 continued the double-blind paper-review process initiated with IMS2011. This process creates anonymity for both authors and reviewers and is increasingly being adopted for IEEE conferences. Reviewers are not provided with authors' names or affiliations in the initially submitted manuscript; such information is redacted by the author before submission. The double-blind review process is intended to eliminate any perception of bias for or against an author or institution based on name recognition, country, gender, and so forth. This helps assure each author that all submitted papers are judged equally based on the established evaluation

criteria. This year, as an additional quality enhancement effort, computerized plagiarism screening was conducted for the first time for the IMS using CrossCheck.

All papers accepted for presentation at IMS2017 survived a rigorous review process and are of high quality. Successful IMS2017 authors should also consider submitting expanded versions of their papers to the *IEEE Transactions on Microwave Theory and Techniques Symposium* special issue.

Workshops and Short Courses

The TPC is also responsible for organizing the review of Microwave Week workshops and short courses. Proposals are routed through the recommended MTT-S technical committees, as well as those of the IEEE Radio Frequency Integrated Circuits (RFIC) Symposium and Automatic Radio Frequency Techniques Group (ARFTG) Microwave Measurement Symposium, for review and sponsorship. IMS2017 will include 57 workshops (half day or full day) and nine short courses sponsored either solely or jointly by the IMS, RFIC, and ARFTG. On Monday, IMS2017 will continue the tradition of an all-day RF Boot Camp targeted at newcomers to the microwave world such as technicians, new engineers, college students, and engineers changing their career path, as well as marketing and sales professionals looking to become more comfortable in customer interactions involving RF and microwave circuit and system concepts and terminology.

Focus and Special Sessions

Distributed throughout the technical program are five focus sessions and seven special sessions. A focus session is a technical session highlighting topics of growing importance that may be of significant interest to the microwave com-

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munity. Focus session papers are not invited papers and are evaluated through the normal TPRC subcommittee review process.

Special sessions recognize events of historical significance to the microwave community or highlight key technical achievements in a specific technical area, application space, or geographical region of the world. Special sessions may also recognize the life work of an outstanding MTT-S member. IMS2017 is honored to recognize the life and achievements of Nathan Sokal. In addition, IMS2017 is particularly pleased to offer a special session on Women in Defense, featuring successful women engineers active in the MTT-S and their technical achievements.

Additional Technical Program Details Ahead

This special IMS2017 issue of *IEEE Microwave Magazine* contains a range of articles with additional details on various aspects of the technical program: the 5G Summit, Demo, and Executive Forum; the plenary session; focus and special sessions; the interactive forum; panel sessions; workshops and short courses; RF Boot Camp; and exhibitor workshops. In addition, you will find columns on the Advanced Practice Paper Competition, Industry Paper Competition, SPC, and Student Design Competition. The IMS2017 Focus Groups Committee has also provided columns about activities of interest to students and young professionals, such as the inaugural IMS Hackathon and the Three Minute Thesis Competition.

The full breadth of the IMS2017 technical program could not be achieved without the tireless efforts of our outstanding TPC team. We are deeply grateful for their dedication and service to the microwave community.



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