## **DECT 2023 Schedule**

**Ukrainian time: UTC + 3h (EEST)** 

Wednesday, October 11 <sup>th</sup>			
1 <sup>st</sup> session. Chairman: Grigoriy Sklyar			
15.00 15.10	T		
15:00 – 15:10	Welcome words from G. Zholtkevych, Dean of the School of Mathematics and Informatics of V. N. Karazin Kharkiv National University		
15:10 – 15:30	Valerii Korobov	On solving the controllability problem in the case of a positive constrained control	
15:30 – 15:50	Nguyen Khoa Son	Robust exponential stability of a class of switched positive functional differential equations	
15:50 – 16:10	Alexander Zuyev	Observer design for undamped distributed parameter systems with polynomial convergence	
Wednesday, October 11 <sup>th</sup>			
2 <sup>nd</sup> session. Chairman: Larissa Fardigola			
16:30 – 16:50	Piotr Mormul	The effective nilpotency orders in the special multi-flags	
16:50 – 17:10	Abdon E. Choque-Rivero	Extended set of solutions of a bounded finite- time stabilization problem via V.I. Korobov's controllability function	
17:10 – 17:30	Aleksandr Kholkin	Levels in the gap of the essential spectrum of a differential operator	
17:30 – 17:50	Alexander Rezounenko	Virus dynamics model with distributed delay	
Thursday, October 12 <sup>th</sup>			
1 <sup>st</sup> session. Chairman: Jaroslaw Wozniak			
15:00 – 15:20	Sergey Chuiko (co-authors Peter Benner, Mykyta Popov)	Adomian decomposition method for the nonlinear boundary-value problems	
15:20 – 15:40	Larissa Fardigola (co-author Kateryna Khalina)	On controllability problems for the heat equation with variable coefficients on a half-axis controlled by the Neumann boundary condition	
15:40 – 16:00	Iryna Dmytryshyn	Determining the speed of rotation of the rotor in case of incomplite information about the operation of two-phase asynchronous motor	
Thursday, October 12 <sup>th</sup>			
2 <sup>nd</sup> session. Chairman: Grigoriy Sklyar			
16:20 – 16:40	Marcin Korzen (co-authors Grigoriy Sklyar, Jaroslaw Wozniak)	Numerical experiments with homogeneous approximation of nonlinear systems	

16:40 – 17:00	Bartosz Wasilewski (co-authors Grigoriy Sklyar, Piotr Polak)	On the Riesz basis property for the infinite-dimensional delay differential equations of the neutral type		
17:00 – 17:20	Mateusz Firkowski (co-author Jaroslaw Wozniak)	Problem of optimal exact observability of Timoshenko beam		
17:20 – 17:40	Jekatierina Sklyar (co-authors Grigoriy Sklyar, Svetlana Ignatovich)	Problem of linearizability for non-autonomous control systems		
Friday, October 13 <sup>th</sup>				
1 <sup>st</sup> session. Chairman: Alexander Rezounenko				
15:00 – 15:20	Olga Nesmelova (co-authors Peter Benner, Sergey Chuiko)	The scheme for the construction of solutions for the nonlinear boundary-value problem unsolved with respect to the derivative		
15:20 – 15:40	Maxim Bebiya (co-author Valerii Korobov)	On a class of finite-time stabilizing controls for nonlinear systems in a critical case		
15:40 – 16:00	Daria Andreieva (co-author Svetlana Ignatovich)	Homogeneous approximation of series of iterated integrals and time optimality		
16:00 – 16:20	Yurii Romashov (co-authors Irina Kolupaieva, Igor Nevliudov)	Mathematical maintenance to design the automated control systems in agreement with the circular economy principles		
Friday, October 13 <sup>th</sup>				
2 <sup>st</sup> session. Chairman: Piotr Polak				
16:40 – 17:00	Aleksey Piven' (co-author Sergey Gefter)	Partial differential equations in the module of copolynomials in several variables over a commutative ring		
17:00 – 17:20	Daria Diachenko (co-author Sergey Chuiko)	Nonlinear autonomous boundary value problem for differential algebraic system		
17:20 – 17:40	Kateryna Shevtsova (co-author Sergey Chuiko)	Approximations of the solutions of nonlinear matrix equations using the Newton-Kantorovich method		
17:40 – 18:00	Tetiana Revina (co-author Valerii Korobov)	On perturbations range in the feedback synthesis problem for robust linear system		