

Agenda of The International Conference on Recent Advances in Engineering Mathematics and Physics, RAEMP2019

	Title/Date/Room	Title/Date/Room
Time	Tuesday December, 24, 2019 Blue-Room 1, Building 15	Tuesday December, 24, 2019 Blue-Room 3, Building 15
08:30-09:30 AM	Registration	
09:30-10:00	Opening and Welcome Session	
10:00-11:00	Invited Talk by Prof. Abdel Razeq Sebak, Concordia University	
11:00-11:30	Break	
Session 1	Electromagnetic Waves I, Chair: Abdel Razeq Sebak, Prof.	Solid-State Electronics I, Chair: Sahar El-Nagar, Prof.
11:30-12:00	Design Optimization for High-Gain Quad-Array of Helical Antennas for Satellites Applications	Transport Properties of Ferromagnetic Silicene Superlattice based Nanostructure
12:00-12:30	C-Band SIW Slot Synthetic Aperture Radar Antenna for Remote Sensing Applications	3D Analytical Modeling of Potential, Drain Current, and Threshold Characteristics for Long-Channel Square Gate-All-Around (SGAA) MOSFETs
12:30-13:00	Ultra-wideband compact T-junction with optimized V cut for millimeter wave applications	Optimal parameter estimation of solid oxide fuel cells model using coyote optimization algorithm
13:00-14:00	Break	Break
Session 2	Electromagnetic Waves II, Chair: Salah El-Nahawy, Prof.	Solid-State Electronics II, Chair: Mohamed Fathy, Prof.
14:00-14:30	Excitation of the first High order mode in Ridge Gap Waveguide	Simulation Study of Terahertz Radiation Coupling Inside Field Effect Transistors
14:30-15:00	Double Via Rows Radial Four-Way Power Combiner with Improved Isolation Performance	Second Order Rectification of high frequency Radiation In Bipolar Junction Transistor
15:00-15:30	Using Geometric Algebra for Formulating Electromagnetic Propagation Ray Tracing Preprocessing	Structural and optical properties of zinc oxide micro-droplet thin films under doping effects
	Wednesday December, 25, 2019 Blue-Room 1, Building 15	
10:00-11:00	Invited Talk by Prof. Ahmed Tewfik, University of Texas Austin	
11:00-11:30	Break	
Session 1	Information Technology I, Chair: Doaa Shawky, Prof.	
11:30-12:00	Robust GPS Anti-Jamming Technique Based on Fast Orthogonal Search	
12:00-12:30	New algorithm based on S transform to increase defects resolution within ultrasonic images	
12:30-13:00	Reinforcement Learning for an Adaptive Personalized Platform for an Effective and Advanced Learning (APPEAL)	
13:00-14:00	Break	
Session 2	Information Technology II, Chair: Haythem Ismail, Assoc. Prof.	
14:00-14:30	A Context-Aware Motion Mode Recognition System Using Embedded Inertial Sensors in Portable Smart Devices	
14:30-15:00	Color Restoration Survey and an Overdetermined System for Color Retrieval from Faded Images	
15:00-15:30	An Intelligent IoT-Based Wearable Health Monitoring System	
	Thursday December, 26, 2019 Blue-Room 1, Building 15	Thursday December, 26, 2019 Blue-Room 3, Building 15
Session 1	Engineering Mathematics, Chair: Maha Hassanien, Prof.	Engineering Mechanics, Samir Abu Hadima, Prof.
10:00-10:30	State Dependent Parameter PID+ Control Applied to a Nonlinear Manipulator Arm	EL NIÑO (2014-2016) and La Nino (2010-2012) : Their Impacts on Water Cycle Components
10:30-11:00	Sliding mode control with PID surface for robot manipulator Optimized by evolutionary algorithms	Frequency scaling in a sweeping-jet fluidic oscillator working at low Reynolds numbers: A Multiple-Relaxation Time LBM model
11:00-11:30	Error analysis of nonlinear WENO schemes using modified equation	Variants of the Finite Element Method for the Parabolic Heat Equation: Comparative Numerical
11:30-12:00	Enhanced Modified-Polygon Method for Point-in-Polygon Problem	Water Aluminum Oxide Nano-Fluid Nusselt Number
12:00-12:30	Break	
Session 2	Applications in Mechanical Engineering, Chair: Mamdouh Fahmy, Prof.	
12:30-13:00	Transient temperature profiles in powder beds during additive manufacturing by 3D printing of metal powders: A Lattice Boltzmann Study	
13:00-13:30	Numerical and Experimental Validation of an Unbalanced Oil Vane Pump using RANS Approach	
13:30-14:00	Numerical Study of an Unbalanced Oil Vane Pump using Shear Stress Transport (SST) $k - \omega$ Turbulence Model	
14:00-15:00	A Talk on the Achievement of The Egyptian Space Agency	
	Recommendations and Closing Session	
	Break	