



**UNIVERSITY OF
NOVI SAD**
**FACULTY OF
TECHNICAL SCIENCES**
**DEPARTMENT OF
PRODUCTION ENGINEERING**

**13TH INTERNATIONAL
SCIENTIFIC
CONFERENCE**

MMA 2018

FLEXIBLE TECHNOLOGIES

www.mma.ftn.uns.ac.rs
mma2018@uns.ac.rs

Detailed Conference Program

**NOVI SAD
SERBIA**

SEPTEMBER 28-29, 2018



Conference Program at a Glance

Main Conference Schedule

September 28th, 2018 (Friday)	September 29th, 2018 (Saturday)
8 ⁰⁰ – 10 ⁰⁰ Registration of participants	9 ⁰⁰ – 10 ³⁰ Final plenary session and Round table
10 ⁰⁰ – 10 ³⁰ Conference Opening Ceremony	10 ³⁰ – 11 ⁰⁰ Coffe break
10 ³⁰ – 12 ⁰⁰ Plenary session (Keynote Speeches)	11 ⁰⁰ – 17 ⁰⁰ Conference Sightseeing Tour
12 ⁰⁰ – 13 ³⁰ Lunch and free time	
13 ³⁰ – 15 ³⁰ Presentation time – part 1	
15 ³⁰ – 15 ⁴⁵ Coffe break	
15 ⁴⁵ – 16 ³⁰ Sponsors presentation time	
16 ³⁰ – 19 ⁰⁰ Presentation time – part 2	
20 ⁰⁰ Conference Gala dinner	

Time	Day: 1 Friday, September 28, 2018		
	H A L L		
	UNIVERSITY OF NOVI SAD CENTRAL UNIVERSITY BUILDING (RECTORATE) <i>Dr Zorana Đinđića 1, Novi Sad</i>		
	Hall I Main auditorium / Amphitheatre	Hall II Multifunctional hall 2nd floor	Hall III Multifunctional hall 1st floor
8 ⁰⁰ – 10 ⁰⁰	REGISTRATION OF PARTICIPANTS		
10 ⁰⁰ – 10 ³⁰	CONFERENCE OPENING CEREMONY – HALL I		
10 ³⁰ – 12 ⁰⁰	PLENARRY SESSION – HALL I		
12 ⁰⁰ – 13 ³⁰	Lunch and free time		
13 ³⁰ – 15 ³⁰	PRESENTATION TIME – PART 1		
	Hall I (Section: B)	Hall II (Section: C)	Hall III (Section: E)
15 ³⁰ – 15 ⁴⁵	Coffe break		
15 ⁴⁵ – 16 ³⁰	SPONSORS PRESENTATION TIME : FKL, FANUC, ATB SEVER		
16 ³⁰ – 19 ⁰⁰	PRESENTATION TIME – PART 2		
	Hall I (Section: D)	16 ³⁰ – 18 ⁰⁰ Hall II (Section: A)	Hall III (Section: F)
		18 ⁰⁰ – 19 ⁰⁰ Hall II (Section: G)	
20 ⁰⁰	CONFERENCE GALA DINNER – RESTAURANT ALASKA BARKA, <i>Ribarsko ostrvo 4, Novi Sad</i>		
Time	Day: 2 Saturday, September 29, 2018		
9 ⁰⁰ – 10 ³⁰	FINAL PLENARY SESSION AND ROUND TABLE – HALL I		
10 ³⁰ – 11 ⁰⁰	Coffe Break		
11 ⁰⁰ – 17 ⁰⁰	EXCURSION TO PETROVARADIN FORTRESS AND SREMSKI KARLOVCI		

MMA 2018

FLEXIBLE TECHNOLOGIES

13TH INTERNATIONAL SCIENTIFIC CONFERENCE
NOVI SAD, SERBIA, SEPTEMBER 28-29, 2018

Contents

About the Conference.....	01
Introduction to Conference Committees.....	02
Conference Topics.....	03
Keynote Speakers.....	05
Conference Venue.....	06
Conference Program.....	07
Conference Dinner.....	14
Conference Sightseeing Tour.....	15
Conference Sponsors and Donators.....	18

About the Conference

Continuing a long tradition of more than 40 years, the Department of Production Engineering of the Faculty of Technical Sciences and its Chairs:

- **Chair of machine tools, process planning, flexible manufacturing systems and design processes,**
- **Chair of metrology, quality, fixtures, tools and environmental-engineering aspects and**
- **Chair for material processing technologies**

organize an international scientific-expert conference, called:

13th International Scientific Conference MMA 2018 - 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.

Department of Production Engineering is the department with the longest tradition at the Faculty of Technical Sciences since its inception in 1976. At the Department of Production Engineering more than 1300 students have graduated and about 40 students have obtained a doctoral degree. There are currently around 300 students studying at the Department. Department of Production Engineering issues international journals: "*International Journal for Technology of Plasticity*" and "*Journal of Production Engineering*".

Faculty of Technical Sciences is one of the most modern organized higher education institutions in the region with a long tradition, and engineers educated at this Faculty, work and achieve remarkable results in companies that are connected with technology, production, education or services. The Faculty was founded 1960 as a Faculty of Mechanical Engineering. Today, the faculty consists of 13 departments that educate engineers, graduate engineers, master engineers, specialists and doctors of science.

MMA Conference history

No.	Year	Location	Chair of Scientific Committee	Chair of Organizing Committee
1.	1976	Faculty of Technical Sciences, Novi Sad		Sava Sekulić
2.	1979	Faculty of Technical Sciences, Novi Sad		Dragan Banjac
3.	1983	Faculty of Philosophy, Novi Sad		Jožef Rekecki
4.	1990	SPENS, Novi Sad	Jožef Rekecki	Ratko Gatalo
5.	1994	Novi Sad FAIR, Novi Sad	Ratko Gatalo	Velimir Todić
6.	1997	Hotel Sloboda, Sombor	Ratko Gatalo	Dragoje Milikić
7.	2000	Faculty of Technical Sciences, Novi Sad	Ratko Gatalo	Janko Hodolič
8.	2003	Faculty of Technical Sciences, Novi Sad	Ratko Gatalo	Ljubomir Borojev
9.	2006	Faculty of Technical Sciences, Novi Sad	Dragoje Milikić	Velimir Todić
10.	2009	Faculty of Technical Sciences, Novi Sad	Velimir Todić	Pavel Kovač
11.	2012	Faculty of Technical Sciences, Novi Sad	Janko Hodolič	Miodrag Hadžistević
12.	2015	Hotel Ceptor, Andrevlje	Milan Zeljković	Slobodan Tabaković

INTERNATIONAL SCIENTIFIC COMMITTEE

Mijodrag Milošević, chairman, FTN Novi Sad, SRB
Bojan Ačko, FS Maribor, SLO
Sergei Alexandrov, IPM Moskva, RUS
Aco Antić, FTN Novi Sad, SRB
Jan C. Aurich, TU Kaiserslautern, GER
Bojan Babić, MF Beograd, SRB
Sebastian Baloš, FTN Novi Sad, SRB
Konstantinos-D. Bouzakis, AU Thessaloniki, GRE
Erhan Budak, SU Istanbul, TUR
Igor Budak, FTN Novi Sad, SRB
Ilija Ćosić, FTN Novi Sad, SRB
Predrag Ćosić, FSB Zagreb, CRO
Robert Čep, VŠB Ostrava, CZE
Franc Čuš, FS Maribor, SLO
Livia Dana Beju, LBU Sibiu, ROU
Goran Devedžić, FIN Kragujevac, SRB
Lubomir Dimitrov, TU Sofia, BGR
Cristian Doicin, UP București, ROU
Dragan Domazet, UM Beograd, SRB
Rade Doroslovački, FTN Novi Sad, SRB
Numan M. Durakbasa, TU Vienna, AUT
Kornel Ehmann, NU Illinois, USA
Valentina Gecevska, MF Skopje, MKD
Šefket Goletić, MF Zenica, BIH
Dušan Golubović, MF Istočno Sarajevo, BIH
Marin Gostimirović, FTN Novi Sad, SRB
Miodrag Hadžistević, FTN Novi Sad, SRB
František Holešovsky, UJEP Ústí, CZE
Jerzy Jędrzejewski, PW Wrocław, POL
Janez Kopač, FS Ljubljana, SLO
Pavel Kovač, FTN Novi Sad, SRB
Ivan Kuric, SF Žilina, SVK
Mikolaj Kuzinovski, MF Skopje, MKD
Gordana Lakić Globočki, MF Banja Luka, BIH
Dejan Lukić, FTN Novi Sad, SRB
Ljubomir Lukić, FMG Kraljevo, SRB

Ognjan Lužanin, FTN Novi Sad, SRB
Vidosav Majstorović, MF Beograd, SRB
Miodrag Manić, MF Niš, SRB
Ildikó Maňková, TU Košice, SVK
Dorian Marjanović, FSB Zagreb, CRO
Zoran Miljković, MF Beograd, SRB
Radivoje Mitrović, MF Beograd, SRB
Slobodan Mitrović, FIN Kragujevac, SRB
Bogdan Nedić, FIN Kragujevac, SRB
Duško Pavletić, TF Rijeka, CRO
Darko Petković, MF Zenica, BIH
Petar B. Petrović, MF Beograd, SRB
Goran Putnik, University of Minho, POR
Radovan Puzović, MF Beograd, SRB
Miroslav Radovanović, MF Niš, SRB
Milenko Sekulić, FTN Novi Sad, SRB
Tomislav Šarić, SF Slavonski Brod, CRO
Mladen Šerčer, FSB Zagreb, CRO
Leposava Šiđanin, FTN Novi Sad, SRB
Goran Šimunović, SF Slavonski Brod, CRO
Branko Škorić, FTN Novi Sad, SRB
Lubomír Šooš, STU Bratislava, SVK
Dušan Šormaz, OH Athens, USA
Tibor Szalay, BME Budapest, HUN
Slobodan Tabaković, FTN Novi Sad, SRB
Branko Tadić, FIN, Kragujevac, SRB
Ljubodrag Tanović, MF Beograd, SRB
Radoslav Tomović, MF Podgorica, MNE
Miroslav Trajanović, MF Niš, SRB
Nicolae Ungureanu, FI Baia Mare, ROU
Dragiša Vilotić, FTN Novi Sad, SRB
Mircea Viorel Drăgoi, UT Brașov, ROU
Vojo Višekruna, MF Mostar, BIH
Đorđe Vukelić, FTN Novi Sad, SRB
Lihui Wang, KTH Stockholm, SWE
Milan Zeljković, FTN Novi Sad, SRB

HONORARY COMMITTEE

Slavko Arsovski, FIN Kragujevac, SRB
Pavao Bojanić, MF Beograd, SRB
Milenko Jovičić, MF Beograd, SRB
Vid Jovišević, MF Banja Luka, BIH
Milisav Kalajdžić, MF Beograd, SRB
Miodrag Lazić, FIN Kragujevac, SRB
Vučko Mečanin, MF Kraljevo, SRB
Vladimir Milačić, MF Beograd, SRB
Dragoje Milikić, FTN Novi Sad, SRB
Dragan Milutinović, MF Beograd, SRB
Ratko Mitrović, MF Kragujevac, SRB
Sava Sekulić, FTN Novi Sad, SRB
Mirko Soković, FS Ljubljana, SLO
Bogdan Sovilj, FTN Novi Sad, SRB
Jelena Stankov, FTN Novi Sad, SRB
Velimir Todić, FTN Novi Sad, SRB
Dragutin Zelenović, member of SASA, SRB

ORGANIZING COMMITTEE

Dejan Lukić, chairman
Aleksandar Živković
Boris Agarski
Borislav Savković
Branko Štrbac
Miloš Knežev, secretary
Mario Šokac
Željko Santoši
Ivan Matin
Cvijetin Mladenović
Milana Ilić Mićunović
Dragan Rodić
Nenad Kulundžić
Zorana Lanc

Conference Topics

MATERIAL PROCESSING 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 and instrumentation, 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, biotribology;

Conference Topics

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;

Keynote Speakers

LIHUI WANG

Chair Professor at KTH Royal Institute of Technology, Stockholm, Sweden



Lihui Wang is a Professor and Chair of Sustainable Manufacturing at KTH Royal Institute of Technology, Sweden. His research interests are focused on cyber-physical systems, cloud manufacturing, predictive maintenance, real-time monitoring and control, human-robot collaborations, adaptive and sustainable manufacturing systems. Professor Wang is actively engaged in various professional activities. He is the Editor-in-Chief of International Journal of Manufacturing Research, Editor-in-Chief of Robotics and Computer-Integrated Manufacturing, and Editor of Journal of Intelligent Manufacturing. He has published 8 books and authored in excess of 450 scientific publications. Professor Wang is a Fellow of CIRP, SME and ASME, and a Board Director of North American Manufacturing Research Institution of SME.

DUŠAN ŠORMAZ

Professor at Department of Industrial and Systems Engineering, Athens, Ohio, USA

Dušan N. Šormaz is a Professor at Ohio University, Department of Industrial and System Engineering, United States. His principal research interests are in process planning, cost modeling and estimation, Computer Integrated Manufacturing (CIM), concurrent engineering, group technology and application of knowledge based systems in engineering. He has been working on applying AI techniques in engineering problem areas such as cost estimation and oil corrosion prediction. Šormaz has organized several international conferences, he is a member of the editorial board of International Journal of Industrial Engineering and Management (IJIEEM), he edited a special issue of International Journal of Production Research, and he serves as regular reviewer for several research journals in his area of expertise.



MIODRAG MANIĆ

Professor at Faculty of Mechanical Engineering, Niš, Serbia



Miodrag T. Manić is a Professor at University of Niš, Faculty of Mechanical Engineering, Serbia. The numerous research projects and papers he conducted are mainly focused on the scientific field of production mechanical engineering, specifically the following areas: Technology processes designing, CNC technologies, Biomedical engineering, Experiment planning and conducting. He published more than 280 scientific papers in national and international scientific magazines, and in conference proceedings of both national and international scientific conferences. On several occasions, he has been the member of the scientific and program defining board for national and international conferences. His career also included review of several papers for scientific magazines.

Conference Venue

The whole programme of the 13th International Scientific Conference MMA2018 - Flexible Technologies will be held in the new building of the Rectorate of the University of Novi Sad, situated just on near of the Danube River.



Central University Building



Main auditorium / Amphitheatre

Conference Program

KEYNOTE PAPERS	
10:30 – 12:00	HALL I (Main auditorium/Amphitheatre)
<p>Lihui Wang: COMBINING DIGITAL TWIN AND PROGNOSIS IN FACTORIES OF THE FUTURE</p>	
<p>Dušan Šormaz: DISTRIBUTED PROCESS PLANNING FOR DIGITAL MANUFACTURING AND INDUSTRY 4</p>	
<p>Manic, M., Vitkovic, N., Stojkovic, M., Misic, D., Trajanovic, M.: DESIGN OF CUSTOMIZED ANATOMICALLY ADJUSTED IMPLANTS</p>	

Section A: MATERIAL PROCESSING TECHNOLOGIES		
16:30 – 18:00	HALL II (Multifunctional hall) 2nd floor	<u>Session Chair:</u> Pavel Kovač Radovanović Miroslav Kramar Davorin
	<i>Invited paper</i>	
1.	Madić, M., Janković, P., Radovanović, M., Mladenović, S., Petković, D.: ANALYSIS OF VARIABLE COSTS IN CO ₂ LASER CUTTING OF MILD STEEL	
2.	Cerce, L., Borojevic, S., Kramar, D.: OPTIMIZATION OF THE PROCESS PARAMETERS FOR STABILIZATION AND IMPROVEMENT OF THE TURNING PROCESS CAPABILITY	
3.	Gostimirovic, M., Pucovsky, V., Rodic, D., Sekulic, M., Kovac, P.: A NEURAL NETWORK MODEL FOR PREDICTING JET TRAJECTORY IN THE ABRASIVE WATER JET MACHINING	
4.	Kokotovic, B., Vorkapic, N.: EVALUATION OF INFEEED STRATEGIES FOR TURNING OF LARGE THREAD PROFILES	
5.	Mustafic, A., Lovric, S., Nasic, E., Halilovic, J., Osmic, M., Becirovic, D.: TAGUCHI-BASED GREY RELATIONAL ANALYSIS OF PERFORMANCE CHARACTERISTICS IN THE MQL TURNING PROCESS OF X5CrNi18-10 STEEL	
6.	Rodic, D., Gostimirovic, M., Kovac, P., Sekulic, M., Savkovic, B.: PRINCIPLE OF ELECTRICAL DISCHARGE MACHINING OF NON-CONDUCTIVE ZIRCONIA CERAMICS	
7.	Sekulic, M., Gostimirovic, M., Kulundzic, N., Aleksic, A.: TECHNOLOGICAL CHANGES IN MOLD MAKING INDUSTRY	
8.	Šogorović, D., Vračević, I.: TESTING OF THE ROUGHNESS PARAMETERS IN THE TURNING PROCESS OF ALUMINUM PARTS	
9.	Žiga, A., Begić-Hajdarević, Đ., Cogo Z.: MECHANICAL TOYS AND SOUVENIRS OBTAINED BY CO ₂ LASER CUTTING OF PLYWOOD	

Conference Program

Section B: MACHINE TOOLS AND AUTOMATIC FLEXIBLE SYSTEMS, CAx AND CIM PROCEDURES AND SYSTEMS		
13:30 – 15:30	HALL I (Main auditorium/Amphitheatre)	Session Chair: Petrović B. Petar Zeljković Milan Čiča Đorđe
1.	<i>Invited paper</i> Zivanovic, S., Slavkovic, N.: APPLICATION OF THE STEP-NC STANDARD ISO 10303 AP238 FOR TURNING OPERATIONS	
2.	Antic, A., Zeljkovic, M., Krstanovic, L., Ungureanu, N.: A TEXTURE-BASED DESCRIPTORS FOR REAL TIME TOOL CONDITION MONITORING	
3.	Berus, L., Ficko, M., Gotlih, J., Klančnik, S.: DEVELOPMENT OF A SYSTEM FOR MONITORING TEMPERATURE DISTRIBUTION AND OPERATING OF HEAT SOURCES INSIDE HEATING DEVICE	
4.	Blanuša, V., Milisavljević, B., Zeljković, M., Živković, A., Savić, B., Sovilj-Nikić, S.: ANALYSIS OF LOAD DISTRIBUTION IN DOUBLE-ROW CYLINDRICAL ROLLER BEARING FOR MACHINE TOOLS MAIN SPINDLE ASSEMBLY	
5.	Cerjakovic, E., Topcic, A., Lovric, S., Heric, M.: DESIGN AND STARTING UP OF AUTOMATED ASSEMBLY LINES IN THE AUTOMOTIVE INDUSTRY	
6.	Crnokić, B., Grubišić, M.: FUSION OF INFRARED SENSORS AND CAMERA FOR MOBILE ROBOT NAVIGATION SYSTEM - SIMULATION SCENARIO	
7.	Cica, Dj., Borojevic, S., Sredanovic, B., Tesic, S.: ARTIFICIAL NEURAL NETWORKS MODEL FOR THE PREDICTION OF SURFACE ROUGHNESS IN MACHINING THIN WALLED PARTS	
8.	Hozdić, E.: CYBERNETIZATION OF MANUFACTURING SYSTEMS	
9.	Knežev, M., Tabaković, S., Zeljkovic, M., Strbac, B., Mladenovic, C.: ANALYSIS AND VERIFICATION OF COMPLEX SURFACES MACHINING BY THREE AXIS MILLING MACHINE CENTER	
10.	Lanc, Z., Zeljkovic, M., Hadzistevic, M., Strbac, B., Zivkovic, A.: DETERMINATION OF EMISSIVITY OF STEEL ALLOY USING INFRARED THERMOGRAPHIC TECHNIQUE	
11.	Matijasevic, L., Milivojevic, M., Petrovic, P.: MULTIFINGERED UNDER-ACTUATED HANDS IN ROBOTIC ASSEMBLY	
12.	Mladenović, C., Košarac, A., Zeljković, M., Knežev, M.: EXPERIMENTAL DEFINITION OF MACHINING SYSTEMS STABILITY LOBE DIAGRAM	
13.	Vorkapic, N., Kokotovic, B.: SYNTHESIS AND ANALYSIS OF THE TOOL DYNAMOMETER FOR TURNING OPERATIONS	

Conference Program

Section C: METROLOGY, QUALITY, FIXTURES, CUTTING TOOLS AND TRIBOLOGY		
13:30 – 15:30	HALL II (Multifunctional hall) 2nd floor	<u>Session Chair:</u> Soković Mirko Hadžistević Miodrag Tanović Ljubodrag
1.	<i>Invited paper</i> Majstorovic, D., V., Stojadinovic, M., S., Durakbasa, M., N.: AN IN - PROCESS MEASUREMENT INSPECTION PLANNING MODEL FOR PRISMATIC PARTS	
2.	<i>Invited paper</i> Sovilj, B., Sovilj-Nikić, S.: TRIBOLOGICAL RESEARCHES OF GEAR CUTTING PROCESSES OF CYLINDRICAL GEARS	
3.	Ilic, J., Krajsnik, M., Jotic, G., Anic, J.: FABRICATION OF AUTHENTIC FUNCTIONAL PARTS FOR OLDTIMER USING INTEGRATION OF REVERSE ENGINEERING AND 3D PRINTING	
4.	Janjić, N., Savić, B., Mikić, D., Stanković, N., Petrović, D.: APPLICATION OF MODEL OF RELIABILITY ON MACHINE SYSTEMS BASED ON LOGNORMAL STATISTICAL DISTRIBUTION	
5.	Jotic, G., Borojević, S., Hadžistević, M., Štrbac, B., Vukman, J.: ANALYSIS OF COMPARATIVE MEASUREMENT RESULTS FOR THIN-WALLED AL 7075 ALLOY STRUCTURES	
6.	Karpe, B., Fercak, Z., Nagode, A., Bavec, B., Kozuh, S., Gojic, M., Smolej, S., Sokovic, M., Bizjak, M., Kosec, B.: THERMAL CHARACTERISTICS OF ENAMELS AND ENAMELLED METAL SHEETS	
7.	Klimenko, S., Kopeikina, M., Manokhin, A., Melniychuk, Yu., Naydenko, A., Tanovic, Lj.: ENHANCED PCBN TOOLS FOR HARD MACHINING	
8.	Knezevic, I., Bojic, S., Lukic, D., Rackov, M. Cavic, M., Pencic, M., Cako, S.: APPLICATION OF 3D PRINTED FIXTURES FOR WELDING	
9.	Matin, I., Vukelic, D., Hadzistevic, M., Strbac, B., Santosi, Z., Lukic, D.: AN INTEGRATED DESIGN APPROACH FOR PLASTIC PART DEVELOPMENT	
10.	Palic, N., Sharma, V., Zivic, F., Mitrovic, S., Grujovic, N.: TRIBOLOGY STUDY OF ALUMINUM-BASED FOAM	
11.	Santosi, Z., Sokac, M., Tadic, B., Budak, I., Simunovic, G., Ilic Micunovic, M., Vukelic, D.: EVALUATION OF KINETIC FRICTION COEFFICIENT FOR WOODEN SPECIMENS	
12.	Strbac, B., Bisevac, S., Delic, M., Klobucar, R., Acko, B., Hadzistevic, M.: COMPETENCE ASSESSMENT OF CMMs FOR DIFFERENT MEASURING TASKS	
13.	Velkoska, C., Kuzinovski, M., Tomov, M.: A REVIEW OF THE QUALITY COST STRUCTURE DEFINITION MODELS – THEORETICAL APPROACH	
14.	Velkoska, C., Tomov, M., Kuzinovski, M.: THEORETICAL ASPECTS RELATED TO THE CREATION OF ALGORITHM FOR QUALITY COST MEASUREMENT SYSTEM	

Conference Program

Section D: PROCESS PLANNING, OPTIMIZATION, LOGISTICS AND INTERNET TECHNOLOGIES IN PRODUCTION ENGINEERING		
16:30 – 18:30	HALL I (Main auditorium/Amphitheatre)	Session Chair: Šormaz Dušan Manić Miodrag Jakovljević Živana
1.	<i>Invited paper</i> Jokanović, S., Pejić, V., Borojević, S.: STEP MODEL OF MACHINING FEATURES OF SWEEP TYPE	
2.	<i>Invited paper</i> Petrović, M., Jokić, A., Miljković, Z.: SINGLE MOBILE ROBOT SCHEDULING: A MATHEMATICAL MODELING OF THE PROBLEM WITH REAL-WORLD IMPLEMENTATION	
3.	Borojević, S., Jovišević, V., Čiča, Đ., Sredanović, B.: MODELING AND SIMULATION OF PRODUCTION PROCESSES FOR THE TOOLS OF THE PRESS BRAKE	
4.	Djurdjev, M., Milosevic, M., Lukic, D., Desnica, E., Todic, V., Kuric, I.: MODIFIED PARTICLE SWARM OPTIMIZATION WITH CHAOTIC MAPS FOR PROCESS PLANNING OPTIMIZATION	
5.	Fajsi, A, Moraca S., Cvetkovic, N., Vekic, A., Ljubicic, M.: CLUSTER-BASED PRODUCTION CONCEPT	
6.	Mircheski, I.: DETERMINATION OF DISASSEMBLY INTERFERENCE MATRIX AND IMPROVED NONDESTRUCTIVE DISASSEMBLY SEQUENCES FOR THE PRODUCT	
7.	Mitrovic, S., Dimic, Z., Jakovljevic, Z.: DISTRIBUTED CONTROL OF MANUFACTURING RESOURCES – SECURITY RELATED ISSUES	
8.	Moraca, S., Cvetkovic, N., Fajsi, A., Gracanin, D., Suzic, N.: SCHEDULING IN PROJECT-BASED MANUFACTURING ENVIRONMENT	
9.	Petković, D., Jeleč, A.: CONCEPTUAL SOLUTION FOR FLEXIBILITY IMPROVEMENT OF PROCESSING SYSTEM IN WOOD PROCESSING SECTOR	
10.	Ristić, M., Manić, M., Kosanović, M., Pavlović, M.: PARAMETRICALLY DESIGNED PRODUCT MANUFACTURABILITY ANALYSIS USING KNOWLEDGE BASED SYSTEM	
11.	Ristovska, B., Papazoska, E., Gecevska, V.: IMPROVING MANUFACTURING PROCESS BY OPTIMIZING TIME PARAMETERS	
12.	Skenderovska, T., Gecevska, V., Polenakovik, R.: INCREASING PRODUCTION CAPACITIES THROUGH THE DEVELOPMENT AND INTEGRATION OF THE 5 STAGE PROJECT MANAGEMENT METHODOLOGY	
13.	Sormaz, D., Gouveia, R., Sarkar, A.: RULE BASED PROCESS SELECTION OF MILLING PROCESSES BASED ON GD&T REQUIREMENTS	
14.	Vukman, J., Lukic, D., Borojevic, S., Milosevic, M., Kramar, D.: EXPERIMENTAL RESEARCH OF THE INFLUENCE OF HIGH-SPEED MACHINING PARAMETERS ON TIME AND SURFACE ROUGHNESS OF THIN-WALLED PARTS	

Conference Program

Section E: MATERIALS, METAL FORMING, CASTING AND WELDING		
13:30 – 15:30	HALL III (Multifunctional hall) 1st floor	<u>Session Chair:</u> Škorić Branko Ranđelović Saša Baloš Sebastian
1.	Cabrilo, A., Geric, K.: CHARPY IMPACT PROPERTIES OF A CRACK IN WELD METAL, HAZ AND BASE METAL OF WELDED ARMOR STEEL	
2.	Flegarić, S., Marjanović, D., Štorga, M., Bojčetić, N.: SMART SHEET METAL FORMING TOOLS DESIGN	
3.	Ghionea, I. G., Opran, C. G., Ćuković, S., Pleša, M.: IMPROVEMENTS AND MATERIALS FOR PRODUCTION OF A MAGNETIC DRIVE MICROPUMP: AN OVERVIEW AND RECOMMENDATIONS	
4.	Kovačević, L., Terek, P., Miletić, A., Kukuruzović, D., Škorić, B.: INFLUENCE OF COMPUTATIONAL GRID DENSITY ON RESULTS OF CASTING SIMULATION	
5.	Kukuruzović, D., Terek, P., Kovačević, L., Škorić, B., Baloš, S., Panjan, P., Čekada, M., Miletić, A.: ESTIMATION OF SOLDERING TENDENCY OF AL-ALLOY TOWARD CrAlN AS A CANDIDATE COATING FOR HPDC TOOLS	
6.	Miletic, A., Panjan, P., Cekada, M., Terek, P., Kovacevic, L., Skoric, B.: MECHANICAL AND TRIBOLOGICAL PROPERTIES OF INDUSTRIALLY PREPARED TiAlN HARD CERAMIC COATINGS	
7.	Miletic, O., Todic, M.: ANALYTICAL-EXPERIMENTAL DETERMINATION OF INSPECTION AT PROFILIZATION OF V-PROFILE	
8.	Milutinović, M., Movrin, D., Skakun, P., Stefanović, Lj., Vilotić, D., Ranđelović, S.: SOME REMARKS ON PROCESS OF COMBINED FORWARD - BACKWARD EXTRUSION OF STEEL	
9.	Pecanac, M., Dramicanin, M., Janjatovic, P., Ristic, M., Rajnovic D., Sidjanin, L., Balos, S.: INFLUENCE OF TOOL GEOMETRY ON FRICTION STIR WELDED JOINTS	
10.	Radman, M., Jovanović, M., Uran, M., Trivković, Lj.: TRAINING FOR INTERNATIONAL WELDING COORDINATORS	
11.	Randjelovic, S., Milutinovic, M., Mladenovic, S., Blagojevic, V.: FEM ANALYSIS OF DIE PLATE AT PIERCING AND BLANKING TOOL	
12.	Ristic, M., Rajnovic, D., Macas, M., Balos, S., Sidjanin, L., Pecanac, M.: THE STUDY OF THE CONTAMINATED SURFACE LAYER OF HIP TREATED SUPERALLOY IN100	
13.	Simonović, S.: ON OPTIMIZATION OF ATOMIC FORCE MICROSCOPE CANTILEVER DESIGN WITH RESPECT TO ITS MECHANICAL REQUIREMENTS	
14.	Trajanoska, B., Gavriloski, V., Doncheva, E.: DEVELOPING AND TESTING HYBRID GLASS TO STEEL STRUCTURAL ELEMENTS – FLEXIBLE DESIGN APPROACH	

Conference Program

Section F: MECHANICAL ENGINEERING AND ENVIRONMENTAL PROTECTION		
16:30 – 18:30	HALL III (Multifunctional hall) 1st floor	<u>Session Chair:</u> Cvetičanin Livija Prica Miljana Agarski Boris
1.	Ašonja, A., Mikić, D.: FACILITIES WITH RES ON PUBLIC BUILDINGS IN THE CITY OF NOVI SAD	
2.	Bijelić, Z., Milanović, B., Miletić, D.: DEVELOPMENT OF MATHEMATICAL MODEL FOR OPTIMAL MANAGEMENT OF TECHNOLOGICAL DEVELOPMENT CHANGES	
3.	Cveticanin, L., Zukovic, M.: PROPERTIES OF MASS-IN-MASS UNITS OF THE ELASTIC METAMATERIAL	
4.	Desnica, E., Vulić, M., Pavlović, A., Nikolić, M.: ELV MANAGING THROUGH ANALYSIS OF RESOURCE CAPACITIES OF THE SERBIA: EQUIPMENT, HUMAN RESOURCE AND FINANCIAL SUPPORT	
5.	Dobrotvorskiy, S., Dobrovol'ska, L., Aleksenko, B.A.: THE USE OF INTERNAL DISSECTORS IN THE PROCESS OF REGENERATION OF ADSORBENTS BY MEANS OF THE MICROWAVE ENERGY	
6.	Djordjic, D., Djuric, S., Hadzistevic, M.: ANALYSIS OF FLOWS AND MANAGEMENT OF HAZARDOUS WASTE IN COMPLEX SYSTEMS	
7.	Ilic, B.: MANUFACTURE OF HEAT AND ELECTRIC ENERGY BY CONSTRUCTION OF MUNICIPAL SOLVENT AND AGRICULTURAL WASTE	
8.	Ilic Micunovic, M., Agarski, B., Hadzistevic, M., Kosce, B., Vukelic, D.: COMPARABILITY OF LIFE CYCLE ASSESSMENT RESULTS IN TYPE III ENVIRONMENTAL DECLARATIONS	
9.	Karanovic, V., Andric, S., Jocanovic, M., Orosnjak, M., Bugaric, U.: IMPORTANCE OF OFFLINE FILTRATION SYSTEM USE	
10.	Kecic, V., Prica, M., Kerkez, Đ., Becelic-Tomin, M., Kulic, A., Leovac Macerak, A., Dalmacija, B.: APPLICATION OF A DEFINITIVE SCREENING DESIGN TO MAGENTA DYE DEGRADATION BY HOMOGENEOUS FENTON PROCESS	
11.	Kovács, R., P.,V., Keszthelyi -Szabó G., Szendrő P.: ENHANCING BIOGAS PRODUCTION KINETIC OF WASTEWATER BY MICROWAVE PRE -TREATMENT	
12.	Krnjetin, S., Šupić, S.: CONSTRUCTION WITH BALED STRAW - FIRE SAFETY	
13.	Raspudic, V., Mikulic, Z.: OPTIMUM DESIGN OF I-SHAPED CROSS-SECTION USING NONLINEAR PROGRAMMING	
14.	Živanić, D., Gajić, A., Zelić, A., Ilanković, N.: FLAT BELT FEEDER REGULATION POSSIBILITIES	

Conference Program

Section G: BIO-MEDICAL ENGINEERING		
18:00 – 19:00	HALL III (Multifunctional hall) 1st floor	<u>Session Chair:</u> Kosec Borut Tabaković Slobodan Budak Igor
1.	Bojanić Šejat, M., Todić, V., Mladjenović, C., Beju, L. D., Grujić, J.: TECHNOLOGICAL PREPARATION OF THE ENDOPROSTHESIS PRODUCTION	
2.	Kosec, B., Karpe, B., Vodlan, M., Kopac, I., Budak, I., Pavlic, A., Puskar, T., Zupancic, K., Fir, B., Gojic, M., Nagode, A.: THERMAL PROPERTIES OF TITANIUM ALLOYS USED IN DENTAL MEDICINE	
3.	Puškar, T., Budak I., Jakimov, D., Djurović Koprivica, D., Kojić, V., Ilić Mićunović, M.: TESTING BIOCOMPATIBILITY OF BONE SUBSTITUTE BY FLUORESCENT MICROSCOPY	
4.	Sekulic, J., Grujic, J., Maric, D., Zeljković, M., Tabakovic, S., Balos, S.: TESTING BIOCOMPATIBILITY OF MATERIAL FOR IMPLANTS	
5.	Trajanovic, M., Tufegdžic, M.: TRENDS IN PRODUCING PERSONALIZED BONE IMPLANTS USING ADDITIVE MANUFACTURING	
6.	Zigic, M., Grahovac, N.: ESTIMATION OF HUMAN BODY PARTS ORIENTATION USING DATA FROM IMU SENSORS	

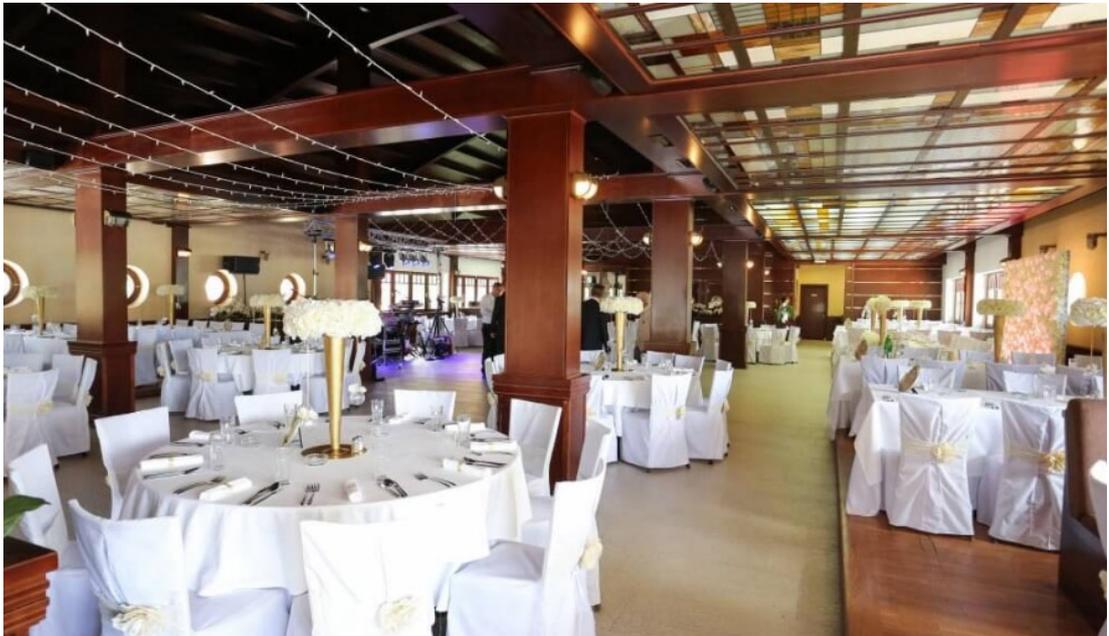
Conference Dinner

Friday, September 28, 2018, 20h

Alaska barka, Ribarsko ostrvo 4, 21000 Novi Sad
<https://ribarskoostrvo.rs/alaska-barka/>



Located on the bank of the Danube River, away from the city bustle, yet only 3 km away from the city center



Conference Sightseeing Tour

Excursion to Petrovaradin Fortress and Sremski Karlovci

Saturday, September 29, 2018

Departure in front of the Central University Building (Rectorate) at 11:00.

Departure to Petrovaradin. Walking through the town high street we will learn about the **birth house of Josip Jelačić** who came to be Croatian national hero, the **seat of the "šajkaši" river navy** and the old building in which the toll for crossing the Danube was charged.

Next we arrive to the Roman Catholic church of **St George** with its baroque altar and graves of local nobles, as well as to its cloister.

We will climb up the 214 steps to the fortress plateau wherefrom we will descend into its **underground** where we will spend around 45 minutes discovering its secrets. Be sure to wear warm clothes.

After enjoying the panorama of Novi Sad below us we will stroll pass the ateliers of local artists. On a nice and peaceful spot we will talk about Petrovaradin's long history.



We continue to Sremski Karlovci, the center of Serbian education, spirituality and culture in the period from the Great Emigration of Serbs until the beginning of the 20th century. Visit of the most important cultural and historical sights with a guide (**Saborna crkva, Karlovačka gimnazija, Bogoslovija, fountain Four Lions, Patriarchal Palace**). After walking through the center of Karlovci, we are going to have wine tasting and lunch at the **Dulka wine house**.



Conference Sightseeing Tour

The friendly hosts will welcome you with homemade brandy. "Dulka Winery" is one of the oldest wineries in Vojvodina, the first registered in the modern era of winemaking. Its history dates from the year 1920, when family great grandfathers inherited the business from their parents and became a part of the Great Cooperation of wine makers in Sremski Karlovci. Since then, they nourished their vineyards in cooperation with larger producers, developing their own processing facilities. Today, fourth and fifth generation are working together to the best of their abilities. " **Dulka Winery** " today has 10 acres of vineyards comprised of leading world sorts, up-to-date processing and storing systems for grapes. The whole winery, including the house turned in to the museum, is a testimony of how wine was made in the old days, together with the wine cellars.

Here we will have the opportunity to see the old tools for the production of wines, we will visit the top of underground from where we will have a view of the Chapel of Peace, where in 1699 was signed a famous Karlovac peace between Austria and its allies on one side and Turkey with its allies on the other side. After that, we will taste six types of wine with snacks and enjoy the traditional lunch in Vojvodina - a goulash with a noodle.

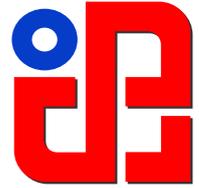
After lunch, return to Novi Sad around 16:30.



Organizator ovog putovanja je Magelan travel d.o.o. Licenca 25/2015
Srbija, 21000 Novi Sad, Nikole Pašića 16, Tel/fax: 021/ 47- 24-088, 47 21 740, 021/310-6-33 4

E-mail: office@magelan.rs, www.magelantravel.rs

Conference Sponsors and Donators



Companies



1919
CHAMBER OF ECONOMY OF VOJVODINA



StarBev Group Company



DOO "GRUJIĆ I PRUŽE"



ULJARICE BAČKA



LABINPROGRES



FREZAL

