Tentative Scientific Program:

Day I: Thursday November 23, 2023		
Time	**Speaker**	**Title of the talk**
8:30—9:00	Registration & Information	
9:00—9:30	Opening	
9:30—10:30	**Keynote Speaker I**, Chaired by Prof. Fathalla Rihan - **IT Building, Auditorium, Female Side**	
	Prof. Gennady Bocharov **Russian Academy of Sciences, Moscow**	**Understanding the pathogenesis of virus infections using mathematical models based on delay differential equations**
10:30—11:30	**Keynote Speaker II**, Chaired by Prof. Gennady Bocharov	
	Prof. Andreas Meyerhans **Spain: Universitat Pompeu Fabra**	**Pathogenic virus infections: on fate regulation and functional cure strategies**
11:30—12:00	Coffee Break	
12:00—13:00	**Invited Talks**, Chaired by Dr. Abdessamad and Prof. Farrrukh Mohamadov - **IT Building, Auditorium, Female Side**	
12:00-12:30	Prof. Radouane Yafia **Morocco: Ibn Tofail University**	Turing Bifurcation Induced by Cross-Diffusion and Amplitude Equation in Oncolytic Therapeutic Model
12:30-13:00	Prof. Abdulla Azamov **Uzbekistan: Institute of Mathematics**	Cinematographic Method for Mathematical Modeling of Heat Transfer and Exchange Processes in Geometrically Complicated Bodies
13:00—14:00	Lunch	
14:00—16:00	**Invited Talks**, Chaired by Prof. V. Volpert - **IT Building, Auditorium, Female Side**	
14:00-14:30	Prof. Fathalla Rihan **UAE: UAEU**	Qualitative and Quantitative Features of DDEs and Applications to Immunology
14:30-15:00	Prof. Jiaxu Li **USA: University of Louisville**	Impulsive Delay Differential Equations with Delayed-Effecffve Inputs
15:00-15:30	Dr. Ardak KASHKYNBAYEV **Kazakhstan: Nazarbayev University (AUA)**	Traveling wave speed and profile of a "go or grow" glioblastoma multiforme model
15:30-16:00	Dr. Dipo Aldila **Indonesia: Universitas Indonesia (AUA)**	Bifurcation analysis on the impact of novel TB vaccine

16:00—18:00	**Day I: Parallel Session I, Thursday November 23, 2023** Chaired by: Prof. Mohamed N. Anwar	
16:00—18:00	**Speaker**	**Title of the talk E1-1055 Female side**
16:00-16:20	Prof. Syed Abbas **India: Indian Institute of Technology Mandi**	Analysis and stability of a social interacon model with age-structure and law enforcement
16:20-16:40	Dr. Rajivganthi, C **India: Vellore Institute of Technology**	Control Analysis of Nilaparvata Lugens with Wolbachia using Sterile Insect Techniques
16:40-17:00	Dr. Hebatallah Alsakaji **UAE: UAEU (AUA)**	Optimal Control of Stochastic Michaelis-Menten Kinetics Based Tumour-Immune Interaction with Time Delay
17:00-17:20	Prof. Mohamed N. Anwar **Egypt: Faros Uni.**	DETERMINISTIC AND STOCHASTIC SIRC EPIDEMIC MODEL WITH TIME-DELAY FOR COVID-19
17:20-17:40	Ms. Ghilmana Sarmad **UAE: UAEU (AUA)**	Exploring the Influence of Fear on the Progression of an Infectious Disease in a Delayed Spatiotemporal Epidemic Model Featuring Both Local and Nonlocal Dispersion
17:40-18:00	Mr. Nali Ibrahim **Morocco: University of Szeged**	Dynamical analysis of an HIV infection model including quiescent cells and immune response

16:00—18:00	**Day I, Parallel Session II (Fractional Order DEs)**: Chaired by Dr. K. Udhayakumar **E1-1045 Female side**	
16:00-16:20	Prof. Kalyan Das **India: NIFTEM**	Time Lag Effect of Prey Predator Model with Allee Effect
16:20-16:40	Dr. Isa Abdullahi Baba **Nigeria: Bayero University Kano**	Dynamics of HIV-COVID-19 Co-Infection: A Fractional Order Model and Analysis using Laplace- Adomian Decomposition Method
16:40-17:00	Dr. K. Udhayakumar **UAE: Zayed University**	A fractional-order delay differential tumor-immune model: external treatment and optimal control strategies
17:00-17:20	Dr. Getachew T. Tilahun **Ethiopia: Haramaya University**	Fractional ordered model for cell level viral transmission dynamics with adaptive immunity
17:20-17:40	Mr. Shyamsunder **India: Malaviya National Institute of Technology**	A NOVE LINVESTIGATION OF THE TUBERCULOSIS DISEASEVIA FRACTIONAL DIFFERENTIAL OPERATOR
17:40-18:00	Dr. CHANDAN MAJI **India: Jagannath Kishore College**	Impact of fear of a fractional-order plant disease model with herbivore attack

16:00—18:00	**Day I, Parallel Session III** Chaired by Dr. Khalid Muhammad **E1-1053 Female side**	
16:00-16:20	Dr. S DINESH KUMAR **India: VELLORE INSTITUTE OF TECHNOLOGY**	HIGHER ORDER NUMERICAL SCHEME FOR SINGULARLY PERTURBED DELAY DIFFERENTIAL EQUATIONS WITH SMALL SHIFT ARISING IN BIO SCIENCE
16:20-16:40	Ms. TAIMUN QAISAR **UAE: UAEU (AUA)**	QUADRATIC STOCHASTIC PROCESSES ASSOCIATED WITH SIR MODELS
16:40-17:00	Dr. Tri Thanh Pham **Kazakhstan: Nazarbayev University**	Multivariate models for assessing the effects of nanoparticles on bacterial growth
17:00-17:20	Dr. KÁROLY NAGY **Hungary: Eszterházy Károly Cotholic University**	A NUMERICAL SOLUTION OF INITIAL VALUE PROBLEMS BY WALSH POLYNOMIALS APPROACH
17:20-17:40	Dr. Khalid Muhammad **UAE: UAEU (AUA)**	Role of the NFAT-signaling network in controlling allergic skin reactions
17:40-18:00	Prof. Attila Denes **Hungary: University of Szeged**	Malaria dynamics with bimodality of incubation period in hostsina seasonal environment
Dinner 7—9 PM 23-11-2023		

Day II: Friday November 24, 2023		
Time	**Speaker**	**Title of the talk**
9:00—10:00	**Keynote Speaker I**, Chaired by Dr Abdessamd **IT Building, Auditorium, Female Side**	
	Prof. V. Volpert **France: CNRS University Lyon 1**	**Mathematical modelling of respiratory viral infections**
Coffee Break		
10:30—12:10	**Day II, Parallel Session I:** Chaired by Dr. Ibrahim Elmojtaba **E1-1055 Female side**	
10:30—10:50	Dr. Kifah Almaqrashi **Oman: Sultan Qaboos University**	Mathematical Analysis and Parameter Estimation of a Two-Patch Zika Model
10:50—11:10	Dr. Tahani Al Sariri **Oman: Sultan Qaboos University**	Optimal heat transport induced by magnetic nanoparticle delivery in vascularized tumours
11:10-11:30	Dr. Mario Lefebvre **Canada: Polytechnique Montréal**	Explicit solutions to delay differential equations and first-passage times of delayed Wiener processes
11:30-11:50	Dr. Mohamed Saadaoui **Algeria: Amaar Tleidji University**	Existence and stability of solution for fractional wave equation of β(x)-Laplace type with viscoelasticity
11:50-12:10	Prof. Samares Pal **India: Indian Inst. of Information Technology**	A SEASONALLY FORCED ECO-EPIDEMIC PREDATOR-PREY MODEL FOR THE IMPACTS OF FEAR AND ITS CARRY-OVER EFFECT WITH SELECTIVE PREDATION

10:30—12:30	**Day II, Parallel session II (Kazakhstan Group)**: Chaired by Dr. Ardak KASHKYNBAYEV **E1-1045 Female side**	
10:30—10:50	Dr. Soundararajan Ganesan **Kazakhstan: Nazarbayev University (AUA)**	Robust Exponential H∞ Filtering for Discrete-Time Complex-Valued Neural Networks with Time-Varying Delays
10:50—11:10	Ms. Aisha TURSYNKOZHA **Kazakhstan: Nazarbayev University (AUA)**	Structured dynamics of the cell-cycle at multiple scales
11:10-11:30	Dr. Abduzhappar GAIPOV **Kazakhstan: Nazarbayev University (AUA)**	In-depth epidemiology and modeling of the future trends of communicable and non-communicable diseases in Kazakhstan using aggregated big data from the Unified National Electronic Healthcare System
11:30-11:50	Mrs. Madina Otkel **Kazakhstan: Nazarbayev University (AUA)**	Finite-time/fixed-time synchronization of memristive shunting inhibitory cellular neural networks via sliding mode control
11:50-12:10	Dr. Kathiresan Sivakumar **Kazakhstan: Nazarbayev University (AUA)**	Multi-stability analysis of fractional-order quaternion-valued neural networks with time delay
12:10-12:30	Mr. Zhangir Nuriyev **Kazakhstan: Nazarbayev University (AUA)**	Finite-time synchronization for fuzzy shunting inhibitory cellular neural networks

10:30—12:30	**Day II, Parallel session III**: Chaired by Prof. Y. A. El-Khatib **E1-1053 Female side**	
10:30—10:50	Dr. Amar Ould Hammouda **Algeria: Ecole Normale Superieure Kouba**	Asymptotic Behavior of the Stokes Problem with Robin condition in a Domain with tiny Holes
10:50—11:10	Dr. Khedidja Abidi **Algeria: Amaar Tleidji University**	On the existence and stability of a viscoelastic Petrovsky equation with retard vary and a Logarithmic source term
11:10-11:30	Dr.Ahmed ELMWAFY **Portugal: University of Beira Interior**	EXISTENCE AND EXPONENTIAL STABILITY OF A PERIODIC SOLUTION OF AN INFINITE DELAY DIFFERENTIAL SYSTEM WITH APPLICATIONS TO COHEN-GROSSBERG NEURAL NETWORK MODELS
11:30-11:50	DR. PRASENJIT DAS **India: SRICHANDA MAHENDRANATH MEMORIAL INSTITUTION**	STUDY THE DYNAMIC EPIDEMIOLOGICAL MODEL FOR DENGUE TRANSMISSION WITH INCUBATION PERIOD AND SATURATED TREATMENT FUNCTION
11:50-12:10	Prof. Y. A. El-Khatib **UAE: UAEU (AUA)**	The SEIR model With Unreported Cases and Markovian Switching
12:30—14:30	Lunch Break	

	Day II, Parallel session	
Time	**Speaker**	**Title of the talk**
14:30—16:50	**Day II, Parallel Session IV:** Chaired by Dr. Adel Hashish **E1-1055 Female side**	
14:30-14:50	Dr. Abdessamad Tridane **UAE: UAEU (AUA)**	Dynamics of A Delayed Spatiotemporal HBV Infection Model with Capsids, CTL Immune Response and General Incidence Function
14:50-15:10	SHRADDHA SALWAHAN **India: Indian Institute of Technology**	OPTIMAL CONTROL OF A PERIODICALLY SWITCHED EPIDEMIC MODEL
15:10-15:30	Dr. Adel Hashish **UAE: UAEU (AUA)**	Improved lung model for predicting aerosol deposition in lung airways
15:30-15:50	Prof. Abdallah Rababah **UAE: UAEU (AUA)**	Degree Reduction of Bezier Curves
15:50-16:10	Mr. Americo Matusse **South Africa: University of Pretoria**	TRAVELING WAVE SOLUTIONS ON SYNERGISTIC CO-INFECTIONMODELINCROPDISEASES
16:10-16:30	Prof. Motassem Alarydah **UAE: Khalifa University**	Mathematical Model Integrating Vaccine and Variable Immunity Period in Infectious Disease Dynamics
16:30-16:50	Prof. Qing Li **China: Shijiazhuang Traditional Chinese Hospital**	A continuum space is the infinitely great

14:30—16:50	**Day II, Parallel session V:** Chaired by Prof. Mohammed Syam **E1-1045 Female side**	
14:30-14:50	Dr. Ahoud Alsheri **Saudi Arabia: University of Bisha**	Mathematical modeling of the effect of quarantine rateoncontrollingtheinfectionofCOVID19inthe population of Saudi Arabia
14:50-15:10	Dr. Joshua K. Asamoah **Ghana: Kwame Nkrumah University of Science and Technology**	Comprehensive cost-effectiveness analysis of a new compartmental model for bacterial meningitis considering the influence of the media
15:10-15:30	Ms. Sondos M. Syam **Malaysia: Universiti Malaya (AUA)**	Numerical method for solving integro-differential model of biological species living together
15:30-15:50	Dr. Joshua K. Asamoah **Ghana: Kwame Nkrumah University of Science and Technology**	Comprehensive cost-effectiveness analysis of a new compartmental model for bacterial meningitis considering the influence of the media
15:50-16:10	Prof. MEHMETG TUMUS **Turkey: Zonguldak Bülent Ecevit University**	STABILITY AND BIFURCATION ANALYSIS OFAN SIR EPIDEMIC MODEL
16:10-16:30	Mr KEMAL TURK **Turkey: Zonguldak Bülent Ecevit University**	ON THE NONSTANDARD NUMERICAL DISCRETIZATION OF AN SIR EPIDEMIC MODEL
16:30-16:50	Dr. Emad E. Elmahdy **Saudi Arabia: King Saud University (AUA)**	Reliability Modelling of Heterogeneous Data by Using Different Competing Weibull Mixture Models