

## From the Guest editors

The 18<sup>th</sup> Symposium on Thermal Science and Engineering of Serbia entitled SIMTERM 2017, organized by the Faculty of Mechanical Engineering in Nis and the Society of Thermal Engineers of Serbia, was held in the period from October 17 to 20, 2017, in the “Moravica” hotel in Sokobanja. This was the seventh consecutive time that the Faculty of Mechanical Engineering in Nis had the honour of organizing this Symposium, which is held every second year as a renowned international scientific conference.

During SIMTERM 2017, 120 papers from Serbia and abroad were presented. Apart from the participants from Serbia, the papers were also presented by participants from a number of other countries (Italy, Russia, Turkey, Romania, Bulgaria, Macedonia, Slovenia, Croatia, Bosnia and Herzegovina, Germany, Kazakhstan, Montenegro). The Symposium took place in 8 sessions which included the following thematic areas: Technologies and Plants, New and Renewable Energy Sources, Mathematical Modelling and Numerical Simulation, Experimental Investigation of Processes, Energy Efficiency in Industry, Civil Engineering, Communal Systems and Traffic, Expert Systems, Fluid Flow, Heat and Mass Transfer, and Combustion, Environmental Protection, as well as several poster sessions.

For this special issue of the journal *Thermal Science* has been prepared a selection of best papers presented at the 18<sup>th</sup> Symposium on Thermal Science and Engineering. Papers have been chosen and reviewed once again in accordance with the high standards of the journal *Thermal Science*.

This special issue of journal *Thermal Science* includes 27 papers authored by the professors and assistants of the Faculty of Mechanical Engineering in Nis, but also by professors, assistants and researchers from other faculties and institutes, both from the country and abroad (Russia, Turkey, Romania, Bulgaria, Macedonia, Bosnia and Herzegovina, and by doctoral students, who actively participate in scientific research and projects, and whose work on their doctoral dissertations at faculties in Serbia yielded a number of papers.

The papers published in this issue encompass a wide range of fields (fluid mechanics, thermal engineering, thermoenergetics, automation and robotics, numerical simulation in design and testing of thermal engineering devices, modelling of solar concentrators, energy efficiency in building construction, hydraulic engineering, engines), and deal with the current, modern problems from various scientific disciplines. The papers present the most important scientific and professional results obtained in the last several years. All of the papers, regardless of the scientific field to which they belong, possess a common basis, and that is the examination of thermal processes. This shows that thermal processes are present in all aspects of research in various branches of engineering. The papers included in this special issue mainly present the results of the research within the projects funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia and international projects.

The publication of the results achieved during scientific research in the international level journals represents a challenge for every researcher, both from Serbia and from other countries, and particularly for young researchers. By publishing their papers in international journals, young researchers have their own path into the world of science, and create an opportunity to submit their research results to the critique from a wider circle of renowned ex-

perts. Thus, apart from the appropriate recognition, they also receive responses and comments concerning the direction in which their future research, improvement and development should proceed.

We would like to use this opportunity to thank our esteemed professors and renowned scientific workers, dr Simeon Oka, editor-in-chief emeritus, of the journal *Thermal Science*, and dr Milan Radovanović, president of the Society of Thermal Engineers of Serbia, for their understanding in accepting the initiative to publish this special issue, and their selfless and generous help in its publication, which is of great importance for the Faculty of Mechanical Engineering in Nis.

We hope that this will contribute that regular two years Symposium of the Society of Thermal Engineers of Serbia gain even greater reputation and popularity in the years to come, leading to an even greater gathering of participants from the country and abroad.

Furthermore, we would like to extend our gratitude to dr Nenad Pavlović, dean of the Faculty of Mechanical Engineering in Nis, on endorsing the initiative to publish this special issue of the journal *Thermal Science*, as well as the support and understanding that he expressed during the preparation of this, for us very important, issue of the journal.

We would also like to thank the reviewers who have significantly improved the quality of the published papers through their reviews, constructive comments and suggestions, thus providing invaluable help to authors.

Lastly, we thank all those people who have contributed to the publication of this special issue in their own way, and who have been enormously helpful and made the publication of this issue possible through their great dedication.

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