Preface

The conference "Zavalishin's Readings" was established as a tribute to the memory of Dmitry Aleksandrovich Zavalishin (1900-1968) – a Russian scientist, corresponding member of the USSR Academy of Sciences, founder of the school of valve energy converters based on electric machines and valve converters energy. The first conference was organized by the Institute of Innovative Technologies in Electromechanics and Robotics of the St. Petersburg State University of Aerospace Instrumentation in 2006.

The purpose of the conference is the exchange of information and progressive results of scientific research work of scientific and pedagogical workers, young scientists, graduate students, applicants and students in the field of: automatic control systems, electromechanics, electric power engineering and electrical engineering, mechatronics, robotics, automation, technical physics and management in the electric power industry.

The 13th International Conference on Electromechanics and Robotics "Zavalishin's Readings" - 2018, ER(ZR)-2018 was held on April 18-21, 2018 in St. Petersburg, Russia by the St. Petersburg State University of Aerospace Instrumentation (SUAI) and St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences (SPIIRAS) in cooperation with German Centre for Research and Innovation Moscow (DWIH) and Russian Foundation for Basic Research (grant № 18-08-20012).

During the conference the invited talks were given by Prof. Michael Beetz (University Bremen, Germany), Prof. Karsten Berns (TU Kaiserslautern, Germany), Prof. Christian Ott (DLR, Germany), Prof. Sebastian Stueker (KIT, Germany), Prof. Oliver Jokisch (HfTL, Germany), Prof. Ilshat Mamaev (KIT, Germany).

More than 150 papers were submitted to the conference and each paper was reviewed by several scientists. Around 30% of the best papers were published in English proceedings by EDP Sciences on EI Serial Journal of MATEC web of Conferences indexed in SCOPUS, Thomson Reuters (Web of Science), Inspec, etc. Due to great efforts of reviewers and scientific editors Prof. Andrey Ronzhin and Prof. Vladislav Shishlakov this issue was carefully prepared and consists of 45 contributions of authors from Armenia, India, Israel, Japan, Germany, France, Mexico, Portugal, Russia, Serbia, Taiwan, Thailand, Turkey and Viet Nam. Special thanks are due to the members of the Local Organizing Committee for their tireless effort and enthusiasm during the conference organization.

We express our deepest gratitude to all participants for their valuable contribution to the successful organization of ER(ZR)-2018, hope for and look forward to your attention to the next International Conference on Electromechanics and Robotics "Zavalishin's Readings" in 2019. The conference website is located at: <http://suai.edu.ru/conference/zav-read/>.

General Chair

of 13th International Scientific-Technical Conference

on Electromechanics and Robotics "Zavalishin's Readings" – 2018,

Rector of the St. Petersburg State University of Aerospace Instrumentation

Prof. Yulia A. Antokhina