

# ICICS'22 TECHNICAL PROGRAM

The 13<sup>th</sup> International Conference on Information & Communication Systems

June 21<sup>st</sup> – 23<sup>rd</sup> 2022, Irbid, Jordan



## Tuesday, June 21<sup>st</sup>

8:30-9:30	Registration	
9:30-10:00	Conference Opening	
10:00-10:15	Break	
10:15-11:15	<p>Keynote Speech1:</p> <p><b>Chip-off Forensics: A multi-disciplinary approach</b></p> <p><i>Prof. Ameer Al-Nemrat</i></p> <p>Chair: Muhannad Quwaider</p>	
	<a href="#">MSTeams-Day1-Room1</a>	Al-Karamah Aud. Room-1
11:15-12:15	<p>Session 1: <b>Data Science and Big Data</b></p> <p>Chair: Rehab Duwairi</p>	
	<a href="#">MSTeams-Day1-Room1</a>	Al-Karamah Aud. Room-1
12:15-13:15	<p>Session 2: <b>Cloud and High-Performance Computing</b></p> <p>Chair: Alia Madain</p>	
	<a href="#">MSTeams-Day1-Room1</a>	Al-Karamah Aud. Room-1
13:30-14:15	Lunch: <b>JUST Restaurant</b>	
14:15-15:45	<p>Session 3: <b>Security, privacy, and digital forensics</b></p> <p>Chair: Ahmad Shatnawi</p>	

	<a href="#">MSTeams-Day1-Room1</a>		Al-Karamah Aud. Room-1
11:15-12:30		Session 4: <b>Internet of Things (1)</b> Chair: Muneer Bani Yasin	
	<a href="#">MSTeams-Day1-Room2</a>		Al-Karamah Aud. Room-2
12:30-13:30		Session 5: <b>Internet of Things (2)</b> Chair: Husam Qablan	
	<a href="#">MSTeams-Day1-Room2</a>		Al-Karamah Aud. Room-2
13:30-14:15		<b>Lunch: JUST Restaurant</b>	
14:15-15:45		Session 6: <b>Software and web Engineering</b> Chair: Lu'ay Alawneh	
	<a href="#">MSTeams-Day1-Room2</a>		Al-Karamah Aud. Room-2
11:15-12:30		Session 7: <b>Health Informatics (1)</b> Chair: Ahmad Alaiad	
	<a href="#">MSTeams-Day1-Room3</a>		Room3: A2122
12:30-13:30		Session 8: <b>Health Informatics (2)</b> Chair: Amer Al-Badarneh	
	<a href="#">MSTeams-Day1-Room3</a>		Room3: A2122
13:30-14:15		<b>Lunch: JUST Restaurant</b>	
14:15-15:15		Session 9: <b>Health Informatics (3)</b> Chair: Ziad Al-Sharif	
	<a href="#">MSTeams-Day1-Room3</a>		Room3: A2122
15:45-21:00		<b>@@@ Welcome Dinner -- Trip to Umm Qais @@@</b>	

## Wednesday, June 22<sup>nd</sup>

8:30-9:30	<p><b>Keynote Speech2:</b></p> <p><i>Evolving Deep Neural Networks with Cultural Algorithms for Real-Time Industrial Applications</i></p> <p><i>Prof. Robert Reynolds</i></p>
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	Chair: Mostafa Ali <a href="#">MSTeams-Room1</a>	Al-Karamah Aud. Room-1
9:30-10:30	Keynote Speech3: <i>Trustworthy autonomous vehicle</i> Prof. Mehrdad Dianati Chair: Omar Y. Al Jarrah <a href="#">MSTeams-Room1</a>	Al-Karamah Aud. Room-1
10:30-10:45	<b>Break</b>	
10:45-12:00	Session 1: <b>AI and Machine Learning (1)</b> Chair: Mostafa Ali <a href="#">MSTeams-Day2-Room1</a>	Al-Karamah Aud. Room-1
12:00-13:15	Session 2: <b>AI and Machine Learning (2)</b> Chair: Omar Alzoubi <a href="#">MSTeams-Day2-Room1</a>	Al-Karamah Aud. Room-1
13:15-14:00	<b>Lunch: JUST Restaurant</b>	
14:00-15:30	Session 3: <b>AI and Machine Learning (3) and Autonomous Vehicles</b> Chair: Omar Y. Al Jarrah <a href="#">MSTeams-Day2-Room1</a>	Al-Karamah Aud. Room-1
10:45-12:00	Session 4: <b>Natural Language Processing and Applications (1)</b> Chair: Malak Abdullah <a href="#">MSTeams-Day2-Room2</a>	Al-Karamah Aud. Room-2
12:00-13:15	Session 5: <b>Natural Language Processing and Applications (2)</b> Chair: Rasha Obeidat <a href="#">MSTeams-Day2-Room2</a>	Al-Karamah Aud. Room-2
13:15-14:00	<b>Lunch: JUST Restaurant</b>	
14:00-15:15	Session 6: <b>Information Systems, and Natural Language Processing (3)</b> Chair: Ahmad Mustafa <a href="#">MSTeams-Day2-Room2</a>	Al-Karamah Aud. Room-2
10:45-12:00	Session 7: <b>Communication Systems, Electronics and Signal Processing</b> Chair: Mahmoud Khodeir	

	<a href="#">MSTeams-Day2-Room3</a>	Room3: A2122
<b>12:00-13:15</b>	<p><b>Session 8: Communication Systems, Electronics and Signal Processing</b>                  Chair: Mamoun Al-Mistarihi</p> <p><a href="#">MSTeams-Day2-Room3</a></p>	Room3: A2122
<b>13:15-14:00</b>	<b><i>Lunch: JUST Restaurant</i></b>	
<b>15:30-21:00</b>	<b>@@@ Gala Dinner -- Trip to Jerash @@@</b>	

<b>Thursday, June 23<sup>rd</sup></b>	
<b>@@@ Trip to Petra and Aqaba for two days @@@</b>	

## Detailed Program

1 <sup>st</sup> DAY	Tuesday, June 21 <sup>st</sup>
8:30-9:30	Registration
9:30-10:00	Conference Opening
10:00-10:15	Break
10:15-11:15	<p><b>Keynote Speech1:</b></p> <p><b>Chip-off Forensics: A multi-disciplinary approach</b></p> <p><i>Prof. Ameer Al-Nemrat</i></p> <p><b>Chair: Muhannad Quwaider</b></p> <p style="text-align: right;"><b>Al-Karamah Aud. Room-1</b></p>
11:15-12:15	<p><b>Session 1: Data Science and Big Data</b></p> <p><b>Chair: Rehab Duwairi</b></p> <p style="text-align: right;"><b>Al-Karamah Aud. Room-1</b></p>
11:15-11:30	<p><b>46:</b> Arabic Documents Clustering using Bond Energy Algorithm and Genetic Algorithm  <b>Hadeel Alazzam*, Orieb Abualghanam, Abdulsalam Alsmady and Esra'A Alhenawi</b></p>
11:30-11:45	<p><b>64:</b> DD-SSD: Deep Detector for Strip Steel Defects  <b>Sayel Abualigah, Ahmad Al-Naimi and Rehab Duwairi*</b></p>
11:45-12:00	<p><b>68:</b> Detection and Classification of Diabetic Retinopathy Using Artificial Intelligence Algorithms  <b>Dania Rahhal, Rahaf Alhamouri, Iman Albataineh and Rehab Duwairi*</b></p>
12:00-12:15	<p><b>132:</b> The Impact of Combining Arabic Sarcasm Detection Datasets on the Performance of the ArabicBERT-based Model  <b>Rasha Obeidat*, Amjad Bashayreh and Lojin Bani Younis</b></p>
12:15-13:15	<p><b>Session 2: Cloud and High-Performance Computing</b></p> <p><b>Chair: Alia Madain</b></p> <p style="text-align: right;"><b>Al-Karamah Aud. Room-1</b></p>
12:15-12:30	<p><b>73:</b> A Dynamic Scheduling Algorithm with Time Varying Resource Constraints in Colocation Data Centers  <b>Weiguan Li*, Jialun Li and Weigang Wu</b></p>
12:30-12:45	<p><b>111:</b> Data-Aware Resource Allocation of Linear Pipeline Applications in a Distributed Environment  <b>Georgios L. Stavrinos and Helen D. Karatza</b></p>

12:45-13:00	<b>125:</b> Adaptive Micro-service based Cloud Monitoring and Resource Orchestration <b>Tariq Daradkeh* and Anjali Agarwal</b>
13:00-13:15	<b>151:</b> Yet Efficient Study for Evaluating the Quality of Service of Cloud Gaming Systems <b>Heba Nammass* and Muhannad Quwaider</b>
<b>13:30-14:15</b>	<b>Lunch: JUST Restaurant</b>
<b>14:15-15:45</b>	<b>Session 3: Security, privacy, and digital forensics</b> Chair: Ahmad Shatnawi <b>AI-Karamah Aud. Room-1</b>
14:15-14:30	<b>66:</b> Security Policy to Manage Responses to DDoS Attacks on 5G IoT Enabled Devices <b>Daniel Onoja*, Michael Hitchens and Rajan Shankaran</b>
14:30-14:45	<b>67:</b> Android Malware Detection Using Machine Learning <b>Ayat Droos*, Awss Al-Mahadeen, Tasnim Al-Harasis, Rama Al-Attar and Mohammad Ababneh</b>
14:45-15:00	<b>89:</b> Modeling and Simulation of IoT Botnet Behaviors Using DEVS <b>Ghena Barakat, Basheer Al-Duwairi*, Moath Jarrah and Manar Jaradat</b>
15:00-15:15	<b>95:</b> Cyber Security Awareness, Knowledge and Behavior in the Banking Sector in Jordan <b>Sabreen Abulhaija*, Shyma Hattab and Abdallah Qusef</b>
15:15-15:30	<b>130:</b> Process based container escape monitoring and resource isolation scheme <b>Kehe Wu, Dan Yang*, Xue Gao, Wen Yang, Mingyan Li and Dong Wang</b>
15:30-15:45	<b>135:</b> A High-Speed FPGA Implementation of AES for Large Scale Embedded Systems and its Applications <b>Salah Harb*, M. Omair Ahmad and M.N.S. Swamy</b>
<b>11:15-12:30</b>	<b>Session 4: Internet of Things (1)</b> Chair: Muneer Bani Yasin <b>AI-Karamah Aud. Room-2</b>
11:15-11:30	<b>26:</b> Input multimodal Interactions for IoT Environments: smartphones instead of intermediate equipment <b>Fadia Nouna Bousba</b>
11:30-11:45	<b>99:</b> Secure Smart Lock System Utilizing the MQTT Protocol <b>Adnan Shaout*, Nidhi Shah and Sneka Dhandapani</b>
11:45-12:00	<b>108:</b> IoT Governance : A state of the Art and A Comparative analysis <b>Anass Sedrati, Abdellatif Mezrioui and Aafaf Ouaddah*</b>
12:00-12:15	<b>145:</b> A Combination of Dynamic IoT Load Balancing and ISMDA Architecture using Sharing Data <b>Ayk Al-Shamri* and Muhannad Quwaider</b>
12:15-12:30	<b>149:</b> Performance analysis of RPL objective functions in a Medium spars Network <b>Noor Abu Ennab, Muneer Bani Yassein* and Omar Alzoubi</b>
<b>12:30-13:30</b>	<b>Session 5: Internet of Things (2)</b> Chair: Husam Qablan <b>AI-Karamah Aud. Room-2</b>

12:30-12:45	<b>114:</b> A scheduling algorithm for Adaptive C-RAN Architecture <b>Ala Samarneh and Abdallah Almaaitah*</b>
12:45-13:00	<b>116:</b> An Inter/Intra Slice Handover Scheme for Mobility Management in 5G Network <b>Suhaib Aljbour and Abdallah Almaaitah*</b>
13:00-13:15	<b>154:</b> Transmission Power Control using Vital Signs Data Prediction in Wireless Body Area Networks <b>Amira Al-Samawi* and Muhannad Quwaider</b>
13:15-13:30	<b>155:</b> Context-aware Trust Metrics for non critical IoT Applications: an Intrinsic Data Quality approach <b>Nabil Abdennadher* and Tewfiq El Maliki</b>
<b>13:30-14:15</b>	<b>Lunch: JUST Restaurant</b>
<b>14:15-15:45</b>	<b>Session 6: Software and web Engineering</b> Chair: Lu'ay Alawneh <b>AI-Karamah Aud. Room-2</b>
14:15-14:30	<b>2:</b> Automatically Generated Feature Model from Requirements: Toward an Enhanced Formalism <b>Tasneem Yousef, Enas Nafar, Said Ghoul* and Lamis Qoran</b>
14:30-14:45	<b>79:</b> Preparing HTTP Traffic for Process Mining <b>Hamza Alkofahi*, David Umphress and Heba Alawneh</b>
14:45-15:00	<b>84:</b> Project Management Effort Estimation Using Agile Manager game platform <b>Yahya Tashtoush*, Wesam Doulat, Sajeda Banat, Nour Alkhdour, Dirar Darweesh and Omar Darwish</b>
15:00-15:15	<b>101:</b> Software Package Testability Prediction Using Object-Oriented Cohesion Metrics <b>Waleed Albattah</b>
15:15-15:30	<b>143:</b> The Use of SCRUM Methodology for Final Year Undergraduate Project During Corona Pandemic <b>Hamed Fawareh, Mohammed Alrefai and Eman Alqbelat*</b>
15:30-15:45	<b>162:</b> DevOps Culture in Software Development Companies in Jordan <b>Ameena Fiefil, Luay Alawneh* and Firas Albalas</b>
<b>11:15-12:30</b>	<b>Session 7: Health Informatics (1)</b> Chair: Ahmad Alaiad <b>Room3: A2122</b>
11:15-11:30	<b>31:</b> Poverty and Cancer Disproportion in Low-Income Countries <b>Dalia Alzu'Bi*, Amer Al-Badarneh and Suhaib Irshaidat</b>
11:30-11:45	<b>47:</b> Intelligent Covid-19 Vaccine Supplychain Management System <b>Qasem Makki*, Yazan Abdelgani, Hussein Ali and Shadi Alzu'Bi</b>
11:45-12:00	<b>56:</b> ROBUST WATERMARKING METHOD TO SECURE MEDICAL IMAGES APPLIED TO EHEALTH <b>Daham Abderrahmane* and Ouslim Mohamed</b>
12:00-12:15	<b>78:</b> A Cross-sectional Study to Investigate Healthcare Professional Willingness to Adopt Point-of-Care Documentation System in Developing Countries <b>Rahaf Alhamouri, Dania Rahhal, Sara Shatnawi, Romaisa Alqaran, Safaa Alyasin and Amal Alzu'Bi*</b>
12:15-12:30	<b>87:</b> Using Machine Learning Approaches to Distinguish COVID-19 from Other Upper Respiratory Tract infections

	<b>Dania Rahhal, Rahaf Alhamouri and Ahmad Mustafa*</b>	
<b>12:30-13:30</b>	<b>Session 8: Health Informatics (2)</b> Chair: <b>Amer Al-Badarneh</b>	
	<b>Room3: A2122</b>	
12:30-12:45	<b>91:</b> Cancer in Jordan: Post-Hoc Comparative Analysis <b>Sara Shatnawi, Esra'A Odat, Maram Thiabat and Aya Amer Al-Badarneh*</b>	
12:45-13:00	<b>98:</b> Analytical and Predictive Model for the impact of social distancing on COVID-19 pandemic <b>Sonam Sharma, Izzat Alsmadi, Rami Alkhaldeh and Bilal Al-Ahmad*</b>	
13:00-13:15	<b>100:</b> Equivalence of Fasting and Non-Fasting Blood Glucose Readings at the Palm and Fingertip Sites <b>Hamza Abu Owida*, Jamal Al-Nabulsi and Arwa Al Khatib</b>	
13:15-13:30	<b>110:</b> Automatic Detection of Adverse Drug Reactions from Online Health Forums <b>Anwar Ali Yahya and Yousef Asiri*</b>	
<b>13:30-14:15</b>	<b>Lunch: JUST Restaurant</b>	
<b>14:15-15:15</b>	<b>Session 9: Health Informatics (3)</b> Chair: <b>Ziad Al-Sharif</b>	
	<b>Room3: A2122</b>	
14:15-14:30	<b>127:</b> Smart Assistive Spoon for people with Parkinson's Disease <b>Muhammad Al-Ayyad*, Hamza Abu Owida, Amani Al-Ghraibah and Mustafa Rashied Abdullah</b>	
14:30-14:45	<b>142:</b> Machine Learning for Alzheimer's Disease Detection Based on Neuroimaging techniques: A Review <b>Maha Gharaibeh*, Mwaffaq El-Heis, Mothanna Almahmoud, Sayel Abualigah and Omar Elayan</b>	
14:45-15:00	<b>152:</b> Design of Uninterrupted Oxygen Supply for Field Hospital in Jordan <b>Muhammad Al-Ayyad*, Hamza Abu Owida, Jamal Al-Nabulsi, Feras Alnaimat and Mazen Alrasheed</b>	
15:00-15:15	<b>163:</b> The Epidemiology of Cancer in Jordan with Comparison to the GCC Countries <b>Baraa Ahmed, Asma Alnashash, Noor Al-Badarneh* and Mohammad Alradaideh</b>	
<b>15:45-21:00</b>	<b>@@@ Welcome Dinner -- Trip to Umm Qais @@@</b>	



2 <sup>nd</sup> DAY	Wednesday, June 22 <sup>nd</sup>	
Page - 9 - of 12  <b>8:30-9:30</b>	<p style="text-align: center;"><b>Keynote Speech2:</b>  <i>Evolving Deep Neural Networks with Cultural Algorithms for Real-Time Industrial Applications</i>            Prof. Robert Reynolds  <b>Chair: Mostafa Ali</b></p> <p style="text-align: right;"><b>Al-Karamah Aud. Room-1</b></p>	
<b>9:30-10:30</b>	<p style="text-align: center;"><b>Keynote Speech3:</b>  <i>Trustworthy autonomous vehicle</i>            Prof. Mehrdad Dianati  <b>Chair: Omar Y. Al Jarrah</b></p> <p style="text-align: right;"><b>Al-Karamah Aud. Room-1</b></p>	
<b>10:30-10:45</b>	<b>Break</b>	
<b>10:45-12:00</b>	<p style="text-align: center;"><b>Session 1: AI and Machine Learning (1)</b>            Chair: Mostafa Ali</p> <p style="text-align: right;"><b>Al-Karamah Aud. Room-1</b></p>	
10:45-11:00	<b>51:</b> Myoelectric Signal Classification Using Convolutional Neural Networks with Pre-Extracted Features <b>Gabriel Cirac, Tales Pimenta*, Robson Luiz Moreno and Joao Paulo Leite</b>	
11:00-11:15	<b>53:</b> End-to-End Machine Learning Solution for Recognizing Handwritten Arabic Documents <b>Reem Shtaiwi*, Gheith Abandah and Safaa Sawalhah</b>	
11:15-11:30	<b>54:</b> An Efficient Classification of Emotions in Students' Feedback using Deep Neural Network <b>Muhammad Zubair Asghar, Asad Masood Khattak*, Nouman Khan, Muhammad Mansoor Alam, Adidah Lajis, Mohd Khairil Rahmat and Haidawati Mohamad Nasir</b>	
11:30-11:45	<b>57:</b> Comparison Study Of Deep-Learning Architectures For Classification of Thoracic Pathology <b>Nada Al Zahrani*, Hedjar Ramdane</b>	
11:45-12:00	<b>65:</b> Using Machine Learning to Predict Drug-Related Problems for Diabetes Patients <b>Qasem Al-Radaideh*, Fatima Smadi, Sayer Al-Azzam, Emad Al-Shawakfa and Areje Smadi</b>	
<b>12:00-13:15</b>	<p style="text-align: center;"><b>Session 2: AI and Machine Learning (2)</b>            Chair: Omar Alzoubi</p> <p style="text-align: right;"><b>Al-Karamah Aud. Room-1</b></p>	
12:00-12:15	<b>69:</b> Voice-Based Human Identification using Machine Learning <b>Baha Alsaify*, Hadeel Abu Arja, Baskal Maayah, Masa Al-Taweel, Rami Alazrai and Mohammad Daoud</b>	

12:15-12:30	<b>72:</b> Intelligent WSN Localization using Multi-Linear Regression and a Mobile Anchor Node <b>Tuqa Bani Yaseen and Fahed Awad*</b>
12:30-12:45	<b>82:</b> The Application of Deep Learning Techniques for Solar Power Forecasting <b>Tamer Al-Jaafreh and Abdullah Al-Odienat*</b>
12:45-13:00	<b>86:</b> Analysis of Jordanian University Students Problems Using Data Mining System <b>Manal Bani Issa, Omar Darwish, Doaa Habeeb Allah, Farah Shatnawi, Dirar Darweesh and Yahya Tashtoush*</b>
13:00-13:15	<b>107:</b> Arabic Sign Language Recognition Using Deep Learning Models <b>Muhammad Al-Barham*, Ahmad Abu Sa'Aleek, Mohammad Al-Odat, Ghada Hamad, Musa Al-Yaman and Ashraf Elnagar</b>
<b>13:15-14:00</b>	<b>Lunch: JUST Restaurant</b>
<b>14:00-15:30</b>	<b>Session 3: AI and Machine Learning (3)</b> Chair: Omar Y. Al Jarrah <b>AI-Karamah Aud. Room-1</b>
14:00-14:15	<b>121:</b> Increasing Accuracy of Random Forest Algorithm by Decreasing Variance <b>Somaya Alshare*, Malak Abdullah and Muhannad Quwaider</b>
14:15-14:30	<b>122:</b> Toward Predicting Patient's Satisfacation of Indoor Environmental Quality in Jordanian Hospitals using SVM and K-NN Machine Learning Algorithms <b>Musab Wedyan, Hikmet Ali and Malak Abdullah*</b>
14:30-14:45	<b>124:</b> Diagnosing COVID-19 in Chest X-ray Images based on Deep Learning: Transfer Learning versus Deep Features Extraction <b>Mohammad Daoud, Wajdi Elmuhtadi, Mohammad Faidi, Yara Alrahaheh, Samir Abdel-Rahman, Aamer Al-Ali, Baha A. Alsaify* and Rami Alazrai</b>
14:45-15:00	<b>129:</b> Stuttering Detection Using Atrous Convolutional Neural Networks <b>Abedal-Kareem Al-Banna*, Eran Edirisinghe and Hui Fang</b>
15:00-15:15	<b>137:</b> Should Course-based At-risk Predication Models Include Protected Features? <b>Moohanad Jawthari* and Veronika Stoffa</b>
15:15-15:30	<b>161:</b> A Novel Ensemble Strategy with Enhanced Cross Attention Encoder-Decoder Framework for Tumor Segmentation in Whole Slide Images <b>Heba Abdel-Nabi*, Arafat Awajan and Mostafa Ali</b>
<b>10:45-12:00</b>	<b>Session 4: Natural Language Processing and Applications (1)</b> Chair: Malak Abdullah <b>AI-Karamah Aud. Room-2</b>
10:45-11:00	<b>17:</b> GOS: A Genetic OverSampling algorithm for classification of Quranic verses <b>Bassam Arkok and Akram Zeki*</b>
11:00-11:15	<b>58:</b> Transformer-Based Deep Learning Models for Sarcasm Detection with an Imbalanced Dataset: Resampling Twchniques with Downsampling and Augmentation <b>Malak Abdullah*, Jumana Khrais and Safa Swedat</b>
11:15-11:30	<b>59:</b> Detecting Propaganda Techniques in English News Articles using Pre-trained Transformers <b>Malak Abdullah*, Ola Al-Titi and Rasha Obeidat</b>

11:30-11:45	<b>97:</b> Pronoun Replacement Approach for Enhancing Arabic Text Summarization <b>Aya Migdady, Lara Alsmadi and Ahmad Mustafa*</b>
11:45-12:00	<b>105:</b> Spans Detection of Toxic Phrases in Arabic Tweets <b>Azzam Radman, Mohammed Atros and Rehab Duwairi*</b>
<b>12:00-13:15</b>	<b>Session 5: Natural Language Processing and Applications (2)</b> Chair: <b>Rasha Obeidat</b> <b>AI-Karamah Aud. Room-2</b>
12:00-12:15	<b>131:</b> Sentiment Analysis of COVID-19 Vaccination Responses From Twitter Using Ensemble Learning <b>Qusai Ismail, Rasha Obeidat*, Kefah Alissa and Eslam Al-Sobh</b>
12:15-12:30	<b>133:</b> A Survey on Textual Entailment: Benchmarks, Approaches and Applications <b>Yara Alharahseheh, Rasha Obeidat*, Mahmoud Al-Ayyoub and Maram Gharaibeh</b>
12:30-12:45	<b>134:</b> Datasets and Approaches of COVID-19 Misinformation Detection: A Survey <b>Maram Gharaiebh, Rasha Obeidat*, Malak Abdullah and Yara Alharahasheh</b>
12:45-13:00	<b>136:</b> FluSa-Tweet: A Benchmark Dataset for Influenza Detection in Saudi Arabia <b>Rawabe Al-Jamaan*, Mourad Ykhlef and Abdulrahman Alothaim</b>
13:00-13:15	<b>138:</b> Detecting COVID-19 Implication on Education and Economic in Arab World Using Sentiment Analysis Techniques of Twitter Data <b>Omar Alzoubi*, Farah Shatnawi, Saif Rawashdeh, Ismail Hmeidi and Muneer Bani Yassein</b>
<b>13:15-14:00</b>	<b>Lunch: JUST Restaurant</b>
<b>14:00-15:15</b>	<b>Session 6: Information Systems, Natural Language Processing (3) and Autonomous Vehicles</b> Chair: <b>Ahmad Mustafa</b> <b>AI-Karamah Aud. Room-2</b>
14:00-14:15	<b>44:</b> Visualization of Accidents Data in the United States <b>Sayel Abualigah, Emran Aljawarneh, Faris Ayoub and Amer Al-Badarneh*</b>
14:15-14:30	<b>63:</b> Distance Learning Transition at the University of Michigan during a COVID-19 Pandemic: Challenges and Solutions <b>Amal Alhosban* and Rana Amoush</b>
14:30-14:45	<b>148:</b> Electrocardiogram Classification Problem Solving using Deep Learning Algorithms <b>Anwaar Gharaibeh* and Muhannad Quwaider</b>
14:45-15:00	<b>147:</b> Using Deep Learning for Positive Reviews Prediction in Explainable Recommendation Systems <b>Hafad Zarzour, Mohammad Alsmirat and Yaser Jararweh*</b>
15:00-15:15	<b>159:</b> Sarcasm Detection in Arabic Short Text using Deep Learning <b>Wafa Al-Jamal*, Ahmad Mustafa and Mostafa Ali</b>
15:15-15:30	<b>77:</b> Comparison Study of Traffic Signs Recognition Using Deep Learning Architectures <b>Khaldaa Alawaji* and Ramdane Hedjar</b>
<b>10:45-12:00</b>	<b>Session 7: Communication Systems, Electronics and Signal Processing (1)</b> Chair: <b>Mahmoud Khodeir</b>

	<b>Room3: A2122</b>
10:45-11:00	<b>55:</b> Round Opportunistic Fair Wireless Downlink Scheduling with Performance Guarantees <b>Mohammad Banat* and Razan Shatnawi</b>
11:00-11:15	<b>61:</b> Denoising Semi-simulated EEG Signal Contaminated Ocular noise using Various Wavelet Filters <b>Syarifah Noor Syakiylla Sayed Daud, Rubita Sudirman*, Nasrul Humaimi Mahmood and Camallil Omar</b>
11:15-11:30	<b>85:</b> Suppressing the Antenna Pattern at Interferer Signals using a Smart Antenna System <b>Mohamed Omar</b>
11:30-11:45	<b>104:</b> On Secrecy Performance in Underlay Cognitive Radio Networks with EH and TAS over $\alpha$ - $\mu$ channel <b>Mahmoud Khodeir* and Saja Alquran</b>
11:45-12:00	<b>112:</b> A Two-Step Method for Multi-GNSS Positioning <b>Yunlong Teng, Shuocheng Yuan* and Zhi Zheng</b>
<b>12:00-13:15</b>	<b>Session 8: Communication Systems, Electronics and Signal Processing (2)</b> Chair: <b>Mamoun Al-Mistarihi</b> <b>Room3: A2122</b>
12:00-12:15	<b>113:</b> Comparative Analysis of TCP Congestion Control Methods <b>Ahmad Abadleh*, Aya Tareef, Alaa Btoush, Alaa Mahadeen, Maram Al-Mjali, Sager S. Alja'afreh and Anas Ali Alkasasbeh</b>
12:15-12:30	<b>140:</b> Modeling and Analysis of Full Duplex Wireless Systems with Interference <b>Georgino Baltazar and Jose Brito*</b>
12:30-12:45	<b>144:</b> Retro-VLP: Towards Single Light Source-based Real-time Indoor Positioning <b>Mahmoud Nazzal*, Ahmed Sawalmeh, Sihua Shao, Muhammad Anan, Abdallah Khreishah and Ali Alanazi</b>
12:45-13:00	<b>156:</b> Outage Probability and Network Throughput Analysis of Femtocells in 5G Heterogeneous Networks <b>Areen Abidrabbu and Mamoun Al-Mistarihi*</b>
13:00-13:15	<b>160:</b> Physical-Layer Security in Underlay Cognitive Radio System with Full-Duplex Secondary User over Nakagami-m Fading Channel <b>Mahmoud Khodeir* and Wesam Alrayhaneh</b>
<b>13:15-14:00</b>	<b>Lunch: JUST Restaurant</b>
<b>15:30-21:00</b>	<b>@@@ Gala Dinner -- Trip to Jerash @@@</b>
<b>June 23<sup>rd</sup> to 25<sup>th</sup></b>	
<b>@@@ Trip to Petra and Aqaba for two days @@@</b>	