

# EMCIS

16<sup>th</sup> European, Mediterranean & Middle Eastern Conference on  
Information Systems (**EMCIS2019**)  
Dubai, UAE 09-10 December, 2019



## Conference Handbook

16<sup>th</sup> European, Mediterranean & Middle Eastern Conference on Information Systems 2019

December 09-10 2019  
The British University in Dubai, UAE

[www.emcis.eu](http://www.emcis.eu)



# Welcome

Welcome to Dubai, United Arab Emirates, home of the 16th European Mediterranean & Middle Eastern Conference on Information Systems (EMCIS). The British University in Dubai and University of Nicosia organize this edition in association with the Dubai Blockchain Center.

European, Mediterranean and Middle Eastern Conference on Information Systems is an annual research event addressing the IS discipline with regional as well as global perspective. EMCIS has successfully helped bringing together researchers from around the world in a friendly atmosphere conducted to free exchange of innovative ideas. EMCIS is one of the premier conferences in Europe and Middle Eastern region for Information Systems academics and professionals, covering technical, organizational, business and social issues in the application of Information Technology. EMCIS is dedicated to the definition and establishment of Information Systems as a discipline of high impact for the methodical community and IS professionals – focusing on approaches that facilitate the identification of innovative research of significant relevance to the IS discipline following sound research methodologies that lead to results of measurable impact.

Three distinguished keynote speakers are presenting their work at EMCIS this year. Our first keynote speaker is Dr. Khalid Al Marri, Dean of Research and Associate Professor of Project Management at the Business and Law department of the British University in Dubai. Our second keynote speaker is Dr. Marwan Alzarouni, founder and chief executive officer of Dubai Blockchain Center and director of information services at Dubai Electronic Security Center. Our third Mr. Alexis Nicolaou is the CEO at Block.co and managing director of Distributed Ledger Technology services (DLT) at Grant Thornton (Cyprus).

To this end, we would like to thank our three keynote speakers, as well as the track chairs, the reviewers and the volunteers for their help. Last but not least, we would like to thank our sponsors for their valuable contribution. We hope you enjoy your stay in Dubai for attending EMCIS!

The Conference Co-Chairs

Maria Papadaki, Marinos Themistocleous and Muhammad Mustafa Kamal

# EMCIS ORGANISATION

## **Conference Foundation Chair:**

Prof. Zahir Irani, University of Bradford, UK

## **Conference Chairs:**

Dr. Maria Papadaki, The British University in Dubai, UAE

Prof. Marinos Themistocleous, University of Nicosia, Cyprus

Dr. Muhammad Mustafa Kamal, Coventry University, UK

## **Conference Executive Committee:**

Prof. Vincenzo Morabito, Bocconi University, Italy (Program Chair)

Prof. Paulo da Cunha, Coimbra University, Portugal (Program Chair)

Dr. Gianluigi Viscusi, École Polytechnique fédérale de Lausanne (EPFL), Switzerland (Publications Chair)

Prof. Soulla Louca, University of Nicosia, Cyprus (Public Relations Chair)

# Keynote Speakers



Khalid Al Marri

## **Dean of Research and Associate Professor of Project Management at the Business and Law department of the British university in Dubai**

Dr Khalid is proclaimed for setting high standard of accomplishment by holding the first PhD award in Project Management in the region. Dr Khalid has an undergraduate degree in Civil Engineering from the University of Arizona and master's degree in Engineering Management from the Catholic University of America. Following which he commenced his engineering career in 1996 in the Dubai Municipality and has been in the government services in the Sewerage & Irrigation Department and the Roads Department as Head in the Roads Construction Section.

Dr Khalid holds the credential of having produced, through a doctoral program, the first framework for developing projects through public private partnerships (PPP) in the UAE. This framework is the first to lay the foundations for a standardized PPP practice in the UAE for practitioners. It highlights the most important factors for the success of PPP projects, such as value for money, risk sharing and allocation, renegotiations, and the roles of the public and private parties.

Dr Khalid is also credited for developing a framework for establishing a nuclear research reactor project in the UAE through the utilization of public private partnerships, which was one of the first frameworks for PPPs in research reactor projects in the world and followed strict safeguards and required full awareness of nuclear safety, security & control of nuclear materials handling

## **Founder & Chief Executive Officer Dubai Blockchain Center**

Dr. Alzarouni is not only the CEO of Dubai Blockchain center but also the Director of Information Services at Dubai Electronic Security Center. He founded the region's first innovation hub for blockchain technology. The center was inaugurated by His Highness Sheikh Mohammed bin Rashid Al Maktoum Vice President and Prime Minister of the UAE and Ruler of Dubai on the 15th of May 2018 and is encompassed within Area 2071 in Emirates Towers.

The center aims to bring together blockchain thought leaders, developers, investors, and educators. It is a place to engage with the blockchain community. The center therefore continuously hosts blockchain related courses, events, meet-ups and hackathons.

Before establishing the blockchain center, Marwan was an early crypto investor that started Bitcoin mining in the early 2013. He also created Dubai's first crypto payment processing and blockchain software development company in January 2014. In February 2018 he launched OTC Supply DMCC, the region's first fully licensed over-the-counter crypto commodity trading entity. His latest venture is Co-Founding Quanterium, a technology solutions provider focusing on providing social impact solutions for organ and blood donation based on technologies such as blockchain, artificial intelligence, IoT and genomics.



Marwan Alzarouni

# Keynote Speakers



Alexis Nicolaou

**CEO Block.Co | Board Member | Director Distributed Ledger Technologies at Grant Thornton Blockchain**

Alexis Nicolaou is a professional with over 25 years' experience in C-suite positions in Accountancy, Finance, Electronic Banking, Electronic Banking Software, Media and Electronic Content Production industries. He is currently the Managing Director of Blockco Ltd, a spin-off company from the University of Nicosia, commercializing Blockchain Technology in relation to Credentialing Applications. He also serves on the board of Directors of Grant Thornton Cyprus' Distributed Ledger Technologies business unit. Alexis is a Fellow member of the ICAEW and has a BA (Hons) degree from the University of Nottingham in Industrial Economics and Accountancy. He also holds a MSc degree from the University of Nicosia in Digital Currencies and Blockchain Technology.



# EMCIS Conference Programme

**Monday 9<sup>th</sup> December, 2019**

07:30	Bus pickup from hotels to Conference venue	
08:30 - 09:00	Conference Registration (Block 11 1 <sup>st</sup> Floor)	
09:00 - 09:10	Opening & Welcome	
09:10 - 09:30	Keynote Speech 1 - Research and Innovation - Khalid Al Marri (Block 11, 1 <sup>st</sup> Floor)	
09:30 - 11:30	<p><b>(Block 11, 1<sup>st</sup> Floor, Room 2)</b>  <b>TRACK: Innovative Research Projects</b>  <b>SESSION CHAIR: Marinos Themistocleous</b></p>	<p><b>(Block 11, 1<sup>st</sup> Floor, Room 3)</b>  <b>TRACK: Management and Organisational Issues in Information Systems</b>  <b>SESSION CHAIR: Maria Papadaki</b></p>
09:30	<p><b>“Monitoring the gait process during the rehabilitation of patients using computer vision techniques and UWB technology”</b>  <i>Krzysztof Hanzel, Damian Grzechca, Adam Ziębiński, Dariusz Komorowski, Sebastian Pokuciński, Kamil Klonowski</i></p>	<p><b>“An Online Platform for ‘Black Swan’ Event Management n the Hospitality Industry”</b>  <i>Angelika Kokkinaki, Andreas Kleanthous, Fotini Zioga, Chrisostomi Maria Kirillou</i></p>
09:50	<p><b>“Innovation and competitiveness of universities – an empirical research”</b>  <i>Zornitsa Yordanova, Vasil Bozev, Borislava Stoimenova, Petia Biolcheva</i></p>	<p><b>“Digital Services for Industry 4.0: Assessing Collaborative Technology Readiness”</b>  <i>Asia Ramzan, Sonia Cisneros Cabrera,3Nikolay Mehandjiev, Pedro Sampaio, Nikolay Kazantsev</i></p>
10:10	<p><b>“Application of Automated Trust Verification and Delegation Mechanisms in PEPPOL eProcurement Network”</b>  <i>Konstantinos Douloudis, Maria Siapera, Gerasimos Dimitriou, Andriana Préntza</i></p>	<p><b>“Energy management based on Internet of Things ”</b>  <i>Maryam Alsaeedi, Basel Ali, Allam Hamdan</i></p>
10:30	<p><b>“The Impact of Innovative Technology on the Aviation Industry and on Customers Preference”</b>  <i>Mukhtar Al-Hashimi, AHMED FUAD</i></p>	<p><b>“The Effect of E-Commerce on Financial Performance Measured by Return on Asset and Tobin’s Q of Jordanian Service Companies”</b>  <i>Fayez Albadri, Sana Maswadeh</i></p>

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10:50	<p><b>“E-learning improves accounting education: Case of the higher education sector of Bahrain”</b> <i>Abdalmuttaleb Al-Sartawi</i></p>	<p><b>“Evaluating the Utility of Human-Machine User Interfaces Using Balanced Score Cards”</b> <i>Saulo Silva, Orlando Belo</i></p>
11:10	<p><b>“A Distributed Marketplace”</b> <i>Evgenia Kapassa, Marios Touloupou, Dimosthenis Kyriazis, Marinos Themistocleous, Klitos Christodoulou</i></p>	<p><b>“Adoption of Digital Technology in Corporate R&amp;D Context”</b> <i>Chao Li, Nikolay Mehandjiev, Andrew James, Azar Shahgholian</i></p>
11:30 - 12:00	<b>COFFEE BREAK (Block 11, 1<sup>st</sup> Floor, Room 1)</b>	
12:00 - 13:00	<p><b>(Block 11, 1<sup>st</sup> Floor, Room 2)</b> <b>TRACK: Blockchain Technology and Applications</b> <b>SESSION CHAIR: Marinos Themistocleous</b></p>	<p><b>(Block 11, 1<sup>st</sup> Floor, Room 3)</b> <b>TRACK: Cloud Computing</b> <b>SESSION CHAIR: Khalid Shaalan</b></p>
12:00	<p><b>“Towards a Better Understanding of the Value of Blockchains in Supply Chain Management”</b> <i>Michael Lustenberger, Florian Spychiger, Sasa Malesevic</i></p>	<p><b>“The Effect of Cloud Computing on Organizational Flexibility”</b> <i>Nasser Azzam Al-Sabbagh</i></p>
12:20	<p><b>“Cryptocurrency Usage Impact on Perceived Benefits and Users' Behaviour”</b> <i>Omar Alqaryouti, Nur Siyam, Khaled Shaalan</i></p>	<p><b>“Test Recommendation for Service Validation in 5G Networks”</b> <i>Marios Touloupou, Evgenia Kapassa, Dimosthenis Kyriazis, Maria Papadaki, Klitos Christodoulou</i></p>
12:40	<p><b>“Users' Knowledge and Motivation on Using Cryptocurrency”</b> <i>Nur Siyam, Omar Alqaryouti, Khaled Shaalan</i></p>	<p><b>“Modelling 5G cloud-native applications by exploiting the service mesh paradigm”</b> <i>Chrysostomos Symvoulidis, Ilias Tsoumas, Dimosthenis Kyriazis, Panagiotis Gouvas, Anastasios Zafeiropoulos, Javier Melian, Janez Sterle</i></p>



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Monday 9<sup>th</sup> December, 2019

13:45 - 14:30	<b>Keynote Speech 2 - Blockchain in Dubai - Marwan Alzarouni (Block 11, 1<sup>st</sup> Floor)</b>	
14:30 - 14:45	<b>COFFEE BREAK (Block 11, 1<sup>st</sup> Floor, Room 1)</b>	
14:45 - 16:15	<b>(Block 11, 1<sup>st</sup> Floor, Room 2)</b> <b>TRACK: e-Government</b> <b>SESSION CHAIR: Cornelius Nube</b>	<b>(Block 11, 1<sup>st</sup> Floor, Room 3)</b> <b>TRACK: Healthcare Information Systems</b> <b>SESSION CHAIR: Piotr Soja</b>
14:45	<b>“Smart Cities and Citizen Orientation: the Growing Importance of “Smart People” in Developing Modern Cities”</b>  <i>Mariusz Luterek, Mariusz Luterek</i>	<b>“Assessing Digital Support for Smoking Cessation”</b>  <i>Alessio De Santo, Adrian Holzer</i>
15:10	<b>“Employing the Once-Only Principle in the domain of the electronic public procurement”</b>  <i>Maria Siapera, Konstantinos Douloudis, Gerasimos Dimitriou, Andriana Prentza</i>	<b>“Medical Mobile Applications (e-Health) And the Acceptance of The Electronic Medical Record Systems (EMRS) Among Physicians in Bahrain”</b>  <i>Mishleen Aqleh, Mukhtar Al-Hashimi</i>
15:35	<b>“Embracing Modern Technologies and Urban Development Trends: Initial Evaluation of a Smart City Enterprise Architecture Frameworks”</b>  <i>Hong Guo, Sobah Abbas Petersen, Shang Gao, Jingyue Li, Anthony Junior Bokolo</i>	<b>“The Case for mHealth Standardization for Electronic Health Records in the German Healthcare System”</b>  <i>Max-Marcel Theilig, Johannes Werner, Florian Schoffke, Rüdiger Zarnekow</i>
15:55	<b>“Digital Transformation in the Public Sector: Identifying Success Factors”</b>  <i>Gideon Mekonnen Jonathan</i>	<b>“An experimental comparison of Machine Learning Classification Algorithms for Breast Cancer Diagnosis”</b>  <i>Michael Filippakis, Markos Kaklamanis, Marios Touloupou, Klitos Christodoulou</i>
16:15 - 22:00	<b>GALA DINNER - DESERT SAFARI &amp; RETURN TO HOTELS</b>	

# EMCIS Conference Programme

Tuesday 10<sup>th</sup> December, 2019

08:30	Bus pickup from hotels to Conference venue		
08:30 - 09:30	Registration		
09:30 - 10:00	Keynote Speech 3 - Blockchain Vs Fraud: The Certification Case - Alexis Nicolaou (Block 11, 1 <sup>st</sup> Floor, Room 1)		
10:00 - 10:30	COFFEE BREAK (Block 11, 1 <sup>st</sup> Floor, Room 1)		
10:30 - 12:30	(Block 11, 1 <sup>st</sup> Floor, Room 2) TRACK: IT Governance SESSION CHAIR: Nikolay Mehandjiev		(Block 11, 1 <sup>st</sup> Floor, Room 3) TRACK: Big Data and Analytics SESSION CHAIR: Marios Touloupou
10:30	“Organisational Structure’s Influence on IT Alignment: The Case of a Public Organisation” <i>Gideon Mekonnen Jonathan, Lazar Rusu, Erik Perjons</i>		“Taking Complexity into Account: A Structured Literature Review on Multi-Component Systems in the Context of Predictive Maintenance” <i>Milot Gashi, Stefan Thalmann</i>
10:50	“The impact of knowledge sharing and innovation performance on the organization – moderating by innovation awards” <i>Amal Alhassani, Khalid Almarri</i>		“Smiling Earth - Raising Citizens' Awareness on Environmental Sustainability” <i>Sobah Abbas Petersen, Peter Ahcin, Petersen Idar</i>
11:10	“Barriers in Business-IT Alignment in the Banking Sector in a Developing Country: A Case Study of Commercial Banks in The Gambia” <i>Ebrima Jobarteh, Neha Agrawal, Lazar Rusu</i>		“An overview of the usefulness of Knowledge and Human Development Authority in Dubai (KHDA) open data on Dubai pulse platform for academic researchers.” <i>Hani AlGhanem</i>
11:30	“The Impact of Cognitive Process Types on the Success of Exploratory Projects” <i>Nahed Aldhaheri, Khalid Almarri</i>		“An Agile Data Modelling Method for Big Data Warehouses” <i>Marta Nogueira, João Galvão, Maribel Santos</i>

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11:50	<p><b>“Factors for Successful IT Outsourcing Relationships in Large Companies in Sweden: A Service Buyer’s Perspective”</b>  <i>Georg Hodosi, Alexander Stark, Eric van Beers, Lazar Rusu</i></p>		<p><b>“An Immersive Web Visualization Platform for a Big Data Context in Bosch’s Industry 4.0 Movement”</b>  <i>João Rebelo, Carina Andrade, Carlos Costa, Maribel Santos</i></p>
12:10	<p><b>“Web-Based Financial Disclosures by using machine learning analysis: Evidence from Bahrain”</b>  <i>Adel Sarea, Suresh Subramanian</i></p>		<p><b>“Exploring Machine Learning Models to Predict Harmonized System Code”</b>  <i>Fatma Altaheri, Khaled Shaalan</i></p>
12:30 - 13:30	<b>LUNCH BREAK (Block 11, 1<sup>st</sup> Floor)</b>		
13:30 - 15:30	<p><b>(Block 11, 1<sup>st</sup> Floor, Room 2)</b>  <b>TRACK: Digital Services</b>  <b>SESSION CHAIR: Anton Mafreda</b></p>		<p><b>(Block 11, 1<sup>st</sup> Floor, Room 3)</b>  <b>TRACK: Management and Organisational Issues in Information Systems</b>  <b>SESSION CHAIR: Maria Papadaki</b></p>
13:30	<p><b>“A Theory of Practice-Based Exploration on Electric Mobility as a Service in Smart Cities”</b>  <i>Bokolo Anthony Junior, Sobah Abbas Petersen</i></p>		<p><b>“Facilitating ICT Adoption for Older Workers: Lessons Learned from Enterprise System Practitioners”</b>  <i>Tarik Kraljic, Adnan Kraljic</i></p>
13:50	<p><b>“Smart City adoption: An interplay of constructive and adverse factors”</b>  <i>Anton Manfreda</i></p>		<p><b>“ERP Implementation: Requirements Engineering for ERP Product Customization”</b>  <i>Claude Liu, Nikolay Mehandjiev</i></p>
14:10	<p><b>“Towards an Integrated Theoretical Model for Assessing Mobile Banking Acceptance among Consumers in Low Income African Economies”</b>  <i>Josue Kuika Watat, Micheline Madina</i></p>		<p><b>“The Effect of Big Data Analytics Capability on Firm Performance: A Pilot Study in China”</b>  <i>Claude Liu, Nikolay Mehandjiev</i></p>

# EMCIS Conference Programme

Tuesday 10<sup>th</sup> December, 2019

14:30	<p><b>"Internet addiction among employees in Bahrain"</b> <i>Mukhtar Al-Hashimi</i></p>	<p><b>"Conceptualising IT Project Portfolio Management in terms of Organisational State-Transition Approach"</b> <i>Hamed Sarbazhosseini</i></p>
14:50	<p><b>"Readiness to e-learn while sharing knowledge inspires imagination"</b> <i>Anjum Razzaque</i></p>	<p><b>"Mission Statement Content and Financial Performance: Evaluating Digital Business Strategy"</b> <i>Fotis Kitsios, Timoleon Delimpasis, Maria Kamariotou</i></p>
15:10	<p><b>"Supervised Machine Learning Approach for Subjectivity/Objectivity Classification of Social data"</b> <i>Chiha Rim, Ben Ayed Mounir</i></p>	<p><b>"IS Research Theoretical Foundation: Theories Used and the Future Path"</b> <i>Nastaran Hajiheydari, Mohammad Soltani Delgosha, Mojtaba Talafidaryani</i></p>
15:30 - 16:00	<b>COFFEE BREAK</b>	
16:00 - 17:30	<p><b>(Block 11, 1<sup>st</sup> Floor, Room 2)</b> <b>TRACK: Enterprise Systems</b> <b>SESSION CHAIR: Piotr Soja</b></p>	<p><b>(Block 11, 1<sup>st</sup> Floor, Room 3)</b> <b>TRACK: Information Systems Security</b> <b>SESSION CHAIR: Cornelius Nube</b></p>
16:00	<p><b>"Agile Software Engineering Practices in ERP implementation"</b> <i>Adnan Kraljic, Tarik Kraljic</i></p>	<p><b>"Trust Management model based on Mutual Evaluation method for the Social Internet of Things"</b> <i>Magdich Rim</i></p>
16:25	<p><b>"Process Chunks Selection in the context of Loose Inter-Organization Cooperation in Cloud Computing"</b> <i>Yosra Lassoued, Selmin Nurcan, Faiez Gargouri</i></p>	<p><b>"A Model for Describing and Maximising Security Knowledge Sharing to Enhance Security Awareness"</b> <i>Saad Alahmari, Karen Renaud, Inah Omoronyia</i></p>

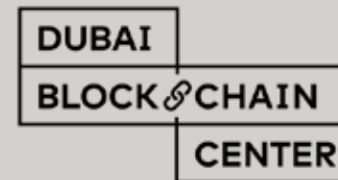
# EMCIS Conference Programme

Tuesday 10<sup>th</sup> December, 2019

Directions from Conference Venue to Gala Venue

16:50	<p><b>"The Role of Gender in Supporting Active and Healthy Ageing by ICT Solutions: Learning from Latvian, Polish and Swedish Older Adults"</b></p> <p><i>Ewa Soja, Piotr Soja, Ella Kolkowska, Marite Kirikova</i></p>		<p><b>"A Formal Environment for Credibility and Accuracy Assessment of Safety Messages Exchanged in VANETs"</b></p> <p><i>Ons Chikhaoui, Aida Ben Chehida Douss, Ryma Abassi, Sihem Guemara El Fatmi</i></p>
17:10	<p><b>"Adopting Industry 4.0 Technologies in Citizens' Electronic-Engagement considering Sustainability Development"</b></p> <p><i>Aliano Abbasi, Muhammad Mustafa Kamal</i></p>		<p><b>"A Security Mechanism against the RSU Compromise Attack in a Ticket-based Authentication Scheme for VANETs"</b></p> <p><i>Ons Chikhaoui, Aida Ben Chehida Douss, Ryma Abassi, Sihem Guemara El Fatmi</i></p>
17:30	<b>VISIT TO DUBAI BLOCKCHAIN CENTER</b>		
18:45	<b>BUS TRANSFER FROM CONFERENCE VENUE TO HOTELS</b>		

## Co-organizers



## Sponsors



## Support

