

GUEST EDITORIAL

Guest Editorial, EuMW Special Issue

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This Special Issue of the International Journal of Microwave and Wireless Technology comprises expanded versions of selected papers from the European Microwave Week 2011 (EuMW, 2011). The EuMW, an event organized under the authority of the European Microwave Association (EuMA) since 1998, was held in Manchester, UK, from October 9 to October 14 2011. It consisted of three conferences plus an exhibition. The conferences were the European Microwave Conference (EuMC), the European Microwave Integrated Circuits Conference (EuMIC), and the European Radar Conference (EuRAD). Within a week, the latest technical developments in the microwave field and related topics were presented making this the premier microwave event in Europe. More than 1250 delegates attended EuMW 2011 and a total of 581 papers were presented in oral and poster sessions. The papers underwent, as usual, a rigorous review process, with papers receiving, on average, seven individual scores provided by the Reviewers Panel comprising more than 345 reviewers. The Technical Programme Committee, with nearly 100 members in 28 subcommittees, then met in April 2011 to discuss each paper and finally select papers for the oral and interactive poster sessions.

This special issue of the International Journal of Microwave and Wireless Technology on EuMW 2011 covers many topics from device characterization, wide bandgap HEMTs, transceivers, power amplifiers and antennas through to radar systems. This provides some of the highlights of the very broad technical programme. Authors of the papers with the highest scores in the various topics were invited to submit updated and expanded versions of their conference papers. These expanded papers were then subjected to a further review process by the Editorial Board of this journal. The accepted papers were then collected to form the issue you now have in your hands. As Associate Editors, we would like to thank the authors for their contributions and also the reviewers, whose extensive comments on the papers have contributed substantially to the quality of the final papers presented in this Special Issue. We hope that you enjoy reading this issue, confident that the high standard of the papers will help strengthen EuMW's reputation as the leading microwave event in Europe.

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Ian Robertson received the B.Sc. (Eng) and Ph.D. degrees from King's College London in 1984 and 1990, respectively. From 1984 to 1986, he worked in the MMIC Research Group, Plessey Research, Caswell, UK. Thereafter, he returned to King's College London, initially as a Research Assistant and then as a Lecturer, finally becoming

Reader in 1994. In 1998, he was appointed Professor of Microwave Subsystems Engineering at the University of Surrey where he established the Microwave Systems Research Group and was a founder member of the Advanced Technology Institute (ATI). In June 2004, he was appointed to the University of Leeds Centenary Chair in Microwave and Millimetre-Wave Circuits. He was Director of Learning and Teaching for 5 years and is currently Head of the School of Electronic and Electrical Engineering.

He edited the book *MMIC Design* (IEE, 1995) and co-edited the book *RFIC and MMIC Design and Technology* (IEE, 2001) which has been translated into Chinese. He has published over 400 papers in the areas of MIC and MMIC design. He was the Honorary Editor of *IEE Proceedings – Microwaves, Antennas and Propagation* for more than a decade. In 2011, he was Technical Programme Committee Chair for the European Microwave Week. He was elected Fellow of the IEEE in 2012 for his contributions to monolithic microwave-integrated circuit design and millimeter-wave system-in-package technology.



Stepan Lucyszyn is currently a Reader (Associate Professor) in Millimetre-wave Electronics and Director of the Centre for Terahertz Science and Engineering at Imperial College London. After working in industry, as a satellite systems engineer for maritime and military communications, he spent the first 12 years of his research career working on microwave and

millimeter-wave RFIC/MMICs. In 1999, he was a Tan Chin Tuan Exchange Fellow at the Nanyang Technological University (Singapore). He co-edited a seminal book on RFIC/MMICs, published by the IEE in 2001. This book was translated into Chinese in 2007. For his contributions to RFIC/MMICs, he was made an Adjunct Professor at UESTC (Chengdu, China) in 2008.

Since 2001, Dr. Lucyszyn has been working on RF MEMS and in 2002 was a Guest Researcher within the MEMS laboratory of

the National Institute of Advanced Industrial Science and Technology (Tsukuba, Japan). In 2004, he published a review paper on RF MEMS technology, which won an IEE Premium Award in 2005. Between 2004 and 2007, he represented Imperial College within the European Union's Framework VI Network of Excellence on Advanced MEMS for RF and Millimeter Wave Communications (AMICOM). With contributing chapters from AMICOM, he edited a book titled *Advanced RF MEMS*, published by Cambridge University Press in 2010. For his contributions to RF MEMS, he was made a Guest Professor at Tsinghua University (Beijing, China) in 2008.

For over 15 years, Dr. Lucyszyn has been working on millimeter-wave electronics and, since 2004, investigating the behavior of materials and passive structures operating at THz frequencies. In 2010, he was awarded the D.Sc. degree (higher doctorate) of Imperial College for his contributions to Millimetre-wave and Terahertz Electronics. From Oct. 2010 to September 2011, Dr. Lucyszyn was on sabbatical at the Photon Science Center of the University of Tokyo (Japan), within the Gokami Laboratory (Department of Physics).

Dr. Lucyszyn has (co-)authored approximately 130 papers and 11 book chapters in applied physics and electronic engineering, and delivered many invited presentations at international conferences. In addition, he has served as a member of TPCs and prize committees for various international conferences. Over the last few years, Dr. Lucyszyn has reviewed numerous international research grant proposals and sat on European panels for the funding of research projects. From January 2002 to December 2005 he was Editor-in-Chief of the Taylor and Francis International Journal of Electronics and from November 2005 to October 2009 an Associate Editor for the IEEE/ASME Journal of Microelectromechanical Systems. He is an elected member of the EuMA General Assembly, representing Group 4 (UK, Ireland, Gibraltar, Malta). In 2011, Dr. Lucyszyn was the Chairman of the 41st European Microwave Conference, held in Manchester (UK). In 2005, he was elected Fellow of the Institution of Electrical Engineers (UK) and Fellow of the Institute of Physics (UK),

and in 2008 was invited as a Fellow of the Electromagnetics Academy (USA). In 2009, he was appointed an IEEE Distinguished Microwave Lecturer for 2010–2012.



Tony Brown is Associate Dean for the Faculty of Engineering and Physical Sciences (EPS) and holds the Chair in Communication Engineering in the Microwave and Communication Systems research group, part of the School of Electrical and Electronic Engineering, University of Manchester, UK. Professor Brown is a Fellow of the Institute of Engineering Technology and the Institution of Mathematics and its Applications, a Senior Member of the Institute of Electrical and Electronics Engineers (USA) and a Member of the Institute of Directors. He joined academia in 2003 as research group leader after a 30 year industrial career including senior Board level positions. Tony is retained as (part time) Chairman of Easat Antennas Ltd.

Professor Brown is heavily involved in research in radar systems, antennas, propagation, wireless communications and radio astronomy instrumentation. Recent examples include research into the impact of wind farms on radar performance and the design of extremely large multi-octave phased arrays for the Square Kilometer Array radio telescope. Tony has acted as an international consultant on marine safety-related radar matters (including Vessel Traffic Radar). He has served on numerous international committees including being a past member of the Technical Advisory Commission (TAC) to the Federal Communication Commission (USA) and UK representative to the EU-COST ASSIST initiative. He was Conference Chair for the 2011 European Radar Conference (EuRAD).