



## CONFERENCE PROGRAM

DAY 1 (08.09.2022.) – Room 102		
<a href="https://zoom.us/j/93379422192?pwd=NG0wdHBhUnZXUm5WajNzaStMZ0kxZz09">https://zoom.us/j/93379422192?pwd=NG0wdHBhUnZXUm5WajNzaStMZ0kxZz09</a>		
09:00 - 10:00	<b>Opening Ceremony</b>	
10:00 – 11:30	<b>Plenary Session (Chairs: M. Kojic, I. Kovačić)</b>	
	10:00 - 10:30	Miloš Kojić - ON THE GENERALITY OF SMEARED FINITE ELEMENT APPROACH TO MODEL FIELD PROBLEMS AND MECHANICS IN BIOLOGICAL TISSUE
	10:30 - 11:00	Ivana Kovačić - MATHEMATICAL MODELS OF PURELY NONLINEAR OSCILLATORS: FROM SOLUTIONS TO PHENOMENA
	11:00 - 11:30	Mihailo Lazarević - FURTHER RESULTS ON ADVANCED CONTROL AND STABILITY ISSUES OF FRACTIONAL-ORDER DYNAMICAL SYSTEMS
11:30 – 12:10	<b>Invited Lectures (Chairs: M. Shitikova, D. Zorica)</b>	
	11:30 - 11:50	Victor Roda-Casanova, Radu Andrei-Matei, Francisco Sanchez-Marin - ALGEBRAIC MESH GENERATION IN SPUR GEAR DRIVES
	11:50 - 12:10	Dušan Zorica, Ljubica Oparnica - ENERGY BALANCE FOR FRACTIONAL WAVE EQUATIONS
12:10 – 12:45	<b>Coffee Break</b>	
12:45 – 14:00	<b>General Session (Chairs: V. Roda-Casanova, A. Sedmak)</b>	
	12:45 - 13:00	Marina V. Shitikova, Vladimir V. Kandu - NONLINEAR VIBRATIONS OF A CYLINDRICAL PIPE EMBEDDED IN A FRACTIONAL DERIVATIVE MEDIUM
	13:00 - 13:15	Juan J. Gude, Pablo García Bringas - EFFECT OF CENTRAL POINT ON THE ACCURACY OF A FRACTIONAL-ORDER MODEL IDENTIFICATION METHOD BASED ON THE PROCESS REACTION CURVE
	13:15 – 13:30	Nikolai Svishchev, P. Lino, G. Maione, A. Rybakov, M.P. Lazarević - ROUV HEADING BY A FRACTIONAL-ORDER PI CONTROLLER
	13:30 – 13:45	Aleksandar S. Sedmak- COMPUTATIONAL FRACTURE MECHANICS
	13:45 – 14:00	Vladimir Lj. Dunić - INVESTIGATION OF SHAPE MEMORY ALLOYS CONSTITUTIVE MODELING
14:00 – 15:00	<b>Lunch Break</b>	
15:00 – 16:30	<b>General Session (Chairs: M. Brojan, M. Lazarević)</b>	
	15:00 – 15:15	Vladimir N. Sidorov, Elena S. Badina, Elena P. Detina, Marina V. Shitikova - NUMERICAL SIMULATION OF THE FRAME STRUCTURE DYNAMIC BEHAVIOR BY THE APPLICATION OF THE NONLOCAL IN TIME DAMPING MODEL
	15:15 – 15:30	Jan Zavodnik, Miha Brojan- WRINKLING OF THIN ELASTIC FILMS ON COMPLIANT VISCOELASTIC SUBSTRATES UNDER COMPRESSIVE LOADS



	15:30 – 15:45	M. Samardžić - INFLUENCE OF STING PLUNGING OSCILLATIONS ON MEASUREMENT OF PTCH-DAMPING DERIVATIVES
	15:45 – 16:00	D. H. K. Gaillard, R. E. Bolt, F. M. Rijnberg, J. J. M. Westenberg, H. J. Lamb, M. G. Hazekamp, M. R. M. Jongbloed, A. A. W. Roest, J. J. Wentzel, S. Kenjeres - ON EULERIAN-BASED APPROACH TO EVALUATE BLOOD MIXEDNESS IN THE PATIENT-SPECIFIC FONTAN CIRCULATION
	16:00 – 16:15	Oleg Cherkasov, E.Malykh- EXTREMAL THRUST FOR BRACHISTOCHRONE PROBLEM
	16:15 – 16:30	Shuvajit Mukherjee, M. Cajić, S. Adhikari - WAVE PROPAGATION CHARACTERISTICS OF CURVED HEXAGONAL LATTICE
16:30 – 17:00	<b>Break</b>	
17:00 - 18.30	<b>General Session (Chairs: Marat Z. Dosaev, V. Spitas)</b>	
	17:00 – 17:15	G. Vasileiou, N. Rogkas, A. Markopoulos, V. Spitas - CAN FULLY CERAMIC GEARS PROVIDE A FEASIBLE ALTERNATIVE TO THEIR STEEL COUNTERPARTS IN INDUSTRIAL APPLICATIONS
	17:15 – 17:30	Maksat Temirkhan, Hamza Bin Tariq, Konstantinos Kaloudis, Christos Kalligeros, Vasileios Spitas, Christos Spitas - TOWARDS NOVEL COMPUTATIONAL ROBUST GEAR TCA SOLUTION WITH PARAMETRIC STUDY OF MISALIGNMENTS AND PROFILE MODIFICATION
	17:30 – 17:45	Marat Z. Dosaev, Vitaly A. Samsonov - FEATURES OF BODY BALANCE ON HINGED AND MOVABLE SUPPORTS
	17:45 – 18:00	Miha Brojan, Jan Zavodnik - STABILITY OF PRESTRETCHED CIRCULAR COMPOSITE PLATES
	18:00 – 18:15	Marat Z. Dosaev, Vitaly A. Samsonov, Mikhail A. Garbuz - ROTATION IN HORIZONTAL PLANE OF THE FRICTION-POWERED ROBOT WITH UNBALANCED ROTOR AND FLYWHEEL
	18:15 – 18:30	Yury D. Selyutskiy, Andrei P. Holub, and Boris Ya. Lokshin - GALLOPING-BASED WIND POWER HARVESTER WITH SEVERAL MOVING MASSES



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12:45 – 14:00	<b>General Session (Chairs: M. Bjelić, V. Dunić)</b>	
	12:45 - 13:00	M. Rasinac, M. Bjelić, M. Miodragović, J. Perić - ANALYTICAL MODELING OF HARDNESS IN THE HEAT AFFECTED ZONE DURING WELDING A PLATES MADE OF STEELP355GH BY GMAW PROCESS
	13:00 - 13:15	Ljubica M. Milanović, Vladimir Lj. Dunić - DEVELOPMENT OF INTERFACE FOR IMPLEMENTATION AND APPLICATION OF USER CONSTITUTIVE MODELS IN FEM SOFTWARE PAK
	13:15 – 13:30	Snežana D. Vulović, Miroslav M. Živković, Marko D. Topalović, Rodoljub S. Vujanac, Ana Pavlović - FEM ANALYSIS OF CONTINUOUS TRACKS
	13:30 – 13:45	E. Krylova - STATICS OF THE FLEXIBLE MESHED CYLINDRICAL NANOSHELL IN THE TEMPERATURE FIELD
	13:45 – 14:00	M.A Aichouche, A. Abidelah, Dj.D Kerdal, V. Dunić - NUMERICAL SIMULATION OF COLUMN BASE PLATE BEHAVIOR
14:00 – 15:00	<b>Lunch Break</b>	
15:00 – 16:45	<b>General Session (Chairs: M. Bižić, A. Petrović)</b>	
	15:00 – 15:15	Joseff I. Parke Sturrock, Zoran D. Jelic, Ben. J. Evans - RAPID AND ACCURATE OPTIMISATION OF THE PARTICLE-IN-CELL MODELLING OF GRIDDED ION ENGINES
	15:15 – 15:30	Goran V. Pavlović, Mile M. Savković, Radovan R. Bulatović, Nebojša B. Zdravković Goran Đ. Marković - LIGHT-WEIGHT DESIGN OF AN OVERHEAD CRANE'S GIRDER WITH A NON-SYMMETRIC BOX CROSS-SECTION
	15:30 – 15:45	Mohammad Rizwanullah, K.K. Kaanodiya - OPTIMIZATION OF SUPPLIER SELECTION USING ANALYTICAL HIERARCHY PROCESS IN FUZZY ENVIRONMENT
	15:45 – 16:00	Milan B. Bižić, Radovan R. Bulatović, Dragan Z. Petrović - APPLICATION OF MARINE PREDATORS ALGORITHM IN DESIGN OF RAILWAY VEHICLES SUSPENSION MADE OF COIL SPRINGS
	16:00 – 16:15	Pavel V. Dunchenkin, Anton V. Krysko, Maxim V. Zhigalov, Vadim A. Krysko - OPTIMIZATION OF ADHESIVE JOINTS BY TOPOLOGICAL OPTIMIZATION METHODS
	16:15 – 16:30	Marko Todorović, Radovan Bulatović, Goran Marković, Marina Bošković, and Mile Savković - CAM PROFILE OPTIMIZATION FOR MINIMAL JERK
	16:30 – 16:45	Aleksandra V. Petrović, Stefan M. Pajović, Mladen S. Rasinac, Vladan R. Grković - APPLICATION OF BIOLOGICAIYY INSPIRED ALGORITHMS FOR OPTIMIZATION IN MACHINING PROCESS
16:45 – 17:00	<b>Break</b>	



17:00 – 18:30		
General session (Chairs: S. Jeremić, Y. Djemaoune) – online only		
	17:00 – 17:15	Tatiana V. Yakovleva, Stanislav A. Galkin, Andrey Teryaev, Vadim A. Krysko - INVESTIGATION OF EEG SIGNALS OF PATIENTS WITH ALCOHOL DEPENDENCE BY METHODS OF NONLINEAR DYNAMICS
	17:15 – 17:30	Marina V. Cetkovic - FREE VIBRATIONS OF FGM PLATES WITH IMPERFECTIONS USING LAYERWISE FINITE ELEMENT
	17:30 – 17:45	Sreten Mastilovic - A SIMULATION-INFORMED MODELING OF DEPTH OF PENETRATION OF RIGID RODS INTO QUASIBRITTLE SOLIDS
	17:45 – 18:00	Younes Djemaoune, Branimir Krstić - NUMERICAL INVESTIGATION INTO THE INFLUENCE OF THE CORE PLUG REPLACEMENT PROPERTIES ON THE FLEXURAL PERFORMANCES OF REPAIRED HONEYCOMB SANDWICH PANEL
	18:00 – 18:15	Svetlana R. Jeremić, Jelena R. Đorović Jovanović, Zoran S. Marković - INHIBITION POTENCY OF 1,2,4-TRIHYDROXYANTHRAQUINONE AND 1,2,4-TRIHYDROXYXANTHONE TOWARD PENICILLIN-BINDING PROTEIN 1A
	18:15 – 18:30	Jelena R. Đorović Jovanović, Svetlana R. Jeremić, Zoran S. Marković - INHIBITORY POTENCY OF USNIC ACID TOWARD PHOSPHODIESTERASE TYPE 5



DAY 2 (09.09.2022.) – Room 102		
<a href="https://zoom.us/j/93379422192?pwd=NG0wdHBhUnZXUm5WajNzaStMZ0kxZz09">https://zoom.us/j/93379422192?pwd=NG0wdHBhUnZXUm5WajNzaStMZ0kxZz09</a>		
09:30 – 10:30	<b>Plenary Session (Chairs: D. Marinković, L. Klimina)</b>	
	09:30 - 10:00	Sondipon Adhikari - UNCERTAINTY QUANTIFICATION IN STRUCTURAL DYNAMICS
	10:00 – 10:30	Dragan Marinković - FEM-BASED REAL-TIME SIMULATIONS – VIRTUAL REALITY AT ITS BEST
10:30 – 11:10	<b>Invited Lectures (Chairs: D. Marinković, L. Klimina)</b>	
	10:30 - 10:50	Liubov A. Klimina, Marat Z. Dosaev, Yury D. Selyutskiy - SERPENTINE MOTION IN ROBOTICS: WIND CAR, TRIMARAN, SNAKEBOT
	10:50 - 11:10	Andrija Milojević- SYNTHESIS FRAMEWORK FOR NEW BREED OF ROBOTS. SOFT LOCOMOTION ROBOTS
11:10 – 11:45	<b>Coffee Break</b>	
11:45 – 14:00	<b>General session (Chairs: Đ. Čantrak, A. Čočić)</b>	
	11:45 - 12:00	Aleksandar S. Čočić - NUMERICAL COMPUTATIONS OF ELASTIC TORSION USING THE FINITE-VOLUME METHOD
	12:00 - 12:15	Antonio Cuellar Martín, Alejandro Guemes, Andrea Ianiro, Oscar Flores, Ricardo Vinuesa, Stefano Discetti - GENERATIVE ADVERSARIAL NETWORKS FOR THE ESTIMATION OF 3D TURBULENT FIELDS WITH WALL-MEASUREMENTS
	12:15 - 12:30	Nikhil V. Shrivastava, Abhishek K. Tiwari, Santosh Patil, Dharmendra Tripathi - PHYSIOLOGICAL LOADING AND ITS EFFECT ON STREAMING POTENTIAL GENERATED BY INTERSTITIAL FLUID FLOW IN DISORDERED BONE'S CANALICULI
	12:30 - 12:45	Đorđe S. Čantrak, Novica Z. Janković, Dejan B. Ilić- ENSTROPY IN TURBULENT SWIRLING FLOW IN PIPE
	12:45 - 13:00	Victoria N. Korchagova - ON USING LMP LIMITERS IN SIMULATION OF GAS FLOW IN CONVERGING-DIVERGING NOZZLE BY RKDG METHOD
	13:00 - 13:15	Ivan D. Tomanović, Srđan V. Belošević, Nenad Đ. Crnomarković, Aleksandar R. Milićević, Andrijana D. Stojanović - PARALLEL COMPUTATIONS IN FLUID DYNAMICS USING MULTICORE/MANYCORE PROCESSORS
	13:15 - 13:30	Harsh Surana, Gourav Moonka, S P Akash, Dhananjay Singh Parmar, Hemant Raj Singh - A REVIEW ON GROUND SOURCE HEAT PUMP
	13:30 - 13:45	Ana Trišović – TOWARD FAIR PRINCIPLES FOR OPEN HARDWARE
	13:45 - 14:00	Milica M. Ivanović, Toni D. Ivanov, Aleksandar M. Kovačević - NUMERICAL INVESTIGATION OF THE INFLUENCE OF GEOMETRY ON THE THERMAL PROPERTIES OF A HEAT PIPE
14:00 – 15:00	<b>Lunch Break</b>	



15:00 – 17:00		<b>General Session (Chairs: S. Patil, V. Korchagova)</b>
	15:00 – 15:15	Rakesh Kumar, Harsha Pandey, Santosh Patil- DESIGN AND ANALYSIS OF BONE TISSUE SCAFFOLDS: A TWO-WAY FLUID STRUCTURE INTERACTION MODEL
	15:15 – 15:30	Jelena M. Svorcan, Milče M. Smiljanić, Miloš D. Vorkapić- SIMULATING FLOW IN SILICON Y-BIFURCATED MICROCHANNELS
	15:30 – 15:45	Abdelhakim Merdjani, Natalya Kizilova - EFFICIENT FLOW-FIELD DESIGN FOR PPROTON EXCHANGE MEMBRANE FUEL CELLS
	15:45 – 16:00	E. Berberović, S. Bikić- COMPUTATIONAL MODELING OF AIR FLOW IN THE COOLING TOWER
	16:00 – 16:15	Marija V. Milivojević, Aleksandar S. Čočić, Matej M. Tomić- CFD ANALYSIS OF PRESSURE DROP FROM THE AIR SIDE IN AUTOMOTIVE HEAT EXCHANGER USING POROUS MEDIA APPROACH
	16:15 – 16:30	Liliya Batyuk, Natalya Kizilova - LAYERED MODEL OF RED BLOOD CELL MEMBRANES AS VISCOELASTIC SHELLS
	16:30 – 16:45	Natalya Ruchak, Natalya Kizilova - WATER-DRIVEN POLUTIONS TRANSFER AND ACCUMULATION AT THE FLUID-SOLID INTERFACES
	16:45 – 17:00	Dragoljub Tanović, Marija Baltić, Miloš Vorkapić - ESTIMATION OF EXTREME LOADS ON A WIND TURBINE BLADE AT LARGE ANGLE-OF-ATTACK AND HIGH VELOCITY
17:00 – 17:30		<b>Break</b>
17:30 – 18:45		<b>Special Session – Experimental Mechanics (Chairs: D. Momčilović, O. Ristić)</b>
	17:30 – 17:45	Bratislav N. Stojiljković, Dejan B. Momčilović - EXAMINATION OF THE PHYSICAL-CHEMICAL AND MECHANICAL PROPERTIES OF HELICAL CYLINDRICAL COMPRESSION SPRINGS PRESERVED IN THE LEGACY IN THE NIKOLA TESLA MUSEUM
	17:45 – 18:00	Dragoljub Ilić, Dragan Milošević, Dejan B. Momčilović - NEURAL NETWORK MODEL FOR THE CONDITION ASSESSMENT OF HYDRO TURBINES
	18:00 – 18:15	Milorad Gavrilovski, Alen Delić, Vaso Manojlović - OPTIMIZATION OF ALUMINOTHERMIC RAIL WELDING BY MODELING AND SIMULATION OF BASIC PARAMETERS OF THERMITE STEEL CASTING
	18:15 – 18:30	Milica Milić, Ivana Atanasovska, Ognjen Ristić, Dejan B. Momčilović - FAILURE ANALYSIS OF BEAM OF UNMANNED AERIAL VEHICLE
	18:30 – 18:45	Aleksandar Žurkić - EXPERIMENTAL MECHANICS – VISION OF EXCELLENCE IN SCIENCE BY SHIMADZU





DAY 2 (09.09.2022.) – Room 101		
<a href="https://zoom.us/j/95039273877?pwd=ZlV3aWJHcDUyak1VWVNBZ3A5TzVTUT09">https://zoom.us/j/95039273877?pwd=ZlV3aWJHcDUyak1VWVNBZ3A5TzVTUT09</a>		
12:00 – 14:00	<b>General session (Chairs: V. Racić, L. Marra)</b>	
	12:00 - 12:15	Vitomir Racić - FRAMEWORK FOR MODELLING GENUINE GROUND REACTION FORCES DUE TO WALKING
	12:15 - 12:30	Víctor Roda-Casanova, David Hernández, Joaquín L. Sancho-Bru, María D. Martínez-Rodrigo - MODAL PARAMETERS IDENTIFICATION AND DYNAMIC PERFORMANCE OF A STEEL FOOTBRIDGE WITH A SIGNIFICANT 3D BEHAVIOUR
	12:30 - 12:45	Luigi Marra, A. Meilan-Vila, S. Discetti- EFFECT OF MEASUREMENT NOISE ON MPC FOR DRAG REDUCTION
	12:45 - 13:00	Aleksandar M. Kovačević, Jelena M. Svorcan, Toni D. Ivanov - MODELING, SIMULATION AND CONTROL OF PROPELLER DRIVEN SEESAW SYSTEM WITH ASYMMETRIC GEOMETRY USING PID CONTROLLER
	13:00 - 13:15	Srđan D. Kostić, Nebojša T. Vasović - DELAY DIFFERENTIAL EQUATIONS GOVERNING DYNAMICS OF A LANDSLIDE MECHANICAL MODEL
	13:15 - 13:30	Miroslav Andjelković, Slobodan Maletić - COMPLEMENTARY TOPOLOGICAL METHODS FOR THE ANALYSIS OF NONLINEAR TIME SERIES
	13:30 - 13:45	Vesna Trifunović-Dragišić - AGING OF SOLAR CELLS UNDER OPERATING CONDITIONS
14:00 – 15:00	<b>Lunch Break</b>	
15:00 – 17:15	<b>Special Session - Optimizing Design for Inspection – ODIN (Chairs: N. Trišović, P. Dimitrov)</b>	
	15:00 – 15:15	Beatriz Henriques, Pedro Ribeiro, Marcelo F.S.F. de Moura - NON-LINEAR DYNAMICS OF A DAMAGED STIFFENED COMPOSITE LAMINATED PANEL
	15:15 – 15:30	Renata Troian, Chunmei Liu - BIO-INSPIRED SHAPE OPTIMIZATION FOR STRUCTURAL RESISTANCE
	15:30 – 15:45	Aasifa Rounak, Rohit Chawla, Vikram Pakrashi - STOCHASTIC DYNAMICS OF A SNAP-THROUGH TRUSS OSCILLATOR
	15:45 – 16:00	Wei Li, Lincong Chen, Junfeng Zhao, Natasa Trisovic- FRACTIONAL ORDER PID CONTROL ON STRUCTURAL RELIABILITY OF STOCHASTIC DYNAMICAL SYSTEMS
	16:00 – 16:15	Maja Čavić, Milan Kostić, Miodrag Zlokolica - DESIGN FOR INSPECTION AND SAFETY – NOVEL CONCEPT OF CABLING MACHINE
	16:15 – 16:30	Guidong Yang, Zicheng Lin, Xiaocheng Liu - DYNAMIC ANALYSIS OF A THREE-DEGREE-OF-FREEDOM VIBRATION-IMPACT SYSTEM WITH RANDOM PARAMETERS
	16:30 – 16:45	Petar Dimitrov - FLIGHT DYNAMICS MODELLING AND FLIGHT SIMULATION



	16:45 – 17:00	Dongmei Huang, Shengxi Zhou - THEORETICAL SOLUTIONS OF THE MULTI-STABLE ENERGY HARVESTERS
	17:00 – 17:15	Ivana Atanasovska, Nataša Trišović, Milica Milić - MODELLING OPTIMIZATION FOR A COMPOSITE WING COMPONENT
17:15 – 17:30	<b>Break</b>	
17:30 – 18:15	<b>General Session – Aerospace Engineering (Chairs: J. Svorcan, I. Atanasovska)</b>	
	17:30 – 17:45	Mohammad Sakib Hasan, Jelena Svorcan- CONCEPTUAL DESIGN OF SOLAR-POWERED HIGH-ALTITUDE LONG ENDURANCE AIRCRAFT
	17:45 – 18:00	Saiyadhasan Naqvi, Natalya Kizilova - OPTIMIZATION OF COMPACT FRACTAL-TYPE HEATERS/COOLERS FOR AEROSPACE ENGINEERING
	18:00 – 18:15	Jelena M. Svorcan, Kevin Patrick Griffin- LES OF FLOW AROUND NACA 4412 AIRFOIL AT HIGH ANGLE-OF-ATTACK

18:15 – 18:45	<b>Poster session (Room 301f)</b>	
	Andrija Zorić, Marina Trajković-Milenković - NUMERICAL AND ANALYTICAL STUDY OF A BAR DAMPER DEVICE	
	Milan Čajić, Danilo Karličić, Stepa Paunović, Sondipon Adhikari - NONLINEAR PERIODIC CHAINS WITH FRACTIONAL DAMPING	
	Hammoudi Abderazek, Ivana Atanasovska - EQUILIBRIUM OPTIMIZER FOR OPTIMIZATION OF TRUSS STRUCTURE WITH DISCRETE DESIGN VARIABLES	
	Abdulmuttalib A. Muhsen - CFD ANALYSIS AND OPTIMIZATION OF REGULAR T-SHAPED FRACTAL SYSTEM	
	Nataša D. Soldat, Ivana D. Atanasovska - ANALYSIS OF CONTACT STIFFNESS IN ROLLING BALL BEARINGS WITH OUTER RING DAMAGE	
	Stepa Paunović, Danilo Karličić, Milan Čajić - IMPROVING THE PERFORMANCE OF PIEZOELECTRIC FRACTIONALLY DAMPED DYNAMIC ABSORBERS FOR BRIDGES	
	Milica P. Milic, Jelena Svorcan - UNMANNED AERIAL VEHICLE TRAJECTORY VISUALIZATION AND RECONSTRUCTION USING THE CHANGES IN SIGNIFICANT VARIABLES OVER TIME	
	Marija Stamenković Atanasov, Ivan R. Pavlović - EFFECTS OF DYNAMIC ABSORPTION CAUSED TO CURVATURES IN GEOMETRY OF COUPLED NANO-STRUCTURES	
	Hammoudi Abderazek, Aissa Laouissi, Mourad Nouioua, Ivana Atanasovska - OPTIMIZATION OF TURNING PROCESS PARAMETERS USING A HYBRID EVOLUTIONARY ALGORITHM	
	Đorđe Jovanović, Branislav Milenković - OPTIMIZATION OF ENGINEERING DESIGN PROBLEMS USING HONEY BADGER ALGORITHM	
	Marija N. Vukšić Popović - PROSPECTS OF DRAFT GEAR MODELLING FOR TRAINS IN EUROPE	
	Abdulmuttalib A. Muhsen - COMPARATIVE STUDY OF FLUID TRANSPORTATION PROPERTIES OF REGULAR AND IRREGULAR FRACTAL-TYPE PIPELINES-A REVIEW	





DAY 3 (10.09.2022.) – Room 301f		
<a href="https://zoom.us/j/97496943955?pwd=R3RGdkJWaG9YNzJDa2hIR3VEaXkvUT09">https://zoom.us/j/97496943955?pwd=R3RGdkJWaG9YNzJDa2hIR3VEaXkvUT09</a>		
09:30 – 10:30	<b>Plenary Session (Chairs: H. Altenbach, M. Cajić)</b>	
	09:30 - 10:00	Holm Altenbach- MODELING OF STRUCTURAL MATERIALS
	10:00 – 10:30	Chiara Bisagni- MODELLING OF COMPOSITE STRUCTURES: USING BUCKLING FOR MORE FLEXIBLE AND SUSTAINABLE AIRCRAFT
10:30 – 11:00	<b>Poster session + Break</b>	
	Andrija Zorić, Marina Trajković-Milenković - NUMERICAL AND ANALYTICAL STUDY OF A BAR DAMPER DEVICE	
	Milan Cajić, Danilo Karličić, Stepa Paunović, Sondipon Adhikari - NONLINEAR PERIODIC CHAINS WITH FRACTIONAL DAMPING	
	Hammoudi Abderazek, Ivana Atanasovska - EQUILIBRIUM OPTIMIZER FOR OPTIMIZATION OF TRUSS STRUCTURE WITH DISCRETE DESIGN VARIABLES	
	Abdulgattalib A. Muhsen - CFD ANALYSIS AND OPTIMIZATION OF REGULAR T- SHAPED FRACTAL SYSTEM	
	Nataša D. Soldat, Ivana D. Atanasovska - ANALYSIS OF CONTACT STIFFNESS IN ROLLING BALL BEARINGS WITH OUTER RING DAMAGE	
	Stepa Paunović, Danilo Karličić, Milan Cajić - IMPROVING THE PERFORMANCE OF PIEZOELECTRIC FRACTIONALLY DAMPED DYNAMIC ABSORBERS FOR BRIDGES	
	Milica P. Milic, Jelena Svorcan - UNMANNED AERIAL VEHICLE TRAJECTORY VISUALIZATION AND RECONSTRUCTION USING THE CHANGES IN SIGNIFICANT VARIABLES OVER TIME	
	Marija Stamenković Atanasov, Ivan R. Pavlović - EFFECTS OF DYNAMIC ABSORPTION CAUSED TO CURVATURES IN GEOMETRY OF COUPLED NANO-STRUCTURES	
	Hammoudi Abderazek, Aissa Laouissi, Mourad Nouioua, Ivana Atanasovska - OPTIMIZATION OF TURNING PROCESS PARAMETERS USING A HYBRID EVOLUTIONARY ALGORITHM	
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	Marija N. Vukšić Popović - PROSPECTS OF DRAFT GEAR MODELLING FOR TRAINS IN EUROPE	
	Abdulgattalib A. Muhsen - COMPARATIVE STUDY OF FLUID TRANSPORTATION PROPERTIES OF REGULAR AND IRREGULAR FRACTAL-TYPE PIPELINES-A REVIEW	
11:00 – 13:00	<b>General session (Chairs: P. Mandić, D. Karličić)</b>	
	11:00 - 11:15	Petar D. Mandić, P. Lazarević, Tomislav B. Šekara, Guido Maione, Paolo Lino - APPLICATION OF ITERATIVE LEARNING CONTROL FOR PATH FOLLOWING OF 3DOFS ROBOT ARM
	11:15 - 11:30	Nevena Rosić, Danilo Karličić, Milan Cajić, Mihailo Lazarević - NON- RECIPROCAL WAVE PROPAGATION IN PERIODICALLY STRUCTURED TIMOSHENKO BEAMS
	11:30 - 11:45	Marko A. Veg, Aleksandar M. Tomović, Aleksandar M. Obradović- ANALYSIS OF CROSSING AND VEERING PHENOMENA IN PLANAR FRAME STRUCTURES



1st International Conference on Mathematical  
Modelling in Mechanics and Engineering  
Mathematical Institute SANU, 08-10. September, 2022.



	11:45 - 12:00	Jelena Z. Vidakovic, Mihailo P. Lazarevic, Nikola Lj. Zivkovic, Pavle Lj. Stepanic, Stefan M. Mitrovic- COMPUTED TORQUE CONTROL SIMULATION FOR 6DOF INDUSTRIAL ROBOT
	12:00 - 12:15	Nikola LJ. Zivkovic, Jelena Vidakovic, Mihailo P. Lazarevic- FORWARD DYNAMICS ALGORITHMS AND THEIR USE IN OPEN-SOURCE DYNAMICS ENGINES – AN OVERVIEW
	12:15 - 12:30	Irina V. Papkova, Anton V. Krysko, Vadim A. Krysko- MATHEMATICAL MODELING OF THE CHAOTIC DYNAMICS OF POROUS NANOBELLS INCLUDING GEOMETRIC NONLINEARITY AND ELASTIC-PLASTIC DEFORMATIONS
	12:30 - 12:45	Vadim A. Krysko-jr, Leonid A. Kalutsky, Svetlana A. Mitskievich, Tatiana V. Yakovleva- ON SOME FEATURES OF THE LOSS OF STABILITY OF FLEXIBLE CYLINDRICAL NANOPANELS ON A RECTANGULAR PLAN
	12:45 - 13:00	Stepan Elistratov, Ilias Sibgatullin, Xu Xiulin- WAVE ATTRACTORS IN LARGE ASPECT RATIO DOMAINS
13:00 – 14:00	<b>Closing Ceremony</b>	