

Guest Editorial

This special issue of the *Tribology in Industry* contains selected papers from the 14th International Conference on Tribology – SERBIATRIB '15 which was held on May 13-15, 2015 in Belgrade, Serbia. The SERBIATRIB conference is traditionally organized by the Serbian Tribology Society (STS) every two years, since 1989. This year the Conference was organized by the STS and the University of Belgrade, Faculty of Mechanical Engineering.

Tribology is one of the sciences and technical disciplines whose development has a great influence on the reliability and life of mechanical systems. Interdisciplinary character of tribology and presence of tribological processes in most of mechanical systems demand researches in all fields of industry, where tribological activities can achieve significant savings in materials and energy consumption and minimize environmental impact. The 14th International Conference on Tribology – SERBIATRIB '15 was focused on the state-of-the-art and future trends in both the fundamental and applied aspects of tribology research at the macro-, micro- and nano-scale.

All together 93 presentations have been accepted for Conference from 27 countries (Algeria, Austria, Belarus, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Finland, France, Germany, Greece, Hungary, Iraq, Mexico, Netherlands, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Switzerland, Taiwan, Turkey,

UK, Ukraine and USA). Approximately 63 presentations were submitted by the foreign authors and approx. 30 presentations from the Serbian authors.

A total of 135 registered participants took part in the Conference, of which 72 participants were from abroad and 63 from Serbia. The Conference was supported by 12 patrons and sponsors, and within the framework of the Conference a mini technical exhibition with 6 exhibitors was held. During the Conference Professor Branko Ivković and Professor Aleksandar Rac, one of the founders of the STS and SERBIATRIB conference, received the award of appreciation for their valued contributions in advancing the STS and promoting the Tribology in Serbia.

The diversity of the topics presented during the Conference was exemplified by the four plenary lectures delivered by: Ahmet T. Alpas (University of Windsor, Canada) entitled *Diamond-like carbon coatings and graphene for automotive and manufacturing applications*; Kenneth Holmberg (VTT Technical Research Centre of Finland, Finland) entitled *Global impact of friction on energy consumption, economy and environment*; Nikolai K. Myshkin (Metal-Polymer Research Institute of Belarus National Academy of Sciences, Belarus) entitled *Polymer tribology: Current state and applications*; Ernst Meyer (University of Basel, Switzerland) entitled *Nanomechanical investigations of graphene by friction force microscopy*.



The Proceedings of the SERBIATRIB '15 conference contains 614 pages, with 83 papers classified into eleven chapters: Plenary lectures (4); Tribological properties of solid materials (10); Surface engineering and coating tribology (11); Lubricants and lubrication (10); Tribotesting and tribosystem monitoring (8); Tribology of machine elements (8); Tribology of manufacturing processes (8); Design and calculation of tribocontacts (8); Biotribology / nano and microtribology (6); Other topics related to tribology (8); Trenje, habanje i podmazivanje (2) – papers written in Serbian language.

Reviewing and editing the submissions brought some challenges, since only the high-quality papers could be accepted for publication. The 15 papers in this special issue of the *Tribology in Industry* were selected as representative of the Conference and have subsequently undergone a

standard peer review process. In addition to the papers presented in this journal, another 14 papers were selected for publication in the special issue of the *FME Transactions Tribology in Industry* – the scientific journal published by the Faculty of Mechanical Engineering in Belgrade. I hope that readers will regard the selected papers as both an educational resource and a launching point for further advancing in our understanding of tribology.

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