

Preface

The International Conference on Tribology – SERBIATRIB, is traditionally organized by the Serbian Tribology Society every two years, since 1989. The previous conferences were held in Kragujevac (1989, 1991, 1993, 1999, 2005 and 2007), Herceg Novi (1995), Kopaonik (1997) and Belgrade (2001 and 2003). This year the 11th International Conference on Tribology – SERBIATRIB '09 takes place on May 13-15, 2009 in Belgrade.

This Conference is organized by the Serbian Tribology Society (STS) and the University of Belgrade, Faculty of Mechanical Engineering. Organizing Scientific Conferences, STS plays a significant role in helping engineers and researchers to introduce in the fundamentals of tribology and to present their experience, solutions and research results. In the frame of the Conference a worth while jubilee: 15 Years of Serbian Tribology Society, which was in 2007, will be laid out with an appropriate publication of the STS history and activities (in Serbian).

The scope of the 11th International Conference on Tribology – SERBIATRIB '09 embraces the state of art and future trends in tribology research and application. The following two aspects of tribology practice require special attention. Firstly, the requirement for higher productivity of machinery means that machines must operate under higher loads and at higher speeds and temperatures, and that is why finding the right solutions for tribological processes is extremely important. Secondly, the good tribology knowledge can greatly contribute to the saving of material and energy.

The Conference program generally includes the following topics: fundamentals of friction and wear; tribological properties of solid materials; surface engineering and coating tribology; lubricants and lubrication; tribotesting and tribosystem monitoring; tribology in machine elements; tribology in manufacturing processes; tribology in transportation engineering; design and calculation of tribocontacts; sealing tribology; biotribology; nano and microtribology and other topics related to tribology.

All together 69 papers of authors from 19 countries (USA, Taiwan, Russia, Belarus, Ukraine, Slovakia, Germany, Austria, France, Netherlands, Italy, Slovenia, Bosnia and Herzegovina, Romania, Bulgaria, Greece, Turkey, Iraq and Serbia) are published in the Proceedings. Approximately 38 papers were submitted by the foreign authors and app. 31 papers by the Serbian authors. All papers are classified into seven chapters:

- Plenary lectures (5)
- Tribological properties of solid materials (12)
- Surface engineering and coating tribology (9)
- Lubricants and lubrication (8)
- Tribology in machine elements (8)
- Tribology in manufacturing processes and other topics related to tribology (11)
- Trenje, habanje i podmazivanje (16) – papers written in Serbian language

It was a great pleasure for us to organize this Conference and we hope that the Conference, bringing together specialists, research scientists and industrial technologists, and Proceedings will stimulate new ideas and concepts, promoting further advances in the field of tribology. The Editors would like to thank the Scientific and the Organizing Committee and all those who have helped in making the Conference better. We would like to thank especially prof. Branko Ivković and prof. Aleksandar Rac for the helpful suggestions and support.

The Conference is financially supported by the Ministry of Science and Technological Development of the Republic of Serbia, CSM Instruments, Serbian Chamber of Commerce, Messer Tehnogas AD, Oil Refinery Modriča, Technology Transfer Center Hanover and RAR Batajnica.

We wish to all participants a pleasant stay in Belgrade and we are looking forward to seeing you all together at the 12th International Conference on Tribology – SERBIATRIB '11.

Belgrade, May 2009

Editors