



Research and Development  
of Mechanical Elements  
and Systems



“Machine design in the  
context of Industry 4.0 –  
Intelligent products”



Association for Design, Elements  
and Constructions



University of Belgrade  
Serbia



Faculty of Mechanical  
Engineering

Department of  
General machine design

**Contact:**

IRMES 2022

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The 10<sup>th</sup> International Scientific Conference

# IRMES 2022

“Machine design in the context of Industry 4.0 – Intelligent products”

**26. May 2022, Belgrade, Serbia**

International Conference on Research and Development of Mechanical Elements and Systems – IRMES is organized under the auspices of the Association for Design, Elements and Constructions (ADEKO). The Conference has a long tradition of gathering scientists, researchers, academics, engineers and industry representatives, intending to exchange and share knowledge, ideas, experiences, innovations and research results in the field of machine design, machine elements and systems.

The last edition of the conference was held in 2019. The next regular conference was supposed to be held in 2021. Due to the current epidemic situation, it has been postponed to 2022. Although the epidemic situation has not changed, the Program Committee of the conference decided to hold the conference, but in a slightly different format than usual.

The conference will last one day and will have four sessions: plenary lectures, invited lectures, a poster session and a panel discussion, with a limited number of participants. However, all interested authors are welcome to submit their papers. After review and acceptance, manuscripts will be included in the conference program and published in a book of conference proceedings. The papers will be presented in poster form during the conference, with no presence of the authors.

## Conference topics

### 1. General machine design, machine elements and systems

Geometric, mathematical and mechanical modelling and simulation; Loading and stress conditions; Friction, wear and lubrication of machine elements; Materials, thermal treatments and coatings; Noise and vibrations; Monitoring and maintenance; Testing of mechanical systems; Failure analysis; Safety, quality and reliability; Power transmission systems (optimized design, experimental testing – lifetime assessment, efficiency and noise behaviour, condition monitoring and predictive maintenance); Machine design for Industry 4.0 (knowledge, creativity, innovations)

### 2. Advanced technologies in the Industry 4.0 focus

Intelligent manufacturing systems; Industrial design; Virtual engineering; Robotics and mechatronics; Rapid prototyping; Additive technologies and additive production; Virtual engineering technologies and simulations; Information and computer technologies; Communication and navigation engineering and technologies; Energy-saving and environment-friendly technologies; Regeneration technologies; Digital transformation in mechanical engineering – strategies, trends, realization

### 3. Mechanical engineering education in the context of Industry 4.0

Current state of mechanical engineers education in Western Balkan countries; Comparison of systems of education in EU and Western Balkan countries; Analysis of mechanical engineers education demands and outcomes according to the Industry 4.0; Ways to improve the education of mechanical engineers in Western Balkan region regarding the 21<sup>st</sup>-century market demands; Information and communication technologies in mechanical engineering education



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## Important dates

First call for contribution:	25. February 2022
Abstract submission deadline:	15. March 2022
Notification of abstract acceptance:	20. March 2022
Paper and poster submission deadline:	05. May 2022
Notification of paper acceptance:	15. May 2022
Final conference program:	20. May 2022
IRMES 2022 Conference:	26. May 2022

**There is no registration fee.**

## Submission

The **abstract** (max 200 words), accepted **paper** (6-8 pages) and **poster** (not obligatory) should be prepared according to the conference requirements (templates provided) and sent by conference e-mail [irmes2022@mas.bg.ac.rs](mailto:irmes2022@mas.bg.ac.rs), strictly respecting appropriate deadlines.

Submitted posters will be printed and exhibited in the conference hall and the hallway in front of the hall, throughout the conference.

## Publication

Each submitted paper shall be reviewed anonymously by two reviewers from different states. The book of conference proceedings will contain all accepted papers and will be published with the appropriate ISBN.

**The paper publishing and poster printing are free of charge.**

## Conference venue:

University of Belgrade  
Faculty of Mechanical Engineering  
Kraljice Marije 16, 11120 Belgrade, Serbia

[www.mas.bg.ac.rs](http://www.mas.bg.ac.rs)

### President of Programme Committee

Prof. Dr. Radivoje Mitrović

### Secretary of Programme Committee

Asst. Prof. Dr. Žarko Mišković