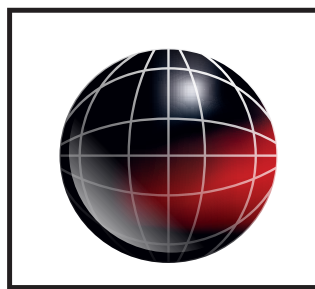




جامعة عجمان  
AJMAN UNIVERSITY



**ACIT International**

The International Arab Conference on  
Information Technology

# The 24<sup>th</sup> International Arab Conference on Information Technology (ACIT 2023)

Ajman University | 06-08 December 2023

 Sheikh Zayed Center for Conferences and Exhibitions

# The 24<sup>th</sup> International Arab Conference on Information Technology (ACIT 2023)

Wednesday, December 6 2023

08:00 – 10:00	Registration
10:00 – 11:00	Opening Ceremony
11:00 – 11:30	Coffee Break
11:30 – 12:30	<ul style="list-style-type: none"> <li>- Plenary 1 (Main Hall 1): Metaverse as the Universe of Digital Twins: Approaches and Challenges</li> <li>- Prof. Abdulmotaleb El Saddik, Distinguished University Professor, University of Ottawa, Canada</li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81481340195">https://ajman-ac-ae.zoom.us/j/81481340195</a></li> </ul>
12:30 – 13:00	- University Tour
13:00 – 14:00	- Lunch Break
14:00 – 15:00	<ul style="list-style-type: none"> <li>- Plenary 2 (Main Hall 1): Artificial Intelligence-Powered Multimodality Medical Image Analysis</li> <li>- Prof. Habib Zaidi, Head of PET Instrumentation &amp; Neuroimaging Lab, Geneva University, Switzerland</li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81481340195">https://ajman-ac-ae.zoom.us/j/81481340195</a></li> </ul>
15:00 – 16:30	<ul style="list-style-type: none"> <li>- <b>Session 1A (Hall 1): Image and Video Processing 1 (IVP1)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81481340195">https://ajman-ac-ae.zoom.us/j/81481340195</a></li> <li>Chair: Qasem Alradaedeh</li> <li>Co-Chair: Ayman Tewfik</li>   <li>Paper 48: Deep Learning: An Investigation on Fire and Fires Losses Detection Using YOLOv5 O. Alkhasawneh, K. Mahmoud</li>   <li>Paper 27: A Novel Retinal Image Contrast Enhancement Fuzzy-Based Method A. Shaout, J. Han</li>   <li>Paper 92: Deep Learning Empowers Next-Gen Video Compression: Bridging Quality and Efficiency K. Mohammad, F. Mohammad, K. Mohammad</li>   <li>Paper 167: A Deep Learning-Based Multimodal Recognition Biometric System Using Finger Vein (FV) and Finger Knuckle Print (FKP) M. Abimouloud, K. Bensid, M. KHERALLAH</li>   <li>Paper 114: Vocal Cords Disorders Monitoring Using Video Magnification A. Omar, S. AlRamahi, A. Jouda, A. Jaha, W. Shehieb, A. Tawfik</li>   <li>Paper 149: Image Forensics of Compressed Image on Social Media with Lightweight Deep Learning A. Islami, H. Studiawan</li>   <li>- <b>Session 1B (Hall 2): Business Intelligence 1 (BI1)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81725792214">https://ajman-ac-ae.zoom.us/j/81725792214</a></li> <li>Chair: Prof. Ahmad Al-Taani</li> <li>Co-Chair: Ahmed Bilal Awan</li>   <li>Paper 139: DVD: Decentralized Verification of Diplomas in Smart Universities H. Saidi, N. Labraoui, S. Benfriha, Z. Houhamdi</li>   <li>Paper 203: Blockchain-Based Transparent and Secure System for Construction Equipment and Machinery Rental F. Zahra, M. Safdar, R. Ahmad, A. Khan</li>   <li>Paper 14: A Study on the Comparative Analysis of HCI Products Available in the Indian Market A. Manilal, M. Amarnath, T. S. Pratheesh, S. Akash</li> </ul>

# PROGRAM

Paper 187: Self-Service Business Intelligence Meeting User Needs in a Data-Rich World  
M. Durra, G. AlNaymat

Paper 164: Facebook Friendship Suggestion Model Based on Data Analysis and Visualization  
H. Khattab, A. AlShaikh

Paper 20: The Impact of Marketing Artificial Intelligence (MAI) Tools on the Customer Buying Decision: Jordan  
S. Khodeer, M. Al Shaikh

- **Session 1C (Hall 3): Natural Language Processing 1 (NLP1)**

- <https://ajman-ac-ae.zoom.us/j/89450148125>

Chair: Mustafa Al Fayoumi

Co-Chair: Mahmoud Al Shbool

Paper 132: Emotion Recognition from Twitter Comments Using Deep Learning  
K. Mahfouz, G. Al-Naymat

Paper 81: An Efficient Text Classification Technique Based on a Neural Network and Noise-Words Removal  
A. Ababneh, Y. Sanjalawe

Paper 222: AI-Based Feature Extraction and Cosine Similarity for Automation of Student Learning Assessment  
B. Wijanarko, B. Bachtiar, R. Hassan, D. Murad, R. Ihsan, Y. Heryadi, E. Kuncoro, E. Julianti

Paper 155: Commonsense Validation and Explanation in Arabic Text: A Comparative Study Using Arabic BERT Models  
M. Khaled, A. Al Sayadi, A. Elnagar

Paper 238: A Unified Conceptual Model Based on Business Artifacts for Information Systems  
M. Assaf, C. Fares, A. Rachini, Y. Badr, K. Barbar

Paper 45: Variational Autoencoder Frameworks in Generative AI Model  
A. Alesh

- **Session 1D (Hall 4): IT in Education (ITED 1)**

- <https://ajman-ac-ae.zoom.us/j/83123200773>

Chair: Mirna Nachouki

Co-Chair: Khaled Mahmoud

Paper 118: A Study on Transitioning from Campus Learning to Online Learning During the COVID-19 Pandemic from the Perspective of Faculty Members in Jordanian Private Universities  
S. Bani-Mohammad, I. Ababneh

Paper 17: Development of Educational Sciences Colleges in Jordanian Universities in the Light of Applications of Artificial Intelligence from the Point of View of Faculty Members: A Proposed Concept  
R. Al-Mawadieh, O. Abu-Ghalyoun, I. Al Tarawneh, H. Al-Masri, L. Fakhir, M. Al-Zu'bi

Paper 147: How the Recommendation System is Provided Based on Online Learning Readiness in the MOOC Environment  
D. Murad, M. Toha, H. Mayatopani, M. Dewi, R. Leandros, S. Murad, Y. Heryadi, B. Wijanarko

Paper 21: Examining the Impact of Software Engineering PBL on Student Performance: Review Paper of Unveiling the Academic Powerhouse  
R. Tawafak, A. Alsideiri, S. Malik, G. Alfarsi, B. Khudayer, R. AlBuraimi

Paper 179: The Integration of AI Applications in Psychological and Educational Counselling for University Students: Opportunities and Challenges  
K. Al-Mseidin, M. Al-Zu'bi, Reda Al-Mawadieh, A. Alelaimat

# The 24<sup>th</sup> International Arab Conference on Information Technology (ACIT 2023)

	<p>Paper 230: The Impact of Participation in the Innovation Nation Competition on the Education of Middle and High School Students D. Mustafa, S. Zriqat, I. Ghazi, Q. AlThebyan</p>
16:30 - 16:50	Coffee Break
16:50 - 18:20	<p>- <b>Session 2A (Hall 1): Engineering Applications (ENG1)</b> - <a href="https://ajman-ac-ae.zoom.us/j/81481340195">https://ajman-ac-ae.zoom.us/j/81481340195</a> Chair: Verica Gajic Co-Chair: Ahmed Imran</p> <p>Paper 29: Measures of Organizational Process Performance in the Capability Maturity Model Integration (CMMI) A. Al-Ghuwairi, D. Al-Fraihat, Y. Sharrab, A. Alsarhan</p> <p>Paper 119: Enforcing Social Distancing with YOLO Algorithm Utilizing Object-to-Object Distance M. Irsan, R. Hassan, T. Abdali, M. Ishak</p> <p>Paper 124: Energy Consumption Analysis of Elliptic Curve Cryptography Middleware Broker for MQTT Application in IoT Systems Z. Yusoff, M. Ishak, L. Rahim, S. Yusof, K. Ammar</p> <p>Paper 150: Enhancing Traffic Accident Severity Prediction Using Artificial Intelligence Techniques S. Hamdan, W. Awan, K. Ghuzlan</p> <p>Paper 178: Numerical Investigation of Si Nanowires Integrated Perovskite for Efficient Tandem Solar Cell R. El-Bashar, M. Hameed, H. Abdelhamid, J. Dai, S. Obayya</p> <p>Paper 112: A Mathematical Model for Specialized Capacitated Warehouses Location in Supply Chain Network Design T. Oshan</p> <p>- <b>Session 2B (Hall 2): Machine Learning and Applications 1 (MLA1)</b> - <a href="https://ajman-ac-ae.zoom.us/j/81725792214">https://ajman-ac-ae.zoom.us/j/81725792214</a> Chair: Elfadil Abdalla Co-Chair: Mujeeb Rahman</p> <p>Paper 25: Solving the Multiple Travelling Salesman Problem Using Gaussian Mixture Model and Artificial Neural Network A. Al-Taani, H. Majdalawi, A. Bsoul</p> <p>Paper 56: A Comparative Analysis of Discretization Techniques in Machine Learning R. Alazaidah</p> <p>Paper 57: Feature Selection in Associative Classification: A Review and Comparative Analysis R. Alazaidah, A. Alqerem, M. Qasem, A. Al-shaikh, N. Almilli, M. Injadat</p> <p>Paper 59: Towards Identifying the Best Base Classifier in Multi Label Classification: An Investigative Study M. Alzyoud, R. Alazaidah, H. Alzoubi, N. Al-shanableh, M. Aljaidi, S. Almatarneh</p> <p>Paper 200: Analyzing and Contrasting Machine Learning Algorithms for Intrusion Detection System S. Aldaja, A. Alyabrodi, M. AlMousa, A. Alqammaz, K. Olimat</p> <p>Paper 186: A Comparative Analysis of Federated and Centralized Machine Learning for Intrusion Detection in IoT M. Khan, R. Rais, O. Khalid, F. Khan</p>

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	<ul style="list-style-type: none"> <li>- <b>Session 2C (Hall 3): Learning Networks 1 (LN1)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/89450148125">https://ajman-ac-ae.zoom.us/j/89450148125</a> Chair: Feras Al Hawari Co-Chair: Raja Khan</li>   <li>Paper 48: Deep Learning: An Investigation on Fire and Fires Losses Detection Using YOLOv5 O. Alkhasawneh, K. Mahmoud</li>   <li>Paper 115: Paddy Diseases Multi-Class Classification Using CNN Variants D. Abdul Aziz, M. Yusoff, N. Ibrahim, R. Alazaidah</li>   <li>Paper 244: AI-Powered Network Intrusion Detection: A New Frontier in Cybersecurity A. Rachini, C. Fares, M. Assaf, B. Jamal, R. Khatoun</li>   <li>Paper 245: Details Extraction of Non-Standard License Plates Including Arabic and Indian Digits C. Fares, M. Assaf, A. Rachini, Y. Hamam</li>   <li>Paper 236: Plant Disease Classification Based on Deep Learning Models M. Al-Shalout, M. Elleuch, A. Douik</li>   <li>- <b>Session 2D (Hall 4): Artificial Intelligence in Law 1 (AIL1)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/83123200773">https://ajman-ac-ae.zoom.us/j/83123200773</a> Chair: Abdallah Qusef Co-Chair: Salam Fraihat</li>   <li>Paper 35: Robotics and AI Systems: Legal personality for AI System Under UAE Law and Islamic Jurisprudence S. Hussen, A. Al-Obeidi</li>   <li>Paper 44: The Legal Nature of Contracts Concluded by Artificial Intelligence According to the UAE Electronic Transactions and E-commerce Law No. (46) of 2021 A. Al-obeidi, S. Hussen</li>   <li>Paper 68: Guidelines to Develop AI Ethics Policy in Organizations Perspectives Informed from Two Different Countries Laws A. Ghandour, B. Woodford</li>   <li>Paper 221: WormGPT: A Large Language Model Chatbot for Criminals M. Firdhous, W. Elbreiki, I. Abdullahi, B. Sudantha, R. Budiarto</li>   <li>Paper 106: An Overview of the Trademark in the Metaverse Under UAE Law R. Madi, M. Mardini</li>   <li>Paper 172: The Impact of Artificial Intelligence in Achieving the Efficiency of Justice M. Kandeel, G. Elrefae</li> </ul>
16:50 - 18:30	CCIS General Committee Meeting

# The 24<sup>th</sup> International Arab Conference on Information Technology (ACIT 2023)

Thursday, December 7, 2023

9:30 - 10:30	<ul style="list-style-type: none"> <li>- Plenary 3 (Hall 1): The Impact of Generative AI, such as GPT, on Research, Education, and Society.</li> <li>- Prof. Thiab Taha, School of Computing, University of Georgia, USA</li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81481340195">https://ajman-ac-ae.zoom.us/j/81481340195</a></li> </ul>
10:30 – 11:00	Coffee Break
11:00 – 12:30	<ul style="list-style-type: none"> <li>- <b>Session 3A (Hall 1): Evolutionary Computation an Optimization 1 (ECO1)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81481340195">https://ajman-ac-ae.zoom.us/j/81481340195</a></li> <li>Chair: Mohamed Al Betar</li> <li>Co-Chair: Shahnorbanun Binti Sahran</li>   <li>Paper 233: Optimized Ensemble Model Towards Secured Industrial IoT Devices M. Injadat</li>   <li>Paper 88: Utilizing Optimization Techniques in Feature Selection for Effective Cardiovascular Disease Prediction A. Al Redhaei, W. Fares, M. Al-Betar,</li>   <li>Paper 229: Reinforcement Learning for Nash Noncooperative and Pareto Cooperative Optimal Linear Systems Z. Gajic, Z. Memon, A. Awan</li>   <li>Paper 197: Boosting Intrusion Detection with Brainstorm Optimization as Feature Selection N. Al-Milli</li>   <li>Paper 201: Enhancing the Performance of Sign Language Recognition Models Using Machine Learning A. Alyabrodi, S. Aldaja, M. Injadat, H. Awwad, Y. Al-Khassawneh</li> <li>- <b>Session 3B (Hall 2): Internet of Things and Networks 1 (IOTN 1)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81725792214">https://ajman-ac-ae.zoom.us/j/81725792214</a></li> <li>Chair: Qussai Yaseen</li> <li>Co-Chair: Mohamad Khairi Ishak</li>   <li>Paper 105: Identifying Weaknesses: A Guide to Conducting an Effective Network Vulnerability Assessment A. Dabit, Q. Al-Hajja, M. Al-Fayoumi</li>   <li>Paper 98: Latent Dirichlet Allocation for the Detection of Multi-Stage Attacks M. Lefoane, I. Ghafir, S. Kabir, I. Awan</li>   <li>Paper 123: Predictive Modeling for Smart Traffic Systems: Harnessing IoT Data Insights N. Mirza, A. Ali, N. Shifa, M. Ishak, K. Ammar, R. Hassan</li>   <li>Paper 62: Green Computing Awareness and Practices at the Libraries of Sultan Qaboos University in Oman S. Alhattali, M. Sayed</li>   <li>Paper 34: A Comprehensive Technical Analysis of URL Redirect Attacks: A Case Study of British Airways Data Breach M. Aljaidi</li>   <li>Paper 71: SMART Bins: The Next-Gen Segregation and Data-Relay Revolution H. Celestial, R. Luna, M. Navarette, R. Lat, F. Destreza</li> </ul>

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	<ul style="list-style-type: none"> <li>- <b>Session 3C (Hall 3): Health Informatics 1 (HI1)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/89450148125">https://ajman-ac-ae.zoom.us/j/89450148125</a></li> <li>Chair: Ammar Rashid</li> <li>Co-Chair: Fadi Jaber</li>   <li>Paper 220: Using Deep Learning to Predict Obesity and its Effect on Human Physiology M. Ali, R. Shabanh, S. Fraihat</li>   <li>Paper 136: Exploring the Potential of Deep Neural Networks with Gamma and Discrete Wavelet Transform in Breast Cancer Detection O. Fadhil, M. Omran, M. Kherallah, F. Kammoun</li>   <li>Paper 163: Explainable AI for Healthcare: An Approach Towards Interpretable Healthcare Models K. Zahoor, N. Bawany</li>   <li>Paper 90: Performance of Ensemble Learning Models for Non-Invasive Total Cholesterol Level Estimation S. Alghlayini, M. Al-Betar</li>   <li>Paper 188: Analyzing Hepatotoxicity of Marine Venoms Using Artificial Intelligence: An Ecoinformatics Perspective H. Wahsheh, M. Wahsha, T. Al-Najjar, M. Khalaf</li>   <li>Paper 60: Utilizing Machine Learning in Medical Diagnosis: Systematic Review and Empirical Analysis R. Alazaidah, M. Hassan, L. Al-Rbabah, G. Samara, M. Yusof</li>   <li>- <b>Session 3D (Hall 4): Distributed Systems 1 (DS1)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/83123200773">https://ajman-ac-ae.zoom.us/j/83123200773</a></li> <li>Chair: Atta ur Rehman Khan</li> <li>Co-Chair: Rosilah Binti Hassan</li>   <li>Paper 116: Comparative Analysis of Sequential and Parallel Computing for Object Detection Using Deep Learning Model F. Amsaad, S. Al-Eidi, O. Darwish</li>   <li>Paper 74: Cloud Computing Simulators: A Review Y. Sanjalawe, S. Al-e'mari</li>   <li>Paper 117: Impact of Virtual Hadoop Cluster Scalability on the Performance of Big Data MapReduce Applications F. Al-Hawari, K. Tayem, S. Alouneh, A. Al-Ksasbeh</li>   <li>Paper 109: DecStore: A Blockchain-Based File Storage System with Autoscaling O. Hammoud, I. Tarkhanov</li>   <li>Paper 193: Blockchain-Based System for End-to-End Donations Monitoring S. Mir, Y. Kalaji, R. Ahmed. A. Khan</li>   <li>Paper 190: Literature Review of IoT and Blockchain Technology in Agriculture F. Marzougui, M. Elleuch, M. Kherallah</li> </ul>
11:00 – 12:30	Steering Committee Meeting
12:30 - 13:30	Lunch Break
13:30 - 14:30	<ul style="list-style-type: none"> <li>Plenary 4 (Hall 1): BaseSAP: Beyond Stealth Addresses on Ethereum</li> <li>Speaker: Prof. Davor Svetinovic, Khalifa University, UAE, and WU Wien, Austria</li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81481340195">https://ajman-ac-ae.zoom.us/j/81481340195</a></li> </ul>

# The 24<sup>th</sup> International Arab Conference on Information Technology (ACIT 2023)

14:30 - 16:00	<ul style="list-style-type: none"> <li>- <b>Session 4A (Hall 1): IT in Education 2 (ITED2)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81481340195">https://ajman-ac-ae.zoom.us/j/81481340195</a></li> <li>Chair: Shafiz Mohd Yusof</li> <li>Co-Chair: Hassan Zidane</li>   <li>Paper 138: Predicting Student Grade Point Average: Comparison of Machine Learning Regression Algorithms E. Mohamed, M. Nachouki, M. Abou Naaj, R. Mehdi</li>   <li>Paper 75: Digital Transformation in Education: Discovering the Barriers that Prevent Teachers from Adopting Emerging Technologies S. Karroum, N. Elshaiekh</li>   <li>Paper 243: Examining Science Teachers: Integration of STEM and AI Through Mind Mapping S. Al Niyadi, E. Abulibdeh, A. Bouzenoun, K. Al-Tkhayneh</li>   <li>Paper 176: The Impact of iPad Applications on Learning Motivation Among Preschoolers in Jordan M. Al-Zubi, K. Al-Mseidin, R. Al-Mawadieh, A. Alawmareh</li>   <li>Paper 113: Genetic Algorithm-Based Approach for Predicting Student Academic Success R. Mehdi, M. Nachouki</li>   <li>Paper 235: A Deep Learning Approach Towards Student Performance Prediction in Online Courses: Challenges Based on a Global Perspective A. Moubayed, M. Injadat, Nouh Alhindawi, G. Samara, S. Abuasal, R. Alazaidah</li>   <li>- <b>Session 4B (Hall 2): Engineering Applications 2 (ENG2)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81725792214">https://ajman-ac-ae.zoom.us/j/81725792214</a></li> <li>Chair: Hamdy Hamed</li> <li>Co-Chair: Konstantinos Aidinis</li>   <li>Paper 126: Machine Learning for Optimal Control of a Hydrogen Gas Reformer Used in a PEM Fuel Cell V. Radisavljevic-Gajic</li>   <li>Paper 185: Studying Risks of Hybrid Reengineering on Air Transportation Systems Management: A Case Study on Jordanian Civil Aviation Regulatory Commission CARC M. Alrefai, M. Taani, A. Otoom, G. Samara, E. Hanandeh, H. Khafajeh</li>   <li>Paper 219: Software Verification of New Linear and Nonlinear Models of the Arterial System V. Radisavljevic-Gajic, J. Li</li>   <li>Paper 227: A Proposed Framework for User Cybersecurity Awareness A. Maqousi</li>   <li>Paper 165: Deep Learning for Violence Detection in Surveillance: The Role of Transfer Learning and Pre-Trained Models A. Ilyas, N. Bawany, S. Obaid</li>   <li>Paper 199: Solar-Powered Smart Bin: Revolutionizing Waste Classification for a Sustainable Future H. Hesham, Y. Alahmed, B. Wael, M. Saleh</li>   <li>- <b>Session 4C (Hall 3): Smart Cities 1 (SC1)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/89450148125">https://ajman-ac-ae.zoom.us/j/89450148125</a></li> <li>Chair: Zulfiqar Ali Memon</li> <li>Co-Chair: Yara Mohammad</li>   <li>Paper 173: Smart City Requirements to Achieve Safe Smart Transportation Systems in Saudi Arabia Y. Mohammad, M. Nachouki</li> </ul>
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	<p>Paper 146: Optimizing Garbage Collection Scheduling and Reporting with Truck Location Tracking Towards an Efficient Waste Management System D. Salac, R. Salac, B. Samonte</p> <p>Paper 131: Insider Threat Scenario Generation Model for Effective Anomaly Detection B. Alshehhi, H. Khelalfa, S. Yusof</p> <p>Paper: 191: Simulation of Exit Selection Behavior Evacuation Based on an Improved Cellular Automata Model During Fire Disaster O. Alidmat, U. Yusof, E. Alhenawi, H. Badarneh, R. Alazaidah, L. Al-Rbabah</p> <p>Paper 208: Digital Twin Metaverse and Smart Cities in a Race to the Future H. Zainab, N. Bawanay</p> <p>- <b>Session 4D (Hall 4): Internet of Things and Networks 2 (IOTN2)</b> - <a href="https://ajman-ac-ae.zoom.us/j/83123200773">https://ajman-ac-ae.zoom.us/j/83123200773</a> Chair: Rao Naveed Bin Rais Co-Chair: Khaled Ammar</p> <p>Paper 166: GoJejak: IoT-Based Object Tracker Application Using Wi-Fi and Bluetooth M. Ma'Som, R. Hassan, A. Inn, T. Abdali</p> <p>Paper 240: Blockchain Technology: The Future of Cybersecurity A. Imtiaz, D. Shehzad, H. Akbar, M. Afzaal, M. Zubair, F. Nasim</p> <p>Paper 217: Design and Implementation of a Jamming System for Smart Phone Using Cognitive Radio Network A.Farh, K. Bilal</p> <p>Paper 22: Navigating the Privacy and Cybersecurity Risks of Smart Homes F. Alghamdi, A. Alghamdi</p> <p>Paper 53: Embedded IoT Flowerpot Irrigation System A. Shaout, A. Mandhane, F. Zetina</p> <p>Paper 216: A Blockchain-Based Framework for Verifying Drug Authenticity S. Hamid, N. Bawany, K. Fatima</p>
16:00 - 16:30	Coffee Break
16:30 – 18:00	<p>- <b>Session 5A (Hall 1): Internet of Things and Networks 3 (IOTN3)</b> - <a href="https://ajman-ac-ae.zoom.us/j/81481340195">https://ajman-ac-ae.zoom.us/j/81481340195</a> Chair: Salam Fraihat Co-Chair: Qussai Yaseen</p> <p>Paper 50: Mitigating Distributed Denial of Service Attacks Through IP Spoofing Detection Y. Mohamed</p> <p>Paper 80: Design of a Smart and Green Industry 4.0 Architecture K. Hamdan, O. Kazar</p> <p>Paper 95: On Efficient Routing for SDN-Based Wireless Sensor Networks A. Tcherak, M. Khaoua, S. Loucif</p> <p>Paper 180: Optimizing Road Safety Through Intelligent Congestion Management G. Samara, G. Ghassan</p>

# The 24<sup>th</sup> International Arab Conference on Information Technology (ACIT 2023)

- **Session 5B (Hall 2): Engineering Applications 3 (ENG3)**

- <https://ajman-ac-ae.zoom.us/j/81725792214>

Chair: Khalid Ammar

Co-Chair: Khaled Ghuzlan

Paper 141: Electronic Waste Recognition and Classification Using YOLOv8 for ICT Sector  
S. Pulparambil, B. Ismail, H. Migdady, Y. Baghdadi, S. AlGhafri, A. AISakhbouri

Paper 30: Internal Hidden Processing Model-Based for SELECT Command in Structured Query Language  
H. Idhaim

Paper 225: A UAV-Assisted Multirobot Network for Surveillance and Tracking Applications: Design and Implementation  
A. Ali, M. AL Shboul, M. Deriche

Paper 89: A Novel Approach to a Generalized Classification of Autonomous UAVs  
A. Shaout, M. Zohdy, A. Shaout

Paper 226: IOT-Based Wireless Patient Monitor Using ESP32 Microcontroller  
M. Rahman, M. Khaleel

Paper 77: Analysis of Data Mining Techniques on KDD Cup99 NSL KDD and UNSW NB15 Datasets for Intrusion Detection  
A. Shehadeh, H. Al-tawil, A. Qusef

Paper 61: Assessing the Stress-Reducing Effects of Quranic Listening: An EEG-Based Classification Study  
M. Awad

- **Session 5C (Hall 3): Natural Language Processing 2 (NLP2)**

- <https://ajman-ac-ae.zoom.us/j/89450148125>

Chair: Mahmoud Al Shboul

Co-Chair: Rosilah Binti Hassan

Paper 91: A Machine Learning Model for Sentiment Classification of Mobile Products Data  
R. Baraka, Y. Jaber

Paper 111: Various Twitter Sentiment Analysis Topics Using Feature Reduction Method Based on Binary Gray Wolf Optimizer with S-Shape Transfer Function  
T. Al-Qablan, M. Noor, M. Al-Betar, A. Khader

Paper 231: Novel Deep Learning Multi-Modal Sentiment Analysis Model for English and Egyptian Arabic Dialect Using Audio and Text  
S. Alalem, M. Zaghloul, O. Badawy

Paper 122: Exploring the Relationship Between Arabic Letters Characteristics and their Dissonance  
M. AbuSafiya

Paper 211: Sentiment Analysis of Remote Worker Tweets During COVID-19  
N. Hussain, G. Al-Naymat

Paper 143: SSALEO Optimization Algorithm for Feature Selection for Diabetic Retinopathy  
M. Salem, B. Alijla  
Paper 247: Detecting

- **Session 5D (Hall 4): Image and Video Processing 3 (IVP3)**

- <https://ajman-ac-ae.zoom.us/j/83123200773>

Chair: Mohamed Deriche

Co-Chair: Shorouq Al Eidi

# PROGRAM

	<p>Paper 161: Fine-Tuning Pre-Trained Models for Automated Analysis of Ophthalmic Imaging in Diagnosing Eye Diseases M. Aljaidi</p> <p>Paper 110: Facial Expression Recognition Using Combined Feature and Convolutional Neural Networks P. Samal, M. Hashmi</p> <p>Paper 204: A Modified SAM-Based Skin Cancer Segmentation Pipeline: The SKIN-SA Model A. Al Muaitah, M. Deriche</p> <p>Paper 247: Detecting Deepfake Videos Dilemma Revisited: Finding Gaps and Shortcomings F.Kharbat, L. Badawi</p> <p>Paper 28: Concrete Crack Detection: Fuzzy Logic vs Neural Network A. Shaout, N. Png, Z. Li</p> <p>Paper 189: Combining CNNs for the Detection of Diabetic Retinopathy N. Khalid, M. Deriche</p>
19:00 - 22:00	Gala Dinner

**Friday, December 8, 2023**

10:30 – 9:00	<ul style="list-style-type: none"> <li>- <b>Session 6A (Hall 1): Engineering Applications 4 (ENG4)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81481340195">https://ajman-ac-ae.zoom.us/j/81481340195</a> Chair: Muhammad Umer Shah Co-Chair: Abdallah Qusef</li> </ul> <p>Paper 153: Optimizing Press-Glazing Production Line Efficiency Through Tile Aligner Fabrication G. Orna, L. Buenas, L. Balan, L. Abellana, L. Tolento, N. Montalbo</p> <p>Paper 85: Enhancing Quality Control Through the Design and Implementation of an Impact Tester Tool N. Montalbo, K. Luna, M. Rosa, V. Doctora, A. Atienza Jr.</p> <p>Paper 46: Automating Software Maintenance Using Machine Learning M. Dugar</p> <p>Paper 196: A Scalable DES-Based Hashing Algorithm S. Bhatti, K. Aamir, M. Deriche</p> <p>Paper 82: A Web-Based System for Enhanced Fishery Management and Monitoring with Analytics D. SALAC, R. SALAC, Froilan G. Destreza</p> <p>Paper 65: Computer Vision-Based Instance Segmentation and Data Augmentation for Construction Site Safety Compliance K. Dimaano, A. Alon</p> <ul style="list-style-type: none"> <li>- <b>Session 6B (Hall 2): Image and Video Processing 2 (IVP2)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/81725792214">https://ajman-ac-ae.zoom.us/j/81725792214</a> Chair: Ayman Tewfik Co-Chair: Maher Assad</li> </ul> <p>Paper 223: Polycystic Ovarian Syndrome Identification Through Self-Attention Guided Convolutional Neural Network S. Tiwari, P. Maheshwari</p> <p>Paper 152: NutriCam: A Real-Time Nutrition Facts Recognition System for Fruits and Vegetables Employing the Single Shot Detector Algorithm J. Penes, L. Buenas, L. Balan, M. Tenorio, M. Tirao, S. Garcia</p> <p>Paper 79: Brain Tumor Segmentation of MRI Images Based on K-Means and White Shark Optimizer M. Braik, H. Al-Hiary, M. Al-Betar</p> <p>Paper 125: Advancements in Dental Diagnostics: YOLOv3-Powered Machine Learning for Automated Teeth Problem Detection S. Odeh, N. Zreineh, A. Samara, S. Obeid, M. Ibrighieth, M. Obaid</p> <ul style="list-style-type: none"> <li>- <b>Session 6C (Hall 3): Business Intelligence 2 (BI2)</b></li> <li>- <a href="https://ajman-ac-ae.zoom.us/j/89450148125">https://ajman-ac-ae.zoom.us/j/89450148125</a> Chair: Ghazi AlNaymat Co-Chair: Elfadil Abdalla</li> </ul> <p>Paper 133: EKALAPALENGKE: A Calapan City Public Market E-Commerce Platform R. Ponce-Machete, J. Anonuevo, L. Arcon, A. Viñas, A. Paytaren</p> <p>Paper 194: Integrating Bibliometrics and Qualitative Content Analysis for Conducting a Literature Review A. Costa, E. Moresi, I. Pinho, M. Halaweh</p>
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# PROGRAM

	<p>Paper 108: Sales Analysis: Review and Recommendations on Business Intelligence S. Al Rumhi, J. Sivakumar</p> <p>Paper 246: The Platformisation of Divorce and Digital Marketing Strategies: An Investigative Study A. Daabes, E. Hussein</p> <p>Paper 184: Human Resource Management and AI: Does it Really Help? M. Al-Omari, M. Rahrouh, Y. Karsoo</p> <p>- <b>Session 6D (Hall 4): Machine Learning Applications 3 (MLA4)</b> - <a href="https://ajman-ac-ae.zoom.us/j/83123200773">https://ajman-ac-ae.zoom.us/j/83123200773</a> Chair: Riyadh Mehdi, Co-Chair: Abderahmane AL Guwairi</p> <p>Paper 140: Heartbeat Abnormality Detection in Phonocardiogram Signals Using Wavelet Time Scattering and Optimized KNN Classification S. Tiwari, P. Maheshwari</p> <p>Paper 101: Comparative Study of Encoding Formats for Digitized Ancient Arabic Manuscripts F. Brinis</p> <p>Paper 78: Optimizing Connection Weights in Neural Networks Using Ali Baba and the Forty Thieves Algorithm H. Al-Hiary, M. Braik, M. Al-Betar</p> <p>Paper 224: Decomposition-Based Parallel Multi-Objective Evolutionary Algorithm for Constrained Multi-Objective Optimization L. Belaiche, L. Kahloul, M. Grid, N. Abidallah, S. Benharzallah</p> <p>Paper 100: Novel Deep Learning Multi-Modal Sentiment Analysis for English and Egyptian Arabic Dialect Using Audio and Text S. Alalem, M. Zaghloul, O. Badawy</p> <p>Paper 154: Fusing AraBERT and Graph Neural Networks for Enhanced Arabic Text Classification O. Karajeh, M. Al-Kabi, E. Fox</p> <p>Paper 151: Optimizing Machine Downtime Reduction in the Squaring Process: A DMAIC Methodology Approach in Ceramics Manufacturing Industry J. Cornejo, M. Malipol, H. Imperial, C. Miguel, N. De Jesus</p>
11:30 – 10:30	Coffee Break and Closing Session
3:00 – 2:00	Lunch Break
Leaving at pm 3:00	Trip to the Global Village

**The 24<sup>th</sup> International Arab Conference  
on Information Technology (ACIT 2023)**

## SPEAKERS



**PROF. ABDULMOTALEB EL SADDIK**

Professor of Computer Vision,  
MBZAI, UAE and University of Waterloo, Canada



**PROF. HABIB ZAIDI**

Head of the PET Instrumentation & Neuroimaging  
Laboratory at Geneva University Hospital



**PROF. THIAB TAHA**

Head of the Computer Science Department  
at the University of Georgia



**PROF. DAVOR SVETINOVIC**

Associate Professor in Computer Science  
at Khalifa University





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