

R^αRNR 2015 Technical Program

FRIDAY, 28.08.2015			
9.00	9.45	Registration	
9.45	10.00	Opening ceremony	
		Controllability, Observability and Stability	Chairperson: Jerzy Klamka
10.00	10.20	Tadeusz Kaczorek	Positivity and stability of a class of fractional descriptor discrete-time nonlinear systems
10.20	10.40	Malgorzata Wyrwas and Dorota Mozyska	Stability analysis for discrete-time systems with fractional positive orders
10.40	11.00	Yassine Boukal, Michel Zasadzinski, Mohamed Darouach and Nour-Eddine Radhy	Robust H-infinity observer-based stabilization of disturbed uncertain fractional-order systems using a two-step procedure
11.00	11.20	Zbigniew Zaczekiewicz	Relative observability, duality for fractional differential-algebraic delay systems within Riemann-Liouville fractional derivatives
11.20	11.40	Coffee Break	
		Mathematical Fundamentals I	Chairperson: Tadeusz Kaczorek
11.40	12.00	Malgorzata Klimek	Fractional Sturm-Liouville problem in terms of Riesz derivatives
12.00	12.20	Agnieszka B. Malinowska and Tatiana Odziejewicz	Multidimensional discrete-time fractional calculus of variations
12.20	12.40	Dominik Sierociuk, Wiktor Malesza and Michał Macias	On a new symmetric fractional variable order derivative
12.40	13.00	Piotr Ostalczyk	Linearization of the non-linear time-variant fractional-order difference equation
13.00	13.20	Ewa Girejko, Malgorzata Wyrwas and Ewa Pawluszewicz	The Z-transform method for sequential fractional difference operators
13.20	13.40	Lunch	
13.40	14.00		IPC Meeting
		Modeling and Approximations	Chairperson: Piotr Ostalczyk
14.00	14.20	Wojciech Mitkowski and Krzysztof Oprzędkiewicz	An estimation of accuracy of Charef approximation
14.20	14.40	Wiesław Krajewski and Umberto Viaro	A new method for the integer order approximation of fractional order models
14.40	15.00	Jerzy Baranowski, Waldemar Bauer and Marta Zagórska	Stability Properties of Discrete Time-Domain Oustaloup Approximation
15.00	15.20	Konrad Markowski and Krzysztof Hryniów	Digraphs minimal positive stable realisations for fractional one-dimensional systems
15.20	15.40	Marek Rydel, Rafał Stanisławski, Grzegorz Bialic, and Krzysztof J. Latawiec	Modeling of discrete-time fractional-order state space systems using the Balanced Truncation Method
15.40	16.00	Dominik Sierociuk, Michał Macias and Paweł Ziubinski	Experimental results of modeling variable order system based on Discrete Fractional Variable Order State-Space Model
16.00	16.20	Coffee Break	
16.30	18.30	Szczecin bus tour	

SATURDAY, 29.08.2015			
		Control and Applications I	Chairperson: Stefan Domek
9.00	9.20	Jerzy Klamka	Minimum Energy Control of Linear Fractional Systems
9.20	9.40	Adam Makarewicz	Use of Alpha-Beta filter to synchronization of the chaotic Ikeda systems of fractional order
9.40	10.00	Paweł Dworak	On dynamic decoupling of MIMO fractional order systems
10.00	10.20	Łukasz Wach and Wojciech Hunek	Perfect Control for Fractional-Order Multivariable Discrete-Time Systems
10.20	10.40	Waldemar Bauer	Implementation of non-integer order controller using Oustaloup parallel approximation for air heating process trainer
10.40	11.00	Coffee Break	
		Mathematical Fundamentals II	Chairperson: Malgorzata Klimek
11.00	11.20	Dariusz Idczak	Functions of finite fractional variation and their applications to fractional impulsive equations
11.20	11.40	Marek Błasiak	One dimensional mathematical model of drug release from polymeric matrices
11.40	12.00	Marek Majewski	On some fractional Mayer problem
12.00	12.20	Rafał Kamocki	Some remarks on the Hilfer derivative
12.20	12.40	Tomasz Błaszczak, Mariusz Ciesielski, Jacek Leszczyński, Jarosław Siedlecki	Different approaches to the numerical solution of fractional differential equations of a variational type
12.40	13.00	Coffee Break	
		Control and Applications II	Chairperson: Krzysztof Latawiec
13.00	13.20	Bogdan Broel-Plater, Krzysztof Jaroszewski, Paweł Dworak	Classical vs. fractional order PI current controller in servo drive
13.20	13.40	Marta Zagórska	Parametric optimization of non-integer order PD ^α controller for delayed system
13.40	14.00	Jerzy Baranowski, Waldemar Bauer, Marta Zagórska, Aleksandra Kawala-Janik, Tomasz Dziwiński and Paweł Piątek	Adaptive non-integer controller for water tank system
14.00	14.20	Stefan Domek	Model-Plant Mismatch in Fractional-Order Model Predictive Control
14.20	15.00	Lunch	