Guest editorial

IMAPS 2016 Poland

The International Microelectronics and Packaging Society (IMAPS) Poland Chapter was established in September 1982. In the beginning, it was the ISHM-Poland Chapter, and, from 1997, it became the IMAPS-Poland Chapter. The IMAPS is a non-profit-making organization whose aim is to spread knowledge relating to hybrid microelectronics – a key technology in the assembly and application of semiconductors, thin film circuits and printed circuit boards (PCBs) to form practical miniaturized electronic equipment. In 2008, the IMAPS joined with the IEEE Components, Packaging and Manufacturing Technology (CPMT) Society, bringing into formation the IMAPS-CPMT organization.

The 40th IMAPS Poland International Conference was held in Książ Castle, Wałbrzych and took place between September 25 and 28, 2016. This event was organized by the Wrocław University of Science and Technology. The scope of the Conference covered all aspects of electronics between the chip and the system, and it was attended by 93 participants, including 16 guests from abroad. During the Conference, 18 invited lectures and 63 posters were presented. The conference was supported by six international journals indexed in the Journal Citation Report database and one domestic journal.

This year, as in the previous years, two young scientists have been awarded the prizes of a refund of their conference fees for the next IMAPS 2017 Poland Conference. Also, two awards for "Women in Science" were given by the Visegrad International Network for Microelectronics Engineering Scientists (VINmes).

In this special issue of Soldering and Surface Mount Technology, ten of the conference's peer reviewed papers have been published, covering the processes and procedures associated with soldering and assembly technology. In the first two papers, Krammer et al. describe different aspects of solder paste printing. Hirman and Steiner also report on the influence of solder paste type influence on solder joint quality. The next paper (by Sitek et al.) reports the influence of the solder powder size used in soldering materials, on the reliability and mechanical strength of solder joints in 3D PoP structures. The fifth paper (by Dziurdzia and Mikołajek) details an evaluation of various methods for reducing voiding in lead-free solder joints underneath the thermal pads of LEDs with the use of an X-ray inspection and Six-Sigma methodology. Géczy et al. and Livovsky and Pietriková then present some of the issues related to vapour phase soldering technology. The research of Durisin et al. shows the structure of solder joints performed by melt rapid solidification. The ninth paper (by Dziedzic et al.) proves the electrical stability of thin film resistors mounted on flexible substrates when subjected to mechanical stress. In the final paper, Illés et al. present a review of work published on tin whisker growth in corrosive climates.

I would like to thank all the authors for their scientific work and contributions that have led to the development and publication of this special issue of Soldering and Surface Mount Technology. I hope that it will be of interest to readers of the journal and that it will help them to find novel solutions, contribute to the creation of new ideas and initiate many varied discussions about PCBs and related interconnect technologies. I believe that this branch of science could be effectively further developed in the future.

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Soldering & Surface Mount Technology 29/1 (2017) 1 © Emerald Publishing Limited [ISSN 0954-0911] [DOI 10.1108/SSMT-12-2016-0033]