Scientific Program

Time	Saturday November 30, 2024		
10.00-10.30	Registration		
10.30-11.00	**Opening Ceremony Hall (C)** **Prof. Alaa A Bary, Vice president of Committee** **Prof. Abdelshafy F. Obada, Conference Chairman** **Prof. Ismail Abdel Ghafar President of AASTM** **Prof. Gina Elfiki , Acting President of ASRT** Honoring the pioneers - Awards Ceremony		
11.00-11.40	**Hall (C) Chair Persons: Ali Hadi, Ahmed M A El-Sayed**		
	Prof. Alyaa Yousef, Mohamed Kholief **Initiatives in Neurotechnology and AI Ethics in Egypt**		
11.40-13.40	**Session (1)- Conference room** **Chair Persons: Ali Wagdy Mohamed** **Mohamed Kholief,**	**Session (2)- Hall (C)** **Chair Persons: Ali Hadi** **Ahmed M A El-Sayed**	**Session (3)- Hall (3)** **Chair Persons: Khaled Mekheimer** **Samir Marzouk**
	Salwa K. Abd-El-Hafiz Some Engineering Applications of Artificial Neural Networks	**Teodor Bulboac** Nehari's inequality generalisation for the q-difference operator and applications to majorization problems	**Hager Ahmed Abd-Elhameid** Effect of Initial Stress in a Semiconductor Thermoelastic Medium Under Ramp Type Heating with Photothermal Theory
	Ahmed Younes Applications of Partial Negation in Quantum Computing	**Cemil Tunç ,** On the existence and stabilization of impulsive differential and integro-differential equations of second order	**A.A.Youssef** Nonlinear Rayleigh wave propagation in a thermoelastic structure consisting of a slab sandwiched by two half-spaces in dual-phase-lag
	N. Metwally Quantum steering via different quantum systems	**Samir H. Saker** Oscillation Theory of Delay Differential equations and Applications on Biological Models	**Ahmed Saeed Ibrahim** Thermocapillary Velocities of a Spherical Droplet Embedded in Brinkman Medium
	Ahmed Abdelhamid Ali Abdelhamid Zahia Explicit and Implicit Quantum Correlation Dynamics of Qubits Interacting with Thermal Baths	**Mohamed El-Beltagy** Basis Development of the Fractional Wiener Chaos Expansion with Applications to Systems with Fractional Brownian Motion	**Mona Mohamed Mahmoud Khalil** Synthesis of Azolo-Transition Metal Complex Films Doped with Polyvinyl Alcohol and Assessment of Their Thermal and Optical Properties
	Tarek Mohamed El-shahat On Entangling power of quantum information		**Nasser M. EL-Maghraby** The Vibration of Nano Resonators Under the Theory of Two-Temperature Generalized Thermoviscoelasticity Based on Thermomass Motion
			Nasser M. EL-Maghraby The Vibration of Nano Resonators Based on The Theory of Two-Temperature Green-Naghdi Thermoelasticity Under Consideration of Thermomass Motion
			Mohamed AbdElaal Mustafa ElQurashi Stress-Strength Reliability of Monsef Distribution for Modeling
			Abdelrahman Abdelkareem Abdellah The effect of moving heat source in DPL model on viscoelastic biological tissues during thermal treatment applications

13.40-14.20	**Break**			
14.20-16.20	**Session (4) – Conference room** **Chair Persons: Ahmed Younes** **Ahmed Refaie Ali**	**Session (5) Hall (C)** **Chair Persons: Alfaisal A. Hasan** **Mohamed El-Beltagy**	**Session (6) Hall (3)** **Chair Persons: Mohamed Kholief** **Ali Wagdy Mohamed**	**Session (7) Hall (4)** **Chair Persons: Khaled Mekheimer** **Elsayed . M. Abu Dahab**
	Mohammed Ayfan Abdewi Securing Sensitive Information AI-Based Encryption Solutions.	**Eman Mohammed Mohammed Albarg** A constrained problem of state-dependent differential" equation subject to a state-dependent integral constraint"	**Radwa Ahmed Osman Mohamed** A Multi-Objective Interference Control Framework for Energy-Efficient IoT-Cellular Networks in 5G	**Ziad A. Aboulseoud** Enhanced Separation Efficiency and Reduced Pressure Drop in Multi-Inlet Cyclone Separators: A Computational Fluid Dynamics Study
	Alhussein M. Abdullah A Comprehensive Evaluation of Machine Learning Models for Pulmonary Diseases Classification	**Malak Mohammed Saleh Ba-Ali** A fixed point and its asymptotic stability of the solution of a differential equation on the real half-linE	**Radwa Ahmed Osman Mohamed** Enhancing AV2X Network Efficiency: An Adaptive Model Based on Hybrid Particle Swarm Optimization	**Abdelaala Ahmed** Stochastic Process of Magneto-photo-Thermoelastic Waves in Semiconductor Materials with the Change in Electrical Conductivity
	Esraa Mamdouh Hashem Navigating the Risks and Challenges of AI Implementation in Healthcare	**Moamen Osama Radwan Salem** Analysis of a parametric delay functional differential equation with nonlocal integral condition	**Hasnaa M. Saad** Enhanced Quantum Entanglement in Hybrid Atomic-Optomechanical Systems via Nonlinear Cross-Kerr Interactions.	**Khaled Lotfy** A Novel Hydrodynamic Semiconductor Model under The Magnetic Field Effect and Laser Pulses
	Habiba Mohamed ElGohary Artificial Intelligence in Pulmonary Disease Diagnosis: Enhancing Accuracy and Efficiency through Medical Imaging and EHR Integration	**Shaymaa Ibrahim Nasim Khalil Nasim** On some properties and applications of the fractal derivative	**Fatma Sherif** The influence of negative velocity feedback control on a hybrid electric vehicle subject to external force	**Shady El-Monier** The Stability of Electrostatic Waves in a Multi-Component Magnetized Plasma System
	Yusuf Fathi Mohammad Recent Trends and Innovations in Medical Image Compression Techniques	**Massoud Moustafa Aboukhalaf Massoud** Comparing Different Fractional-Order Response for Lorenz Chaotic System	**Ibrahim Gad** Leveraging Machine Learning for Causal Inference in Water Quality Assessment"	**Hadeer Adel Azzam** Simulation study of the induced magnetic field's impact for Jeffrey fluid with a complex wavy slip boundary within a curved tube.
	Ayat Karrar Diagnosis Of Pulmonary Lung Nodules Based on a Computer Aided Diagnosis (CADx) System	**Sroor Maged Abdelhai Mohamed Elnady** A New Local Fractional Derivative with Applications	**Yasmin Gamal** Secure Privacy Preserving Banking Customer Churn Prediction Using Federated Learning and Fully Homomorphic Encryption	**Mohamed Magdy Elsayed** A Mathematical Model for Exploring Depression Diagnosis
	Habiba Aly Sayed Hussein Microbiome Biomarkers and Breast Cancer: A Machine Learning Approach	**Hanem Farouk Abdelfatah Madkour** On a Coupled System of Stochastic Integral Equations of Fractional Orders	**Patrick Tenga** Survival Prediction of Breast Cancer using an Ensemble XGBoost-Deep Learning Neural Network	**Abdelaziz El-Dali** Influence of the homotopy stability perturbation on physical variations of non-local opto-electronic semiconductor materials
	Dawlat Sameh Ali A Machine Learning Framework for Fetal Arrhythmia Detection via Single ECG Electrode	**Ibrahim Abbas** A numerical investigation of the 2-D nonequilibrium DPL bio-heat model using the ADI-FD method	**Hassan Ibrahim** Detecting Malicious HTTP Requests Using Deep Learning: A BERT-Based Approach	**Emad Fali Wanas** Theoretical Investigation of Electrokinetic Flow in a Microtube Using Micropolarity, Slip Conditions, and Electrical Double Layer Dynamics
		Muhammad Aref Abdullah Arfeen Evaluating Machine Learning Models for Cost-Effective Shipping Line Selection in Freight Forwarding	**Ahmed Nabil Attwa** Stochastic Feature Extraction in Algorithmic Trading for Enhanced Portfolio Optimization	**Marwa Abdelaziz** Dynamic Analysis of Negative Derivative Feedback Controllers with Geometrically Nonlinear Damping under Harmonic Forcing
16.20	**Lunch Hall (C)**			

Time	Sunday December 1, 2024		
	Session (8) Conference room **Chair Persons: Ahmed Radwan** **Ahmed M A El-Sayed**	**Session (9) Hall (C)** **Chair Persons: Alfaisal A. Hasan** **N. H. Sweilam**	**Session (10) Hall (3)** **Chair Persons: Hesham A. Elkaranshawy** **Adel Refaie**
10.30-12.00	**Nashat Farid** Operator ideals, s-numbers of operators and ideals constructed by means of a special space of sequences (sss) and an s-function.	**Youssri Hassan Youssri** Spectral Solutions of Differential Equations via New Orthogonal Polynomials and Special Functions	**Hala H. Masry Mohamed** A proper mathematical model for cardiac electrical activities
	Zeinab Mansour On Lidstone expansions of entire functions	**N. H. Sweilam** A Novel Crossover Dynamics of Monkeypox Disease Mathematical Model Using Fractional Differential Equations Based on the Psi-Caputo Derivative: Numerical Treatments	**Ahmed Elsayed Mahmoud Gouda** Cluster Head Selection Algorithm Using PSO
	Ahmad Gamal Existence and stability of solutions for ρ - proportional ω-weighted ψ -Hilfer fractional differential inclusions in the presence of non-instantaneous impulses in Banach spaces	**Salah Samy** CFD Modelling for Air Distribution Systems in Industrial Control Room	**Ahmed Ayman Abdel-aal** A Tree-LSTM based Approach for Enhanced Machinery Prognostics
		Mahmoud Ahmed Mohamed Amin Behavior of reinforced concrete columns repaired by steel jackets filled with different types of concrete	**Esraa Reda abdel-Hady mohamed El-ziaty** Unveiling Quantum Features of Time-Dependent Electron Spins influenced by Zeeman Energy and Symmetric Cross Spin
			Wael M.A. Khalifa Comparative Forecasting of Electric Load Consumption in Egypt Using Differential Equation Models
12.00-12.30	**Break**		

	Session (11) Conference room Chair Persons: Nashat Farid Zeinab Mansour	Session (12) Hall (C) Chair Persons: Wael Abbas Ahmed Refaie Ali	Session (13) Hall (3) Chair Persons: Naser H. Sweilam Adel Refaie	Session (14) Hall (4) Chair Persons: Youssri Hassan Mona Fouad
12.30-14.30	**Enas M. Shehata** Hermite-Hadamard inequalities for quantum integrals: a unified approach	**Samir Abdelmageed Farag** Submaximality in Bi-Weak Structures	**Ahmed Ibrahim Mohamed Abosaied** New characterizations of weights on dynamic inequalities involving a Hardy operator	**Sara A. Mekkyy** Analysis of Contact Mechanics for Flat Stamps on Graded Coatings Using Shifted Legendre Polynomials of the First Kind
	Mohamed A. Mamon On recent trends of Geometric Function Theory	**Waheed Mohamed Ahmed Amin** Some Variants of Ĉech Δ-Normal Closure Space	**Enas Omer Mahfouth Suhail** Efficient Line-Search Modified Bat Algorithm for Solving Large-Scale Global Optimization Problem	**Mostafa Ahmed Taema** Spectral Collocation Method via Fermat Polynomials for Fredholm-Volterra Integral Equations with Singular Kernels and Fractional Differential Equations
	Asmaa O. Mohammed A Study of Extensions of Classical Summation Theorems For the Series 3F2 and 4F3with Applications	**Youssef Mahfouz** Cost optimization of reinforced concrete buildings: A comparative study	**Abdelazeem Abdelwahab** Strictly two-sided Commutative Quantal	**Esraa Magdy Abdelghany Abdullah** A Tau Approach for Solving Time-Fractional Heat Equation Based on the Shifted Sixth-Kind Chebyshev Polynomials
	Fatma Abdelatey Elgawish On inverse q-Sturm—Liouville problems	**Ahmed A. El-Deeb** Some Novel Dynamic Inequalities and their Applications on Time Scales. Theory	**Medhat A. El-Messiery** The Spatial Distribution of the Critical Fusion Frequency over the Retina	**Ahmed Gamal Atta** Advanced shifted first-kind Chebyshev collocation approach for solving the nonlinear time-fractional partial integro-differential equation with a weakly singular kernel
	Souhad Salama Almassri Multiplicative Frameworks on Fixed Point Theory and Its Applications	**A.A. Abd El-Bary** Applying a Novel (PBH) Distribution in Statistical Modeling for COVID-19 Data"	Medhat M. El-Messiery Diffusion coefficient of 3D growth of tumer cells	
	Nermeen Ashraf Shawky Structural assessment of historical masonry structures using various strengthening techniques	**Shreen El-Sapa** Time-periodic electrokinetic analysis of a micropolar fluid flow through hydrophobic microannulus	**Mohamed AbdElaal Mustafa ElQurashi** Novel Wrapped Distribution and its application	**Amr Mohamed ElAgamy** Modified bond stress equation of fiber reinforced polymers bars embedded in concrete under uniaxial lateral tensile stresses using numerical analysis
	Naglaa Abozeid Reliability characteristics and estimation of parameters based on censored model data to extended Gompertz distribution with application			**Nermin Saber** Using Legendre polynomials Formulas at Fresnel Integral Diffraction
	Toka Waleed Experimental Study on Concrete Performance under Partial Replacement of Normal Coarse Aggregate by Sand-Light Stone			**Fatma N. Fouad** Parameter estimation and lifetime analysis of the power-modified kies-exponential distribution under progressive Type-II censoring with application
				Mohamed Elsayed Mohamed
14.30-15.00	**Main Hall Chair: Prof. Abdelshafy F. Obada, Prof. Alaa A Bary, Recommendation and Closing**			
15.00	**Lunch Hall (C)**			