

## Preface

International Conference on Industrial Engineering took place on May 16-19, 2017 in Saint-Petersburg, Russian Federation. The conference was organized by 4 universities – Peter the Great Saint-Petersburg Polytechnic University, South Ural State University (national research university), Platov South-Russian State Polytechnic University and Far Eastern Federal University.

The conference was carried out under financial support of the South Ural State University (national research university), Peter the Great Saint-Petersburg Polytechnic University as well as at informational support of the Institute of Electrical and Electronics Engineers (South Ural IEEE Chapter).

The conference was really large-scaled and international. The international program committee has selected more than 1000 reports. The conferees represented 66 Russian cities and towns and 17 cities of 11 states such as Hungary, Egypt, India, Kazakhstan, China (including Taiwan), Iran, Kyrgyzstan, Poland, Tajikistan, Ukraine, Switzerland.

The conference participants submitted papers reflecting recent advances in the field of Industrial Engineering, in Russian and English. The conference was organized in 15 sections, including:

Part 1. Research and development of machines and mechanisms (Dynamics of machines and working processes; Friction, wear, and lubrication in machines; Design and manufacturing engineering of industrial facilities; Surface transport and technological machines);

Part 2. Materials engineering and technologies for production and processing (New functional materials and technologies; Innovation and cost-effective use of resources of metallurgy industry);

Part 3. Control and automation systems for manufacturing in the industrial production areas (Control systems and their industrial application; Industrial mechatronics, automation and robotics; Electric power systems and renewable energy sources; Power electronics, electrical machines and drives; Signal processing and real time embedded control; Modeling and computer technologies; Theory and applications of dynamical measurements);

Part 4. Sustainable development of industrial enterprises;

Part 5. Industrial and civil construction.

The international program committee has selected totally 200 papers for publishing in the Solid State Phenomena (Trans Tech Publications Ltd.).

The organizing committee would like to express our sincere appreciation to everybody who has contributed to the conference. Heartfelt thanks are due to authors, reviewers, participants and to all the team of organizers for their support and enthusiasm which granted success to the conference.

Conference Chair, prof. Andrey A. Radionov.

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