Scientific Program:

Day I: Thursday November 23, 2023 (F1, Room # 0046)		
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	
	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 I**, 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	Chaired by Prof. V. Volpert and Prof. Farrrukh Mohamadov	
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	Chaired by Dr. Abdessamad	
	Fathalla Rihan **UAE: UAEU**	Qualitative and Quantitative Features of DDEs and Applications to Immunology
	Dr. Ardak KASHKYNBAYEV **Kazakhstan: Nazarbayev University**	Traveling wave speed and profile of a "go or grow" glioblastoma multiforme model
	Dr. Anatoli Ivanov **USA: Pennsylvania State University**	Global behavior in differential delay models of population dynamics and physiology
	Dr. Khalid Muhammad **UAE: UAEU**	Role of the NFAT-signaling network in controlling allergic skin reactions
	Prof. Kalyan Das **India: NIFTEM**	Time Lag Effect of Prey Predator Model with Allee Effect

16:00—18:00	Day I: Parallel Session I, Thursday November 23, 2023 (F1, Room # 0046)	
16:00—18:00	Speaker	Title of the talk
	Dr. Rajivganthi, C India: Vellore Institute of Technology	Control Analysis of Nilaparvata Lugens with Wolbachia using Sterile Insect Techniques
	Dr. Hebatallah Alsakaji UAE: UAEU	Optimal Control of Stochastic Michaelis-Menten Kinetics Based Tumour-Immune Interaction with Time Delay
	Prof. Mohamed N. Anwar Egypt: Faros Uni.	DETERMINISTIC AND STOCHASTIC SIRC EPIDEMIC MODEL WITH TIME-DELAY FOR COVID-19
	Ms. Ghilmana Sarmad UAE: UAEU	Exploring the Influence of Fear on the Progression of an Infectious Disease in a Delayed Spatiotemporal Epidemic Model Featuring Both Local and Nonlocal Dispersion
	Mr. Nali Ibrahim Morocco: University of Szeged	Dynamical analysis of an HIV infection model including quiescent cells and immune response
	Prof. Mohamed N. Anwar Egypt: Faros Uni.	DETERMINISTIC AND STOCHASTIC SIRC EPIDEMIC MODEL WITH TIME-DELAY FOR COVID-19
	Prof. Y. A. El-Khatib UAE: UAEU	The SEIR model With Unreported Cases and Markovian Switching
16:00—18:00	**Day I, Parallel Session II (Fractional Order DEs)**: Chaired by Dr.	
	Prof. Nasser Sweilam Egypt: Cairo University	Crossover Dynamics of Hybrid Fractional Order Monkeypox Disease Model with Time Delay: Numerical Simulations
	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
	Dr. K. Udhayakumar UAE: Zayed University	A fractional-order delay differential tumor-immune model: external treatment and optimal control strategies
	Dr. Getachew T. Tilahun Ethiopia: Haramaya University	Fractional ordered model for cell level viral transmission dynamics with adaptive immunity
	Mr. Shyamsunder India: Malaviya National Institute of Technology	ANOVELINVESTIGATIONOFTHETUBERCULOSIS DISEASEVIA FRACTIONAL DIFFERENTIAL OPERATOR
	Dr. CHANDAN MAJI India: Jagannath Kishore College	Impact of fear of a fractional-order plant disease model with herbivore attack

Day II: Friday November 24, 2023 (F1, Room # 0046)		
Time	**Speaker**	**Title of the talk**
9:00—10:00	**Keynote Speaker I**, Chaired by Prof. Fathalla Rihan	
	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	
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. Debasis Mukherjee **India: Department of Mathematics Vivekananda College**	Global analysis of an SEI plant disease model with saturation incidence rate
11:30-11:50	Mr. M. Manivel **India: AVVM Sri Pushpam College**	A New Investigation on the Impact of Vaccination on the Transmission of Monkeypox
11:50-12:10	Dr. ACHILLE POKAM KAKEU **Cameroon: University of Dschang**	Asymptotic analysis of Alzheimer's disease in thin heterogeneous domains
10:30—12:30	**Day II, Parallel session II (Kazakhstan Group)**: Chaired by Dr. Ardak KASHKYNBAYEV	
	Dr. Soundararajan Ganesan **Kazakhstan: Nazarbayev University**	Robust Exponential H∞ Filtering for Discrete-Time Complex-Valued Neural Networks with Time-Varying Delays
	Ms. Aisha TURSYNKOZHA **Kazakhstan: Nazarbayev University**	Structured dynamics of the cell-cycle at multiple scales
	Dr. Abduzhappar GAIPOV **Kazakhstan: Nazarbayev University**	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
	Mrs. Madina Otkel **Kazakhstan: Nazarbayev University**	Finite-time/fixed-time synchronization of memristive shunting inhibitory cellular neural networks via sliding mode control
	Dr. KATHIRESAN S **Kazakhstan: Nazarbayev University**	Multi-stability analysis of fractional-order quaternion-valued neural networks with time delay
	Mr. Zhangir Nuriyev **Kazakhstan: Nazarbayev University**	Finite-time synchronization for fuzzy shunting inhibitory cellular neural networks
12:30—14:30	Lunch Break	

	Day II, Parallel session III (Room #)	
Time	**Speaker**	**Title of the talk**
14:30—18:00	**Day II, Parallel Session III:** Chaired by Prof.	
	Dr. Abdessamad Tridane **UAE: UAEU**	Dynamics of A Delayed Spatiotemporal HBV Infection Model with Capsids, CTL Immune Response and General Incidence Function
	SHRADDHA SALWAHAN **India: Indian Institute of Technology**	OPTIMAL CONTROL OF A PERIODICALLY SWITCHED EPIDEMIC MODEL
	Dr. Adel Hashish **UAE: UAEU**	Improved lung model for predicting aerosol deposition in lung airways
	Prof. Abdallah Rababah **UAE: UAEU**	Degree Reduction of Bezier Curves
	Mr. Americo Matusse **South Africa: University of Pretoria**	TRAVELING WAVE SOLUTIONS ON SYNERGISTIC CO-INFECTIONMODELINCROPDISEASES
	Prof. Motassem Alarydah **UAE: Khalifa University**	Mathematical Model Integrating Vaccine and Variable Immunity Period in Infectious Disease Dynamics
14:30—18:00	**Day II, Parallel session IV (Room #)**	
	Dr. Ahoud Alsheri **Saudi Arabia: University of Bisha**	Mathematical modeling of the effect of quarantine rateoncontrollingtheinfectionofCOVID19inthe population of Saudi Arabia
	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
	Ms. Sondos M. Syam **Malaysia: Universiti Malaya**	Numerical method for solving integro-differential model of biological species living together
	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
	Prof. MEHMETG TUMUS **Turkey: Zonguldak Bülent Ecevit University**	STABILITY AND BIFURCATION ANALYSIS OFAN SIR EPIDEMIC MODEL
	Prof. Qing Li **China: Shijiazhuang Traditional Chinese Hospital**	A continuum space is the infinitely great