

## CONFERENCE TOPICS

### MATERIAL REMOVAL TECHNOLOGIES

- Cutting Technology – improvement and application of existing cutting processes; progressive, advanced, precision and environmentally friendly processes;
- Fundamentals of cutting process – machinability, cutting characteristics, database of machining, intelligent machining processes;
- Monitoring, modelling and optimization of machining processes – development of the procedures and their practical implementation;
- Non-conventional and hybrid technologies – research and application in contemporary industry.

### MACHINE TOOLS AND AUTOMATIC FLEXIBLE TECHNOLOGICAL SYSTEMS, CAx AND CIM PROCEDURES AND SYSTEMS

- Development and prediction of trends in development of machine tools and complex manufacturing systems;
- New concepts of machine tools;
- Development of machine tool and manufacturing system components; development of control, drive, measuring and manipulation systems;
- Machine tool design; new methods in design and construction;
- Behavior testing of machine tools and components; modern methods and results;
- Exploitation, modernization and maintenance of machine tools as means to an increased productivity and cost efficiency; methods, procedures and solutions;
- Automatic flexible technological structures; conceptual solutions, developed solutions, exploitation characteristics;
- Procedures and systems for automated designing, construction and calculation - product design;
- Procedures and systems for automated programming of NC machine tools, manipulation systems, measurement machines and complex technological systems;
- Complex technological systems, Systems for computer integrated manufacturing; conceptual solutions, achievements in development;
- Techno-economical aspects of practice of CAD, CAM, CAQ, ..., CIM systems;
- New approaches and methods in designing and production (systems of artificial intelligence, expert systems, mechatronics, concurrent engineering, reverse engineering, rapid prototyping, virtual prototype,...).

### METROLOGY, QUALITY, FIXTURES, CUTTING TOOLS AND TRIBOLOGY

- Legal metrology, standardization;
- Measurement methods, measurement techniques;
- Precision engineering, calibration, CAQ/CAI;
- 3D-Digitization, reverse engineering, CAD Inspection;
- Quality tools, quality control;
- Total quality management, six sigma, manufacturing management;
- Maintenance, maintenance systems, maintenance management;
- Technical diagnostics, diagnostics methods, diagnostics techniques;
- Fixtures layout optimization, fixtures design, fixtures analysis;
- Flexible fixture systems, fixtures management;
- Cutting tool materials, cutting tool design;
- Modular tooling, cutting tool management;
- Surface topography, friction, wear, lubricants, coatings;
- Triboanalysis, tribomonitoring, tribometry, biotriboology.

### PROCESS PLANNING, OPTIMIZATION, LOGISTICS AND INTERNET TECHNOLOGIES IN PRODUCTION ENGINEERING

- Processes planning; Group technology; Integrated CAPP systems;
- Technoeconomical optimization; Optimization methods; Multi-criteria decision-making;
- Design for manufacturing and assembly-DfMA; Product manufacturability; Production cost and time;
- Production logistics; Production planning, scheduling and control; Modeling, simulation and optimization of manufacturing and production processes;
- Collaborative engineering; Cloud manufacturing; Smart manufacturing;
- Manufacturing cyber physical systems; Internet of things in manufacturing.

### MATERIALS, METAL FORMING, CASTING AND WELDING

- Metal forming technologies;
- Casting technologies;
- Welding technologies;
- Heat treatment technologies, nanotechnologies and surface engineering technologies;
- Plastics shaping technologies;
- Materials in production engineering;

### MECHANICAL ENGINEERING AND ENVIRONMENTAL PROTECTION

- Cleaner production;
- Recycling, zero waste technologies;
- Environmental management;
- Eco-design and Life Cycle Assessment (LCA) of products and processes.

### BIO-MEDICAL ENGINEERING

- Application of modern engineering methods in development of biomedical products (3D digitization, reverse engineering, rapid prototyping, virtual design...);
- Application of modern manufacturing technologies in production of biomedical products (CAD/CAM, rapid prototyping, rapid tooling...);
- Modern approaches in quality control of biomedical products.

### ADDITIVE MANUFACTURING TECHNOLOGIES

- Reliability, quality, and performance of the AM processes and the main challenges for their commercialization and utilization in advanced applications.

## DEADLINES

- **May 25th, 2024** - Deadline for abstract submission
- **June 1th, 2024** - Notification of abstract acceptance
- **July 25th, 2024** - Deadline for paper submission
- **August 25th, 2024** - Review results
- **September 10th, 2024** - Conference programme

## ACCOMMODATION

Information regarding accommodation will be published on the Conference website.

## CONFERENCE LANGUAGE

Official language of the Conference is **English**.

## DATES and VENUES

- **September 24, 2024** - Faculty of Technical Sciences, Novi Sad, Serbia
- **September 25, 2024** - Science and Technology Park, Novi Sad, Serbia
- **September 26, 2024** - Faculty of Technical Sciences, Novi Sad, Serbia

## INFORMATIONS

Milana Ilić Mićunović  
Faculty of Technical Sciences  
Department of Production Engineering  
Trg Dositeja Obradovica 6, 21000 Novi Sad, Serbia  
Tel.: (+381 21) 485 2326; 485 23 50  
Fax: (+381 21) 454 495  
E-mail: [mma2024@uns.ac.rs](mailto:mma2024@uns.ac.rs)  
[www.mma.ftn.uns.ac.rs](http://www.mma.ftn.uns.ac.rs)



UNIVERSITY OF  
NOVI SAD

FACULTY OF  
TECHNICAL SCIENCES

DEPARTMENT OF  
PRODUCTION ENGINEERING

SCIENCE AND TECHNOLOGY PARK  
NOVI SAD

15<sup>TH</sup> INTERNATIONAL  
SCIENTIFIC  
CONFERENCE

MMA  
2024  
FLEXIBLE  
TECHNOLOGIES

NOVI SAD  
SERBIA  
SEPTEMBER 24-26, 2024

INFORMATION  
AND  
CALL FOR PAPERS

## INTERNATIONAL SCIENTIFIC COMMITTEE

Miodrag Hadžistević, Chairman, University of Novi Sad, SRB  
Bojan Ačko, University of Maribor, SVN  
Boris Agarski, University of Novi Sad, SRB  
Sergei Alexandrov, Russian Academy of Sciences, RUS  
Aco Antić, University of Novi Sad, SRB  
Jan C. Aurich, Technical University Kaiserslautern, GER  
Sebastian Baloš, University of Novi Sad, SRB  
Jelena Baralić, University of Kragujevac, SRB  
Stevo Borojević, University of Banja Luka, BIH  
Miran Brezočnik, University of Maribor, SVN  
Borut Buchmeister, University of Maribor, SVN  
Erhan Budak, Sabanci University, TUR  
Igor Budak, University of Novi Sad, SRB  
Emanuele Carpanzano, University of Applied Sciences and Arts of Southern Switzerland, CHE  
Jasmina Čaloska, Ss. Cyril and Methodius University in Skopje, MKD  
Robert Čep, Technical University of Ostrava, CZE  
Ilija Čosić, University of Novi Sad, SRB  
Joao Paulo Davim, University of Aveiro, PRT  
Goran Devedžić, University of Kragujevac, SRB  
Zoran Dimić, Lola Institute, SRB  
Lubomir Dimitrov, Technical University of Sofia, BGR  
Miroslav Dovića, University of Kosice, SVK  
Viorel Mircea Dragoi, Transilvania University of Brasov, ROU  
Igor Drstvenšek, University of Maribor, SVN  
Boris Dumnić, University of Novi Sad, SRB  
Numan M. Durakbasa, Vienna University of Technology, AUT  
Goran Đukić, University of Zagreb, CRO  
Kornel Ehmman, Northwestern University, USA  
Sabahudin Ekinović, University of Zenica, BIH  
Milan Erić, University of Kragujevac, SRB  
Luigi Maria Galantucci, Politecnico di Bari, ITA  
Adam Gaska, Cracow University of Technology, POL  
Valentina Gečevska, Ss. Cyril and Methodius University in Skopje, MKD  
Gordana Globočki Lakić, University of Banja Luka, BIH  
Dušan Golubović, University of East Sarajevo, BIH  
Marin Gostimirović, University of Novi Sad, SRB  
Predrag Janković, University of Niš, SRB  
Živana Jakovljević, University of Belgrade, SRB  
Sabahudin Jašarević, University of Zenica, BIH  
Zoran Jurković, University of Rijeka, CRO  
Simon Klančnik, University of Maribor, SVN  
Milan Kolarević, University of Kragujevac, SRB  
Lazar Kovačević, University of Novi Sad, SRB  
Borut Kosec, University of Ljubljana, SVN  
Snežana Čirić Kostić, University of Kragujevac, SRB  
Aleksandar Košarac, University of East Sarajevo, BIH  
Milija Krašnik, University of East Sarajevo, BIH  
Peter Krajnc, Chalmers University of Technology, SWE  
Davorin Kramar, University of Ljubljana, SVN  
Ivan Kuric, University of Žilina, SVK  
Dragan Lazarević, University of Priština in Kosovska Mitrovica, SRB  
Dejan Lukić, University of Novi Sad, SRB  
Ognjan Lužanin, University of Novi Sad, SRB  
Srećko Manasijević, Lola Institute, SRB  
Miodrag Manić, University of Niš, SRB  
Mijodrag Milošević, University of Novi Sad, SRB  
Mladimir Milutinović, University of Novi Sad, SRB  
Zoran Miljković, University of Belgrade, SRB  
Slobodan Mitrović, University of Kragujevac, SRB  
Slobodan Morača, University of Novi Sad, SRB  
Dejan Movrin, University of Novi Sad, SRB  
Dimitris Mourtzis, University of Patras, GRE

Bogdan Nedić, University of Kragujevac, SRB  
Duško Pavletić, University of Rijeka, CRO  
Mladen Perinić, University of Rijeka, CRO  
Darko Petković, University of Zenica, BIH  
Petar B. Petrović, University of Belgrade, SRB  
Franci Pušavec, University of Ljubljana, SVN  
Radovan Puzović, University of Belgrade, SRB  
Dragan Rajnović, University of Novi Sad, SRB  
Biserka Runje, University of Zagreb, CRO  
Borislav Savković, University of Novi Sad, SRB  
Milenko Sekulić, University of Novi Sad, SRB  
Plavka Skakun, University of Novi Sad, SRB  
Denijal Sprečić, University of Tuzla, BIH  
Darko Stefanović, University of Novi Sad, SRB  
Miladin Stefanović, University of Kragujevac, SRB  
Antun Stoić, University of Slavonski Brod, CRO  
Tibor Szalay, Budapest University of Technology and Economics, HUN  
Tomislav Šarić, University of Slavonski Brod, CRO  
Goran Šimunović, University of Slavonski Brod, CRO  
Branko Škorić, University of Novi Sad, SRB  
Lubomír Šooš, Slovak University of Technology, SVK  
Dušan Šormaz, Ohio University, USA  
Branko Štrbac, University of Novi Sad, SRB  
Slobodan Tabaković, University of Novi Sad, SRB  
Zorana Tanasić, University of Banja Luka, BIH  
Pal Terek, University of Novi Sad, SRB  
Radoslav Tomović, University of Montenegro, MNE  
Alan Topčić, University of Tuzla, BIH  
Nicolae Ungureanu, North University of Baia Mare, ROU  
Joško Valentinić, University of Ljubljana, SVN  
Marko Vilotić, University of Novi Sad, SRB  
Đorđe Vukelić, University of Novi Sad, SRB  
Lihui Wang, KTH Royal Institute of Technology, SWE  
Wojciech Zebala, Cracow University of Technology, POL  
Saša Živanović, University of Belgrade, SRB  
Aleksandar Živković, University of Novi Sad, SRB

## HONORARY COMMITTEE

Slavko Arsovski, University of Kragujevac, SRB  
Pavao Bojanić, University of Belgrade, SRB  
Franc Čuš, University of Maribor, SVN  
Dragan Domazet, Metropolitan University, SRB  
Milenko Jovičić, University of Belgrade, SRB  
Vid Jovišević, University of Banja Luka, BIH  
Milišav Kalajdžić, University of Belgrade, SRB  
Janez Kopač, University of Ljubljana, SVN  
Pavel Kovač, University of Novi Sad, SRB  
Miodrag Lazić, University of Kragujevac, SRB  
Ljubomir Lukić, University of Kragujevac, SRB  
Vidosav Majstorović, University of Belgrade, SRB  
Dragoje Milkić, University of Novi Sad, SRB  
Dragan Milutinović, University of Belgrade, SRB  
Ratko Mitrović, University of Kragujevac, SRB  
Miroslav Plančak, University of Novi Sad, SRB  
Miroslav Radovanović, University of Niš, SRB  
Mirko Soković, University of Ljubljana, SVN  
Bogdan Sovilj, University of Novi Sad, SRB  
Branko Tadić, University of Kragujevac, SRB  
Ljubodrag Tanović, University of Belgrade, SRB  
Velimir Todić, University of Novi Sad, SRB  
Dragiša Vilotić, University of Novi Sad, SRB  
Milan Zeljković, University of Novi Sad, SRB

## ORGANIZING COMMITTEE

Đorđe Vukelić, Chairman, University of Novi Sad, SRB  
Anđelko Aleksić, University of Novi Sad, SRB  
Dejan Božić, University of Novi Sad, SRB  
Miroslav Dramićanin, University of Novi Sad, SRB  
Milana Ilić Mićunović, Secretary, University of Novi Sad, SRB  
Miloš Knežev, University of Novi Sad, SRB  
Aleksandra Kosanović, University of Novi Sad, SRB  
Dejan Marinković, University of Novi Sad, SRB  
Ivan Matin, University of Novi Sad, SRB  
Cvijetin Mladenović, University of Novi Sad, SRB  
Aleksandar Milošević, University of Novi Sad, SRB  
Miloš Ranisavljev, University of Novi Sad, SRB  
Dragan Rodić, University of Novi Sad, SRB  
Željko Santoši, University of Novi Sad, SRB  
Mario Šokac, University of Novi Sad, SRB

## ABOUT THE CONFERENCE

Continuing a long tradition of more than 45 years, the Department of Production Engineering of the Faculty of Technical Sciences and its Chairs: **Chair of machining, Chair of machine tools, process planning, flexible manufacturing systems and design processes and Chair of metrology, quality, fixtures, tools and environmental-engineering aspects** organize an international scientific-expert conference, called:

### 15th International Scientific Conference MMA 2024 - FLEXIBLE TECHNOLOGIES

The conference will cover current issues in the field of production engineering as well as multidisciplinary fields of mechanical engineering, information technologies, environmental engineering, biomedical engineering and other related engineering fields. The scientific-expert conference MMA, with its long tradition and regular organization since 1976, aims to gather and exchange experience of researchers and experts from faculties, institutes and industry, and thus wants to contribute to more intensive scientific and economic development.

With desire to improve scientific and expert meeting with joint efforts and results, we invite you to contribute to achieving these goals with your papers and your presence.

# MMA 2024

## FLEXIBLE TECHNOLOGIES

15<sup>TH</sup> INTERNATIONAL SCIENTIFIC CONFERENCE  
NOVI SAD, SERBIA, SEPTEMBER 24-26, 2024