



13th International Conference on Innovations in Information Technology (IEEE IIT'18)
November 18-19, 2018, Al Ain, UAE



Program at a Glance

Day 1: Sunday, November 18, 2018	
Time	Program
09:00 – 12:15 13:45 – 17:00	Students' Poster Session, <i>Exhibition hall: G023</i>
08:00 – 16:00	Registration
Morning	
08:00 – 09:30	Welcome & Light Breakfast
09:30 – 10:00	Opening Ceremony, <i>Auditorium: G020</i>
10:00 – 11:00	Keynote I: AI, Blockchain and Edge Computing for Smart Cities and Smart Grids. Juan Manuel Corchado , Director - European IoT Digital Innovation Hub & Director - BISITE Research Group, University of Salamanca, Salamanca, Spain <i>Auditorium: G020</i>
11:00 – 11:15	Coffee break
11:15 – 12:15	Keynote II: Machine Learning as a Catalyst for Precision Health Prof. Osmar Zaiane , Director - Alberta Machine Intelligence Institute, Computer Science, University of Alberta. <i>Auditorium: G020</i>
12:30 – 13:30	Lunch
Afternoon	
13:30 – 15:15	Tutorial I: Boosting Visual Object Tracking Using Deep Features Dr. Fahad Khan , Lead Scientist at Inception Institute of Artificial Intelligence UAE, <i>Room: 1028</i>
13:30 – 15:15	Paper Session D1S1: Recent Trends in Security , <i>Room: 1027</i>
15:15 – 15:30	Coffee break
15:30 – 17:15	Paper Session D1S2: IOT Systems & Frameworks , <i>Room: 1028</i> Paper Session D1S3: Big Data and Cloud , <i>Room: 1027</i>
20:00 – 22:00	Gala Dinner, Al Ain Palace Museum





13th International Conference on Innovations in Information Technology (IEEE IIT'18)
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Day 2: Monday, November 19, 2018

Time	Program
08:00 – 12:00	Registration
Morning	
08:00 – 08:30	Light Breakfast
08:30 – 09:30	Keynote III: Blockchains: Opportunities and Limitations Prof. Abdelhakim Hafid , Director - Network Research Lab, Research Fellow, CIRRELT, University of Montreal, Montreal, Canada <i>Auditorium: G020</i>
09:30 – 11:15	Tutorial II: Demystifying Geo.AI Dr. Adel Bolbol Fernandez , PhD in Geoinformatics Business Development Manager Advanced Analytics, Esri <i>Room: 1028</i>
09:30 – 11:15	Paper Session D2S1: Machine Learning Applications , <i>Room: 1027</i>
11:15 – 11:30	Coffee break
11:30 – 13:00	Paper Session D2S2: Security Applications & Analysis , <i>Room: 1027</i> Paper Session D2S3: IOT Applications , <i>Room: 1028</i>
13:15 – 14:30	Lunch
Afternoon	
14:30 – 16:00	Paper Session D2S4: Blockchain & Cryptography , <i>Room: 1027</i> Paper Session D2S5: Machine Learning Reviews , <i>Room: 1028</i>





Technical Program

Day 1: Sunday, November 18th 2018

Opening Ceremony: 9:30 - 10:00
Auditorium: G020

Keynote I: AI, Blockchain and Edge Computing for Smart Cities and Smart Grids
Presenter: Juan Manuel Corchado, Director - European IoT Digital Innovation Hub & Director - BISITE Research Group, University of Salamanca, Salamanca, Spain
Time: 10:00 - 11:00
Room: **Auditorium: G020**

Keynote II: Machine Learning as a Catalyst for Precision Health
Presenter: Prof. Osmar Zaiane, Director - Alberta Machine Intelligence, Computer Science, University of Alberta, Canada
Time: 11:15 - 12:15
Room: **Auditorium: G020**

Poster Session

Time: 09:00 - 12:15, 13:45 - 17:00
Room: **Exhibition Hall: G023**

Tutorial I: Boosting Visual Object Tracking Using Deep Features
Presenter: Dr. Fahad Khan, Lead Scientist at Inception Institute of Artificial Intelligence, UAE
Time: 13:30 - 15:15
Room: **1028**





D1S1: Recent Trends in Security

Session Chair: Dr. Yousef Al Hammadi (UAE University, United Arab Emirates)

Time: 13:30 – 15:15

Room: 1027

<i>Extending steganography payload capacity using the $L^*a^*b^*$ color space</i>	Mohamad Baziyad and Tamer Rabie (University of Sharjah, United Arab Emirates); Ibrahim Kamel (University of Sharjah & Concordia University, United Arab Emirates)
<i>Highly Secured Implantable Medical Devices</i>	Emad Hamadaqa (TU Braunschweig, Germany); Ahmad Abadleh (Mutah University, Jordan); Ayoub Mars (Technische Universität Braunschweig & Institut für Datentechnik und Kommunikationsnetze, Germany); Wael Adi (Technical University of Braunschweig, Germany)
<i>Voronoi-based Secure kNN Queries over Spatial Data at the Cloud</i>	Eva Habeeb Allah (University of Sharjah, United Arab Emirates); Ibrahim Kamel (University of Sharjah & Concordia University, United Arab Emirates); Ayesha M. Talha and Zaher Al Aghbari (University of Sharjah, United Arab Emirates)
<i>Clone-Resistant Entities for Vehicular Security</i>	Ayoub Mars (Technische Universität Braunschweig & Institut für Datentechnik und Kommunikationsnetze, Germany); Wael Adi (Technical University of Braunschweig, Germany)
<i>Detection of Offensive Messages in Arabic Social Media Communications</i>	Djedjiga Mouheb, Rutana Ismail, Shaheen Al Qaraghuli and Zaher Al Aghbari (University of Sharjah, United Arab Emirates); Ibrahim Kamel (University of Sharjah & Concordia University, United Arab Emirates)

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D1S2: IOT Systems & Frameworks

Session Chair: Dr. Saad Harous (UAE University, United Arab Emirates)

Time: 15:30 – 17:15

Room: 1028

<i>Proposals on IoT Communication through MQTT over L2 Network and their Performance Evaluation</i>	Yuya Sasaki, Tetsuya Yokotani and Hiroaki Mukai (Kanazawa Institute of Technology, Japan)
<i>An Affordable System for Remotely Monitoring Water Quality in Residential Water Tanks</i>	Walid Ibrahim (UAU, United Arab Emirates)
<i>A Framework for a Cooperative UAV-UGV System for Path Discovery and Planning</i>	Abderrahmane Lakas, Boumediene Belkhouche, Omar Benkraouda, Amin Shuaib and Hussain Alasmawi (UAE University, United Arab Emirates)
<i>Integrating MOOC with Open Source Moodle: The New Direction of Learning at Sultan Qaboos University</i>	Zuhoor Al-Khanjari and Iman Al-Kindi (Sultan Qaboos University, Oman)
<i>Improved Power Control Approach for Better Data Throughput in CubeSat Nanosatellites</i>	Fedeyya Almansoori, Prashanth Marpu and Zeyar Aung (Khalifa University of Science and Technology, United Arab Emirates)

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D1S3: Big Data and Cloud

Session Chair: Dr. M. Adel Serhani (UAE University, United Arab Emirates)

Time: 15:30 – 17:15

Room: 1027

<i>Migrating from SQL to NOSQL Database: Practices and Analysis</i>	Mamoun Awad (UAEU, United Arab Emirates); Fatima Yassin (UAE University, United Arab Emirates)
<i>STIDes Revisited - Tackling Global Time Shifts and Scaling</i>	Marc Haßler, André Pomp, Christian Kohlschein and Tobias Meisen (RWTH Aachen University, Germany)
<i>Big Data Quality Assessment Model for Unstructured Data</i>	Ikbal Taleb (Concordia University, Canada); Mohamed Adel Serhani (UAE University, United Arab Emirates); Rachida Dssouli (Concordia University, Canada)
<i>Cloud Automation to Run Large-Scale Quantum Chemical Simulations</i>	Khaled Salah (Khalifa University of Science, Technology and Research (KUSTAR), United Arab Emirates); Ahmed Bentiba (University of Sharjah, United Arab Emirates); Nasser Alrayhi and Nayla El-Kork (Khalifa University, United Arab Emirates); Muhammad Ajmal Azad (Newcastle University & School of Computing, United Kingdom (Great Britain)); Zouheir Trabelsi (UAE University, United Arab Emirates)

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Gala Dinner: 20:00 – 22:00
Al Ain Palace Museum





Day 2: Monday, November 19th 2018

Keynote III: Blockchains: Opportunities and Limitations

Presenter: Prof. Abdelhakim Hafid, Director - Network Research Lab, Research Fellow, CIRRELT, University of Montreal, Montreal, Canada

Time: 08:30 – 09:30

Room: Auditorium: G020

Tutorial II: Demystifying Geo.AI

Presenter: Dr. Adel Bolbol Fernandez, PhD in GeoInformatics Business Development Manager | Advanced Analytics, Esri, UAE

Time: 09:30 - 11:15

Room: 1028

D2S1: Machine Learning Applications

Session Chair: Dr. Hany Alashwal (UAE University, United Arab Emirates)

Time: 09:30 – 11:15

Room: 1027

Dynamic Area Search with Shared Memory: A Meta-Framework to Improve Pathfinding Algorithms

Obada Al Zoubi (University of Oklahoma & Laureate Institute for Brain Research, USA); Mariette Awad (AUB, Lebanon)

Towards a Machine Learning Approach for Detecting Click Fraud in Mobile Advertising

Mariette Awad (AUB, Lebanon); Riwa Mouawi, Ali Chehab, Imad H Elhadj and Ayman Kayssi (American University of Beirut, Lebanon)

Predicting Employee Attrition using Machine Learning

Sarah S. Alduayj (University of Birmingham, United Kingdom (Great Britain) & Saudi Aramco, Saudi Arabia); Kashif Rajpoot (University of Birmingham, United Kingdom (Great Britain))





<i>Preemptive Diagnosis of Chronic Kidney Disease Using Machine Learning Techniques</i>	Reem A Alassaf, Khawla A Alsulaim, Noura Y Alroomi, Nouf S Alsharif and Mishael F Aljubeir (Imam Abdulrahman Bin Faisal University, Saudi Arabia); Sunday Olusanya Olatunji (Imam Abdulrahman Bin Faisal University, Dammam, Kingdom of Saudi Arabia, Saudi Arabia); Alaa Alahmadi, Mohammed Imran, Rahma Alzahrani and Nora AlturayEIF (Imam Abdulrahman Bin Faisal University, Saudi Arabia)
<i>A Reusable Software Architecture for Personalized Learning Systems</i>	Heba Ismail (UAE University, United Arab Emirates); Boumediene Belkhouche (UAE University, United Arab Emirates)

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D2S2: Security Applications & Analysis

Session Chair: Dr. Huwida E Said (Zayed University, United Arab Emirates)

Time: 11:30 – 13:00

Room: 1027

<i>How Terrorist Groups Use Social Networking Media to Attract and Recruit New Members</i>	Saad Abdullah Alsaleh, R (Hail Health Directory, Saudi Ministry of Health, Saudi Arabia)
<i>Defense Analysis Against Store and Forward Distributed Reflective Denial of Service Attacks</i>	Mohammad Fraiwan, Fida'a Al-Quran and Basheer N. Al-Duwairi (Jordan University of Science and Technology, Jordan)
<i>IoT Applications: From Mobile Agents to Microservices Architecture</i>	Tasneem Salah, M. Jamal Zemerly, Chan Yeun, Mahmoud Al-Qutayri and Yousof Al-Hammadi (Khalifa University, United Arab Emirates)
<i>Trust-Based Data Controller For Personal Information Management</i>	Upul Jayasinghe, Gyu Myoung Lee and Aine MacDermott (Liverpool John Moores University, United Kingdom (Great Britain))





D2S3: IOT Applications

Session Chair: Dr. Abderrahmane Lakas (UAE University, United Arab Emirates)

Time: 11:30 – 13:00

Room: 1028

<i>Effect on Detection and False Alarm Probabilities For Various Amplitude Modulation Techniques</i>	Muhammad Fahad Nasir and Ahmad Ali (Bahria University, Islamabad, Pakistan); Wasib Javed (Bahria University, Islamabad, Pakistan); Asim Shah and Junaid Imtiaz (Bahria University Islamabad, Pakistan)
<i>Building Scalable Mobile Edge Computing by Enhancing Quality of Services</i>	Mayank Tiwary (SAP Labs Bangalore, India); Shanya Sharma and Pritish Mishra (SAP Labs, India); Hesham Elsayed (UAE University, United Arab Emirates); Mukesh Prasad and Deepak Puthal (University of Technology Sydney, Australia)
<i>Navigation and Reading Assisting Wearable for Visually Impaired</i>	Lochana Fernando (Sri Lanka Institute of Information Technology, Sri Lanka); Pradeepa Samarasinghe (SLIIT, Sri Lanka); Shalini Rupasinghe, Sanduni Fernando, Ishani Dolawatta and Nadeeka Athukorala (Sri Lanka Institute of Information Technology, Sri Lanka)
<i>Distributed Rate and Congestion Control hybrid scheme for VANETs</i>	Mustapha Taleb (University of Constantine 2 Abdelhamid Mehri, Algeria); Salah Merniz (University of Constantine, Algeria); Saad Harous (UAE University, United Arab Emirates)

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D2S4: Blockchain & Cryptography

Session Chair: Dr. Ezedin Barka (UAE University, United Arab Emirates)

Time: 14:30 – 16:00

Room: 1027

<p><i>Blockchain-based Ownership Management for Medical IoT (MIoT) Devices</i></p>	<p>Khaled Salah (Khalifa University of Science, Technology and Research (KUSTAR), United Arab Emirates); Mansoor Albloushi (Khalifa University, United Arab Emirates); Yousof Al-Hammadi (Khalifa University of Science Technology and Research, United Arab Emirates)</p>
<p><i>Blockchain for UAE Organizations: Insights from CIOs with Opportunities and Challenges</i></p>	<p>May Al Taei (Zayed University, United Arab Emirates); Nedaa Al Barghuthi (Higher Colleges of Technology & HCT, United Arab Emirates); Qusay Mahmoud (University of Ontario Institute of Technology, Canada); Sonia Al Barghuthi (Ministry of Finanace, United Arab Emirates); Huwida E Said (Zayed University, United Arab Emirates)</p>
<p><i>Analysis of Pipelined KATAN Ciphers under Handle-C for FPGAs</i></p>	<p>Palwasha Shaikh (American University of Kuwait & IEEE, Kuwait); Issam W. Damaj (American University of Kuwait, Kuwait)</p>

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D2S5: Machine Learning Reviews

Session Chair: Dr. Amir Ahmad (UAEU, United Arab Emirates)

Time: 14:30 – 16:00

Room: 1028

<i>Automatic Detection of Airline Ticket Price and Demand: A review</i>	Juhar Abedlla (College of IT, UAEU, United Arab Emirates); Khaled Shuaib and Nazar Zaki (UAE University, United Arab Emirates)
<i>Detecting Social Bots on Twitter: A Literature Review</i>	Eiman Alothali (UAE University, United Arab Emirates); Nazar Zaki (UAE University, United Arab Emirates); Elfadil Mohammed (Al Ain University of Science and Technology, United Arab Emirates); Hany Alashwal (UAE University, United Arab Emirates)
<i>Correlation Analysis of Popularity and Interoperability in Open Source Projects</i>	Fatima Al Shamsi (Khalifa University, United Arab Emirates); Sarah Bamatraf, SARAH (Masdar, United Arab Emirates); Talal Rahwan (Masdar Institute of Science and Technology, United Arab Emirates); Zeyar Aung and Davor Svetinovic (Khalifa University of Science and Technology, United Arab Emirates)
<i>A comparative analysis of evolutionary algorithms for the prediction of software change</i>	Loveleen Kaur (Thapar Institute of Engineering and Technology); Ashutosh Mishra (Thapar University, India)

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