

Program of the virtual edition of the  
 12<sup>th</sup> European Symposium on  
 Computational Intelligence and Mathematics  
 &  
 Workshop DigForASP  
 February 15<sup>th</sup> - 17<sup>th</sup>, 2021



MONDAY 15 <sup>th</sup>	
9:00–9:15	Opening by the General Chairs: László T. Kóczy, Janusz Kacprzyk, Jesús Medina
9:15–10:15	<b>Session S1.</b> Chairperson: Vilém Novák
	<i>Q-Fuzzy Subtopology</i> Irina Perfilieva
	<i>Lattice-valued algebraic structures via residuated maps</i> Branimir Seselja and Andreja Tepavcevic
	<i>Fuzzy relational mathematical morphology: erosion and dilation</i> Alexander Sostak and Ingrida Uljane
10:15–10:30	Coffee break
10:30–12:10	<b>Session S2.</b> Chairperson: Jesús Medina
	<i>Rough Sets and Topology in AST: a Study via Higher-order Fuzzy Logic</i> Vilem Novak
	<i>Identifying non-sublattice equivalence classes induced by an attribute reduction in FCA</i> Roberto G. Aragón, Jesús Medina and Eloísa Ramírez-Poussa
	<i>Extensions of fuzzy measures based on double generalization of the Lovász extension formula</i> Lubomíra Horanská
	<i>On the Intuitionistic Fuzzy Representations of Rough Real Functions</i> Zoltán Ernő Csajbók
	<i>Finite model property and varieties of BL-algebras</i> Stefano Aguzzoli and Matteo Bianchi

**TUESDAY 16<sup>th</sup>**

9:00–10:00	<b>Session S3.</b> Chairperson: Marek Reformat
	<i>Automatic generation of linguistic descriptions of electricity consumption in the buildings of a large institution</i> Juan Moreno-García, Luis Jiménez-Linares and Luis Rodríguez-Benítez
	<i>On the selection the rule membership functions and fuzzy rule interpolation</i> Szilvia Nagy, Ferenc Lilik, Brigita Sziová, Szonja Szujó and László T. Kóczy
	<i>Linguistic descriptions of data via fuzzy formal concept analysis</i> María Eugenia Cornejo, Jesús Medina and Clemente Rubio-Manzano
10:00–10:20	Coffee break
10:20–12:00	<b>Session S4.</b> Chairperson: László T. Kóczy
	<i>OLGGA: An On-Line Generation-less Genetic Algorithm</i> Antal Buss, Marek Reformat and Petr Musilek
	<i>Some Dynamical Properties of Higher-Order Fuzzy Cognitive Maps</i> Istvan Harmati and László T. Kóczy
	<i>A Fuzzy Declarative Approach to Classify Unlabeled short texts based on Automatically Constructed WordNet Ontologies</i> Sami H. Al-Sayadi, Pascual Julian-Iranzo, Francisco P. Romero and Fernando Saenz-Perez
	<i>Automatic recognition of handwritten Urdu characters</i> Hisham Zargar, Ruba Almahasneh and László T. Kóczy
	<i>Algorithms for triggering general regression neural network</i> Piotr A. Kowalski and Maciej Kusy

WEDNESDAY 17<sup>th</sup>

9:00–10:00	<b>Session S5.</b> Chairperson: Stefania Costantini <b>Workshop DigForASP</b>
	<i>Database Incident Response and Forensic Preparation through the Performance Features</i> Maksym Nesterov, Igor Kotsiuba and Inna Skarga-Bandurova
	<i>Detection of fraudulent credit card transactions by Computational Intelligence Models As a Tool in Digital Forensics</i> Maciej Kusy and Piotr A. Kowalski
	<i>Data Mining Techniques for the Analysis of Student's Admission Data</i> Jurgita Lieponiene and Vaidas Giedrimas
10:00–10:20	Coffee break
10:20–11:40	<b>Session S6.</b> Chairperson: Jesús Medina <b>Workshop DigForASP. Abstracts session</b>
	<i>Artificial intelligence between ethical and constitutional profile. The algorithm in judicial decisions: some cases of comparative law in comparison</i> Tania Cerasella
	<i>Evidence analysis through the Answer Set Programming</i> Raffaele Olivieri
	<i>AI and law: which prospects? (The importance of interdisciplinary and multidisciplinary dialogue)</i> Emanuela Cerasella
	<i>Towards Applications of Inductive Logic Programming in Digital Forensics</i> Francesca Alessandra Lisi

**The following papers were presented in October, 2020,  
in the framework of the Vi-ESCIM2020.**

*Invariant aggregation and pre-aggregation functions*  
Anna Kolesárová and Radko Mesiar

*Finite model property and varieties of BL-algebras*  
Stefano Aguzzoli and Matteo Bianchi

*Collection integral on infinite spaces*  
Adam Šeliga and Alexandra Šipošová

*Duhamel Hereditary Integrals in Viscoelasticity*  
Maria Minarova and Jozef Sumec

*Weighted penalty-based aggregation*  
Andrea Stupnanova

*Formal concept analysis for detecting criminal patterns*  
María Eugenia Cornejo, Roberto G. Aragón, Jesús Medina, Eloisa Ramírez Poussa and Clemente Rubio-Manzano

*Local Binary Pattern-based Fingerprint Matching*  
Boldizsár Tüü-Szabó, Gábor Kovács, Szilvia Nagy, Peter Foldesi and László T. Kóczy