

Preface

The 12th International Scientific-Technical Conference on Electromechanics and Robotics "Zavalishin's Readings" - 2017, ER(ZR)-2017 was held on 18-22 April 2017 in St. Petersburg, Russia. The conference 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, professor, doctor of technical sciences, honored worker of science and technology of the RSFSR, 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 and is timed to the 60th anniversary of the Institute. Today the conference has become international and be held for the twelfth time in St. Petersburg.

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.

Around 100 papers were submitted to the conference and each paper was reviewed by several scientists. In this year around 30% of 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 29 contributions of authors from Russia, Ukraine, Germany, China, Viet Nam, Belarus, and Czech Republic. Special thanks are due to the members of the Local Organizing Committee and secretary Sergey Solyonyj 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)-2017, hope for and look forward to your attention to the next International Scientific-Technical Conference on Electromechanics and Robotics "Zavalishin's Readings" in 2018. The conference website is located at: <http://suai.edu.ru/conference/zav-read/>.

**General Chair
of 12th International Scientific-Technical Conference
on Electromechanics and Robotics "Zavalishin's Readings" – 2017,
Rector of the St. Petersburg State University of Aerospace Instrumentation
Prof. Yulia A. Antokhina**