INTERNATIONAL CONFERENCE
MULTIDISCIPLINARY ASPECTS OF PRODUCTION ENGINEERING (MAPE) 2018

This multi-science event took place from 5th to 8th of September 2018, in Zawiercie, Hotel Zawiercie**** Business & Leisure, POLAND. The MAPE 2018 Conference enhances presentation of the latest solutions in the area of production engineering and underpins a thorough analysis and evaluation of current state of knowledge in the covered areas.

The main organizer of MAPE 2018 was Silesian University of Technology, Institute of Production Engineering, Poland. The conference partners were as follows:

**MAIN ORGANIZER**

![Silesian University of Technology - POLAND](image)

**CONFERENCE IS SUPPORTED BY**

![Polish Federation of Engineering Associations](image)

**PARTNERS**

![Czestochowa University of Technology – POLAND](image)

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![Polish Association for Production Management](image)

![Luleå University of Technology – SWEDEN](image)

![The Pennsylvania State University – USA](image)

![Kahramanmaraş Sütçü İmam Üniversitesi – TURKEY](image)
The Institute of Production Engineering has been organizing this Conference since 2004 under the title: Systems Supporting Production Engineering. In 2018 the organizing committee decided to change the title of the conference to Multidisciplinary Aspects of Production Engineering (MAPE).

The 15th edition of the International Conference MAPE 2018 continued the tradition of the previous editions focusing attention of the participants to new approaches and ideas related to the central topics of the conference or analysing other subject matters discussed during the previous editions of this event.

TOPICS OF THE INTERNATIONAL CONFERENCE MAPE 2018:

TECHNICAL ASPECTS OF PRODUCTION ENGINEERING
- Manufacturing Process Design and Planning
- Organizing and Controlling of Production Processes
- Information technology in production engineering
- Management systems in production engineering
- Maintenance of machinery and equipment
- Quality Engineering
- Design of anthropotechnical systems

NEW TRENDS IDEAS IN TECHNOLOGY AND ENGINEERING
- Smart Engineering and Industry 4.0
- Engineering Problems in SMART CITY Projects
- Management of Product and Process Innovations
- Virtual Technologies in Healthcare
- Sustainability Approach in Engineering and Management
- Various Aspects of Technology Assessment

MANAGEMENT AND ECONOMICS
- Management systems in production engineering
• Sustainability engineering and management
• Quality and production management
• Creation, development and processing of financial and non-financial information for management in production engineering
• Budgeting and cost accounting used to make decisions in the area of control of manufacturing processes
• Controlling in the scope of management of manufacturing processes
• Cost analysis of design processes
• The use of integrated management systems for management accounting purposes in the area of manufacturing processes
• Modern cost accounts used in innovative production enterprises
• Controlling of production processes

SOCIAL ASPECTS
• Social responsibility in design of products and production processes
• Employee–driven innovations
• Social innovations
• Innovative education and training
• Organizing and managing human resources
• Coordination of work teams
• The role of human capital in production engineering
• Development and improvement of employee skills
• Development of innovative activities of employees
• Social aspects of functioning of the employee teams
• Quality of life in the workplace

ENVIRONMENTAL ASPECTS
• Environmental impacts of production systems
• Product life cycle Assessment
• Eco-innovations
• Environmental monitoring
• Measurement methods in environmental management
• Information systems in environmental management
• Industrial environment impact on human beings
• Shaping the working environment

SAFETY ASPECTS
• Work health and safety management systems
• The role of the human factor in work health and safety management systems
• Technological safety (quality and production safety)
• Process and machinery safety management
• Work health and safety in production
• Environmental safety management
• Products and services safety management
• Occupational, process and environmental risk management
• Economic and legal aspects of work health and safety
• Ergonomics and occupational safety – new challenges

In the 15th edition of this Conference a number of 111 papers were discussed in the framework of the six sections created around the proposed central topics. The MAPE 2018 authors were affiliated with institutions of higher education and research centres of Slovak Republic, Poland, Russia, Czech Republic, United Kingdom, Turkey, Canada, Netherlands, China, Serbia, USA, Estonia, Spain, Georgia, France, Romania, Ukraine, Germany and New Zealand.
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