



# DAAAM International Week - 2018

The 29th DAAAM International Symposium Intelligent Manufacturing & Automation, 24-27th October 2018

12th European DAAAM International Young Researchers' and Scientists' Conference, 24-27th October 2018

7th DAAAM International Doctoral School, 21-28 October 2018

Synergy Network Annual Workshop

Activities of International Academy of Engineering, Central European Branch

Place: Hotel Kolovare, Zadar, Croatia

URL: <http://www.daaam.info>

Email: [secretary@daaam.info](mailto:secretary@daaam.info)



## FINAL PROGRAM

You can download this file at: <http://www.daaam.info> main homepage  
Version\_001

### 7th DAAAM International Doctoral School:

1. Sunday, 21 October 2018 arrival of Doctoral Students and Teachers (Hotel Kolovare)
2. First meeting of Doctoral Students and Teachers with Professor Katalinic, Date and time: Sunday, 21 October 2018 at 17:00 Place: Hotel Kolovare
3. Starts on Monday, 22nd October 2018 at 09:00 hours, Hotel Kolovare
4. End of work on Friday, 26. October 2018
5. Saturday, 27th October 2018 Cultural Program
6. Sunday, 28th October 2018 departure of Doctoral Students and Teachers
7. All relevant information about Doctoral School you can find at:  
[http://daaam.info/?page\\_id=5140](http://daaam.info/?page_id=5140)

### Synergy Network Activities\*:

1. Tuesday, 23rd October 2018 arrival of Participants
2. Starts on Wednesday, 24th October 2018
3. End of work: Friday, 26th October 2018
4. Saturday, 27th October 2018, departure of participants

## Wednesday, October 24th

<b>17:00 - 20:00</b>	<b>Registration</b> (Place: Hotel Kolovare Lobby)
<b>18:30 - 20:00</b>	<b>Icebreaking Party</b> (Place: At Swimmingpool)

## Thursday, October 25th

<b>08:30-10:00</b>	<b>Registration</b> (Place: Hotel Lobby)				
<b>10:00-10:30</b>	<b>Opening Ceremony</b> (Hall A:) <b>Welcome Address</b>			<i>Music by A Cappella group "Crescendo"</i>	
<b>10:30-12:00</b>	<b>Plenary Lectures</b> (Hall A) <i>Branko Katalinic</i> <i>Digital Age: Background, Aims, Trends, Strategies and Illusions</i>				
<b>12:00-13:00</b>	<b>Lunch break - Coffee Break</b> <i>Lunch is not included in the conference fee. Info about lunch possibilities will be available at registration desk. Particapants who stay in Hotel Kolovare are getting free of charge Swedish Buffet lunch (during lunch time). Others can buy a cupon for lunch at registration at price 100.-HRK</i>				
<b>13:00-16:30</b>	<b>Oral Presentations (Section A1 / Hall A1)</b>	<b>Oral Presentations (Section B1 / Hall B)</b>	<b>Oral Presentations (Section C1 Hall C)</b>	<b>(Section D1 Hall D) 14:00 – 17:30</b>	<b>(Poster Presentation Hall)</b>
	If you wish to present in this section, send your request to secretary@daaam.info dpn71056_a_1_Blaskovic dpn71036_a_1_Castro Sastre dpn71124_a_1_Gevorkov dpn71079_b_1_Vuksic	If you wish to present in this section, send your request to secretary@daaam.info dpn17543_a_1_Gjeldum dpn71117_b_1_Brkljac dpn71141_b_1_Sevcik dpn71045_b_1_Pecujlija dpn18235_a_1_Takakuwa	<b>PhD Research reports Start 15:00 hour</b>	<i>"Young people on historical investigations"</i>	<b>Preparation of Posters / Poster Section P1 / Evaluation of Posters / Best Poster Voting</b>

<b>16:30-18:00</b>	<b>Privatissimum for Doctoral Students</b>	<b>Synergy Network Meeting - Hall B</b>
<b>19:30-23:00</b>	<p style="text-align: right;"><i>Music by Klapa Kalelarga</i></p> <p><b>DAAAM Dinner and Award Ceremony, (Certificates, Congratulations, Medals) of the 29th International DAAAM Symposium and 12th European DAAAM International Young Researchers' and Scientists' Conference</b> (Place: Hotel Restaurant)</p> <p><b>Inauguration of new members of International Academy of Engineering</b></p> <p><b>DAAAM Jubilee Medal</b></p>	

### Friday, October 26th

<b>International Doctoral School: lectures, privatisimum, integration in Symposium and paper presentations</b>			
	<b>Oral Presentations (Section A2 / Hall A)</b>	<b>Oral Presentations (Section B2 / Hall B)</b>	<b>(Poster Presentation Hall – P2)</b>
			<b>Preparation of Poster</b>
<b>09:00-12:00</b>	<p>If you wish to present in this section, send your request to secretary@daaam.info  dpn71030_b_1_Perez  dpn20548_a_1_Pryanichnikov  dpn71087_b_1_Maric  dpn71113_b_1_Bevanda  dpn71028_a_1_Humenberger</p>	<p>If you wish to present in this section, send your request to secretary@daaam.info  dpn60236_a_1_Medojevic  dpn71073_b_1_Loncar  dpn60277_b_1_Stepanova  dpn32340_a_1_Kharin  dpn35281_a_1_Pletenev  dpn71071_b_1_Tarasova</p>	<b>Poster section P2 / Best Poster Voting Evaluation of Posters</b>
<b>12:00-13:00</b>	<i>Lunch break - Coffee Break</i>		
<b>14:00-17:00</b>	<b>Closing Ceremony</b> (Hall A:)		
	<b>Festo Prize for Young Researchers and Scientists</b> (will be given by Festo-TCI: Elke Winkl) Festo Scholarships and Diplomas for International Doctoral School Students		
	<b>Best Paper Awards</b> <b>Group Photo of Winners</b> <b>Goodbye Celebration with “Champagne Pyramid”</b>		
<b>19:00 - Open End</b>	<b>Presidents private invitation - VIP (Invited guests only!)</b>		<i>With music from Trio Ardura</i>

---

**Saturday, October 27th**

**Cultural Program**

**Very Important:**

**Papers without payment, and uncorrected papers will be removed from the program and will not be printed in the Proceedings.  
List of papers will be changed!**

**P1 Poster Hall**

dpn17356\_a\_1\_Markovic / dpn17369\_a\_1\_Zelenika / dpn17369\_a\_2\_Zelenika / dpn17369\_a\_3\_Zelenika / dpn17851\_a\_1\_Jakovic / dpn17957\_a\_1\_Runje / dpn18062\_a\_1\_Skocik / dpn18241\_a\_1\_Palcic / dpn18302\_a\_1\_Prokopova / dpn18344\_a\_1\_Perutka / dpn18378\_a\_1\_Kramar / dpn18401\_b\_1\_Kubinger / dpn19074\_a\_1\_Kralikova / dpn19074\_a\_2\_Kralikova / dpn19106\_a\_1\_Kremljak / dpn19283\_b\_1\_Fedorov / dpn19482\_a\_1\_Prokop / dpn19664\_a\_1\_Zuperl / dpn19746\_a\_1\_Cohodar / dpn20482\_a\_1\_Stuja / dpn20578\_a\_1\_Wolny / dpn20672\_a\_1\_Keran / dpn21144\_a\_1\_Matusu / dpn21287\_a\_1\_Olt / dpn21287\_a\_2\_Olt / dpn21462\_a\_1\_Dzaferovic / dpn21607\_a\_1\_Begic-Hajdarevic / dpn21932\_a\_1\_Cekic / dpn21976\_a\_1\_Dostalek / dpn21992\_a\_1\_Topalova / dpn22041\_a\_1\_Popa / dpn22041\_a\_2\_Popa / dpn22091\_a\_1\_Pokorny / dpn22391\_a\_1\_Hadziahmetovic / dpn22391\_a\_2\_Hadziahmetovic / dpn22820\_a\_1\_Pospisilik / dpn23031\_a\_1\_Jenicek / dpn23091\_a\_1\_Martinez Pellitero / dpn23255\_a\_1\_Votrubec / dpn23260\_a\_1\_Akmadzic / dpn24302\_a\_1\_Broum / dpn24302\_a\_2\_Broum / dpn24475\_a\_1\_Breido / dpn24475\_a\_2\_Breido / dpn24621\_a\_1\_Vaskova / dpn24806\_a\_1\_Mihaljevic / dpn24823\_a\_1\_Pracek / dpn26681\_a\_1\_Vacik / dpn26707\_a\_1\_Hajdarevic / dpn26816\_a\_1\_Lapkova / dpn26929\_a\_1\_Stohl / dpn32112\_a\_1\_Hodzic / dpn32116\_a\_1\_Hasanic / dpn32178\_b\_1\_Curkovic / dpn32178\_b\_2\_Curkovic / dpn32233\_a\_1\_Kucak / dpn32340\_a\_1\_Kharin / dpn34084\_a\_1\_Bicova / dpn34093\_a\_1\_Vopat / dpn34094\_b\_1\_Kuruc / dpn34100\_a\_1\_Zahalka / dpn34103\_a\_1\_Melichar / dpn34107\_a\_1\_Zetkova / dpn34158\_a\_1\_Skopljanac-Macina / dpn34165\_a\_1\_Poor / dpn34177\_a\_1\_Panfilov / dpn34177\_a\_2\_Panfilov / dpn34177\_a\_3\_Panfilov / dpn34232\_a\_1\_Trstenjak / dpn35008\_a\_1\_Iliev / dpn35008\_a\_2\_Iliev / dpn35067\_a\_1\_Rodkina / dpn35095\_a\_1\_Masic / dpn35095\_a\_2\_Masic / dpn35176\_a\_1\_Bebr / dpn35197\_b\_3\_Kubatova / dpn35211\_a\_1\_Vasilyev / dpn35241\_a\_1\_Polasek / dpn35244\_a\_1\_Sumic / dpn35343\_a\_1\_Karpova / dpn35418\_a\_1\_Potekhin / dpn35418\_a\_2\_Potekhin / dpn35420\_a\_1\_Ipatov / dpn35433\_b\_1\_Hlavac / dpn71142\_b\_1\_Jurina

## P2 Poster Hall

dpn24246\_a\_1\_Kadric / dpn35433\_b\_2\_Hlavac / dpn60054\_a\_1\_Dalyaev / dpn60080\_a\_1\_Stepanov / dpn60101\_b\_1\_Sedlacek / dpn60115\_b\_1\_Grechin /  
dpn60129\_a\_1\_Kuznetcova / dpn60142\_b\_1\_Janda / dpn60161\_b\_1\_Polak / dpn60161\_b\_2\_Polak / dpn60162\_a\_1\_Pandzic / dpn60250\_b\_1\_Kuncar / dpn60291\_a\_1\_Ilko /  
dpn64009\_b\_1\_Kuzmin / dpn64018\_b\_1\_Marek / dpn64049\_a\_1\_Lavic / dpn64071\_b\_1\_Bublikova / dpn64133\_b\_1\_Mach / dpn64133\_b\_2\_Mach / dpn64205\_a\_1\_Alispahic /  
dpn64214\_b\_1\_Kalina / dpn64214\_b\_2\_Kalina / dpn67003\_a\_1\_Necpal / dpn67033\_b\_1\_Mitin / dpn67044\_b\_1\_Zaujec / dpn67094\_b\_1\_Farsky / dpn67094\_b\_2\_Farsky /  
dpn67099\_a\_1\_Nozar / dpn67105\_b\_1\_Ficek / dpn67109\_b\_1\_Papa / dpn67110\_a\_1\_Beltran-Prieto / dpn67119\_b\_1\_Musalek / dpn67119\_b\_2\_Musalek / dpn67122\_b\_1\_Hronek /  
dpn67136\_b\_1\_Klushin / dpn67141\_a\_1\_Pasic / dpn67142\_a\_1\_Vatres / dpn67145\_a\_1\_Zmarzly / dpn67146\_b\_1\_Wrzochal / dpn67168\_a\_1\_Kubelkova / dpn67183\_a\_1\_Dacic /  
dpn67224\_a\_1\_Bibic / dpn67224\_a\_2\_Bibic / dpn71007\_a\_1\_Kretzschmar / dpn71008\_b\_1\_Chekurov / dpn71016\_a\_1\_Juricic / dpn71022\_b\_1\_Mikulaskova /  
dpn71023\_b\_1\_Novikov / dpn71035\_b\_1\_Mikulic / dpn71040\_b\_1\_Vevers / dpn71041\_a\_1\_Ryazanov / dpn71049\_a\_1\_Dimitrov / dpn71052\_a\_1\_Ali / dpn71080\_a\_1\_Sultanalieva /  
dpn71085\_a\_1\_Dimitrova / dpn71088\_b\_1\_Lucin / dpn71088\_b\_2\_Lucin / dpn71088\_b\_3\_Lucin / dpn71088\_b\_4\_Lucin / dpn71092\_b\_1\_Vasilnakova / dpn71104\_b\_1\_Yusupov /  
dpn71114\_a\_1\_Vavra / dpn71125\_a\_1\_Hajsman / dpn71126\_b\_1\_Pinero Vega / dpn71128\_b\_1\_Montano-Vega / dpn71130\_b\_1\_Vendin / dpn71138\_a\_1\_Kralik /  
dpn71139\_b\_1\_Mikulicova / dpn71140\_b\_1\_Gracla / dpn71144\_a\_1\_Buranska / dpn71145\_b\_1\_Janda / dpn71146\_a\_1\_Makagonov / dpn71148\_b\_1\_Ali / dpn71149\_b\_1\_Vichova /  
dpn71151\_b\_1\_Mrazek / dpn71153\_a\_1\_Gogolewski / dpn71154\_a\_1\_Wolny / dpn71157\_b\_1\_Stehlik / dpn71164\_b\_1\_Titova / dpn71176\_b\_1\_Zahavi /  
dpn71197\_b\_1\_Bogdanovich

File Names	Title of Papers
------------	-----------------

dpn17356_a_1_Markovic	Product Innovation, Process Innovation and Competitive Lessons from Consumer Electronics Industry
dpn17369_a_1_Zelenika	Coupled Electromechanical Numerical Modelling of Piezoelectric Vibration Energy Harvesters
dpn17369_a_2_Zelenika	Design of the Prototype of a Full Arm Mechatronics Rehabilitation Device
dpn17369_a_3_Zelenika	Characterisation of Performances of Thermoelectric Generators for Energy Harvesting Applications
dpn17543_a_1_Gjeldum	Application of the Integrative Procedure for Management of Production and Service Improvement Process on the Assembly Line
dpn17851_a_1_Jakovic	New Methods of Online Advertising: Social Media Influencers
dpn17957_a_1_Runje	Impact of the Quality of Measurement Results on Conformity Assessment
dpn18062_a_1_Skocik	Functionality Verification of the Deformation Units for Measurement of Wind Speed and Direction
dpn18235_a_1_Takakuwa	"Industry 4.0" in Europe and East Asia
dpn18241_a_1_Palcic	Creating Value in Manufacturing Companies
dpn18302_a_1_Prokopova	VAF Factor Influence on the Accuracy of the Effort Estimation Provided by Modified Function Points Methods
dpn18344_a_1_Perutka	Teaching Aid Supporting the Tuition of Automation at Faculty of Applied Informatics
dpn18378_a_1_Kramar	Mathematical Model of an Anthropomorphic Robots Arm
dpn18401_b_1_Kubinger	Automatic Stereo Camera Calibration in Real-World Environments Without Defined Calibration Objects
dpn19074_a_1_Kralikova	Influence of Lighting Maintenance on the Energy Consumption
dpn19074_a_2_Kralikova	Impact of the Environmental Factors and its Effects on Productivity and Health
dpn19106_a_1_Kremljak	Case Study for Planning of Cell Production System
dpn19283_b_1_Fedorov	Recommendation System based on Neural Network for Prediction of Emergency Situations
dpn19482_a_1_Prokop	Relay Feedback Autotuning – Implementation and Simulation

---

dpn19664\_a\_1\_Zuperl: Experimental Exploration of Cutting Forces During Milling of Multi-Layered Metal Materials  
dpn19746\_a\_1\_Cohodar: Modelling and Path Planning of Delta Parallel Robot in Virtual Environment  
dpn20482\_a\_1\_Stuja: Integrated Method for the Design and Evaluation of Safety & Secure Manufacturing Systems  
dpn20548\_a\_1\_Pryanichnikov: Enhancing the Functionality of Groups of Autonomous Underwater Robots  
dpn20578\_a\_1\_Wolny: Evaluation of Accuracy of Five-Axis CNC Milling Machine on the Basis of Test Piece Machining  
dpn20672\_a\_1\_Keran: Non Destructive Testing of Forge Welding Joint Errors  
dpn21144\_a\_1\_Matusu: Robustly Stabilizing Regions of PI Controllers Parameters for Systems with Additive Uncertainty  
dpn21287\_a\_1\_Olt: Theoretical Study on Linkage Unit of Wide Span Tractor  
dpn21287\_a\_2\_Olt: Impacts of Gradient Structure on the Dynamic Characteristics of Machining Process System  
dpn21462\_a\_1\_Dzaferovic: Impact of Energy Efficiency Measures on Indoor Air Quality in Building of Mechanical Engineering Faculty Sarajevo  
dpn21607\_a\_1\_Begic-Hajdarevic: Optimization of Process Parameters in Plasma Arc Cutting using TOPSIS Method  
dpn21932\_a\_1\_Cekic: Experimental Investigations of Process Parameters Influence on Dimensional Accuracy and Mechanical Properties of FDM Manufactured Parts  
dpn21976\_a\_1\_Dostalek: Microcontroller Based Control System with Flexible Configuration  
dpn21992\_a\_1\_Topalova: Automated Classification of Similar Two-dimensional Objects with Neural Network Application  
dpn22041\_a\_1\_Popa: Virtual Reality Exhibition Platform  
dpn22041\_a\_2\_Popa: Organizational Culture, Knowledge and Competences in Virtual Organizations  
dpn22091\_a\_1\_Pokorny: A Comparison of Methods for the Identification of Traffic Levels in Cities  
dpn22391\_a\_1\_Hadziahmetovic: Analysis of Wind Velocity Data in the Area of the City of Sarajevo in Period from 2001-2010  
dpn22391\_a\_2\_Hadziahmetovic: Analysis of Temperature Data in the Area of the City of Sarajevo (Bjelave) in Period From 2000-2010  
dpn22820\_a\_1\_Pospisilik: Performance Measurement of the D-Class Audio Amplifier  
dpn23031\_a\_1\_Jenicek: Design of Heating Equipment for Moulding Organic Polymer-Based Composites  
dpn23091\_a\_1\_Martinez Pellitero: Influence of Laser Energy in the Surface Quality of Parts Manufactured by Selective Laser Melting  
dpn23255\_a\_1\_Votrubec: Behaviour Identification and Linearization of Pneumatic Rotational Engine  
dpn23260\_a\_1\_Akmadzic: Influence of the Subgrade Reaction Coefficient Modelling on the Simple 3D Frame  
dpn24246\_a\_1\_Kadric: Benchmarking Energy Efficiency of School Buildings  
dpn24302\_a\_1\_Broum: The Cumulative Functions Concept  
dpn24302\_a\_2\_Broum: Layout Calculations Related to Product Insourcing  
dpn24475\_a\_1\_Breido: Telemetric Monitoring Insulation Condition of High Voltage Overhead Power Lines  
dpn24475\_a\_2\_Breido: Distribution of Power Losses on High-Voltage Supports  
dpn24621\_a\_1\_Vaskova: Hydrolysis of Leather Shavings: Mathematical Model and Experiment  
dpn24806\_a\_1\_Mihaljevic: Coating Influence on Ultrasonic Thickness Measurement Result  
dpn24823\_a\_1\_Pracek: System Forces in the Mathematical Model of Yarn Unwinding  
dpn26681\_a\_1\_Vacik: Process Innovation in Service Sector Matching Industry 4.0 Environment  
dpn26707\_a\_1\_Hajdarevic: Stress and Strain of the Frontal Parallel Joints with 3D Printed Connectors  
dpn26816\_a\_1\_Lapkova: Soft Targets – Possibilities of Their Identification  
dpn26929\_a\_1\_Stohl: Application of Cip Safety Protocol Between Double Hydraulic Press Machine and Industrial Robot  
dpn32112\_a\_1\_Hodzic: Post Service Strength Properties at Elevated Temperature of Steel 14Mov6-3  
dpn32116\_a\_1\_Hasanic: Defining Causes of Defects and Quality Control Points in the Industry of Furniture  
dpn32178\_b\_1\_Curkovic: Legged 3D Printed Mobile Robot

---

dpn32178\_b\_2\_Curkovic: Evolutionary Planner of 3D Trajectories  
dpn32233\_a\_1\_Kucak: Machine Learning in Education - a Survey of Current Research Trends  
dpn32340\_a\_1\_Kharin: Data Visualization on Distributed Display Facilities in a Professional Distance Learning System  
dpn34084\_a\_1\_Bicova: Analysis and Dependability of Production Processes for the Automotive Industry  
dpn34093\_a\_1\_Vopat: The Influence of Cutting Edge Radius Size on the Tool Life of Cemented Carbide Drills  
dpn34094\_b\_1\_Kuruc: Comparison of High Feed Machining with Conventional Milling in Terms of Dimension Accuracy and Productivity  
dpn34100\_a\_1\_Zahalka: Stability of the Brass Cups Forming Process  
dpn34103\_a\_1\_Melichar: The Influence of Humidity on ABS Plastic Measurement Results  
dpn34107\_a\_1\_Zetkova: Influences of Cutting Process Parameters on the Cutting Quality when Water Jet Cutting  
dpn34158\_a\_1\_Skopljanac-Macina: Modeling Constraint Satisfaction Problem with Model Checker  
dpn34165\_a\_1\_Poor: Czech Republic and Processes of Industry 4.0 Implementation  
dpn34177\_a\_1\_Panfilov: Building Predictive Maintenance Framework for Smart Environment Application Systems  
dpn34177\_a\_2\_Panfilov: Technological and Legal Issues of Identifying a Person on the Internet to Ensure Information Security  
dpn34177\_a\_3\_Panfilov: Electronic Document as a Tool of Digital Economy  
dpn34232\_a\_1\_Trstenjak: The Framework for Fast Skew Angle Detection and Auto Correction of Scanned Documents  
dpn35008\_a\_1\_Iliev: Aerodynamic Study of the Environmental Vehicle Model with the Flow Simulation CFD Program  
dpn35008\_a\_2\_Iliev: A Comparison of Ethanol, Methanol and Butanol Blending With Gasoline and Relationship With Engine Performances and Emissions  
dpn35067\_a\_1\_Rodkina: Development of the Metals Electrochemical Characteristics Determining Method at Cathode Polarization  
dpn35095\_a\_1\_Masic: Calibration and Assessment of Low-Cost Dust Sensors  
dpn35095\_a\_2\_Masic: Visualization of Data From Network of Sensors: Appropriate Spatial Interpolation Method  
dpn35176\_a\_1\_Bebr: SPC in Joint Application with FMEA  
dpn35197\_b\_3\_Kubatova: Problems of Surface Roughness Measurement with a Focus on the Scanned Points  
dpn35211\_a\_1\_Vasilyev: The Vision System Software to Enable Maneuvering of Underwater Vehicle  
dpn35241\_a\_1\_Polasek: Product Innovation Influence on Production Organization  
dpn35244\_a\_1\_Sumic: Decision Making Example for On-Board Distress Situation Based on Agents  
dpn35281\_a\_1\_Pletenev: Using Pareto Optimum to Choose Module's Computing Platforms of Mobile Robot with Modular Architecture  
dpn35343\_a\_1\_Karpova: Some Mechanisms for Managing Aggressive Behavior in Group Robotics  
dpn35418\_a\_1\_Potekhin: Digital Twin Applications: Diagnostics, Optimisation and Prediction  
dpn35418\_a\_2\_Potekhin: Knowledge Based Control of Energy Installations Under Uncertain Conditions  
dpn35420\_a\_1\_Ipatov: Forming of Information Culture With Tools of Electronic Didactic Materials  
dpn35433\_b\_1\_Hlavac: Replacement of a Cast Stand of a Rubber Machine With a Welded Stand  
dpn35433\_b\_2\_Hlavac: Load Analysis of Crankshaft of Two-Point Crank Press  
dpn60054\_a\_1\_Dalyaev: Structures of Automatic Systems with Unstable Parameters (Part II)  
dpn60080\_a\_1\_Stepanov: Visual-Inertial Sensor Fusion to Accuracy Increase of Autonomous Underwater Vehicles Positioning  
dpn60101\_b\_1\_Sedlacek: Determining the Strength of Composite Cylindrical Bonded Joints Using Numerical Simulation with Cohesive Elements  
dpn60115\_b\_1\_Grechin: Development of an Automated Control Panel for Monitoring and Research of Electrohydraulic Steering Gear  
dpn60129\_a\_1\_Kuznetcova: Design and Simulation Analysis of Haptic Device With Parallel Kinematics  
dpn60142\_b\_1\_Janda: Mechatronic Concept of Heavy Machine Tools  
dpn60161\_b\_1\_Polak: Influence of Runner Angles on Balanced Filling for Multicavity Molding

---

dpn60161\_b\_2\_Polak: Influence of Gate Position During Injection Molding Process  
dpn60162\_a\_1\_Pandzic: Development of Integrated Intelligent CAD System for Design of Cylindrical Helical Compression Valve Springs  
dpn60236\_a\_1\_Medojevic: Energy Management in Industry 4.0 Ecosystem: a Review on Possibilities and Concerns  
dpn60250\_b\_1\_Kuncar: Inertial Measurement Unit Error Reduction by Calibration Using Differential Evolution  
dpn60277\_b\_1\_Stepanova: High-speed Image Processing Technique Implementation for Pointing and Tracking System Enabling Free-Space Optical Communications  
dpn60291\_a\_1\_Ilko: Application of Ultrasonic Method for Measuring the Sound Velocity in a Medium to Determine the Temperature Change and Fluctuations  
dpn64009\_b\_1\_Kuzmin: Dynamic Characteristics of Rotation Transmission Device in High Ambient Hydrostatic Pressure Conditions  
dpn64018\_b\_1\_Marek: Sensitivity Analysis and Validation of a Thermo-Mechanical Model of a Spindle  
dpn64049\_a\_1\_Lavic: Consistency Check of Fuzzy Pairwise Comparison Matrices of Dimensions Larger Than 3X3  
dpn64071\_b\_1\_Bublikova: Heat Treatment of Closed-Die Forgings of Low-Alloy AHSS Steels  
dpn64133\_b\_1\_Mach: Limitation of the Advanced Technology Zone  
dpn64133\_b\_2\_Mach: Software Extension for Advanced Technology Zone  
dpn64205\_a\_1\_Alispahic: Effect of the Subcooling on a Bubble Dynamics in Pool Boiling  
dpn64214\_b\_1\_Kalina: Thermal Analysis of the Forging Press LZK 4000  
dpn64214\_b\_2\_Kalina: Determination of Cohesive Parameters for Mode I of Epoxy Adhesive  
dpn67003\_a\_1\_Necpal: Determination of the Stable Area and Parameters Optimization of Sintered Carbide Machining by WEDM  
dpn67033\_b\_1\_Mitin: Application of Optimal Control Algorithm for DC Motor  
dpn67044\_b\_1\_Zajec: Coating of Cutting Tool and CAM Milling Strategy Influence on the Tool Wear and Surface Roughness  
dpn67094\_b\_1\_Farsky: Influence of Grinding Parameters on Forces when Grinding Maraging Steel X3Nicom 18 9 5 with Sic Grinding Wheels  
dpn67094\_b\_2\_Farsky: Evaluation of Grinding Wheel Wear when Grinding Vaco 180 Steel under Variable Grinding Conditions  
dpn67099\_a\_1\_Noazar: Searching for Favourable Powder Bed Fusion Settings in Sintering of Maraging Steel Ms1  
dpn67105\_b\_1\_Ficek: Expansion Weapons and their Wounding Potential  
dpn67109\_b\_1\_Papa: Different Safety Certifiable Concepts for Mobile Robots in Industrial Environments  
dpn67110\_a\_1\_Beltran-Prieto: Fluid Dynamics Analysis and Numerical Study of a Fluid Running Down a Flat Surface  
dpn67119\_b\_1\_Musalek: Use of Virtual Reality for the Therapy of Pensioners with Communication Disorders  
dpn67119\_b\_2\_Musalek: The Use of EEG Biofeedback within the Framework of Assistive Technologies  
dpn67122\_b\_1\_Hronek: The Influence of Cutting Edge Radius on Force Load when Milling Inconel 718  
dpn67136\_b\_1\_Klushin: Modular Design Guideline for Projects from Scratch  
dpn67141\_a\_1\_Pasic: Laser Cut Surface Roughness Modelling Using Regression Analysis  
dpn67142\_a\_1\_Vatres: Predicting Purified Terephthalic Acid (PTA) Price Using Regression Analysis and Same Slope Model  
dpn67145\_a\_1\_Zmarzly: Surface Texture Quality of Models Manufactured by Additive Technology Fused Deposition Modeling  
dpn67146\_b\_1\_Wrzochal: Testing the Susceptibility of Rolling Bearing Vibration Measurement Systems  
dpn67168\_a\_1\_Kubelkova: Determination of the Simulation Parameters of the Waxes used in Investment Casting  
dpn67183\_a\_1\_Dakic: Business Process Mining Application: a Literature Review  
dpn67224\_a\_1\_Bibic: New Approach of Measuring Toxic Gases Concentrations: Application Examples  
dpn67224\_a\_2\_Bibic: New Approach of Measuring Toxic Gases Concentrations: Principle of Operation  
dpn71007\_a\_1\_Kretschmar: The Applicability of the 40 TRIZ Principles in Design for Additive Manufacturing  
dpn71008\_b\_1\_Chekurov: Classification of End-Use Industrial Applications of Additive Manufacturing  
dpn71016\_a\_1\_Juricic: Performance Impact of Using Abstractions in Object-Oriented Programming



---

dpn71022\_b\_1\_Mikulaskova: Spiral Management – A New Concept of the Social Systems Management  
dpn71023\_b\_1\_Novikov: The Impact of Personnel Costs on the Competitiveness of Automated Manufacturing Systems  
dpn71028\_a\_1\_Humenberger: Polarisation Measurement of the Emitted Thermal Radiation During Laser Material Processing  
dpn71030\_b\_1\_Perez: A Study on Robot Arm Machining: Advance and Future Challenges  
dpn71035\_b\_1\_Mikulic: The Adoption of Modern Technology Specific to Industry 4.0 by Human Factor  
dpn71036\_a\_1\_Castro Sastre: Characterization of Materials Used in 3D-Printing Technology with Different Analysis Techniques  
dpn71040\_b\_1\_Vevers: Co2 Laser Powered Metal 3D Printer Parameter Influence on Part Quality  
dpn71041\_a\_1\_Ryazanov: Method of Partitioning the Territory to Logistic Solutions Support Based on Genetic Clustering  
dpn71045\_b\_1\_Pecujlija: Improving Export Strategies to EU (Case of Serbia)  
dpn71049\_a\_1\_Dimitrov: System for Automatic Distribution and Working with Technical Documentation in Small and Micro-Sized Industrial Enterprises  
dpn71052\_a\_1\_Ali: Dynamic Fuzzy Logic to Identify Safety Stock in Dairy Industries / Empirical Case Study  
dpn71056\_a\_1\_Blaskovic: Dem4Rts: Software Development Methodology for Special Case of Real-Time Closed-Loop Control Systems  
dpn71071\_b\_1\_Tarasova: Identification of the Obstacle Shape Using the Ultrasonic Sensors Module of Modular Mobile Robot  
dpn71073\_b\_1\_Loncar: Data-Intensive Computing Paradigms for Big Data  
dpn71079\_b\_1\_Vuksic: Composition Optimization of Alumina Suspensions which Contain Waste Alumina Powder  
dpn71080\_a\_1\_Sultanalieva: Loss of Strength of Rocks Under the Influence of Microwaves  
dpn71085\_a\_1\_Dimitrova: The Non-Traditional Practice of Professional Student Club to Connect the Business with the Engineering Students of University of Ruse  
dpn71087\_b\_1\_Maric: Parameter Estimation and Optimization of the Hydronic Floor Heating System as a Basis for Predictive Control of the Zone Level Energy  
dpn71088\_b\_1\_Lucin: Investigation of Numerical Simulation Parameters on Fluid Flow Around Trash-Racks  
dpn71088\_b\_2\_Lucin: Analysis of Well Field Nitrates Pollution Distribution in Agricultural Area  
dpn71088\_b\_3\_Lucin: Experimental Setup of Fluid Mixing in Double Tee-Junctions  
dpn71088\_b\_4\_Lucin: Mesh Creation for Realistic Terrain Cases for Shallowfoam - 2D Openfoam Solver  
dpn71092\_b\_1\_Vasilnakova: Risk Management in Accredited Testing Laboratories  
dpn71104\_b\_1\_Yusupov: Smart Chair: IoT Based Health Telemetry for Air Traffic Controllers and Emergency Response Center Operators  
dpn71113\_b\_1\_Bevanda: Simulation and Identification of Hydronic Radiator Model as a First Step Towards Efficient Control of Thermal Energy Consumption in Zones  
dpn71114\_a\_1\_Vavra: Comparative Study of Feature Selection Techniques Respecting Novelty Detection in the Industrial Control System Environment  
dpn71117\_b\_1\_Brkljac: Sharing Economy and „Industry 4.0“ as the Business Environment of Millennial Generation - a Marketing Perspective  
dpn71124\_a\_1\_Gevorkov: Stepper Motor Based Model of Electric Drive for Throttle Valve  
dpn71125\_a\_1\_Hajsman: Microscopy of Polymer Composites  
dpn71126\_b\_1\_Pinero Vega: A Comparison of Macro and Microgeometrical Properties of Specimens Made With a FDM Commercial Printer and its Opensource Retrofit Version  
dpn71128\_b\_1\_Montano-Vega: Preliminary Characterization of the Rivet Shaving Process  
dpn71130\_b\_1\_Vendin: Formulation of the Simulation Cluster Modelling System Development Problem  
dpn71138\_a\_1\_Kralik: IT Events Classification  
dpn71139\_b\_1\_Mikulicova: An Analysis of Curing of Epoxy Resin by Steady-State Fluorescence Spectroscopy and Determination of a Storage Temperature  
dpn71140\_b\_1\_Gracla: Detecting Differences at a Selected Shooting Weapon and Its Freely Available Copies  
dpn71141\_b\_1\_Sevcik: Virtual Crime Scenario Reconstruction Methods Assessment  
dpn71142\_b\_1\_Jurina: Real-Time Monitoring System for Used MWFs  
dpn71144\_a\_1\_Buranska: Cutting Environment Impact on the Aluminium Alloy Machining (DFA)  
dpn71145\_b\_1\_Janda: Comparing Properties of the 42SiCr Steel After Conventional Heat Treatment and QP Processing

---

dpn71146\_a\_1\_Makagonov: The Hierarchical Algorithm for Detecting Road Marking Lines  
dpn71148\_b\_1\_Ali: Self-Stabilizing Fault Tolerance Distributed Cyber Physical Systems  
dpn71149\_b\_1\_Vichova: The Comparative Analysis of Safety in the Czech Republic and in Abroad  
dpn71151\_b\_1\_Mrazek: The Evaluation Criteria in the Road Transported With Fuzzy Logic Support  
dpn71153\_a\_1\_Gogolewski: The Assessment of Wavelet Transform Parameters Regarding Its Use in 3D Surface Filtering  
dpn71154\_a\_1\_Wolny: Some Problems of Sludge Management in the Wastewater Treatment Plants  
dpn71157\_b\_1\_Stehlik: Measurement of Phase Transformation Temperatures Under Near-Real Conditions Using a Thermomechanical Simulator  
dpn71164\_b\_1\_Titova: Determination of the Current State of Human Retina Using Algorithms of Classification  
dpn71176\_b\_1\_Zahavi: ABB YuMi© High-Speed Pick and Place Game in Action  
dpn71197\_b\_1\_Bogdanovich: Development of Technology for Manufacturing Hardware and Intelligent Levels of the Service Autonomous Mobile Robot AMUR-307