Editorial
EIC

I'M VERY happy with the development of J-EDS since the start about 4 years ago. We see a constant increase in submitted high quality manuscripts in a broader area. This calls of course for more work for our volunteering editors. My ambition is to appoint several more editors to cover the broader submission area and to leverage the work of the present editors.

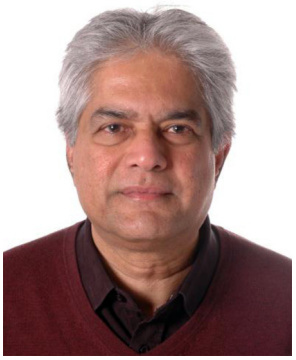
During the IEEE EDS Governance meeting in December 2016 it was decided that J-EDS would open up the field of display technology and make this a special section of the journal. The journal of Display (J-DT) Technology has been terminated from 2017 and we now accept corresponding manuscripts for the J-EDS. The previous editor in chief of the J-DT, Professor Arokia Nathan, University of Cambridge, U.K., has now been appointed J-EDS special editor for the new section on display technology. It is with my greatest pleasure I welcome him to the editorial board to share his vast experience and long editorial skills.

Another very important topic that we face in the scientific publication field is that of plagiarism. Within the scholar one manuscript central we routinely run our software checks of each manuscript and consequently we find and report back to the authors when they don't meet our standards. In addition, I have appointed a new editor who is specialized in understanding plagiarism a few steps further. I'm very happy to bring Professor Carl-Mikael Zetterling, KTH Royal Institute of Technology, Sweden, on board the J-EDS team of editors, covering not only plagiarism but also wide bandgap devices in general. He co-authored the text book "Carroll, J and Zetterling, Carl Mikael (2009), Guiding Students away from Plagiarism", Learning Lab, Royal Institute of Technology, Stockholm, Sweden.

The third new editor addition is to enhance our capacity in device modelling and characterization. My very warm welcome to Professor Paolo Pavan, University of Modena, Italy. He has been a very active researcher in the field of modelling and characterization of nanoscaled devices and a leading scientist in the European device research community. He has a vast experience being on numerous conference program committees as TPC chair and he has also been guest editor in several special issues.

During 2017 I will continue to add more editors to the J-EDS.

MIKAEL ÖSTLING, *Editor-in-Chief*



Arokia Nathan (F'10) received the Ph.D. degree in electrical engineering from the University of Alberta. He holds the Professorial Chair of Photonic Systems and Displays with the Department of Engineering, Cambridge University, U.K. Following Post-Doctoral years with LSI Logic Corporation, USA, and ETH Zurich, Switzerland, he joined the University of Waterloo, where he held the DALSA/NSERC Industrial Research Chair in sensor technology and subsequently the Canada Research Chair in nano-scale flexible circuits. In 2006, he moved to the U.K. to take up the Sumitomo Chair of Nanotechnology with the London Centre for Nanotechnology, University College London. He has held Visiting Professor appointments with the Physical Electronics Laboratory, ETH Zurich, and the Engineering Department, Cambridge University. He has published over 500 papers in the field of sensor technology and CAD, and thin film transistor electronics. He has co-authored four books. He has over 50 patents filed/awarded and has founded/co-founded four spin-off companies. He was a recipient of the 2001 NSERC E.W.R. Steacie Fellowship and the Royal Society Wolfson Research Merit Award from University College London. He serves on technical committees and editorial boards in various capacities. He is a Chartered Engineer, U.K., a fellow of the Institution of Engineering and Technology, U.K., and an IEEE/EDS Distinguished Lecturer.

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Paolo Pavan (SM'12) received the degree in electronics engineering and the Ph.D. degree from the University of Padova in 1990 and 1994, respectively. From 1992 to 1993, he was a graduate student with the University of California at Berkeley, USA, where he was a Visiting Research Engineer until 1994. He has been with the University of Modena and Reggio Emilia since 1994, first as a Research Associate, then as an Associate Professor in 1998 and a Full Professor in 2004, where he has been active in many fields such as the Dean of the Electronic Engineering Program from 2008 to 2016, a member of the Academic Senate from 2010 to 2012 and actively contributed to many working groups and committees; from 2004 to 2008, he was the Deputy-Dean with the Facoltà di Ingegneria di Reggio Emilia, and the Advisor for the Mechatronic Engineering Program. From 2005 to 2011, he was the President of IU.NET, Consorzio Interuniversitario per la Nanoelettronica (Italian University Nano-Electronics Team), including research groups from Università di Bologna, Padova, Pisa, Ferrara, Udine, Calabria, "Sapienza" in Roma, Politecnico di Milano at that time.

He visited Saifun Semiconductors, Israel, from 1997 to 1999, for research activity on NROM, one of the first innovative charge trapping nonvolatile memories.

Dr. Pavan's research interests are in the characterization, modeling, and reliability of nonvolatile memories (flash, charge trapping, PCM, and resistive) and innovative devices (III-V-MOS, FinFET). New characterization techniques have been developed and coupled to physical modeling to achieve a deep understanding of device operations.

He is also active in the industrial electronic applications field, namely "by-wire" and wireless embedded systems, and energy harvesting devices and circuits.

He has authored over 90 papers on journals and conferences (many invited), one book, and two book chapters.

He has been the Chairman of the Technical Committee "Nonvolatile and Programmable Device Reliability" in ESREF2002. In 2002 and 2003, he has been a member of the Technical Sub-Committee "CMOS and Interconnect Reliability" of IEDM (IEEE International Electron Device Meeting). He became the Chairman in 2004 and the European Arrangement Chair of IEDM in 2005 and 2006. He has been an Editor of a Special Issue on Nonvolatile Memories, the IEEE TRANSACTIONS ON DEVICE AND MATERIAL RELIABILITY, in 2004. From 2006 to 2010, he was a member of the Technical Committee of the International Symposium on VLSI, Technology, Systems, and Applications (VLSI-TSA) in Taiwan. Since 2012, he has been a member of the Technical Committees of ESREF and ESSDERC. He is a member of the Technical Committee of IRPS from2014 to 2015. He has been the Technical Program Chair of ESSDERC 2014. He is the Guest Editor of the Special Issue of Solid State Electronics dedicated to ESSDERC 2014. He is currently a member of the Steering Committee of ESSDERC.

He teaches Electronics with the Engineering Departments and more specific lectures for summer schools and masters (e.g., Short Course on "Alternative Nonvolatile Memories" VLSI-TSA, in 2006; 3rd European "Sinano" Summer School in 2008; Master in Nanotechnologies Coordinamento Interuniversitario Veneto per le Nanotecnologie in 2009.

He co-founded two spin-offs: embit s.r.l. in 2004, and xbw s.r.l. in 2006. Both companies work on industrial electronics applications for logistics and mechatronics applications.

He is an active Reviewer for many international journals such as the IEEE TRANSACTIONS ON ELECTRON DEVICES, the IEEE ELECTRON DEVICE LETTERS, the IEEE TRANSACTIONS ON DEVICE AND MATERIALS RELIABILITY, and *Solid State Electronics*.

Lecture Topics: Nonvolatile memories and characterization and modeling of innovative devices.

Carl-Mikael Zetterling (S'91–M'97–SM'01) received the M.Sc.E.E. and Ph.D. degrees from the KTH Royal Institute of Technology, Stockholm, in 1991 and 1997, respectively, where he joined the Faculty of the School of Electrical Engineering in 1997. He has been a Professor of Solid State Electronics since 2005, and, since 2013, he has also been the Vice Dean of the School of Information and Communication Technology. From 1995 to 1996, he was an Invited Scholar with the Center for Integrated Systems, Stanford University, Stanford, CA, USA. In 1998, he was an Invited Professor with Kyoto University, Japan, for three months and again in 2001 for with the Kyoto Institute of Technology, Japan, two months.

His field of research is process technology and device design of high voltage power devices and high temperature radiation hard analog and digital integrated circuits in SiC. He has co-authored around 260 internationally published articles and conference contributions, including editing one book about process technology for silicon carbide devices, and co-writing one book about plagiarism prevention with J. Carroll. He has served in the Technical Program Committee for the TMS Electronic Materials Conference and the IEEE SISC Conference.