

Tuesday, October 12<sup>th</sup>, 2021

INVITED KEYNOTE SPEAKERS SESSIONS

11:30 – 12:15

**Keynote Speech I**

**Room: Verona (Main Hall)**

**Chair: Prof. Ali Selamat**

*Interdisciplinary Research for Sustainable Goal Development*

*Prof. Rosli Bin Md Illias*

*Universiti Teknologi Malaysia (UTM), Johor, Malaysia*

12:15-13:00

**Keynote Speech II**

**Room: Verona (Main Hall)**

**Chair: Prof. Khaled A. Shehata**

*The Space Industry: Innovations and Trends*

*Prof. Yahya Z. Mohasseb*

*Arab Academy for Science, Technology and Maritime Transport, Cairo, Egypt*

13:30-14:15

**Invited Speech I**

**Room: Verona (Main Hall)**

**Chair: Prof. Sherin M. Youssef**

*Navigation Technologies – State of the Art and Future Trends*

*Prof. Naser El-Sheimy*

*University of Calgary, Canada*

14:15-16:00

**Session 1 Communication and Electronics Systems**

**Room: Verona (Main Hall)**

**Chair:**

**Co-Chair:**

**17 Optical Inter-Satellite Link over Low Earth Orbit: Enhanced Performance**

*Mohamed I. Shehata, Asmaa Zaki M., Heba A. Fayed, Ahmed Abd El Aziz, and Moustafa H. Aly*

**27 Control Ports Authorities' Equipment Based on RFID and SQL Security System**

*Mirhan Amgad, Iman Morsi, Mohamed M. M. Omar*

**37 Call Failure Prediction in IMS Networks**

*Amr Bahaa, Mohamed Khaled, Safa Gasser and Mohamed Elmahallawy*

**50 A Cepstrum-Based Spectrum Sensing Approach for Detecting Spread Spectrum Signals**

*Azza Moawad, Koffi-Clement Yao, Ali Mansour, Roland Gautier*

**70 A Modified SLM Scheme for PAPR Reduction of UFMC Systems**

14:15-16:00

**Session 2 Electronics and Antenna Applications**

**Room: Palermo**

**Chair:**

**Co-Chair:**

**28 Detection of LPG Gas by Using Multi Sensors Array and Fabricated ZnO Gas Sensor**

*Iman Gamal Morsi, Mohamed Essam Khedr and, Aya Gamal Eldin Aly*

**40 Dual-Band Millimeter Wave Microstrip Patch Antenna with StubResonators for 28/38 GHz Applications**

*Ayman R.Sabek , Ahmed A.Ibrahim, and Wael A.E. Ali*

**52 Novel and Compact Circular Ring Microstrip Antenna with Parasitic Chip for 5G Applications**

*Mohamed Abo Sree, Maged Sadek, Sherif Eldyasty and Husien Gouhz*

**53 Dual Band Patch Antenna Based on Letter Slotted DGS for 5G Sub-6GHz Application**

*Mohamed Abo Sree, Mohamed Abdelazeem and Wael Swelam*

**63 Effect of absorber layer bandgap of CIGS-based solar cell with (CdS/ZnS) buffer layer**

*Hassan Ismail Abdalmageed, Mostafa Fedawy and Moustafa H. Aly*

---

16:00-16:45

**Invited Speech II**

**Room: Verona (Main Hall)**

**Chair: Prof. Safa M. Gasser**

*Towards a Modern Protocol Stack for The Internet: The Impact of Large Storage and Computing Resources*

*Prof. J. J. Garcia-Luna-Aceves*

*University of California-Santa Cruz, USA*

---

Wednesday, October, 13<sup>th</sup>, 2021

10:00-10:45

**Technical Session**

**Room: Gamal Mokhtar Hall**

**Chair: Prof. Mohamed H. Abdelazeem**

*The Industry of Autonomous Vehicles Services in Taiwan: Progress of Constructing HD Maps and 3D NDT Scan Matching for Autonomous Vehicles Using INS/GNSS/3D LiDAR-SLAM Technology Integration"*

**Prof. Kai-Wei Chiang**

*National Cheng Kung University, Taiwan*

10:45-12:15

**Session 3 Electrical Power and Control Systems - A**

**Room: Gamal Mokhtar Hall**

**Chair:**

**Co-Chair:**

**6 Intelligent Control for Pressurizer System in Nuclear Power Plants**

*A A Sheta, E H Ali, R M Fikry, T A Mahmoud, S M El-Araby and M I Mahmoud*

**7 Optimal Sizing and Placement of Distributed Generation (DG) Using Particle Swarm Optimization**

*Elhosseney M. Sayed ,Noha H. Elamary. Rania. A. Swief*

**67 Investigation on Online DGA Monitoring to Determine Transformer Health Index Using Machine Learning**

*M Solehin Shamsudin, Fitri Yakub, M Ibrahim Shapiai, Azlan Mohmad and N Amirah Abd Hamid*

**68 Investigating performance of transformer health index in machine learning application using dominant features**

*Azlan Mohmad, M Ibrahim Shapiai, M Solehin Shamsudin, Mohd Azlan Abu and Amirah Abd Hamid*

10:45-12:15

**Session 4 Artificial Intelligence Applications - A**

**Room: 121**

**Chair:**

**Co-Chair:**

**12 A Smart Integrated Brain-Computer Interaction for Epileptic Seizure Detection**

*A. M. El-Khamisy, N. M. Abd El-Raouf and S. M. Youssef*

**18 Lung Images Segmentation and Classification Based on Deep Learning: A New Automated CNN Approach**

*Wessam M. Salama, Moustafa H. Aly and Azza M. Elbagoury*

**31 Efficient Brain Tumor Detection Based on Deep Learning Models**

*Mohamed R. Shoaib, Mohamed R. Elshamy, Taha E. Taha, Adel S. El-Fishawy, Fathi E. Abd El-Samie*

**34 Skin Cancer Diseases Classification using Deep Convolutional Neural Network with Transfer Learning Model**

*Laila Moataz, Gouda I. Salama, Mohamed H. Abd Elazeem*

12:45-14:15

**Session 5 Electrical Power and Control Systems- B**

**Room: Gamal Mokhtar Hall**

**Chair:**

**Co-Chair:**

8 Battery Management System Performance Enhancement using Single Sliding Mode Based

*Ali Ashraf, Abdul-Azim Sobaih and Essam Nabil*

29 Single loop PID controller design based on optimization algorithms for parallelly connected dc-dc converters

*Allam M. Allam, A.S. Ibrahim and Essam Nabil*

32 Enhancement of the Ball Balancing on the Plate using hybrid PD/ learning techniques

*Mohamed R. Elshamy, Essam Nabil, Amged Sayed, Belal Abozalam*

69 Energy Management System For Multi Microgrids

*Hossam Kamal Khalil, Salwa M. Yousry, Noha H. El-Amary*

**12:45-14:15**

**Session 6 Artificial Intelligence Applications - B**

**Room: 121**

**Chair:**

**Co-Chair:**

47 Target Assignment for Cooperative Quadrotors Unmanned Aerial Vehicles

*Mohamed Mahfouz Ahmed T. Hafez, Mahmoud M. Ashry Gamal Elnashar*

49 Spinal Muscle Atrophy Disease Modelling as Bayesian Network

*Mohammed Ezzat Helal, Manal Ezzat Helal and Sherif Fadel Fahmy*

54 An empirical analysis of deep learning algorithms for URL-based phishing detection

*N Q Do, A Selamat and O Krejcar*

55 A review on deep learning application for detection of archaeological structures

*Amirah Hanani Jamil, Fitri Yakub, Azizul Azizan, Shairatul Akma Roslan, Sheikh Ahmad Zaki, Syafiq*

**14:15-15:45**

**Session 7 Bioimaging and Biosignals**

**Room: Gamal Mokhtar Hall**

**Chair:**

**Co-Chair:**

13 Reconstruction of Depolarization Pattern in Myocardial Infarction Cases Using Two Cascaded Stages of Artificial Neural Networks

*Nihal A. Mabrouk, Abdelreheem M. Khalifa, Abdelmenem A. Nasser, and Moustafa H. Aly*

14 Educational System Based on Augmented Reality for Visualization of Human Anatomy

*Al-Shimaa G Al-Saied, Menna M Saad, Menna M Abdalla, Nashwa Khattab, Prof. Ahmed El-Bialy and Prof. Sahar Fawzi*

24 Neurological Disorder Detection of Brain Abnormal Activities Using a New Enhanced Computer-aided Model

*Doaa Shoieb and Sherin Youssef*

61 Slow Breathing Technique Intervention and Heart Rate Variability Devices for Stress Management

*Mohd Sufian Abdul Hamid and Muhamad Kamal Mohammed Amin*

**14:15-15:45**

**Session 8 Civil and Industrial Engineering**

**Room: 121**

**Chair:**

**Co-Chair:**

38 Determining the most important criteria for the resilience of the port infrastructure based on different stakeholders evaluates

*Y M Khairy, O A Basaeed and A S Elselmy*

44 Automated process control system of Jaw crusher production

*Elbadr O Elgendi and Khaled Shawki*

**51 Optimizing the Cost of Hybrid Fully Composite Unstiffened Steel Beams**

*M A El-Aghoury, A M Ebid and D M Ors*

**64 Guidelines to Minimize the Weight for Power Transmission Latticed Towers Using Genetic Programming**

*M A El-Aghoury, A M Ebid and M G El-Sherbiny*

**16:00-16:45**

### **Invited Speech III**

**Room: Gamal Mokhtar Hall**

**Chair: Prof. Mohamed S. ElMahallawy**

*A Near Optimal Phase Locked Loop*

**Prof. Dr. Donald Martin Wiberg**

*University of California-Santa Cruz, USA*

**Thursday, October, 14th, 2021**

**10:00-11:45**

**Session 9 Applied Chemistry**

**Room: Gamal Mokhtar Hall**

**Chair:**

**Co-Chair:**

**2 Updated mini-review of the chemistry, pharmacology and validated assays for U.S. FDA approved COVID-19 therapeutic agents**

*Miranda F Kamal, Mohamed S Nasr, Yousef S Elshamy and Sara M*

**9 Eco-friendly spectrophotometric methods for microdetermination of amprolium hydrochloride in dosage form**

*Miranda F Kamal, Nehal W El Sayed, Samir Morshedy and Rasha M Youssef*

**43 Carbon dots as Fluorescent nanoprobes for assay of some non- fluorophoric nitrogenous compounds of high pharmaceutical interest**

*Miranda F Kamal, Rasha M Youssef, Rana Mansour and Wael Talaat*

**60 Identification of flavour chemicals and potentially harmful compounds in refill e-liquids sold in Malaysia**

*Syaza Ahmad Hashim, Kamyar Shameli, Fazreena Nadia Md Akhir, Madihah Md Salleh, Norliana Ismail,*

**65 Bioremediation of Landfill Leachate Using Microalgae: A Short Review Based on Nutrient Removal Capacity and Biomass Valorisation**

*Imran Ahmad, Ali Yuzir, Iwamoto Koji, Norhayati Abdullah, Shaza Eva Mohamad, Santhana Krishnan*

**10:00-11:45**

**Session 10 Computer and Informtion Technology**

**Room: 121**

**Chair:**

**Co-Chair:**

**5 Autonomous Vehicle Path Planning using Q-Learning**

*Mohammed M S Ibrahim, Mostafa Rostom Atia, MW Fakhr*

**26 Intelligent High Payload Audio Watermarking Algorithm Using Colour Image In DWT-SVD Domain**

*A R Elshazly, Mohamed E. Nasr, M M Fouad and Fathi E. Abdel-Samie*

**30 Development of Smart 3D Object Detection using LiDAR Cloud-Data Collection**

*Essam M. Abd Elhamied, Sherin M. Youssef*

**33 Coloring Ancient Egyptian Paintings with Conditional Generative Adversarial Networks**

*Yostina Ibrahim, Ahmed Madani and Mohamed Waleed Fakhr*

**35 A Comparative Study of Homomorphic Encryption Schemes Using Microsoft SEAL**

*Shereen Mohamed Fawaz, Nahla Belal, Adel ElRefaey, Mohamed Waleed Fakhr*

11:45-13:30

**Session 11 Math and Applied Chemistry**

**Room: Gamal Mokhtar Hall**

**Chair:**

**Co-Chair:**

**20 Galerkin Method for Nonlinear Higher-Order Boundary Value Problems Based on Chebyshev Polynomials**

*W. Abbas, Mohamed Fathy, M. Mostafa, Hesham A. M. A*

**21 Legendre-Galerkin method for the nonlinear Volterra-Fredholm integro-differential equations**

*Mohamed Fathy*

**36 Effect of preparations conditions of eucalyptus globulus oil yield as analgesic agent: a review**

*Siti Junaidah Mohd Manshor, Zarith Asyikin Abdul Aziz and Siti Hamidah Mohd Setapar*

**56 Nanocellulose recovery from Quran paper as an alternative for Quran paper waste management in Malaysia**

*S. M. Noor, A. N. Anuar, M. Goto, K. Shameli*

**59 Screening of facultative anaerobic bacteria from activated sludge in tropical climate**

*A. M. Aris, Yuzir. A, A.N. Anuar, S. M. Noor*

11:45-13:30

**Session 12 Mechanical Systems and Applications**

**Room: 121**

**Chair:**

**Co-Chair:**

**16 Sensitivity analysis of centrifugal compressors aerodynamic losses using 1D-mean streamline prediction technique**

*Mostafa Mahmoud, S. Shaaban*

**19 Adaptive Fuzzy PID Controller applied to micro turbojet engine**

*Ahmed M shehata , Mohamed K khali, and Mahmoud M Ashry*

**45 CFD Comparative Study on Bended and 2D Airfoils on HAWT Performance**

*Ahmed H S Yassin, Sameh M Shabaan and Amany Khaled*

**46 Novel boring technique of low-carbon steel weldments**

*Ahmed M. A. Eldarwesh, Amany Khaled, Tarek M. Moussa, Mostafa R. A. Atia*

**58 Aeroacoustics behavioral study of Savonius wind turbine**

*Maymouna Malainine, Amany Khaled and Sameh M Shabaan*