

## CONFERENCE PROGRAMME

Time	DATE: September 28 <sup>th</sup> 2011 (WEDNESDAY)	
18:00 – 19:00	Participant registration	
19:00	Welcome cocktail	
Time	DATE: September 29 <sup>th</sup> 2011 (THURSDAY)	
09:00 – 10:00	Participant registration	
10:00 – 10:30	Opening ceremony	
10:30 – 11:30	Plenary session	
11:30 – 12:00	Coffee break	
12:00 – 13:30	Session A	Session B
13:30 – 15:00	Lunch break	
15:00 – 16:30	Session C	Session D
16:30 – 17:00	Coffee break	
17:00 – 18:30	Session E	Session F
<b>20:30</b>	<b>Conference Dinner</b>	
Time	DATE: September 30 <sup>th</sup> 2011 (FRIDAY)	
10:00 – 11:30	Session G	Session H
11:30 – 12:00	Coffee break	
12:00 – 13:30	Session I	Session J
13:30 – 15:00	Lunch break	
15:00 – 16:30	Session K	Session L
16:30 – 17:00	Coffee break	
17:00 – 18:30	Plenary session: National technology platforms of Serbia	
18:30	Closing ceremony	

Please find updated information on <http://spms.masfak.ni.ac.rs>

### VENUE

#### **Tami Residence Hotel**

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# 34<sup>th</sup> INTERNATIONAL CONFERENCE ON PRODUCTION ENGINEERING

September 28-30 2011, Niš, Serbia  
University of Niš, Faculty of Mechanical Engineering



## CONFERENCE PROGRAMME

<b>September 28<sup>th</sup> 2011 (Wednesday)</b>	
18:00 – 19:00	Participant registration
19:00	Welcome cocktail
<b>September 29<sup>th</sup> 2011 (Thursday)</b>	
09:00 – 10:00	Participant registration
10:00 – 10:30	Opening ceremony
10:30 - 11:30 <b>Plenary session</b>	
<b>SYSTEM ENGINEERING FOR SYSTEMS INTEROPERABILITY IN MANUFACTURING ENVIRONMENT</b> Prof. dr Herve Panetto, Centre de Recherche en Automatique de Nancy, France	
<b>QUALITY MANAGEMENT – STATE OF THE ART AND FUTURE DEVELOPMENT</b> Prof. dr Vidosav Majstorović, Faculty of Mechanical Engineering, University of Belgrade, Belgrade, Serbia	
<b>DESIGN RESEARCH – THE MOMENTUM AND EXPECTATIONS</b> Prof. dr Dorian Marjanović, Faculty of Mechanical Engineering and Naval Architecture, Zagreb, Croatia	
11:30 – 12:00 <b>Coffee break</b>	
12:00 – 13:30 <b>Session A</b>	12:00 – 13:30 <b>Session B</b>
<b>Machining technologies</b> Session Chairs: M. Radovanović, Lj. Tanović NEURAL NETWORK ALGORITHM FOR ON-LINE TOOL BREAKAGE DETECTION Uros Zuperl, Franc Cus THE EFFECTS OF TOOL FLANK WEAR ON TOOL LIFE Milan Milutinović, Ljubodrag Tanović MATHEMATICAL MODELLING OF CUTTING FORCE AS THE MOST RELIABLE INFORMATION BEARER ON CUTTING TOOLS WEARING PHENOMENON Obrad Spaić, Zdravko Krivokapić, Rade Ivanković ANALYSIS OF STONE MICRO-CUTTING MECHANISM USING THE EXAMPLE OF GRANITE AND MARBLE GRINDING Ljubodrag Tanović, Pavao Bojanić, Radovan Puzović, Mihajlo Popović, Goran Mladenović SOFTWARE PROTOTYPE FOR ANALYZING MANUFACTURING PROCESS MODELS Marko Kovačević, Miloš Madić, Velibor Marinković CONTRIBUTIONS TO MANAGEMENT SWARF HIGH- SPEED MACHINE TOOLS Diana Baila STEEL VALVE PLATE GRINDING Dijana Nadarević, Mirko Soković APPLICATION OF TAGUCHI METHOD IN THE OPTIMIZATION OF FACE MILLING PARAMETERS Milenko Sekulić, Miodrag Hadžistević, Zoran Jurković,	<b>Surface engineering and nanotechnologies</b> Session Chairs: D. Kakaš, B. Nedić RESEARCH ON CAVITATION EROSION BEHAVIOR OF STAINLESS STEELS WITH CONSTANT CHROMIUM AND VARIABLE NICKEL CONTENT Ilare Bordeasu, Mircea Octavian Popoviciu, Ion Mitelea, Alin Dan Jurchela INFLUENCE OF SUBSTRATE ROUGHNESS ON ADHESION STRENGTH OF HARD TiN FILMS Damir Kakaš, Branko Škorić, Aleksandar Miletić, Pal Terek, Lazar Kovačević, Marko Vilotić MECHANICAL PROPERTIES OF TiN COATINGS DEPOSITED AT DIFFERENT TEMPERATURES BY IBAD Damir Kakaš, Branko Škorić, Pal Terek, Aleksandar Miletić, Lazar Kovačević, Marko Vilotić SCRATCH TESTING OF Zn COATING SURFACES Bogdan Nedić, Desimir Jovanović, Gordana Lakić Globočki ADI MATERIALS FOR BALLISTIC PROTECTION Sebastian Baloš, Lepasava Siđanin, Dragan Rajnović, Olivera Erić OBSERVATION ON THE USE OF THIN FERROMAGNETIC PLATES IN PRESENCE OF EXTERNAL MAGNETIC FIELD Jasna Radulović, Predrag Petrović

<p>Pavel Kovač, Marin Gostimirović</p> <p>INFLUENCE OF TOOL BALANCING ON MACHINED SURFACE QUALITY IN HIGH SPEED MACHINING Jozef Peterka, Martin Kováč, Marek Zvončan</p> <p>FEM MODELING AND EXPERIMENTAL VERIFICATION OF CUTTING TOOL VIBRATIONS Aco Antić, Milan Zeljković, Aleksandar Živković</p> <p>PREDICTION OF MECHANICAL PROPERTIES AND MACHINABILITY OF CAST COPPER ALLOYS USING ANN APPROACH Miloš Madić, Goran Radenković, Miroslav Radovanović</p>	<p>THE EFFECT OF VANADIUM CONTENT ON MECHANICAL PROPERTIES AND STRUCTURE OF SELF-TEMPERED STEEL X160CrMo12-1 Aleksandar Todić, Dejan Čikara, Tomislav Todić, Branko Pejović, Bogdan Ćirković, Ivica Čamagić</p> <p>ANALYSIS OF THE IMPACT OF EXPLOSION HARDENING PROCEDURE ON CHARACTERISTICS OF SURFACE LAYER OF ELEMENTS EXPOSED TO ABRASION Radovan Ćirić, Emil Veg, Biljana Savić, Zvonimir Jugović, Radomir Slavković</p>
<p>13:30 – 15:00      Lunch break</p>	
<p>15:00 – 16:30      <b>Session C</b></p> <p><b>Production engineering – new technologies and globalisation of engineering</b></p> <p>Session Chairs: M. Zeljković, S. Ranđelović</p> <p>WEB-BASED COLLABORATIVE ENVIRONMENT FOR PROCESS PLANNING Mijodrag Milošević, Velimir Todić, Dejan Lukić</p> <p>ANALYSIS OF KINEMATIC CHARACTERISTICS OF MACHINE TOOLS USING A VIRTUAL MODEL Slobodan Tabaković, Cvjetin Mladenović, Milan Zeljković, Ratko GATALO</p> <p>MODELING OF DYNAMICAL BEHAVIOR SPINDLE – HOLDER – TOOL ASSEMBLY Đorđe Čiča, M. Zeljković, G. Lakić-Globočki, B. Sredanović, S. Borojević</p> <p>COMPOSITE MATERIALS SUCH ABSORPTION MATERIALS FOR SUPPORTING STRUCTURES OF MACHINES Bogdan Ćirković, Ivica Čamagić, Nemanja Vasić</p> <p>MULTIOBJECTIVE OPTIMIZATION – POSSIBILITY FOR PRODUCTION IMPROVEMENT Predrag Ćosić, Dragutin Lisjak, Valentina Latin</p> <p>RESEARCH AND DEVELOPMENT OF THE NEW GENERATION FIVE AXIS VERTICAL TURNING CENTRES Vladimir Kvirgić, Miroslav Vasić, Vladimir Čarapić, Jelena Vidaković, Velimir Komadinić</p> <p>DEPENDENCE OF SURFACE ROUGHNESS FOR SHAFT PACKING Robert Cep, Jan Strbka, Lenka Cepova</p>	<p>15:00 – 16:30      <b>Session D</b></p> <p><b>Metrology, quality systems and quality management</b></p> <p>Session Chairs: M. Kolarević, P. Janković</p> <p>QUALITY CONTROL OF CONTOUR VERIFIER USING PHOTOGRAMMETRIC MEASURING SYSTEMS Milan Blagojević, Miroslav Živković, Ana Pavlović</p> <p>RESULTS OF THE ANALYSIS ON STYLUS CALIBRATION OF COORDINATE MEASURING MACHINE (CMM) Miodrag Hadžistević, Janko Hodolić, Igor Budak, Đorđe Vukelić, Branko Štrbac</p> <p>RESEARCH ON INFLUENCE OF THE SENSOR POSITION ON THE RESULT OF THE V-BLOCK CYLINDRICITY MEASUREMENT Krzysztof Stepień</p> <p>IMPROVING PRODUCT QUALITY OF SECURITY EQUIPMENT USING SPC Milan Kolarević, Branko Radičević, Miodir Vukićević, Mišo Bjelić, Ljubinko Cvetković</p> <p>THE ROLE OF MANAGERS IN IMPLEMENTING QUALITY MANAGEMENT STANDARDS Vladan Radlovački, Radmila Jovanović, Bato Kamberović, Milan Delić, Srđan Vulcanović</p> <p>THE POSSIBILITIES FOR IMPROVEMENT OF THE MAINTENANCE PROCESSES IN THE COMPANIES Peđa Milosavljević, Dragoljub Živković, Predrag Janković, Srđan Mladenović</p> <p>DESIGN AND TENSIOLOGICAL ANALYSIS OF THE C-CLAMP FOR RAILROAD TRACKS Bojan Rančić, Predrag Janković, Srđan Mladenović, Slaviša Planić</p> <p>METROLOGICAL PRIMITIVES IN PRODUCTION METROLOGY – ONTOLOGICAL APPROACH Slavenko Stojadinović, Vidosav Majstorović</p> <p>THE USE OF MACHINE VISION TO RECOGNIZE OBJECTS Remigiusz Labudzki</p> <p>PRODUCT QUALITY CONTROL BY USING REVERSE ENGINEERING Jelena Micevska, Zoran Spiroski, Jasmina Čaloska, Atanas Kočov</p>

16:30 – 17:00

Coffee break

**17:00 – 18:30 Session E**

**CAX technologies (CAD/CAM/CAPP/CAE systems) and CIM systems**

Session Chairs: M. Pilipović, G. Devedžić

APPLICATION OF THE COMPUTER AIDED SELECTION OF OPTIMAL CNC MILLING STRATEGY

Jozef Novak-Marcincin, Miroslav Janak, Ludmila Novakova-Marcincinova, Veronika Fecova, Jozef Barna

CURRENT STATUS AND FUTURE TRENDS IN DENTAL CAM RESTORATIVE SYSTEMS

Janko Hodolič, Tatjana Puškar, Igor Bešić

COMBINED REGISTRATION OF HUMAN MUSCULOSKELETAL SYSTEM

Goran Devedžić, Sasa Ćuković, Branko Ristić, Suzana Petrović, Michele Fiorentino, Tanja Luković

OPTIMIZATION OF CAD/CAM/CAE DESIGN OF THE CONNECTING PART OF EXCAVATOR'S TOOTH THROUGH THE SIMULATION OF MANUFACTURING TECHNOLOGY

Radomir Slavković, Zvonimir Jugović, Ivan Miličević, Marko Popović, Radomir Radiša

IDENTIFICATION OF FACE FUNCTIONALITY WITH PROGRAM SYSTEM FOR PURPOSE OF MODULAR FIXTURE DESIGN

Stevo Borojević, Vid Jovišević, Gordana Globočki Lakić, Đorđe Čiča, Branislav Sredanović

FEM IN VIRTUAL REALITY CONCEPT

Dragan Marinković, Manfred Zehn

APPLICATIONS BY CAM AND FEM SIMULATIONS IN ESTABLISHING THE MILLING CONDITIONS FOR PARTS WITH THIN WALLS

Ionut Ghionea, Ioan Tanase, Adrian Ghionea, Cristian Tarba

TIRE TREAD MODELING FOR FEA

Nikola Korunović, Miroslav Trajanović, Miloš Stojković, Nikola Vitković, Milan Trifunović, Jelena Milovanović

AN INTERACTIVE CAD/CAE SYSTEM FOR MOLD DESIGN

Ivan Matin, Miodrag Hadžistević, Janko Hodolič, Đorđe Vukelić

VIRTUAL MANUFACTURING – ADVANCED MANUFACTURING EXAMPLES

Miroslav Pilipović, Ivan Danilov, Nikola Lukić, Petar Petrović

**17:00 – 18:30 Session F**

**Education in the field of production engineering  
Engineering ethics**

**Product development – product design**

**Production system management**

**Revitalization, reengineering and maintenance of manufacturing systems**

Session Chairs: D. Temeljkovski, D. Mišić

MANUFACTURABILITY ANALYSIS OF DIE-CAST PARTS  
Miloš Ristić, Miodrag Manić, Boban Cvetanović

DESIGN OF MODULAR WHEELCHAIR FOR CHILDREN WITH CEREBRAL PALSY

Sofija Sidorenko, Jelena Micevska, Ile Mircheski

THE CRACK PROPAGATION STUDY IN ALLOYED ALUMINUM MATERIALS

Dragan Rajnović, Olivera Erić, Milica Damjanović, Sebastian Baloš, Lepasava Siđanin

COLLABORATION AND COMMUNICATION IN INTEGRATED SYSTEM OF DIGITAL MANUFACTURING

Suzana Petrović, Milan Erić, Goran Devedžić, Miodrag Manić, Saša Ćuković, Miloš Ćirović

MODELLING OF PRODUCTION SYSTEMS FOR END-OF-LIFE VEHICLES PROCESSING

Vladimir Simić, Branka Dimitrijević

RESOURCES MANAGEMENT IN WORKFLOW MANAGEMENT SYSTEMS

Dragan Mišić, Nikola Vitković, Miloš Stojković, Milan Zdravković, Miroslav Trajanović

STEAM TURBINE CASINGS REVITALIZATION

Nedim Ganibegović, Sandira Eljšan

COMPARISON OF MODERN ELECTROHYDRAULIC SYSTEMS

Tadej Tasner, Darko Lovrec

HYBRID CONTROLLER FOR SYSTEM MANAGEMENT OF INTEGRATED UNIVERSITY

Goran Slavković, Žarko Spasić

ESTABLISHMENT OF A LECTURE SERIES ON LIFE CYCLE DESIGN – ECODESIGN

Guenther Poszvek

EVALUATION OF PRODUCT AND PRODUCTION TECHNOLOGIES QUALITY METHOD OF SUPERIORITY AND INFERIORITY

Dragan Temeljkovski, Predrag Popović, Bojan Rančić, Petar Đekić

**20:30 Conference Dinner**

10:00 – 11:30 **Session G**

**Forming and shaping technologies**

Session Chairs: D. Vilotić, V. Mandić

THE INFLUENCE OF RESIDUAL STRESS DISTRIBUTION ON THE SPRINGBACK PARAMETERS IN THE CASE OF CYLINDRICAL DRAWN PARTS

Neculai Nanu, Gheorghe Brabie

VARIABLE CONTACT PRESSURE AND VARIABLE DRAWBEAD HEIGHT INFLUENCE ON DEEP DRAWING OF Al ALLOYS SHEETS

Srbislav Aleksandrović, Tomislav Vujinović, Milentije Stefanović, Vukić Lazić, Dragan Adamović

DETERMINING SOME PARAMETERS IN THE OIL HYDRAULIC PROCESS OF SQUARE CUPS DEEP DRAWING

Bojan Rančić, Predrag Janković, Dragan Temeljkovski

ASSESSMENT THE NUMBER OF DEEP DRAWING STEPS OF CYLINDRICAL CUPS WITHOUT CALCULATION

Bojan Rančić, Predrag Janković, Velibor Marinković

THE INFLUENCE OF TOOL SURFACE CONDITION ON IRONING PROCESS EXECUTION

Dragan Adamović, Milentije Stefanović, Srbislav Aleksandrović, Miroslav Živković, Zvonko Gulišija, Slaviša Đačić

THE SIMULATION OF DISCONTINUOUS TIN BENDING IN THE PROCESS OF FORMING ROUND CONICAL TUBE

Zdravko Božičković, Ranko Radonjić, Ranko Božičković

EXPERIMENTAL ANALYSIS AND MATHEMATICAL MODELLING OF THE ROLLING FORCE

Milan Jurković, Zoran Jurković, Asim Jušić, Vesna Mandić

NUMERICAL SIMULATION OF UPSETTING OF PRISMATIC BILLETS BY V-SHAPE DIES WITH EXPERIMENTAL VERIFICATION

Dragiša Vilotić, Miroslav Plančak, Sergei Alexandrov, Aljoša Ivanišević, Dejan Movrin, Mladomir Milutinović

THE APPLICATION OF ADAPTIVE FEM METHOD TO STRESS AND STRAIN ANALYSIS OF COLD FORGING PROCESS

Milan Lazarević, Dejan Lazarević, Miloš Jovanović, Saša Randelović

METAL FORMING TECHNOLOGIES IN DENTAL COMPONENTS PRODUCTION

Mladomir Milutinović, Dragiša Vilotić, Tatjana Puškar, Dubravka Marković, Aljoša Ivanišević, Michal Potran

10:00 – 11:30 **Session H**

**Rapid prototyping  
Reverse engineering**

Session Chairs: M. Plančak, N. Grujović

SOME ASPECTS OF RAPID PROTOTYPING APPLICATION IN MEDICINE

Miroslav Plančak, Tatjana Puškar, Ognjan Lužanin, Dubravka Marković, Plavka Skakun, Dejan Movrin

ART AND DESIGN OPTIMIZED 3D PRINTING

Nenad Grujović, Jelena Borota, Milan Šljivić, Dejan Divac, Vesna Ranković

3D PRINTING TECHNOLOGY IN EDUCATION ENVIRONMENT

Nenad Grujović, Milan Radović, Vladimir Kanjevac, Jelena Borota, Đorđe Grujović, Dejan Divac

AUGMENTED REALITY ASSISTED PART REMOVAL FOR POWDER-BASED 3D PRINTING SYSTEMS

Nikola Milivojević, Nenad Grujović, Dejan Divac, Vladimir Milivojević, Jelena Borota

APPLIED RAPID PROTOTYPING TECHNOLOGY AND MODELING IN THE SPECIFIC PATIENT DAMAGE HIP REPLACEMENT

Dalibor Nikolić, Branko Ristić, Milovan Radosavljević, Nenad Filipović

APPROACHES TO AUTOMATED CREATION OF TISSUE ENGINEERING SCAFFOLDS

Milan Trifunović, Jelena Milovanović, Miroslav Trajanović, Nikola Korunović, Miloš Stojković

3D DIGITIZING FREE FORM SURFACES BY OPTICAL TRIANGULARING LASER SCANNING

Radomir Vukasojević, Simo Saletić, Željko Raičević

QUALITY 3D SURFACE RECONSTRUCTION BASED ON POINT CLOUD GENERATED BY OPTICAL MEASURING TECHNIQUES

Milan Blagojević, Miroslav Živković, Bojana Rosić

TOWARDS DIGITAL TEMPLATE FOR ARTIFICIAL HIP IMPLANTS SELECTION

Goran Devedžić, Suzana Petrović, Saša Ćuković, Branko Ristić, Zoran Jovanović, Miloš Ćirović

METHODS FOR CREATING GEOMETRICAL MODEL OF FEMUR ANATOMICAL AXIS

Nikola Vitković, Jelena Milovanović, Miroslav Trajanović, Nikola Korunović, Miloš Stojković, Miodrag Manić

METHOD FOR CREATING 3D SURFACE MODEL OF THE HUMAN TIBIA

Marko Veselinović, Dalibor Stevanović, Miroslav Trajanović, Miodrag Manić, Stojanka Arsić, Milan Trifunović, Dragan Mišić

COMPUTER BIOMECHANICAL ANALYSIS OF SPECIFIC TOOTH FOR DIFFERENT APPLIED LOADING

Dejan Petrović, Marko Anđelković, Ljiljana Tihacek-Šojić, Nenad Filipović

**12:00 – 13:30 Session I****Automatization, robotization and mechatronics  
IT and artificial intelligence in production engineering**

Session Chairs: D. Milutinović, V. Blagojević

**WIRELESS SENSOR NETWORK APPLICATION IN  
MONITORING OF MACHINING OPERATIONS**Živana Jakovljević, Miroslav Pajić, Dragan Aleksendrić,  
Dragan Milković**IMPLEMENTATION OF PALLET LOADING METHODS  
AND VIRTUAL REALITY TO THE NEW SOFTWARE  
PRODUCT**Dušan Kravec, Marian Tolnay, Ondrej Staš, Michal  
Bachraty**LAYOUT DESIGN OF VACUUM EFECTOR HEAD FOR  
MANIPULATION WITH FLOPPY MATERIALS**

Jan Slamka, Marian Tolnay, Michal Jedinak

**DC SERVO MOTORS CONTROL OF CNC MACHINES  
BY SLIDING MODE**

Vladislav Blagojević, Miodrag Stojiljković, Milorad Rančić

**COMPLIANCE MODELING AND IDENTIFICATION OF 5-  
AXIS VERTICAL ARTICULATED ROBOT FOR  
MACHINING APPLICATIONS**Dragan Milutinović, Miloš Glavonjić, Nikola Slavković,  
Saša Živanović, Branko Kokotović, Zoran Dimić**INVESTIGATION AND ADAPTIVE NEURO-FUZZY  
ESTIMATION OF MECHANICAL /ELECTRIAL  
PROPERTIES OF CONDUCTIVE SILICONE RUBBER**

Dalibor Petković, Nenad Pavlović

**TOWARDS A CONCEPTUAL DESIGN OF AN  
INTELLIGENT MATERIAL TRANSPORT BASED ON  
MACHINE LEARNING AND AXIOMATIC DESIGN  
THEORY**Milica Petrović, Zoran Miljković, Bojan Babić, Najdan  
Vuković, Nebojša Čović**SOFTWARE SOLUTION OF REENGINEERING MODEL  
OF TECHNOLOGICAL PROCESSES OF SMALL  
ENTERPRISES**Milan Erić, Miladin Stefanović, Branko Tadić, Slobodan  
Mitrović**ONTOLOGY-BASED SUPPLY CHAIN PROCESS  
CONFIGURATION**Milan Zdravković, Miroslav Trajanović, Herve Panetto,  
Alexis Aubry, Mario Lezoche**PREDICTION OF THE NONLINEAR STRUCTURAL  
BEHAVIOUR BY DIGITAL RECURRENT NEURAL  
NETWORK**Vesna Ranković, Nenad Grujović, Dejan Divac, Nikola  
Milivojević, Konstantinos Papanikolopoulos, Jelena Borota**ERP IMPLEMENTATION STRATEGIES FOR  
MANUFACTURING COMPANIES IN E-BUSINESS  
ENVIRONMENT**Darko Stefanović, Andraš Anderla, Cvijan Krsmanović,  
Aleksandar Ivić**12:00 – 13:30 Session J****Nonconventional technologies (Advanced machining  
technologies)**

Session Chairs: P. Kovač, D. Lazarević

**SURFACE ROUGHNESS AT ABRASIVE JET  
ENGRAVING OF GLASS PARTS**Laurențiu Slatineanu, Margareta Coteata, Miroslav  
Radovanović, Stefan Potarniche, Lorelei Gherman, Irina  
Besliu**THE RESEARCH OF DISCHARGE ENERGY IN EDM  
PROCESS**Marin Gostimirović, Pavel Kovač, Milenko Sekulić, Borislav  
Savković**THE EFFECTS OF SHOT PEENING ON THE FATIGUE  
LIFE OF MACHINE ELEMENTS**Dragan Adamović, Milentije Stefanović, Branislav Jeremić,  
Srbislav Aleksandrović**ENERGY BALANCE OF THE PLASMA ARC CUTTING  
PROCESS**

Anđela Lazarević, Miodrag Manić, Dragoljub Lazarević

**MODEL FOR OPERATING COSTS OF PLASMA  
CUTTING**

Srđan Mladenović, Miroslav Radovanović

**CUT QUALITY IN ABRASIVE WATER JET CUTTING**

Predrag Janković, Miroslav Radovanović, Jelena Baralić

**THE COMPLEXITY OF DEFINING THE QUALITY OF  
LASER CUTTING**

Bogdan Nedić, Jelena Baralić, Miroslav Radovanović

**MACHINING PARAMETERS EFFECT ON THE JET  
RETARDATION IN ABRASIVE WATER JET MACHINING**

Jelena Baralić, Bogdan Nedić, Predrag Janković

13:30 – 15:00

Lunch break

15:00 – 16:30

**Session K****Joining and casting technologies****Processing of nonmetal materials (plastic, wood, ceramics, ...)**

Session Chairs: G. Radenković, V. Lazić

## ANALYSIS AND DESIGN OF HIGHLY EFFICIENT METHODS OF TREATMENT

Michael Kheifetz, Natalia Pozilova, Alexander Pynkin, Leonid Akulovich

## DESIGN OF TECHNOLOGICAL COMPLEXES FOR HIGHLY EFFICIENT TREATMENT

Vladimir Borodavko, Gaiko Victor, Viacheslav Kroutko, Michael Kheifetz, Elena Zeveleva

## INFLUENCE OF PRODUCTION PROCESS ON FATIGUE PROPERTIES OF HEAVY CASTINGS - A CASE STUDY

Radivoje Mitrović, Dejan Momčilović, Olivera Erić, Ivana Atanasovska

## MODELLING DATABASE OF QUALIFIED WELDERS ACCORDING TO STANDARD SRPS EN 287-1:2008

Dušan Jovanić, Željko Eremić, Miloš Jovanović

## MECHANICAL PROPERTIES OF WELDED JOINTS AT STEEL TUBES WITH SQUARE CROSS SECTION

Andreja Ilić, Danica Josifović, Vukić Lazić, Lozica Ivanović

## DETERMINATION OF OPTIMUM TEMPERING TEMPERATURE IN HARD FACING OF THE FORGING DIES FOR WORKING AT ELEVATED TEMPERATURES

Vukić Lazić, Dragan Milosavljević, Srbislav Aleksandrović, Rajko Čukić, Božidar Krstić, Gordana Bogdanović

## SELECTION OF THE WELDING TECHNOLOGY OF RELIABLE ASSEMBLIES USING GMAW PROCESS

Vukić Lazić, Dragan Milosavljević, Srbislav Aleksandrović, Rajko Čukić, Božidar Krstić, Gordana Bogdanović

## AN OVERVIEW ON FRICTION STIR WELDING OF THE AL 2024 T351

Dragan Milčić, Aleksandar Živković, Miroslav Mijajlović

## DETERMINATION OF TENSILE PROPERTIES OF WELDED JOINTS – INFLUENCE OF SPECIMEN GEOMETRY

Nenad Gubelj, Bojan Međo, Jozef Predan, Marko Rakin, Goran Radenković, Aleksandar Sedmak

## MANUFACTURING AND CHARACTERISATION OF FLAKES MADE BY SOFT LITHOGRAPHY TECHNIQUE

Anka Trajkovska Petkoska

## INDUSTRIALIZATION OF EASY BOOM

Rok Justin, Davorin Kramar, Janez Kopač, Mirko Soković

15:00 – 16:30

**Session L****Tribology**

Session Chairs: M. Stefanović, P. Janković

## PROPOSAL OF A NEW FRICTION TESTING METHOD FOR BULK METAL FORMING

Miroslav Plančak, Igor Kačmarčik, Dejan Movrin, Đorđe Čupković

## COMPARISON OF CONVENTIONAL AND NEW LUBRICANTS FOR COLD FORMING

Plavka Skakun, Igor Kačmarčik, Tomaž Pepelnjak, Ognjan Lužanin, Aljosa Ivanišević, Mladomir Milutinović

## IMPORTANCE OF TRIBOLOGICAL CONDITIONS AT MULTI-PHASE IRONING

Milentije Stefanović, Slaviša Đačić, Srbislav Aleksandrović, Dragan Adamović

## EVALUATION OF PHYSICAL AND CHEMICAL CHANGES IN HYDRAULIC OIL USING ON-LINE SENSORS

Vito Tič, Darko Lovrec

## USE OF ON-LINE CONDITION MONITORING SYSTEM ON HYDRAULIC MACHINES

Darko Lovrec, Vito Tič

## STUDY ON SURFACE ROUGHNESS MINIMIZATION IN TURNING OF POLYAMIDE PA-6 USING TAGUCHI METHOD

Dragoljub Lazarević, Predrag Janković, Miloš Madić, Andjela Lazaravić

## WEAR BEHAVIOUR OF HARD Cr COATINGS FOR COLD FORMING TOOLS UNDER DRY SLIDING CONDITIONS

Slobodan Mitrović, Miroslav Babić, Dragan Adamović, Fatima Živić, Dragan Džunić, Marko Pantić

## INFLUENCE OF WEAR OF CUTTING ELEMENTS OF CONVEX MILLING CUTTERS ON PROCESSED SURFACE TOPOGRAPHY

Ivan Sovilj-Nikić, Bogdan Sovilj, Stanislaw Legutko, Sandra Sovilj-Nikić, Ivan Samardžić, Ivan Kolev

## INFLUENCE OF FRICTION COEFFICIENT ON WORKPIECE ROUGHNESS IN RING UPSETTING PROCESS

Marko Vilotić, Damir Kakaš, Aleksandar Miletić, Lazar Kovačević, Pal Terek

## FRICTION FORCE MICROSCOPY OF DEEP DRAWING MADE SURFACES

Božica Bojović, Dušan Kojić, Zoran Miljković, Bojan Babić, Milica Petrović

16:30 – 17:00 Coffee break

**17:00 – 18:30 Plenary session**

Session Chair: M. Manić

17:00 – 17:20

**NATIONAL TECHNOLOGY PLATFORMS OF SERBIA**

**Petar Petrović, Vladimir Milačić**, Faculty of Mechanical Engineering, University of Belgrade, Belgrade, Serbia

17:20 – 17:30

**State of the regional economy**

**Aleksandar Mitić**, President of the Regional Chamber of Economy Niš, Niš, Serbia

17:30 – 17:45

**Scientific and Technological Park at the University of Niš – Generator of development in the region**

**Miodrag Manić**, Assistant to Mayor of Niš in the fields of economy, education and science, Niš, Serbia

17:45 – 17:55

**Challenges and suggestions**

**Representative of the company Tigar a.d.**, Pirot, Serbia

17:55 – 18:10

**Challenges and suggestions**

**Bojan Mančić**, D-Company, Babušnica, Serbia

18:10 – 18:20

**Challenges and suggestions**

**Dragan Mišić**, Omniko, Niš, Serbia

18:20 – 18:30

**Challenges and suggestions**

**Nikola Drezgić**, TechnoNaissGroup, Niš, Serbia

ROUND TABLE: How the National technology platforms can increase production

18:30

Closing ceremony

Announcement of the winners in the competition for the best presentation of young scientists

Handover of the organization to the next conference organizer