

| <b>PROGRAM</b>   |  |   |
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| <b>1st International Conference ICCMAE – 2018</b>  |  |   |
| 1. Wednesday, May 23, 2018   |  |   |
| Registration of participants, 10:00 - 11:00, ICCMAE 2018 Office,<br>in front of the Auditorium |  |   |
| Opening ceremony, 11:00 - 11:30, Auditorium  |  |   |
| <b>Keynote lecture, 11:30 - 12:30, Auditorium</b>  |  |   |
| Prof. Siegfried Schmauder  | Multiscale Fatigue Simulation  |   |
| Lunch, 12:30 - 14:00   |  |   |
| <b>Session 1A, 14:00 - 15:30, Auditorium</b><br>Session Chair: Mohsen Razzaghi, PhD, MSU       |  |   |
| 1  | Slavko Simic   | On the symmetrized S-divergence   |
| 2  | Katarina S. Kukić, Aleksandar D. Jovanović   | Fuzzy logic approach on traffic control of an diverging diamond interchange in real time                          |
| 3  | Mónika Szűcs, Gergely Röst   | A mathematical model of tumor growing under oncolytic virus therapy   |
| 4  | Cristian Lazureanu, Ciprian Hedrea, Camelia Petrisor   | On the integrable deformations of a system related to the motion of two vortices in an ideal incompressible fluid |
| 5  | Ghiocel Groza, Marilena Jianu  | Functions represented into fractional Taylor series   |
| <b>Session 1B, 14:00 - 15:30, Amphitheater K1</b><br>Session Chair: Liviu Marsavina, PhD, UPT  |  |   |
| 1  | Vyacheslav Burlayenko, Tomasz Sadowski, Daniel Pietras   | Influence of Dynamic Loading on Fracture of Face sheet-to-Core Interface in Sandwich Composites                   |
| 2  | Mirjana Stamenić, Nikola Tanasić, Uroš Milovancević, Tomislav Simonović, Milena Otović, Miloš Ivošević, Miloš Mihailović | Numerical analysis of external loads on nozzles of rotary equipment and pressure vessels                          |
| 3  | Ciprian Ionut Zub, Ioan Both, Aurel Stratan, Dan Dubina  | Modelling the cyclic response of structural steel for FEM analyses in Abaqus                                      |
| 4  | Dominiq Jakab, Aurel Stratan, Dan Dubina   | Numerical testing of steel beam-to-column bolted extended end-plate connection with haunches                      |
| 5  | Daniel L. Nunes, Adrian Ciutina, Ioan Marginean, Florea Dinu, Ivana Tadić  | Optimisation of FE parameters used in fine numerical modelling of steel T-stub elements                           |
| <b>Session 1C, 14:00 - 15:30, Amphitheater K2</b><br>Session Chair: Radu Vasii, PhD, UPT       |  |   |
| 1  | Mădălin-Dorin Pop  | Real-Time Adaptive Traffic Signals Using Rate Monotonic Scheduling  |
| 2  | Sebastian Avram, Andreea-Mirela Safta, George Belei, Cătălin Căleanu, Radu Vasii   | Hardware and Software Integration of an Electrophoretic display on a smart meter                                  |
| 3  | Marius Baba, Vasile Gui, Dan Pescaru   | Deep Learning Approach for Violence Detection in Urban Areas  |
| 4  | Florin-Daniel Sandru, Ioan Silea, Razvan-Catalin Miclea  | LoRa® based multi-sensor system for heavy duty vehicle detection in restricted areas                              |

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| 5  | Muguras Mocofan, Radu VasIU                            | Supervised vs. unsupervised content base search of dynamic textures in multimedia databases   |
| Coffee break, 15:30 - 16:00  |  |   |
| <b>Poster Session – P1, 16:00 - 17:30</b><br>in front of the Amphitheatres K1, K2            |  |   |
| 1  | Derrick Jones, Xu Zhang                                | An immersed finite element method for parabolic interface problems  |
| 2  | Chartese Jones, Xu Zhang                               | An efficient numerical method for hyperbolic interface problems   |
| 3  | Matt Judson, Troy Viger, Hyeona Lim                    | Efficient and Robust Non-Local Means Denoising Methods for Biomedical Images  |
| 4  | Arundhati Bagchi Misra, Chartese Jones, Hyeona Lim     | Edge Enhancing Accelerated Diffusion Model for Speckle Denoising in Medical Imagery   |
| 5  | Olivia Bundau, Adina Juratoni                          | Optimal Conditions for a Control Problem Associated to an Economical Model  |
| 6  | Bogdan Caruntu, Constantin Bota, Olivia Bundau         | Analytical simulation of magneto-hemodynamic flow in a semi-porous channel using the Polynomial Least Squares Method  |
| 7  | Camelia Pop, Ioana Iosif                               | An underactuated drift-free left invariant control system on the Lie group SU(3)  |
| 8  | Bartosz Sawicki, Artur Krupa                           | Stochastic Modelling of Electrical Field in the Plants Using Polynomial Chaos   |
| 9  | Tudor Bînzar, Sorin Nadaban, Flavius Pater             | On fuzzy bounded sets in fuzzy normed linear spaces   |
| 10   | Lazhar Bougoffa  | Solution of the boundary value problem for the generalized Blasius equation   |
| 11   | Ammar Khanfer, Lazhar Bougoffa                         | On the solutions of the generalized Lotka-Volterra system   |
| 12   | Ildiko Kertesz (Brînaş), Florin Popescu, Andrei Andraş | Balance survey / analysis of vertical transport installations using the Nyquist stability criterion   |
| 17.30– 19:30   |  | Optional<br>Guided Tour of the Historical City of Timisoara   |
| 2. Thursday, May 24, 2018  |  |   |
| <b>Keynote lecture, 09:00 - 10:00, Auditorium</b>  |  |   |
| Prof. Holm Altenbach   |  | Inelastic Behavior of Advanced Heat-Resistant Steels at High Temperature  |
| <b>Keynote lecture, 10:00 - 11:00, Auditorium</b>  |  |   |
| Prof. Mohsen Razzaghi  |  | Hybrid Approximations for Fractional Calculus   |
| Coffee break, 11:00 – 11:30  |  |   |
| <b>Session 2A, 11:30 - 12:30, Auditorium</b><br>Session Chair: Prof.dr. Constantin Bota, UPT |  |   |
| 1  | Maria Lăpădat, Mohsen Razzaghi, Mădălina Paşca         | Numerical solution of the first order non-linear differential equations with the mixed non-linear conditions by using PLSM (comparison with Bernstein polynomials method) |

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| 2   | Madalina Sofia Pasca, Mohsen Razzaghi, Maria Lapadat   | Approximate solutions for the Bagley-Torvik fractional equation with boundary conditions using the Polynomial Least Squares Method |
| 3   | Daniel Brebenariu  | Pilot Project for The Introduction of Modern and Intelligent Public Lighting in the Municipality of Resita, Romania                |
| <b>Session 2B, 11:30 - 12:30, Amphitheater K1</b><br><b>Session Chair: Nicolae Herisanu, PhD, UPT</b> |  |  |
| 1   | Alexandru Giurgica   | Numerical analysis model of an Air Control Valve The Bond Graph approach   |
| 2   | Dan-Ioan Stoia, Alin Florin Totorean   | Analytical model for computing translational and rotational angular momentum occurring in treadmill walking                        |
| 3   | Iosif Boros, Dan Stoian, Tamás Nagy-György, Valeriu Stoian                                   | Monitoring system of an energy efficient school building   |
| <b>Session 2C, 11:30 - 13:30, Amphitheater K2</b><br><b>Session Chair: Muguras Mocofan, PhD, UPT</b>  |  |  |
| 1   | Daniel M. Muntean, Viorel Ungureanu  | Building retrofitting. From 1970s low rise collective housing to sustainable communities and smart cities                          |
| 2   | Silviu Vert, Diana Andone  | Virtual Reality Authoring Tools for Educators  |
| 3   | Silviu Vert, Radu Vasii  | Alerts and Notifications for Smart Citizens  |
| 4   | Silviu Vert, Diana Andone, Radu Vasii  | Augmented and Virtual Reality for Public Space Art   |
| 5   | Razvan Bogdan, György Kolumban-Antal, Vladko Lasak   | Air pollution measuring solutions by means of secure low-cost Vehicular Sensor Networks  |
| 6   | Magdalena Banda, Valentin Ciupe, Cristian Moldovan, Inocentiu Maniu, Robert Kristof          | Investigations on collaborative remote control of virtual robotic manipulators by using a Kinect v2 sensor                         |
| 7   | Ciucea Camelia, Andrei Ternauciu   | Analysis of existing gender differences in using an educational platform   |
| <b>Coffee break, 13:30 – 14:00</b>  |  |  |
| <b>Poster Session – P2, 14:00 - 15:30</b><br><b>in front of the Amphitheatres K1, K2</b>              |  |  |
| 1   | I-C Predoiu, Liviu Marsavina, Sebastian Muntean  | Numerical determination of stress concentration near runner blade – crown/ring junctions   |
| 2   | Srbislav Genić, Branislav Jaćimović  | Reconsideration of friction Factor Data and Equations for Smooth, Rough and Transition Pipe Flow                                   |
| 3   | Zbigniew Czyż, Paweł Karpiński, Salih Koçak  | Numerical Analysis of the Influence of Particular Parts of High Efficient Electric Vehicle on the Aerodynamic Forces               |
| 4   | Zbigniew Czyż, Paweł Karpiński, Chahin Boujelbene  | Investigation of the Aerodynamic Drag Force of Powerboat for Inshore Racing  |
| 5   | Steliana Stanciu, Dorin Simoiu, Ion Crăștiu, Sorin Deac, Eduard Nicușor Oanță, Liviu Bereteu | The Effect of Corrosion on the Natural Frequencies of Beams  |

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| 6            | Ioan Călin Gozman-Pop,<br>Daniel Vlădaia, Dorin Simoiu,<br>Ion Crăștiu, Andrei Bârgău,<br>Liviu Bereteu  | Modal Analysis of Satellites used for Side– Airbeg System  |
| 7            | Sorin Deac, Steliana Stanciu,<br>Costel Berce, Eduard Nicușor<br>Oanță, Daniel Vladaia, Liviu<br>Bereteu | Analysis of the Dynamic Behavior of a Vehicle Suspension when Passing over Different Types of Bump       |
| 8            | Robert Kristof, Valentin Ciupe,<br>Cristian Moldovan, Inocentiu<br>Maniu                                 | On the design of a myoelectric human-machine interface for the control of an industrial robot            |
| 9            | Corina Covaci, Aurel Gontean   | Energy Harvesting With Piezoelectric Materials for IoT – Review  |
| 10           | Dumitru Lupascu, Ionel<br>Chirica, Elena-Felicia Beznea,<br>Mihaela Barcan (Savin)                       | Numerical Non-linear Calculation of the Quadratic Damping Ship's Oscillation Parameters                  |
| 11           | Mihaela Barcan, Ionel Chirica,<br>Elena-Felicia Beznea   | Numerical Vibro-Acoustic Analysis of a Ship Compartment Structure  |
| 12           | Mihaela Barcan (Savin),<br>Adrian Presura, Ionel Chirica,<br>Ionel Iacob                                 | Plastic Deformation Simulations of Steel Panels  |
| 13           | Dorin Lelea  | The numerical analysis of heat transfer and fluid flow in microchannel heat sink with NEPCM-water slurry |
| 16.00– 19:00 |  | Visit to Jecza Art Gallery,<br>Best Papers Award,<br>Dinner Banquet,<br>Closing ceremony                 |