



**Arab Academy**  
for Science, Technology  
& Maritime Transport



# The 2024 International Conference on Machine Intelligence and Smart Innovation

**Towards a Smarter Future**

# ICMISI2024

**12-14 May 2024**



## Program



**vodafone**

**FORTINET.**



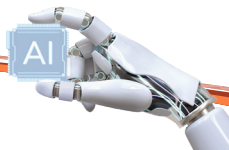
**ICMISI 2024 Program Summary**  
**AASTMT, Alexandria**  
**Sunday, May 12<sup>th</sup> - 14<sup>th</sup> ,2024**

Sunday, May 12 <sup>th</sup> , 2024	
Time	Activity
09:00 -10:00	Registration
10:00 -12:00	<b>Opening Ceremony</b> Welcome Words Vodafone Sponsor Welcome Words FortiNet Sponsor Welcome Words MoU Approval Ceremony Awarding Ceremony
12:00 -12:30 <i>Main Hall</i>	<b>Keynote Speech (1):</b> <i>“Augmented Reality and Simulation over Distributed Platforms: Application Case Studies</i> <b>Prof. Roberto Revetria</b> <i>University of Genoa, Italy.</i>
12:30 -12:45	<i>The Opening of the Exhibition of Eco-Smart Innovation for Intelligence Sustainability</i> <b>ICMISI IC-ESI’2024</b>
12:45 -13:20	BREAK
13:20 -13:40	Talk of Vodafone-Egypt: Machine Intelligence in Mobile Networks <b>Ayman Gaber - Head of Mobile Network Development</b>
13:40 -14:00	Talk of FortiNet : Cybersecurity Industry <b>Khaled Fawzy, Senior Country Manager- Egypt, Libya, and Sudan</b>
14:00 -14:20 <i>Main Hall</i>	Keynote Speech (2) <i>“Positioning and Navigation for Future Self-Driving Cars - A Multisensory Approach”</i> <b>Prof. Aboelmagd Nouredin</b> NavINST - Navigation and Instrumentation Research Group. Royal Military College of Canada, Canada. Department of Electrical and Computer Engineering.



Sunday, May 12<sup>th</sup>, 2024

Time	Activity		
14:20 -14:40 Main Hall	Keynote Speech (3) <i>“Accelerating Machine Learning Platforms: The Race to Intelligently Compute”</i> Prof. Ahmed Eltawil King Abdullah University, KSA.		
14:40 -15:00 Main Hall	Keynote Speech (4) <i>“Biomedical Advances: The interface between health care, clinical science, biomedical”</i> Prof. Ahmed El-Yazbi Director of the Research and Innovation Hub AIU. Fellow of the Canadian Institutes of Health Research. Fellow of Alberta Innovates Health Solutions.		
15:00 -15:45	<table border="0"> <tr> <td style="vertical-align: top;"> <p><b>Industry Workshop</b> <i>“Vodafone Workshop on Machine Intelligence and Data Analytics Trends in Mobile Networks”</i> Eng. Mohamed Elhoseiny Radio Design &amp; Budget Planning Manager, Vodafone Egypt</p> <p>Eng. Dina Sayed Transmission Planning SME, Vodafone Egypt</p> <p>Eng. Ahmed Maher AI &amp; Data Analytics SME, Vodafone Egypt</p> <p>Dr. Mohamed Tharwat Waheed Digital Transformation SME, Vodafone Egypt, Adjunct Professor, ESLSCA Main Hall</p> </td> <td style="vertical-align: top; text-align: center;"> <p>Invited Speech <i>“Artificial Intelligence Applications”</i>  Prof. Mike Hinchey Professor of Software Engineering at University of Limerick, Ireland. Former Director of the NASA Software Engineering Laboratory</p> <p>ElFarsi Hall</p> </td> </tr> </table>	<p><b>Industry Workshop</b> <i>“Vodafone Workshop on Machine Intelligence and Data Analytics Trends in Mobile Networks”</i> Eng. Mohamed Elhoseiny Radio Design &amp; Budget Planning Manager, Vodafone Egypt</p> <p>Eng. Dina Sayed Transmission Planning SME, Vodafone Egypt</p> <p>Eng. Ahmed Maher AI &amp; Data Analytics SME, Vodafone Egypt</p> <p>Dr. Mohamed Tharwat Waheed Digital Transformation SME, Vodafone Egypt, Adjunct Professor, ESLSCA Main Hall</p>	<p>Invited Speech <i>“Artificial Intelligence Applications”</i>  Prof. Mike Hinchey Professor of Software Engineering at University of Limerick, Ireland. Former Director of the NASA Software Engineering Laboratory</p> <p>ElFarsi Hall</p>
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15:45 -16:45 Main Hall	Session I <i>AI in Digital Health</i>		
16:45 -17:30	LUNCH		



## Monday, May 13<sup>th</sup>, 2024

Time	Activity		
09:00 - 10:00	Registration		
10:00 - 10:30 <i>ElFarsi Hall</i>	Keynote Speech (5) <i>“The integration of Internet-of-Things and Augmented Reality:                      Transforming Industry                      Prof.Yehoshua Aguilar                      University of Gauadalajara, Jalisco, Mexico.</i>		
10:30 - 11:30	Session 2 <i>“ Machine Learning                      and Remote Sensing                      Applications”</i> <i>ElFarsi Hall</i>	Session 3 <i>“ Energy &amp; Green                      Technology ”</i> <i>G004 Hall</i>	Session 4 <i>“ Industry 4.0 and                      Robotics Intelligence ”</i> <i>303 Hall</i>
11:30 - 12:30	Session 5 <i>“ Computational                      Intelligence in Sys. and                      Circuits ”</i> <i>ElFarsi Hall</i>	Session 6 <i>“ Cyber Security and                      Smart Networking”</i> <i>G004 Hall</i>	Session 7 <i>“ Human Computer                      Interaction”</i> <i>303 Hall</i>
12:30 - 13:00	BREAK		
13:00 - 13:30 <i>ElFarsi Hall</i>	Keynote Speech (6) <i>“Artificial Intelligence and Machine Learning perspectives”</i> Prof. Hamido Fujita (Life Senior Member IEEE), <i>Iwate Prefectural University, Japan.                      Professor at Malaysia-Japan International Institute of Technology, UTM</i>		
13:30 - 14:00 <i>ElFarsi Hall</i>	Keynote Speech (7) <i>“Advances and Challenges in extracting Offshore Energy in the context of                      Climate Change”</i> Prof. Eugen Victor Cristian RUSU <i>University of Galati, Romania</i>		



14:00 -15:00	<p>Session 8  <i>“ Biomedical Engineering and Bioinformatics”</i>            ElFarsi Hall</p>	<p>Session 9  <i>Workshop “Quantum Computing &amp; Machine Learning”</i>            G004 Hall</p>
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**Monday, May 13<sup>th</sup>, 2024**

Time	Activity	
15:00 -15:30	<p>Invited Speech  <i>“Artificial Intelligence Development of Assessment-based games and Interactive Simulations for Education”</i>            Prof. Rasha Morsi, Ph.D.            Norfolk State University, USA            ElFarsi Hall</p>	<p>Industry Session  <i>Energy Sector</i>            Eng. Yousra Askar            Senior Energy Specialist World Bank            G004 Hall</p>
15:30 -17:00	<p><i>“Women in Engineering, Science and Technology”            Workshop and Panel Discussion</i>            G Building Lobby Hall</p>	
17:00 -17:30	LUNCH	

**Tuesday, May 14<sup>th</sup>, 2024**

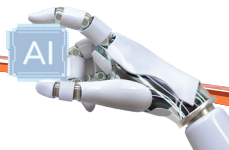
Time	Activity		
09:00 -10:00	Registration		
10:00 -11:00	<p>Session 10  <i>“ Generative AI”</i>            ElFarsi Hall</p>	<p>Session 11  <i>“ Precision Agriculture”</i>            G004 Hall</p>	<p>Session 12  <i>“ Advanced Image Processing Applications”</i>            303 Hall</p>
11:00 -11:15	<p>Keynote Speech (8)  <i>“The Role of Computer Vision Technologies in Security Operations”</i>            Dr. Obaid Saleh Almkhhtin            Director of the Avtar Foundation for IT and AI Consulting</p>		
11:15 -11:30	<p>Keynote Speech (9)  <i>“Leveraging Transformers for Enhanced Detection of Pedestrians Crossing Intentions”</i>            Prof. Khalid Elgazzar            Canada Research Chair, Ontario Tech University, Canada</p>		
12:00 -13:00	CLOSING CEREMONY ElFarsi Hall		

**ICMISI 2024**  
**Detailed Program**  
*AASTMT, Alexandria*  
*Sunday, May 12<sup>th</sup> - 14<sup>th</sup> ,2024*



## Sunday, May 12<sup>th</sup>, 2024

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9:00 - 10:00	<b>Registration</b>
10:00 - 12:00	<p><b>Opening Ceremony</b></p> <p style="text-align: center;">Welcome Words Vodafone Sponsor Welcome Words FortiNet Sponsor Welcome Words MoU Approval Ceremony Awarding Ceremony</p> <p style="color: #0070c0; font-size: small;">Zoom Link: <a href="https://zoom.us/j/95676654675?pwd=RXIBb0x6OVFFTVgyNEFPdVpldDMvUT09">https://zoom.us/j/95676654675?pwd=RXIBb0x6OVFFTVgyNEFPdVpldDMvUT09</a></p>
12:00 - 12:30  <i>Main Hall</i>	<p style="text-align: center;"><i>Invited Keynote Speakers Sessions</i></p> <p style="text-align: center;"><b>Keynote Speech (I):</b> <i>“Augmented Reality and Simulation over Distributed Platforms: Application Case Studies”</i> Prof. Roberto Revetria University of Genoa, Italy.</p> <p style="color: #0070c0; font-size: small;">Zoom Link: <a href="https://zoom.us/j/95676654675?pwd=RXIBb0x6OVFFTVgyNEFPdVpldDMvUT09">https://zoom.us/j/95676654675?pwd=RXIBb0x6OVFFTVgyNEFPdVpldDMvUT09</a></p>
12:30 - 12:45	<p><i>The Opening of the Exhibition of Eco-Smart Innovation for Intelligence Sustainability</i> <b>ICMISI IC-ESI'2024</b></p>
<b>12:45 - 13:20</b>	<b>BREAK</b>
13:20 - 13:40	<p style="color: #e67e22; text-align: center;"><i>Talk of Vodafone-Egypt: Machine Intelligence in Mobile Networks</i> Ayman Gaber - Head of Mobile Network Development</p> <p style="color: #0070c0; font-size: small;">Zoom Link: <a href="https://zoom.us/j/95676654675?pwd=RXIBb0x6OVFFTVgyNEFPdVpldDMvUT09">https://zoom.us/j/95676654675?pwd=RXIBb0x6OVFFTVgyNEFPdVpldDMvUT09</a></p>
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14:20 - 14:40  <i>Main Hall</i>	<p style="text-align: center;"><b>Keynote Speech (III):</b> <i>“Accelerating Machine Learning Platforms: The Race to Intelligently Compute”</i> Prof. Ahmed Eltawil King Abdullah University, KSA.</p> <p style="color: #0070c0; font-size: small;">https://zoom.us/j/93844099073?pwd=dVlzc1hWWDEvMktZMWZkaUpQdngrQT09</p>



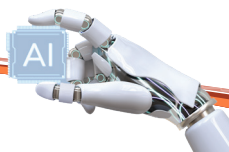
Sunday, May 12<sup>th</sup>, 2024

Time	Activity
14:40 - 15:00 Main Hall	<p>Keynote Speech (IV):  <i>“Biomedical Advances: The interface between health care, clinical science , biomedical</i>                      Prof.Ahmed El-Yazbi                      Director of the Research and Innovation Hub AIU. Fellow of the Candaian Institutes of Health Reserach. Fellow of Alberta Innovates Health Solutions.  <a href="https://zoom.us/j/93844099073?pwd=dVlzc1hWWDEvMktZMWZkaUpQdngrQT09">https://zoom.us/j/93844099073?pwd=dVlzc1hWWDEvMktZMWZkaUpQdngrQT09</a></p>
15:00 - 15:45 Main Hall	<p>Industry Workshop  <i>“Vodafone Workshop on Machine Intelligence and Data Analytics Trends in Mobile Networks</i>                      Eng. Mohamed Elhoseiny                      Radio Design &amp; Budget Planning Manager, Vodafone Egypt                      Eng. Daaa Sayed                      Transmission Planning SME, Vodafone Egypt                      Eng. Ahmed Maher                      AI &amp; Data Analytics SME, Vodafone Egypt                      Dr. Mohamed Tharwat Waheed                      Digital Transformation SME, Vodafone Egypt, Adjunct Professor, ESLSCA  <a href="https://zoom.us/j/93682528374?pwd=MUPsa0lVVGt2NDREazk5Njc4N0w3Zz09">https://zoom.us/j/93682528374?pwd=MUPsa0lVVGt2NDREazk5Njc4N0w3Zz09</a></p>
15:00 - 15:45 El Farsi Hall	<p>Invited Speech  <i>“Artificial Intelligence Applications”</i>                      Prof. Mike Hinchey                      Professor of Software Engineering at University of Limerick, Ireland. Former Director of the NASA Software Engineering Laboratory  <a href="https://zoom.us/j/94082964708?pwd=WEltVVBzMW9JTkVvZVp6aUMrVHBDZz09">https://zoom.us/j/94082964708?pwd=WEltVVBzMW9JTkVvZVp6aUMrVHBDZz09</a></p>
15:45-16:45 Main Hall	<p>Session I AI in Digital Health  <i>30 Cloud-Enabled Diagnostic System: Leveraging PACS and AI for Enhanced Remote Carotid Atherosclerosis Management</i>                      Yara Hossam El-Din Gafar, Sandra Essa Bekhet, Habiba Mohamed Hanafy, Sara Khaled Ibrahim, Salma Hussien                      Abdelkader, Tamer Y. Basha, Ahmed M. Gharib, Khaled Z. Abd-Elmoniem  <i>66 Does Interoperative Data Contribute to Predicting Postoperative Mortality?</i>                      Ahmed Hatem El-Naggar, Sahar Ali Fawzi, Manal Tantawi  <i>71 Deep Learning for ECG Image Analysis: A Lightweight Approach for Covid-19 Diagnosis</i>                      Ahmed Hatem El-Naggar, Sahar Ali Fawzi, Manal Tantawi  <i>80 A proposed computational workflow for bioinformatics-based drug repurposing: A case study of Canagliflozin</i>                      Essam M. Abd Elhamied, Sherin M. Youssef, Marwa El Shenawy                      Nefertiti El-Nikhely, Ahmed F. El-Yazbi  <i>99 Post COVID-19 Vaccination: Infection Rate Analysis Using Time Series Modeling</i>                      Nourin Kadir, Rupinder Kaur, Tiago Rodrigues, Rasha Kashef  <a href="https://zoom.us/j/91329339242?pwd=ME5uUDIGVmNPpW8zUEhGYXhCRmdVUT09">https://zoom.us/j/91329339242?pwd=ME5uUDIGVmNPpW8zUEhGYXhCRmdVUT09</a></p>
16:45-17:30	LUNCH



## Monday, May 13<sup>th</sup>, 2024

Time	Activity
9:00 - 10:00	Registration
10:00 - 10:30  <i>ElFarsi Hall</i>	<p><b>Invited Keynote Speakers Sessions</b>  <b>Keynote Speech (V):</b>  <i>“The integration of Internet-of-Things and Augmented Reality: Transforming Industry</i></p> <p style="text-align: center;">Prof. Yehoshua Aguilar            University of Gauadalajara, Jalisco, Mexico.</p> <p style="text-align: center;"><a href="https://zoom.us/j/96787080813?pwd=NXJMRGgwN3dyTVlPY0RwamVpUk4rUT09">https://zoom.us/j/96787080813?pwd=NXJMRGgwN3dyTVlPY0RwamVpUk4rUT09</a></p>
10:30 - 11:30  <i>ElFarsi Hall</i>	<p><b>Session 2 Machine Learning and Remote Sensing Applications</b></p> <p style="text-align: center;"><i>10 DGAPNet-SIE: A New Enhanced Hybrid Model for Classification of Remote Sensing Satellite Images Integrating Image Enhancement</i></p> <p style="text-align: center;">Nadeen Emad ElDien, Sherin M. Youssef, Marwa A. ElShenawy</p> <p style="text-align: center;"><i>60 Event-Based Object Detection with YOLOv5 with Attention</i></p> <p style="text-align: center;">Diego A. Silva, Kamilya Smagulova, Mohammed E. Fouda, Ahmed M. Eltawil</p> <p style="text-align: center;"><i>77 Validation Framework For Adas Deep Learning Based Object Detection</i></p> <p style="text-align: center;">Mohamed Osama Mohamed Samy Ghandour, Khaled Fouad Elsayed</p> <p style="text-align: center;"><i>78 Dual-Modality Machine Learning: Enhancing Predictions with NIR Spectra and Interferogram Data Fusion</i></p> <p style="text-align: center;">Ashar Seif Al-Nasr, Ahmed Darweesh, Samir Abozyd, Bassem Mortada, Yasser M. Sabry</p> <p style="text-align: center;"><i>Improved Model Integrating FPN and Refined IoU for Efficient Object Detection in Remote Sensing Satellite Images</i></p> <p style="text-align: center;">Essam M. Abd Elhamied, Sherin M. Youssef, Marwa El Shenawy</p> <p style="text-align: center;"><i>119 Leveraging Machine Learning Approaches for Enhanced Mental Disorder Diagnosis using EEG Signal</i></p> <p style="text-align: center;"><a href="https://zoom.us/j/98410194129?pwd=cjg4aWhlMWdQZk9UaTJmNk42bCtqdz09">https://zoom.us/j/98410194129?pwd=cjg4aWhlMWdQZk9UaTJmNk42bCtqdz09</a></p>

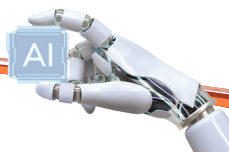


## Monday, May 13<sup>th</sup>, 2024

Time	Activity
<p>10:30 - 11:30</p> <p>G004 Hall</p>	<p style="text-align: center;"><b>Session 3 Energy &amp; Green Technology</b></p> <p style="text-align: center;"><i>44 Automating Surface Water Pollution Detection and Instance Segmentation.</i> Noha A. Sobhi, Sherin M. Youssef</p> <p style="text-align: center;"><i>48 VGG Model for Peak Ground Acceleration Prediction</i> Mona Mohammed, Arabi Keshk, Hatem M. Ahmed</p> <p style="text-align: center;"><i>90 Multistage Optimization for Toxicity Free Compost Using Real-time MOGA-GA-PSO Based Algorithm</i></p> <p style="text-align: center;"><i>97 Hybrid Henry Gas solubility Optimization Based On B-Hill Climbing For Feature Selection</i> SH. EL-gazzar, H. Abdel-kader, A. haroun</p> <p style="text-align: center;"><i>100 Optimizing Solar Energy Efficiency: An Intelligent Approach to Energy Forecasting through Wavelet Packet Decomposition and AI Integration</i></p> <p style="text-align: center;"><i>125 Operation of a 100% Off-shore Renewable Energy Micro-grid for Water, Hydrogen and Electricity</i> Hady H. Fayek, Fady H. Fayek, Eugen Rusu <a href="https://zoom.us/j/92438032965?pwd=Rm5GdDRscUVUQUlhZVjY4LlNOQVZsQT09">https://zoom.us/j/92438032965?pwd=Rm5GdDRscUVUQUlhZVjY4LlNOQVZsQT09</a></p>
<p>10:30 - 11:30</p> <p>303 Hall</p>	<p style="text-align: center;"><b>Session 4 Industry 4.0 and Robotics Intelligence</b></p> <p style="text-align: center;"><i>28 Revolutionizing Retail Analytics: Advancing Inventory and Customer Insight with AI</i> Ahmed Hossam, Ahmed Ramadan, Mina Magdy, Raneem Abdelwahab, Salma Ashraf, Zeina Mohamed</p> <p style="text-align: center;"><i>50 Forecasting Stock Price Using LSTM and VMD</i> Alamir Labib Awad, Saleh Mesbah Elkaffas, Mohammed Waleed Fakhr</p> <p style="text-align: center;"><i>59 Selection of Turbulence Models in Wing Plunging</i></p> <p style="text-align: center;"><i>75 Modeling and Simulation of ABB IRB 140 Robot using Neural Networks</i> Omnia Elgabaly, Hossam H. Ammar, Samar M. Ismail</p> <p style="text-align: center;"><i>76 Implementation of an Automated Catering Service Using UR3 Robotic Arms in CoppeliaSim V-REP</i> Yahya Elhousry, Omar Yasser, Samar M. Ismail, Hossam H. Ammar</p> <p style="text-align: center;"><i>89 Demand Forecasting for unpredictable environments: Are we ready?</i> Marwan ElAgamy, Dalia Mohamed Sobhy, Karma M. Fathalla</p> <p style="text-align: center;"><i>126 Supply Chain Resilience in SMEs: Integration of Generative AI in Decision-Making Framework</i> Khursheed Ahmad, Anastasiia Rozhok, Roberto Revetria <a href="https://zoom.us/j/91207261420?pwd=NXorbEtiUHdFTklnY3c0d2l5QWJpdz09">https://zoom.us/j/91207261420?pwd=NXorbEtiUHdFTklnY3c0d2l5QWJpdz09</a></p>

Monday, May 13<sup>th</sup>, 2024

Time	Activity
11:30 - 12:30  ElFarsi Hall	<p>Session 5 Computational Intelligence in Sys. and Circuits</p> <p><b>40 Indoor Antenna Placement Automation with Meta-heuristic Optimization</b> Abdelrahman Hanafi, Radwa A. Kamel, Iten Elhak, Tarek Y. Ismail, Magda Fayek, Mohammed E. Fouda</p> <p><b>61 Optimizing Power Efficiency in SRAM Cells through Memristor-Based Architectures</b> Nermine M. Edward, Sahar M. Hamed, Nahla Elaraby, Abdelhalim Zekry</p> <p><b>68 Development and Validation of a Powder Mixture Set for Performance Testing of Miniaturized Spectrometers using Machine Learning Models</b> Samir AboZyd, Mohamed Osama, Bassem Mortada, Ahmed M. Othman, Ahmed Mahfouz, Yasser M. Sabry</p> <p><b>72 Hardware Realization of High-Speed Area-Efficient Floating Point Arithmetic Unit on FPGA</b> Mohammed H. Yacoub, Samar M. Ismail, Lobna A. Said</p> <p><b>73 A Convergent Approach of Mathematical Modelling and Deep Learning for Inverse Kinematics Solutions in Stewart Platform Parallel Robots</b> M. Elseiagy, A. El-Sayed, M. Elsamanty <a href="https://zoom.us/j/93050172196?pwd=SXRQNmRKWks2L3ljNCtldlBkRUZnQT09">https://zoom.us/j/93050172196?pwd=SXRQNmRKWks2L3ljNCtldlBkRUZnQT09</a></p>
11:30 - 12:30  G004 Hall	<p>Session 6 Cyber Security and Smart Networking</p> <p><b>18 Assessing Anomaly Detection Algorithms in Mobile Networks</b> Ayman Terra, Mahmoud Nour, Nashwa Abdelbaki</p> <p><b>37 DDoS Detection using Machine Learning</b> Nour Ahmed Nagah, Mariam Bahaa, Wael Farouk Elsersty</p> <p><b>58 Comparative Analysis of Single Antenna and Antenna Array for GNSS Jamming Resilience</b> Haidy Elghamrawy, Mohamed Tamazin, Aboelmagd Noureldin</p> <p><b>63 Intelligent Intrusion Detection System using LightGBM optimized by Firefly Algorithm for DoS Attack</b> Mahmoud A. Abdo, Karma M. Fathalla</p> <p><b>81 Safeguarding Smart Vehicles: GNN-Powered Real-Time IDS for CAN Networks</b> Sarah El-Dawy, Abdallah Hussien, Mostafa Ammar, Ahmed El-Dawy <a href="https://zoom.us/j/93312042239?pwd=SmpEWXFDmIYrQzRQODFE0HJ5UytLZz09">https://zoom.us/j/93312042239?pwd=SmpEWXFDmIYrQzRQODFE0HJ5UytLZz09</a></p>



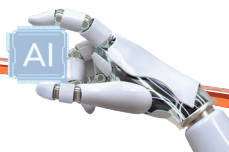
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<p>11:30 - 12:30</p> <p>303 Hall</p>	<p style="text-align: center;"><b>Session 7 Human Computer Interaction</b></p> <p><i>14 Enhancing Human Emotion Classification in Human-Robot Interaction</i> HossamEldin Elsayed, Noha Seddik Tawfik, Omar Shalash, Ossama Ismail</p> <p><i>35 AI-Powered Human-Computer Interaction Assisting Early Identification of Emotional and Facial Symptoms of Autism Spectrum Disorder in Children: "A Deep Learning-Based Enhanced Facial Feature Recognition System"</i> Jasmine ElMahalawy, Yehia A. ElSwaify, Dina Elliboudy, Omar M. Abbas, Nour Moustafa, Nayera Wael</p> <p><i>53 Advances in ASL Detection: a YOLOv8-based framework</i> Mohamed Hesham Emam, Abdelrhamn Ghaly, Ahmed Mostafa, Ali Ayman, Aya Adel, Mohamed Tawfik, Wael Badawy</p> <p><i>118 "SPEAK-OUT": A Reinforcement Learning based Social Media Application for Visually Impaired People</i> Shahd Elagan, Gasser Ehab, Farah Elsoussi, Yasser Salem, Ossama Hesham, Essam H. Seddik,</p> <p><i>124 Fused Deep Representation of Traditional Features for Copy-Move Forgery Detection</i> Ashgan H. Khalil, Atef Z. Ghalwash, Hala A. Elsayed, Gouda I. Salama, Haitham A. Ghalwash</p> <p style="text-align: center;"><a href="https://zoom.us/j/99714961594?pwd=MGZjcncBMXplbnAzcFVLR0pQQnBIQT09">https://zoom.us/j/99714961594?pwd=MGZjcncBMXplbnAzcFVLR0pQQnBIQT09</a></p>
12:30 - 13:00	<b>BREAK</b>
<p>13:00 - 13:30</p> <p>ElFarsi Hall</p>	<p style="text-align: center;"><b>Invited Keynote Speakers Sessions</b> <b>Keynote Speech (VI):</b> <i>"Artificial Intelligence and Machine Learning Perspectives"</i> Prof. Hamido Fujita (Life Senior Member IEEE) Iwate Prefectural University, Japan.</p> <p style="text-align: center;"><a href="https://zoom.us/j/98927976819?pwd=VHRmWCtnbnZTSzGppbEhWK0d3L2ZSZz09">https://zoom.us/j/98927976819?pwd=VHRmWCtnbnZTSzGppbEhWK0d3L2ZSZz09</a></p>
<p>13:30 - 14:00</p> <p>ElFarsi Hall</p>	<p style="text-align: center;"><b>Invited Keynote Speakers Sessions</b> <b>Keynote Speech (VII):</b> <i>"Advances and Challenges in extracting Offshore Energy in the context of Climate Change"</i> Prof. Eugen Victor Cristian RUSU University of Galati, Romania.</p> <p style="text-align: center;"><a href="https://zoom.us/j/98927976819?pwd=VHRmWCtnbnZTSzGppbEhWK0d3L2ZSZz09">https://zoom.us/j/98927976819?pwd=VHRmWCtnbnZTSzGppbEhWK0d3L2ZSZz09</a></p>



## Monday, May 13<sup>th</sup>, 2024

Time	Activity
<p>14:00 -15:00</p> <p>ElFarsi Hall</p>	<p style="text-align: center;"><b>Session 8 Biomedical Engineering and Bioinformatics</b></p> <p><i>3 An Enhanced Framework Employing Feature Fusion for Effective Classification of Digital Breast Tomosynthesis Scans</i> Alaa M. Adel El-Shazli, Sherin M. Youssef, Abdel Hamid Soliman, Claude Chibelushi</p> <p><i>20 A Computational Analysis of Drug Deposition Efficiency: A Comparative Study based on magnetic iron oxide particles coated</i> Mohanad M. Abdelhamed, Aly I. Shehata, Passent M. E. Gaafar, Ahmed S. Shehata</p> <p><i>15 MyoRCB-CAM-Seg: A New Supervised Segmentation Mechanism for Diagnosis of Myositis medical ultrasound images Integrating new Modified Convolutional Residual Blocks and Convolutional Attention Mechanism.</i> Alaa Hussien, Sherin Youssef, Noha Ghatwary, Magdy A. Ahmed</p> <p><i>25 An improved model for the diagnosis of attention deficit/ hyperactivity disorder (ADHD) using resting- state fMRI data.</i> Hoda Osama Elkhodary, Sherin M. Youssef</p> <p><i>86 AI-Driven Mental Disorders Categorization from Social Media: A Deep Learning Pre-Screening Framework</i> Shorouk Adel, Noureldin Elmadany, Maha Sharkas <a href="https://zoom.us/j/93346977850?pwd=d0xZNGVmNWlmenVEeFp6OTZjM2YvUT09">https://zoom.us/j/93346977850?pwd=d0xZNGVmNWlmenVEeFp6OTZjM2YvUT09</a></p>
<p>14:00 -15:00</p> <p>G004 Hall</p>	<p style="text-align: center;"><b>Session 9 WORKSHOP Quantum Computing &amp; Machine Learning</b></p> <p><i>11 A Glimpse of 3D/2D Chest CT Feature Fusion</i> Mohamed Ramzy Ibrahim, Karma M. Fathalla, Sherin M. Youssef</p> <p><i>31 Pan-BCS: An Enhanced Panoptic Biventricular 3D Cardiac Assistive Model Integrating Feature Pyramid Networks and Parallel Semantic Segmentation</i> Doaa A. Shoieb, Karma M. Fathalla, Sherin M. Youssef</p> <p><i>65 Quantum Answer Set Programming Solver using Amplitude Amplification</i> Esraa Ebdelrehime, Ahmed Younes, Islam Elkabani</p> <p><i>85 Optimizing the Design of a Full Adder Utilizing Quantum Dot Cellular Automata (QCA) Technology</i> Ahmed Moustafa, Ahmed Younes <a href="https://zoom.us/j/98262434306?pwd=RVFJUzUzMytyjOVNTYmlUVjk5b2V0Zz09">https://zoom.us/j/98262434306?pwd=RVFJUzUzMytyjOVNTYmlUVjk5b2V0Zz09</a></p>



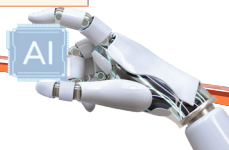
## Monday, May 13<sup>th</sup>, 2024

Time	Activity
15:00-15:30  El Farsi Hall	INVITED SPEECH I <i>“Artificial Intelligence Development of Assessment-based games and Interactive</i> Prof. Rasha Morsi, Ph.D. Norfolk State University, USA.  <a href="https://zoom.us/j/94553145901?pwd=NldRcmQ2ZjBKSzNKWWVwYlgxaTROdz09">https://zoom.us/j/94553145901?pwd=NldRcmQ2ZjBKSzNKWWVwYlgxaTROdz09</a>
15:00-15:30  G004 Hall	INDUSTRY SESSION ENERGY SECTOR Eng. Yusra Askar Senior Energy Specialist World Bank  <a href="https://zoom.us/j/94003773780?pwd=a1Z5cXlsWkwyYk9CVFc5VXhrSVZaUT09">https://zoom.us/j/94003773780?pwd=a1Z5cXlsWkwyYk9CVFc5VXhrSVZaUT09</a>
15:30-17:00  G building Lobby Hall	Women in Engineering, Science and Technology  Session 1: <i>“Supporting Young Women in Developing Their Careers and Reaching Leadership</i>  Session 2: <i>“Experience, Challenges, and the Importance of Mentorship and Multilateral Collaboration</i>  Session 3: <i>“Women in ICT”</i>  <a href="https://zoom.us/j/94849366036?pwd=cXdFenFxWDZVTjJteHFxOGg2dk1JUT09">https://zoom.us/j/94849366036?pwd=cXdFenFxWDZVTjJteHFxOGg2dk1JUT09</a>
17:00-17:30	LUNCH



## Tuesday, May 14<sup>th</sup>, 2024

Time	Activity
9:00 - 10:00	Registration
10:00 - 11:00	<p style="text-align: center;"><b>Session 10 Generative AI</b></p> <p><b>21 A virtual pet for children with autism spectrum disorders (ASD)</b> Maryam A. Molasm, Aida M. AbdElrazek, Abader Z. Beshara, Mohamed H. AbdElfattah, Mahmoud M. Abulaziz, Abdelghafar R. Elshenawy</p> <p><b>24 Enhanced Pix2Pix GAN for Sketch Colorization: Unveiling Multi-scale Discriminator with U-Net Architecture</b> Yasmina A. Kamal, Sherin M. Youssef, Karma M. Fathalla, Marwa A. ElShenawy</p> <p><b>32 An Enhanced Integrated Model for Image Inpainting Using Gated Convolution Spectral Normalized SN- Patch Generative Adversarial Networks</b> Mahmoud Elharmil, Menna Merghany, Sherin M. Youssef</p> <p><b>39 Image Captioning using Vision Encoder Decoder Model</b> Ahmad Abdelaal, Nadeen Farid ELshafey, Nadine Walid Abdalah, Nouran Hady Shaaban, Sama Ahmed Okasha, Tawfik Yasser, Mostafa Fathi, Khaled M. Fouad, Ibrahim Abdelbaky</p> <p><a href="https://zoom.us/j/96133206313?pwd=UnFOMUhibXVHOHNMNkREWVFjZUJrdz09">https://zoom.us/j/96133206313?pwd=UnFOMUhibXVHOHNMNkREWVFjZUJrdz09</a></p>
10:00 - 11:00	<p style="text-align: center;"><b>Session 11 Precision Agriculture</b></p> <p><b>42 Classification of Corn diseases using Convolutional Neural Networks and Support Vector Machine.</b> Ahmed Saleh, Asmaa Hussein, Abdelrahman Emad, Rania Gad, Amira Mariem, Donia Yasser, Yomna Ayman, Asmaa Bahr, Mohamed Wanas, Ibrahim Elghandour</p> <p><b>52 Assessing Tomato Maturity: CNN vs VGG16</b> Salma Maged, Aya Adel, Mohamed Tawfik, Wael Badawy</p> <p><b>69 Robotics Technology and Computer Vision for Precision Agriculture</b> Ahmed ElSayed, Omar Nasr, Ahmed Elzokm, Yamen Aly, Sherin M. Youssef, Karma M. Fathalla,</p> <p><b>74 Automated Crop Inspection</b> Farah Salem, Habiba El Sheikh</p> <p><a href="https://zoom.us/j/91652954315?pwd=VHRKdFlxSDdrUjJDaUUvV05CS0xDQT09">https://zoom.us/j/91652954315?pwd=VHRKdFlxSDdrUjJDaUUvV05CS0xDQT09</a></p>



## Tuesday, May 14<sup>th</sup>, 2024

Time	Activity
<p>10:00 - 11:00</p> <p>303 Hall</p>	<p style="text-align: center;">Session 12 Advanced Image Processing Applications</p> <p style="text-align: center;"><i>54 Dental diagnostics - a YOLOv8-based framework</i> Salma Maged, Aya Adel, Mohamed Tawfik, Wael Badawy</p> <p style="text-align: center;"><i>93 CANINE SKIN DISEASES DETECTION USING CNN</i> Laurine A. Ashame, Sherin M. Youssef, Mazen Nabil ElAgamy, Sahar M. El- Sheikh</p> <p style="text-align: center;"><i>23 Improved Model Architecture for Multi-Object Detection via Multi-Sensor LiDAR and Camera Data Fusion</i> Sahar Magdy, Sherin Youssef, Karma M. Fathalla, Saleh El Shehaby</p> <p style="text-align: center;"><i>110 An Enhanced Assistive Model for Diagnosis of Dental 3D Panoramic Radiographs Integrating the fusion of Handcrafted Features with Deep learning Architectures.</i> Laurine A. Ashame, Sherin M. Youssef, Mazen Nabil ElAgamy, Sahar M. El- Sheikh</p> <p style="text-align: center;"><a href="https://zoom.us/j/99990592219?pwd=blpjengvRHZsOXJ3T3ByZE9vbVp0dz09">https://zoom.us/j/99990592219?pwd=blpjengvRHZsOXJ3T3ByZE9vbVp0dz09</a></p>
<p>11:00 - 11:15</p> <p>ElFarsi Hall</p>	<p style="text-align: center;">INVITED KEYNOTE SPEAKERS SESSIONS</p> <p style="text-align: center;">Keynote Speech VIII</p> <p style="text-align: center;"><i>“The Role of Computer Vision Technologies in Security Operations”</i></p> <p style="text-align: center;">Dr. Obaid Saleh Almkhhtin Director of the AvatarFoundation for IT and AI Consulting.</p> <p style="text-align: center;"><a href="https://zoom.us/j/96172319344?pwd=WUpmVWhZMVJPQVNYeGIMWEFnVHUwQT09">https://zoom.us/j/96172319344?pwd=WUpmVWhZMVJPQVNYeGIMWEFnVHUwQT09</a></p>
<p>11:15 - 11:30</p> <p>ElFarsi Hall</p>	<p style="text-align: center;">Keynote Speech IX</p> <p style="text-align: center;"><i>“Leveraging Transformers for Enhanced Detection of Pedestrians Crossing Intentions”</i></p> <p style="text-align: center;">Prof. Khalid Elgazzar Canada Research Chair, Ontario Tech University, Canada.</p> <p style="text-align: center;"><a href="https://zoom.us/j/96172319344?pwd=WUpmVWhZMVJPQVNYeGIMWEFnVHUwQT09">https://zoom.us/j/96172319344?pwd=WUpmVWhZMVJPQVNYeGIMWEFnVHUwQT09</a></p>
<p>12:00-13:00</p>	<p><b>CLOSING CEREMONY</b> ElFarsi Hall</p>

