

## GUEST EDITORIAL

# MEMSWAVE special issue

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The International Journal of Microwave and Wireless Technology always welcomes free submissions by authors active in the microwave field. However, this issue also includes the invited manuscripts. This Special Issue of the Journal comprises expanded versions of selected papers from the MEMSWAVE Symposium, 2013. It is the first time in this issue that MEMSWAVE Symposium provides contribution to the International Journal of Microwave and Wireless Technology.

MEMSWAVE Symposium is an exciting opportunity for RF-MEMS technologists and designers to meet and discuss the latest developments. The first day of the event starts with the RF-MST Cluster Meeting co-organized with the European Commission, where the achievements of MEMS-related EU projects are illustrated and discussed with increased participation from the industry. The MEMSWAVE workshop takes place on second and third days of the symposium where invited and peer reviewed papers are presented to provide an international forum for scientists and industrialists for the exchange of information on the most recent advances and best achievements in the area of RF-MEMS, MSTs and RF-NEMS with emphasis on European achievements.

The MEMSWAVE 2013 Symposium was held in Potsdam, Germany, from 1<sup>st</sup> to 3<sup>th</sup> of July, 2013. In conjunction with the RF-MST cluster workshop organized by European Commission on 1<sup>st</sup> of July 2013, the latest technical developments in the RF microsystems field and related topics were presented. By the contribution of European Commission experts and project leaders all over the Europe, the focus of on-going and up-coming projects have been extensively discussed. Approximately 80 individual delegates in total attended the EC RF-MST Cluster meeting and MEMSWAVE Symposium, 2013.

This issue of the International Journal of Microwave and Wireless Technology also contains expanded versions of the best conference papers, which then went through a thorough review and editorial process. From the total of 54 paper submissions, it is the top 5 contributions that have made it into this Journal. The contributions cover a wide range of topics on MEMS, filters, antennas and tunable components. This broad topics shows the wide scope and multidisciplinary nature of the symposium. The papers covers the main challenging issues of all different disciplines, showing the high level of technical content.

As Associate Editors, we would like to thank the authors for their contributions, the reviewers for their unsurpassed efforts, and the editors-in-chief for their help and the opportunity to include the MEMSWAVE papers into this issue. It is the first time that the MEMSWAVE papers appear in International Journal of Microwave and Wireless Technology; however the contribution in future will certainly

raise. We hope that you will enjoy reading the papers, and that you too will consider publishing in the International Journal of Microwave and Wireless Technologies.



**Mehmet Kaynak** was born in Antalya, Turkey, in 1981. He received the B.S degree from Electronics and Communication Engineering Department of Istanbul Technical University (ITU) in 2004, took the M.S degree from Microelectronic program of Sabanci University, Istanbul, Turkey in 2006 and received the Ph.D. degree from the department of High-Frequency and Semiconductor System Technologies, Technical University of Berlin, Germany, in 2014. He has joined the technology group of IHP Microelectronics, Frankfurt (Oder), Germany, in 2008. He is currently leading the MEMS group in IHP.

Mehmet Kaynak has been or is involved in research on designing of high frequency integrated circuits, integrated CMOS-MEMS technologies and heterogeneous integration process technologies. He is involved in different BMBF and EU supported projects as a researcher and work-package leader as well.

Mehmet Kaynak (co-)authored more than 100 peer-reviewed publications. He is a member of the European Space Agencies (ESA) Micro Nano Technologies (MNT) group and a member of EuMAs Topical Group on RF MEMS. He is chairing the Technology sub-committee of IEEE SiRF conference, a member of Technical Committee MTT-21 and MTT-10. He served as chair of MEMSWAVE 2013 Symposium and TPC chair of IEEE SiRF 2013 conference.



**Pierre Blondy** received the Ph.D. and Habilitation degrees from the University of Limoges, Limoges, France, in 1998 and 2003 respectively.

From 1998 to 2006, he was with the Centre National de la Recherche Scientifique (CNRS), as a Research Engineer with XLIM Laboratory, where he began research on RF-MEMS technology and

its applications to microwave circuits.

He is currently a Professor at the University of Limoges, where he holds an Institut Universitaire de France chair, selectively awarded to less than 3% of faculty professors in France for research excellence. He was a visiting researcher at the University of Michigan, Ann Arbor, USA in 1997 and

at the University of California at San Diego, La Jolla, USA in 2006 and 2008.

He was involved in many research projects, funded by national and european public agencies, and companies. He has been working extensively on tunable filters, RF-MEMS components and reliability. He has introduced dielectric-less capacitive MEMS switches, that has permitted large improvements in reliability. This technique is further developed for tunable filters, with high linearity and low losses, by using multi bit arrays of these switched varactors. These developments include the creation of a start-up company, AirMems, aiming at the commercialization of these varactors.

Dr. Blondy was an Associate Editor for the IEEE Microwave and Wireless Components Letters in 2006. He is a member of the IEEE International Microwave Conference Technical Program Committee since 2003, and chair of the MTT-S Technical committee 21 on RF-MEMS. Since 2012, he is the chair of the RF-MEMS Topical Group of the European Microwave Association. He received the "Outstanding Young Engineer Award" from the IEEE Microwave Theory and Techniques Society in 2011.

He has authored or co-authored more than 150 papers in refereed journals and conferences, holds 4 patents and graduated more than 25 PhD students.