

11:30 – 12:15

Keynote Speech I

Room: Room A

Chair: *Prof. Ali Selamat*

Convection Cooling in Hybrid Microchannel Heat Sink for Cooling of Electronic Device

Assoc. Prof. Dr. Nor Azwadi Che Sidik

Universiti Teknologi Malaysia (UTM), Johor, Malaysia

Zoom Link: <https://zoom.us/j/93219078122>

12:15-13:00

Keynote Speech II

Room: Room A

Chair: *Prof. Khaled Shehata*

Metaheuristic optimization algorithms: Taxonomy, Open problems and Applications

Prof. Essam H. Houssein

Minia University, Minia, Egypt

Zoom Link: <https://zoom.us/j/92486328065>

13:30-15:00

Session 1 Signal Processing

Room: A

Chair: *Prof. Yasser Dahab*

Co-Chair: *Dr. Tamer Abdelatif*

4 Arabic Music Genre Identification

Moataz Ahmed, Sherif Fadel, Manal Helal, Abdel Moneim Wahdan

11 Analyzing the Impact of Loss Functions on Dehazing Effectiveness and unveiling the Discrepancy between Quantitative and Qualitative Results

Ali Murtaza, Uswah Binti Khairuddin, Ahmad 'Athif Mohd Fauzi

50 Quantum Circuit Design for Estimated Image Median Filter

Shereen Alaa, Rasha Montaser, Usama Aburawash, Nermeen Kashef

56 Enhancement of Murky Underwater Images for Optimum Object Detection

Nur Aida Fitri Yani, Uswah binti Khairuddi, Ahmad 'Athif Mohd Fauzi, Zaid Omar

91 Wavelet Transform-based Methods for Forensic Analysis of Digital Images

Muhammad S. Mandisha, Mohamed A. Hussien, Amr K. Shalaby and Omar M. Fahmy

Zoom Link: <https://zoom.us/j/95705890820>

13:30-15:00

Session 2 Antenna Engineering-A

Room: B

Chair: *Prof. Mohamed Hassan*

Co-Chair: *Dr. Sherif Eldyasti*

3 Energy Harvesting Fractal Antenna for Charging Low Power Devices

Amr Hesham, Ahmed Fawzy, Mohamed H. Abd El-Azeem

17 UWB SIGW Based Four-Port MIMO Antenna for V/W-Band Applications

Mehmet Faruk Cengiz, A.M.M.A. Allam and Daa E. Fawzy

18 DGS-Based Isolation Enhancement for RGW Fed Compact MIMO Antenna System

Mehmet Faruk Cengiz, A.M.M.A. Allam, Daa E. Fawzy and Gökberk Akarsu

31 OPTIMIZATION OF ANTENNA EXCITATIONS FOR NON-INVASIVE MICROWAVE HYPERTHERMIA FOR BREAST CANCER TREATMENT

Heba Abdelhamid Elkaya, Moustafa H. Aly, Nour Eldin Ismail

77 High Gain Defected Slots 3D Antenna Structure for Millimeter Applications

Arkan Mousa Majeed, Fatma Taher, Taha A. Elwi, Zaid A. Abdul Hassain, Sherif K. El-Diasty, Mohamed Fathy Abo

Zoom Link: <https://zoom.us/j/93506967503>

13:30-15:00

Session 3 Mechanical Engineering A

Room: C

Chair: Assoc. Prof. Ali ElBatra

Co-Chair: Dr. Mohamed Taha

29 Selecting Dynamic Path Planning Algorithm Based-upon Ranking Approach for Omni-Wheeled Mobile Robot

Mostafa Mo. Mossoud, A. Abdellatif, and Mostafa R. A. Atia

62 Novel Lightweight Hydraulic Integration Methodology for Robotic Applications

M. El Asswad, A. Abdellatif, S. Alfayad, K. Khalil

87 Comparison Study Between Different Classifiers' Techniques For Human Hand Grasping Force Using

Muataz Mohamed Hassan Ghanem, Mostafa Rostom Ahmed Atia, Shady A. Maged

104 Optimization of Fused Deposition Modelling Acrylonitrile-co-Butadieneco-Styrene Parameters Using ANOVA and Hybrid GRA-TOPSIS

Ibrahim Sabry, Tarek El-Attar, Heba. Atef, A.M. Hewidy

131 Comparative Analysis of Measurement Points for Structural Damage Identification in Free-Free Aluminium Beam using Response Surface Methodology and FRF Curvature

Nur Raihana Sukri, Nurulakmar Abu Husain, Syarifah Zyurina Nordin , Aminudin Abu

Zoom Link: <https://zoom.us/j/95134483449>

15:00-16:15

Session 4 Electrical Engineering

Room: A

Chair: Prof. Khaled Shehata

Co-Chair: Dr. Sherif Abdallah

68 Negawatt-Driven Sustainable Energy Management Based-on Nanomaterial-Enhanced Batteries

Marwa Ahmed Hassan, Noha Hany El-Amary, Amany Khaled

94 Efficient Integration of PV Panels and Electrolysis through a High-Performance Converter for Clean Hydrogen Generation

Omar Abdel-Rahim, AlAmir Hassan, Ayman A. Arafat

109 Hybrid Siting and Sizing of Distributed Generators and Shunt Capacitors with System Reconfiguration Using Wild Horse Optimizer

Mirna Fouad Ali, Eman Beshr, Almoataz Y. Abdelaziz, and Mohamed Ezzat

137 Economic Analysis of a Fabricated Photovoltaic Thermal System with Phase Change Material

Mohd Norizan Md Zain, Norhuda Abdul Manaf

Zoom Link: <https://zoom.us/j/99225220349>

15:00-16:15

Session 5 Construction & Architecture Engineering

Room: B

Chair: Prof. Adel Belal

Co-Chair: Assoc. Prof. Sherif Ezz

15 The Economic Replacement Ratios of Recycled Concrete Aggregate In Structural Elements Based on Mechanical Properties Evaluation

Abdelrahman W. Eldaly, Mohamed Hasan, Mostafa A. Mostafa

27 A Comprehensive Review of Rigid Pavement Design Methods

Hadier Galal Aboelhassan, Ayman Mahmoud Othman, Hassan Yuones Ahmed

97 Post-Occupancy Evaluation of Adaptively Reused Historical Ecological Buildings in Egypt: The Case of Wekalet Al-Ghoury

Rewan Shamseldin, Sherif Ezzeldin

101 Potential of Biogas Production from Anaerobic Co-digestion of Hydrothermal Pre-treated OPEFB and Digested Sludge

Muhammad Bukhari Rosly, Pramila Tamunaidu, Nurhamieza Md Huzir, Mohd Hidayat Hussin, Azlan Nur Rasyid Amin, Masafumi Goto, Abd Halim Md Ali, Mohd Danial Muhd Ali

Zoom Link: <https://zoom.us/j/95180470542>

15:00-16:15

Session 6 Applied Mathematics A

Room: C

Chair: Prof. AlFaisal Abdelhameed

Co-Chair: Assoc. Prof. Amr Thabet

21 Solution of Volterra Integral Equations of the Second Kind with Weakly Singular Kernels Using Legendre Polynomials

Emil Sobhi Shoukralla, Alfaisal Abdelhameed Hasan, Reham Abdelasdek Gooma, Ahmed Yehia Sayed

22 Approximate Solutions to Weakly Singular Fredholm Integral Equations of the Second Kind Using Shifted Legendre Polynomials of the First Kind

Emil Sobhi Shoukralla, Alfaisal Abdelhameed Hasan, Sara Abd elhamid, Ahmed Yehia Sayed

23 The Numerical Solutions of weakly singular Fredholm integral equations of the Second kind Using Chebyshev Polynomials of the Second Kind

Emil Sobhi Shoukralla, Nermin Abdelsatar Saber, Ahmed Yehia Sayed

30 Axisymmetric Cylindrical Green's Function For The Steady-State Advection-Diffusion Operator With Uniform Velocity

Hani Kaldass, Raghda Nouralla, Nehad A. Zidan

Zoom Link: <https://zoom.us/j/91539663343>

Wednesday, October 11th, 2023

INVITED SPEAKERS

9:00 – 9:30

Invited Speech (1)

Room: Room A

Chair: *Prof. Mostafa Hussein*

Co-Chair: *Prof. Sherin Youssef*

MAX Phase based Saturable Absorber as Q-switched initiator in passively Erbium Doped Fiber Laser

Assoc. Prof. Azura Hamzah

Universiti Teknologi Malaysia (UTM), Johor, Malaysia

Zoom Link: <https://zoom.us/j/98596494683>

9:30 – 10:00

Invited Speech (2)

Room: Room A

Chair: *Prof. Alaa Abdelbary*

Co-Chair: *Prof. Mohamed Hassan*

The Development Of An Erbium-Doped Flat Fiber Amplifier

Dr. Sumiaty Ambran

Universiti Teknologi Malaysia (UTM), Johor, Malaysia

Zoom Link: <https://zoom.us/j/95406911421>

10:00 – 10:30

Invited Speech (3)

Room: Room A

Chair: *Prof. Mostafa Hussein*

Co-Chair: *Prof. Mohamed ElMahallawy*

Electromagnetic field for a Rotating Photothermal Excitation Process with Moisture Diffusivity in Semiconductor Materials

Prof. Alaa Abdelbary

Arab Academy for Science and Technology & Maritime Transport, Alexandria, Egypt

Zoom Link: <https://zoom.us/j/95455142846>

11:00 - 12:30

Session 7 Machine Learning

Room: A

Chair: *Prof. Mohamed ElMahallawy*

Co-Chair: *Dr. Tamer Abdelatif*

45 CNN-Based Image Denoiser

Mahmoud Maghraby, Nahla Elazab Elashkar

65 Privacy Preserving Image Retrieval using Multi-Key Random Projection Encryption and Machine Learning Decryption

Alaa Mahmoud Ibrahim, Mohamed Farouk, Mohamed Waleed Fakhr

85 A Computer-Aided Model for Dental Image Diagnosis Utilizing Convolutional Neural Networks

Laurine A. Ashame, Sherin M. Youssef, Mazen Nabil Elagamy, Ahmed Othman, Sahar M. El-Sheikh

92 Electrical load Forecasting using a novel BI-GRU Encoder Decoder model.

Ahmed Gaber, Hesham H. Aly, Noha Ghatwary, Ahmed K. Abdelsalam

95 Performance Enhancement of Alzheimer's Disease Diagnosis Using Generative Adversarial Network

Wong Pui Ching, Shahrur Shah bin Abdullah, Mohd Ibrahim bin Shapiai, A.K.M. Muzahidul Islam

Zoom Link: <https://zoom.us/j/93214817662>

11:00 - 12:30

Session 8 Antenna Engineering-B

Room: B

Chair: Prof. Mohamed Hassan

Co-Chair: Dr. Sherif Eldyasti

81 Metamaterial Structure Effect on Printed Antenna for LTE/WiFi /Cancer Diagnosis

Fatma Taher, A. M. M. A. Allam, Ahmed F. Miligy, Sara Yehia Abdel Fatah, Mohamed A. Mohamed, Mohamed Fathy

83 Design and Fabrication of Compact MIMO Array Antenna with Tapered Feed Line for 5G

Sarah Yehia Abdel Fatah, F. Taher, Hesham A. Mohamed, Hussein Hamed Ghouz, Mohamed Fathy Abo Sree

103 Design and Implementation of Slot Antenna for 5G Communication

Menna Nabil, Sherif K. El-Diasty, Mohamed Edris, Hussein H. Ghouz

118 Novel Compact Reconfigurable Metamaterial Diplexer-Based on RF Switches for Wireless Applications

Youssef Khaled Tolba, Ahmed Fawzy Daw, Saleh Mohamed Esia

120 Beam Steering Using Space-Time Modulated Coding Metasurface Based on Reconfigurable Plasma Ionization

Mona M. Badawy, Anas S. Zainud-Deen, Hend A. Malha, and Shaymaa M. Gaber

Zoom Link: <https://zoom.us/j/91334766346>

11:00 - 12:30

Session 9 Applied Chemistry - A

Room: C

Chair: Prof. Siti Hamidah

Co-Chair: Dr. Zainab Badr

124 Production of Omega-3 Fatty Acids and Astaxanthin from Chlorella vulgaris and Haematococcus pluvialis Cultivated in Chicken Manure Medium

Fatin Fazira Binti Abd Karim, Shaza Eva Binti Mohamad, Koji Iwamoto

125 Development of Tertiary Structure of Laccase from Geobacillus uzenensis using Homology Modelling

Thurgaah Balakrishnan, Nurulbahiyah Ahmad Khairudin

128 Spatial and temporal water pattern change detection through The Normalized Difference Water Index (NDWI): A case of study Kuala Lumpur 1990 and 2021

Kamran Jafarpour Ghalehtimouri, Faizah Che Ros, Shuib Rambat

129 Anticancer Potential of Bioactive Compounds from Microalgae

Ain Nafiza binti Basha, Fazrena Nadia Md Akhir, Nor'azizi Othman, Hirofumi Hara

130 Optimization of Extraction Solvents on the Antioxidant Properties of Coconut Waste

Husna Filzah Ismail, Fazrena Nadia Md Akhir, Nor'azizi Othman, Hirofumi Hara

Zoom Link: <https://zoom.us/j/92522517081>

12:30 - 14:15

Session 10 Communications Engineering

Room: A

Chair: Prof. Safa Gasser

Co-Chair: Assoc. Prof. Azura Hamzah

48 EC-MAC: ENERGY-AWARE COOPERATIVE MAC Protocol in Wireless Sensor Network

Mostafa ElShabasy, Mohamed Abaza, Mohamed Fathy Abo Sree and Ahmed Fawzy

64 Exploit Vulnerabilities in 4G and 5G Cellular Access Network

Ahmed M. Elbadry Kamal, Mohamed Saad Zaghoul, Waleed K. Badawi, Roshdy A. Abdelrassoul

98 Vanadium Aluminium Carbide Saturable Absorber in Passively Q-switched Erbium-doped Fibre Laser

Ooi Wei Ling, Azura Hamzah, Muhammad Amir Fikri Asraf, Kawther M. Musthafa, Ahmad Haziq Aiman Rosol

99 Non-Orthogonal Algorithm with Fourier Transform Symmetry for Performance Enhancement of DCO-OFDM Systems

Mohamed S. Elbakry, Sherif k. Eldyasti and Khaled Ramadan

105 Enhanced Channel Estimation Performance-Based Intelligent Reflecting Surface Massive MIMO

Amina I. Abdelmaksoud, Sherif K. Eldiasty, Hesham M. Elbadawy, Hadia Elhennawy, and Bassant Abdelhamid

112 On Dynamic Resource Allocation for D2D Communications over Ultra-Dense 5G Cellular Networks

Fady Anis, Mohamed Hussein, Sherif El Diasty, Mohamed H. Abd Elazeem

Zoom Link: <https://zoom.us/j/98673168774>

12:30 - 14:15

Session 11 Electronics Engineering

Room: B

Chair: Dr. Sumiaty Ambran

Co-Chair: Dr. Mohamed Ismail

41 ANCHOR: A New Proposed Stream Cipher for Smart Cards with Crypto Co-Processor

Khaled A. Shehata, Hazem M. Eldeeb, Hanady H. Issa, Ahmed O. Elrefai

43 Recent Progress in LiFePO₄ Surface Modification and Doping as Cathode Materials for Power

Mona Nagah, Ahmed M. Selim, Sherine Abd El Kader, Ahmed Fawzy

55 Perovskite Silicon Solar Cell Emulation Using Multi-Layer Perceptron Deep Neural Network

Ashraf EL- Bardawil, Nehad A. Zidan, Noha H. El-Amary, W. Abbas, Mostafa Fedawy

58 Enhancing WDM Transmission Performance through Gain Flattening Techniques Utilizing Cascaded Fiber Bragg Gratings in EDFA Systems

Engy K. El Noyal, Heba A. Fayed, Moustafa H. Aly, Hanan M. El-Gammal

116 Radiation Dosimeter Based on MOSFET Technology (RadFET): Development and Fabrication for

Dalia Elfiky, Ahmed S. Abd-Rabou, Haitham Akah1, Ayman Mahmoud, Kirolos Ernest, AbdelRahman Mohamed, Alaa M. Ali, AbdelRahman Elshorbagy, Shaimaa Mohamed, Amr M. Bayoumi

135 Monitoring of Repeatedly Heated Cooking Oil Quality Using Different types of Optical Fiber Sensors

Nurin Afiqah Mohammad Azhar, Sumiaty Ambran , Soh Jia Hui and Puteri Nadiah Syamimi Said Ja'afar

Zoom Link: <https://zoom.us/j/93465200712>

12:30 - 14:15

Session 12 Applied Chemistry - B

Room: C

Chair: Prof. Siti Hamidah

Co-Chair: Dr. Zainab Badr

132 Kinetics Modelling of Moringa oleifera leaves using microwave drying

Nabilah Abdul Samad, Dayang Norulfairuz Abang Zaidel, Ida Idayu Muhamad, Yanti Maslina Mohd Jusoh, Nor Alafiza Yunus, Daniel Joe Dailin

133 Water-In-Biodiesel Emulsion with Hydroxy (HHO) Gas Fuel Enrichment For Single-Cylinder Diesel

Wan Nur Izzati binti Wan Mahdi, Ahmad Muhsin bin Ithnin, Wira Jazair bin Yahya, Muhammad Izwan Bin Wan Khairuzzaman, Muhammad Adib Abdul Rashid, and Dhani Avianto Sugeng

134 ARTIFICIAL MANGROVE ROOT MODEL FOR TRAPPING MARINE LITTER

Tan Yu Feng, Eimran Zhariff bin Enes Zalman, Tan Lit Ken, Yutaka Asako, Lee Kee Quen, Kang Hooi Siang, Chuan Zun Liang, Muhammad Idris, Lai Kok Yee, Kok Chee Hoo, Gan Yee Siang, Wah Yen Tey

136 Synthesis and Characterization of Curcumin Loaded Flexible Liposomes Decorated with Hyaluronic

Alisa Shafira Badrul Hisham, Azila Abdul-Aziz

139 Full Factorial Design: Optimization for Nanogel Formation

Nur Fathin Amirah Shafie, Roshafima Rasit Ali, Mohd Yusof Hamzah

Zoom Link: <https://zoom.us/j/99510669510>

Thursday, October 12th, 2023

9:00 - 10:00

Session 13 Computer Engineering -A

Room: A

Chair: Prof. Sherin Youssef

Co-Chair: Dr. Tamer Abdelatif

25 TRACK-S-IT: Multiobject Tracking-based Steganography for securing IoMT data

Sahar Magdy, Sherin Youssef, Karma M.Fathalla

28 A New Hybrid Model for Secure Image Steganography Using Fusion

Yasmina Ayman Kamal, Hoda Osama Elkodary, Sherin M. Youssef

36 A New Hybrid Model for Computer-Vision Video Stitching Using Intelligent Swarm Drones

Osama Hesham ElSayed Sherine Mostafa Youssef, Ossama Mohamed Ismail

52 Python-Based DRAM Memory Controller Testbench

Dina Abdelbaky, Mohamed Dessouky, Ashraf Salem

121 Security and Safety in Cyber-Physical System (CPS): An Inclusive Threat Model

Mardiana Mohamad Noor, Ali Selamat, Nurul Akmar Abu Hussain

Zoom Link: <https://zoom.us/j/95635153188>

9:00 - 10:00

Session 14 Mechanical Engineering- B

Room: B

Chair: Prof. Ali ElBatran

Co-Chair: Dr. Mohamed Taha

35 A comparison Between the Performance of Multi-stage Flash Desalination Once-through and Brine Recirculation in Extracting Marine Diesel Engines Waste Energy.

Loay U. Elkhradly, Wael M. El-Maghlany, Ali I. Shehata, Mohamed T. Mito, Yehia A. Eldrainy

59 Optimization of Fused Deposition Modelling Parameters Using Design of Experiments

Nepal H. ElKasrawy, Julia El-Zoghaby, Mahmoud Ahmed El-Sayed

70 A Study of Repetitive Recycling of Polypropylene Waste; A Quality Evaluation and Economic

Yassin M. Shaalan, Mahmoud Ahmed El-Sayed, Amr Khamis

86 Single-Valued Neutrosophic Sets Based Score Function And WASPAS Method For Plant Location Selection Problem

Abeer Eisa, M. Fattouh, A.A. ElShabshery

119 Enhancing Efficiency of H-Darrieus Wind Turbines through Experimental and Numerical Investigations of Double Darrieus Configurations

Rola S. Afify, Israa I. Idris, Yehia A. Eldrainy, Iham F. Zidane

Zoom Link: <https://zoom.us/j/91356832915>

10:00 - 11:00

Session 15 Computer Engineering- B

Room: A

Chair: Prof. Nashwa Elbindary

Co-Chair: Assoc. Prof. Ammar Hassan

8 Deep Reinforcement Learning Applied on Autonomous Driving

Noureldin Ragheb, Mervat M. A. Mahmoud

10 Predicting Thermal Preferences: A Comparative Analysis of Machine Learning Algorithms Using

Omar Ahmed Al-Sharif, Ahmed Emam Newir, Mohamed Aly Halawa

42 Applications of Brain Computer Interface for Motor Imagery Using Deep Learning: Review On Recent Trends

Ahmed Zakaria Talha, Noureldin S. Eissa, Mohd Ibrahim Shapiai

71 Towards Building a Chatbot-based First Aid Service in Arabic Language

Jomana Anwar, Peter Nadi, Noha Seddik

90 A Novel Technique for Segmenting Data for Training an Ensemble Regressor

Ahmed O.Bastawisy, Sherif F.Fahmy, Shereen F.Fahmy, and Mohamed H.Abd Elazeem

Zoom Link: <https://zoom.us/j/98195587542>

10:00 - 11:00

Session 16 Applied Mathematics B

Room: B

Chair: Prof. AlFaisal Abdelhameed

Co-Chair: Assoc. Prof. Amr Thabet

53 Modelling and Analysis of Evacuated Tube Solar Collector Working with Hybrid Nanofluid

Ahmed Yehia, Hesham Abdel-Ma'ouz, Ahmed Mostafa, Hassan Mohamed and Mohamed sayed

107 A study for Solving Pseudo-Parabolic Viscous Diffusion, Telegraph, Poisson and Helmholtz PDE using Legendre-Collocation Method

Mohamed Fathy, Passant k Abbassi, R A ELbarkoki, Khaled M Abdelgaber

110 Chebyshev-Galerkin technique with an error estimate for the linear Volterra-Fredholm integro-differential equations

Mohamed Fathy, W. Abbas

111 Numerical Scheme by Legendre-Galerkin for Characterization of Micropolar-Maxwell Unsteady Fluid Model

Khaled M Abdelgaber, Mohamed Fathy

Zoom Link: <https://zoom.us/j/96983163475>

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