

IEEE Technically Sponsored
2nd International Conference on Fog & Mobile Edge Computing (FMEC 2017)
Collocated with
4th International Conference on Software Defined Systems (SDS 2017)
Valencia, Spain. May 8-11, 2017

PROGRAMME



**JORDAN UNIVERSITY
OF SCIENCE
AND TECHNOLOGY**



**UNIVERSIDAD
POLITECNICA
DE VALENCIA**



IEEE Technically Sponsored
2nd International Conference on Fog & Mobile Edge Computing (FMEC 2017)
Collocated with
4th International Conference on Software Defined Systems (SDS 2017)
Valencia, Spain. May 8-11, 2017

PROGRAMME

	Monday 8th May 2017		Tuesday 9th May 2017		Wednesday 10th May 2017		Thursday 11th May 2017	
08:00 - 17:00	On site registration		On site registration		On site registration			
09:00 - 9:30	Opening & Welcome						Social Activity	
09:30 - 10:30	Keynote speaker 1		Keynote Speaker 2		Keynote Speaker 3			
10:30 - 11:00	Coffee break		Coffee break		Coffee Break			
11:00-12:30	FMEC Session 1	SDS Session 1	FMEC session 3	SDS session 3	FMEC Session 5	SDS Session 5		
12:30 - 13:30	Lunch		Lunch		Lunch			
13:30 - 15:30	TUTORIAL	SDN-NFV Session 1	Panel Discussion		Industrial Demo	IOTSMS Sesssion 2		
			IOTSMS Session 1	MCSMS session 1				
15:30 -16:00	Coffee Break		Coffee break		Coffee break			
16:00 - 18:00	FMEC session 2	SDS Session 2	FMEC session 4	SDS session 4	Conference Closing and Best Papers Awards			
19:30 - 23:00			CONFERENCE DINNER					

IEEE Technically Sponsored
2nd International Conference on Fog & Mobile Edge Computing (FMEC 2017)
 Collocated with
4th International Conference on Software Defined Systems (SDS 2017)
 Valencia, Spain. May 8-11, 2017

PROGRAMME

Monday 8 th May 2017		
08:00 - 17:00	Onsite registration	
09:00 - 09:30	Opening & Welcome	
09:30 - 10:30	Keynote speaker 1: Jose F. Monserrat, Universidad Politecnica de Valencia Chair: Jaime Lloret Mauri	
10:30 - 11:00	Coffee break	
11:00- 12:30		Chair: Dongqing Liu and Mohammad Alsmirat
	FMEC Session 1	<ul style="list-style-type: none"> • Resource Optimization in Fog Enabled IoT Deployments <i>Visali Mushunuri, Ajay Kattapur, Hemant Kumar Rath and Anantha Simha</i> • Decentralized Data Offloading for Mobile Cloud Computing Based on Game Theory <i>Dongqing Liu, Lyes Khoukhi and Abdelhakim Hafid</i> • Fog Function Virtualization: a Flexible Solution for IoT Applications <i>Damian Roca, Josue V. Quiroga, Mateo Valero and Mario Nemirovsky</i> • Fog Computing Through Public-Resource Computing and Storage <i>Sa'ul Alonso-Monsalve, Félix Garc'ia-Carballeira and Alejandro Calder'on</i>
11:00- 12:30		Chair: Shahbaz Atta and Haythem Bany Salameh
	SDS Session 1	<ul style="list-style-type: none"> • STSM- A Model to Detect and Predict Large Crowd Anomalies for Optimized Path Recommendation <i>Bilal Sadiq, Akhlaq Ahmad, Shahbaz Atta, Emad Felemban and Khalid Qahtani</i> • A Routing Scheme for Cognitive Radio Networks with Self-Interference Suppression Capabilities by Rawan F. El Khatib and Haythem Bany Salameh • IoT development: Discovering, enabling and validation of real life IoT scenarios <i>Denis Makoshenko, Ilya Enkovich</i> • A Software Defined Architecture for Cyberphysical Systems <i>Ala' Darabseh and Nikolaos M. Freris</i>
12:30 - 13:30	LUNCH	
13:30 - 15:30	TUTORIAL 1: Prof. Mohammad Patwary 5G, IOT and Edge Computing: Digital Productivity	

IEEE Technically Sponsored
2nd International Conference on Fog & Mobile Edge Computing (FMEC 2017)
Collocated with
4th International Conference on Software Defined Systems (SDS 2017)
Valencia, Spain. May 8-11, 2017

PROGRAMME

		Chair: Mouad Idri and Yaser Jararweh
13:30 - 15:30	SDN-NFV	<ul style="list-style-type: none"> • Mobility management based SDN-IPv6 Routing Header Mouad Idri • MPLS based Hybridization in SDN Yash Sinha, Siddharth Bhatia, G S S Chalapathi and Virendra S Shekhawat • Smart Virtual eNB (SVeNB) for 5G Mobile Communication Fouad Yaseen, Nahlah Alkhalidi and Hamed Al-Raweshidy • Network Function Virtualization as a Service for Multi-Tenant Software Defined Networks Abderrahmane Ledjjar, Emmanuel Sampin, Chamseddine Talhi, Mohamed Cheriet • Software Defined Storage for Cooperative Mobile Edge Computing System Jafar Badarneh, Yaser Jararweh, Mahmoud Al-Ayyoub, Mohammad Al-Smadi and Ramon Fonte
15:30 - 16:00	Coffee break	
		Chair: Kashif Bilal and Mohammad Patwary
16:00 - 18:00	FMEC session 2	<ul style="list-style-type: none"> • EdgeCloudSim: An Environment for Performance Evaluation of Edge Computing Systems Cagatay Sonmez, Atay Ozgovde, Cem Ersoy • AFT: Adaptive Fibonacci-based Tuning Protocol for Service and Resource discovery in the Internet of Things by Firas Albalas, Wail Mardini and Majd Al-Soud • Edge Computing for Interactive Media and Video Streaming Kashif Bilal and Aiman Erbad • Cloud, Fog and Edge: Cooperation for the Future? Kay Bierzynski, Antonio Escobar, Matthias Eberl • Location-aware Load Prediction in Edge Data Centers Chanh Nguyen Le Tan, Cristian Klein, and Erik Elmroth • Cognitive Edge Computing based Resource Allocation Framework for Internet of Things. A. Amjad, Fazle Rabby, Shaima Sadia, Mohammad Patwary & Elhadj Benkhelifa
16:00 - 18:00		Chair: Matthias Flittner and Kyoomars Alizadeh Noghani
	SDS Session 2	<ul style="list-style-type: none"> • Automating Ethernet VPN Deployment in SDN-based Data Centers Kyoomars Alizadeh Noghani , Cristian Hernandez Benet , Andreas Kassler Antonio Marotta , Patrick Jestin, Vivek V. Srivastava • TREX: Tenant-driven Network Traffic Extraction for SDN-based Cloud Environments by Matthias Flittner and Robert Bauer • OSPF routing protocol performance in Software Defined Networks

IEEE Technically Sponsored
2nd International Conference on Fog & Mobile Edge Computing (FMEC 2017)
Collocated with
4th International Conference on Software Defined Systems (SDS 2017)
Valencia, Spain. May 8-11, 2017

PROGRAMME

		<p>Albert Rego, Sandra Sendra, Jose M. Jimenez and Jaime Lloret</p> <ul style="list-style-type: none"> • SDN VANETs in 5G: An Architecture for Resilient Security Services Ali Hussein, Imad H. Elhadj, Ali Chehab and Ayman Kayssi • Mitigating Attacks in Software Defined Network(SDN) Kallol Krishna Karmakar , Vijay Varadharajan, Udaya Tupakula • Automated Service Delivery Platform for C-RANs Deval Bhamare, Aiman Erbad, Raj Jain, Mohammed Samaka
Tuesday 9th May		
08:00 - 17:00	Onsite registration	
09:30 - 10:30	Keynote speaker 2 - Indrakshi Ray, Colorado State University, USA Chair: Yaser Jararweh	
10:30 - 11:00	Coffee break	
11:00- 12:30	FMEC session 3	<p>Chair: Hussein Alnuweiri and Young-Woo Kwon</p> <ul style="list-style-type: none"> • Reliable and Efficient Mobile Edge Computing in Highly Dynamic and Volatile Environments by Minh Le, Zheng Song, Young-Woo Kwon, and Eli Tilevich • Exploring the trade-off between performance and energy consumption in cloud infrastructures by D. Kanapram, G. Lamanna, M. Repetto • Self-Configuring Deterministic Network with In-Band Configuration Channel Peter Heise , Fabien Geyer and Roman Obermaisser • Cooperative Load Balancing Scheme for Edge Computing Resources Roberto Beraldi , Abderrahmen Mtibaay and Hussein Alnuweiri
11:00- 12:30	SDS Session 3	<p>Chair: Mohamad Khattar Awad and Yaser Jararweh</p> <ul style="list-style-type: none"> • Collapsing the Layers: 6Stor, a Scalable and IPv6-Centric Distributed Storage System Guillaume Ruty, Andr�e Surcouf, Jean-Louis Rougier • Fuzzy Decision System for Technology Choice in Hybrid Networks Sarah Abdallah, Imad H. Elhadj, Ali Chehab and Ayman Kayssi • A Benchmark Implementation for Evaluating the Performance of Power-aware Routing Algorithms in Practical Software-defined Networks Yousef Rafique, Mohamad Khattar Awad and Ghadeer Neama • QoS Management SDN-based for LTE/EPC with QoE Evaluation: IMS use case Sara KHAIRI, Mostafa BELLAFKIH, Brahim RAOUYANE

IEEE Technically Sponsored
2nd International Conference on Fog & Mobile Edge Computing (FMEC 2017)
Collocated with
4th International Conference on Software Defined Systems (SDS 2017)
Valencia, Spain. May 8-11, 2017

PROGRAMME

12:30 - 13:30	Lunch	
		Chair: Hesham Allam and Aamir Akbar
13:30 14:30	MCSMS Session 1	<ul style="list-style-type: none"> • Towards the Optimization of Power and Bandwidth Consumption in Mobile-Cloud Hybrid Applications by Aamir Akbar and Peter R. Lewis • A Critical Overview of Latest Challenges and Solutions of Mobile Cloud Computing Hesham Allam, Nasser Nassiri, Amala Rajan, Jinesh Ahmad • Cloudlet Solution for Digital Forensic Investigation of Multiple Cases of Multiple Devices by Siyakha Mthunzi, Elhadj Benkhelifa, Yaser Jararweh & Mahmoud Al-Ayyoub
		Chair: Attila Kertesz Mohammad Alsmirat
13:30 14:30	IOTSMS Session 1	<ul style="list-style-type: none"> • Internet of Things Data Analytics for User Authentication and Activity Recognition Samera Batool, Nazar A. Saqib, Muazzam.A. Khan • Priority-based Session Admission Control Method for Next Generation Internet Andris Skrastiņš, Jans Jeļinskis • Simulating IoT Cloud Systems:A Meteorological Case Study Andras Markus and Attila Kertesz
14:30- 15:30	Panel Discussion	
15:30- 16:00		
		Chair: John Yoon and Elhadj Benkhelifa
16:00 - 18:00	FMEC session 4	<ul style="list-style-type: none"> • Towards data privacy in heterogeneous cloud environments: an extension to the SANTA policy language. Nasser Abwnawar, Helge Janicke, Richard Smith and Aboubaker Lasebae • From Smog to Fog: A Security Perspective Ruben Rios, Rodrigo Roman, Jose A. Onieva and Javier Lopez • Mitigating Anti-forensics in the Cloud via Resource-Based Privacy Preserving Activity Adeyinka Odebade, Thomas Welsh, Siyakha Mthunzi and Elhadj Benkhelifa • Resilience at the Edge in Cyber-Physical Systems Abhishek Dubey , Gabor Karsai , Subhav Pradhan • Leveraging Sensor Data Content to Assure Sensor Device Trustworthiness in Mobile Edge Computing John Yoon
		Chair: Malek Al-Zewairi and Haythem Bany Salameh

IEEE Technically Sponsored
2nd International Conference on Fog & Mobile Edge Computing (FMEC 2017)
 Collocated with
4th International Conference on Software Defined Systems (SDS 2017)
 Valencia, Spain. May 8-11, 2017

PROGRAMME

16:00 - 18:00	SDS Session 4	<ul style="list-style-type: none"> • An Experimental Software Defined Security Controller for Software Defined Network Malek Al-Zewairi , Dima Suleiman , and Sufyan Almajali • Using Attribute-Based Access Control for Remote Healthcare Monitoring Indrakshi Ray , Bithin Alangot, Shilpa Nair, Krishnashree Achuthan • Software Defined IoT Security Framework Ola Salman, Imad Elhajj, Ali Chehab and Ayman Kayssi • Security analysis as Software-defined Security for SDN environment Nadya EL MOUSSAID, Ahmed TOUMANARI, Maryam EL AZHARI • Security-aware Channel Assignment in IoT-based Cognitive Radio Networks for Time-Critical Applications Haythem Bany Salameh, Sufyan Almajali, Moussa Ayyash and Hany Elgala
19:30- 23:00	GALA DINNER	
Wednesday 10th May		
08:00 - 15:30	Onsite registration	
09:30- 10:30	Keynote talk 3- Jaime Lloret Mauri, Polytechnic University of Valencia, Spain Chair: Elhadj Benkhelifa, Staffordshire University, UK	
10:30 - 11:00	Coffee break	
11:00- 13:00	FMEC Session 5	<p>Chair: Mathias Santos de Brito and Sufyan Almajali</p> <ul style="list-style-type: none"> • A Service Orchestration Architecture for Fog-enabled Infrastructures Mathias Santos de Brito, Saiful Hoque, Thomas Magedanz, Ronald Steinke, Alexander Willner, Daniel Nehls, Oliver Keils, Florian Schreiner • Towards Gateway to Cloud Offloading in IoT Publish/Subscribe Systems Daniel Happ and Adam Wolisz • Defining and Testing Virtual Federated Networks Across Multiple Cloud Sites Ivan Andrade, Carlos de Alfonso and Ignacio Blanquer • A data protection model for fog computing Thanh Dat Dang and Doan Hoang • Cloud Based Intelligent Extensible Shared Context Services Sufyan Almajali, Dhiah el Diehn I. Abou-Tair

IEEE Technically Sponsored
2nd International Conference on Fog & Mobile Edge Computing (FMEC 2017)
Collocated with
4th International Conference on Software Defined Systems (SDS 2017)
Valencia, Spain. May 8-11, 2017

PROGRAMME

		Chair: Oliver Michel and Yaser Jararweh
11:00-13:00	SDS Session 5	<ul style="list-style-type: none"> • SD-CPS: Taming the Challenges of Cyber-Physical Systems with a Software-Defined Approach by Pradeeban Kathiravelu and Lu'is Veiga • Adaptive SDN-based architecture using QoE metrics in live video streaming on Cloud Mobile Media by Miguel Garcia-Pineda, Santiago Felici-Castell and Jaume Segura-Garcia • SDN in Wide-Area Networks: A Survey Oliver Michel, Eric Keller • Evaluation of SDS Controller (CorpHD) for Various Storage Demands Shreya Bokare, Sanjay Pawar and Shikha Nema • BigCrypt for Big Data Encryption Abdullah Al Mamun , Khaled Salah , Somaya Al-maadeed , and Tarek R. Sheltami
13:00 - 14:00	LUNCH	
14:00 - 15:00	Demo: Prototyping Platform for IOT Applications Using TCP/IPv6 Over WSN By Prof. SpainAbdelhakim Hafid, University of Montreal, Canada	
15:00-16:00	Demo: Prototyping Platform for IOT Applications Using TCP/IPv6 Over WSN By Prof. SpainAbdelhakim Hafid, University of Montreal, Canada	
		Chair: Haythem Bany Salameh and Mohammad Alsmirat
14:00 - 16:00	IOTSMS Session 2	<ul style="list-style-type: none"> • Proposed Model to Implement High-Level Information Security in Internet of Things Sergio Duque Castilho, Eduardo P. Godoy and Tayane W. L. Castilho • Next Generation Marine Data Networks in an IOT Environment Rabab Al-Zaidi, John Woods, Mohammed Al-Khalidi, Khattab Alheeti & Klaus McDonald • Collision-Free Anycast Transmission Scheduling in UWSNs Ahmad Ababneh Mahmoud Al-Ayyoub, Yaser Jararweh and Mohammad Alsmirat • Multi-Level Security for the 5G/IoT Ubiquitous Network Ola Salman, Ayman Kayssi Ali Chehab, and Imad Elhajj • On consumable energy allocation frame-work with SWIPT for remotely located wireless node within internet of things by AlaaAllah Ahmed EISabaa , Mohammad Patwary, Elhadj Benkhelifa, Amira Zaki and Said E. El-Khamy
16:00-17:00	Coffee, Tea and Refreshments Conference Closing Remarks Best Papers Announcements and Awards Certificates of Attendance	

Thursday

IEEE Technically Sponsored
2nd International Conference on Fog & Mobile Edge Computing (FMEC 2017)
Collocated with
4th International Conference on Software Defined Systems (SDS 2017)
Valencia, Spain. May 8-11, 2017

PROGRAMME

11th May

FREE DAY FOR SOCIAL ACTIVITIES



**JORDAN UNIVERSITY
OF SCIENCE
AND TECHNOLOGY**



**UNIVERSIDAD
POLITECNICA
DE VALENCIA**

