



# ICSDE '17

International Conference on  
Smart Digital Environment (ICSDE'17)

## Program



July 21-23, 2017



Rabat, Morocco



[www.icsde.ifride.com](http://www.icsde.ifride.com)

## About

International Conference on Smart Digital Environment (ICSDE 2017) aims to bring together professionals, experts and researchers working in all topics of Digital Technology and Environment. The conference also can be seen as a platform for a three-way dialog on the "technology impact on digital world, both current and future" between Academia & Researcher, Business & industry and Government.

The conference will feature a comprehensive technical program offering numerous technical sessions with papers showcasing the latest technologies, applications and services. In addition, the conference program includes workshops, tutorials, keynote talks from industrial leaders and renowned academics, panel discussions, a large exhibition, business and industrial forums.

We welcome your participation and contribution to the International Conference on Smart Digital Environment (ICSDE'17) in Rabat – Morocco.

The event is organized by **ENSIAS** college of Engineering and **Morocco Center of Research and Innovation for Development and Entrepreneurship (RIDE)** in conjunction with the **annual US NSF Moroccan/American workshop on smart cities** and in partnership of **R&D OCP Group**.

## PROGRAM

Friday 21st July 2017		
08:30-09:00	Registration	
09:00-09:30	Session 1	Opening Ceremony
09:30-10:20	Keynote 1	Samir El Ghazali
10:20-10:50	Coffee break	
10:50-12:10	Oral Session 2	Session WSC-2 (Amphitheater I)
12:10-13:15	Lunch	
14:30-15:50	Oral Session 3	Session WSC-3 (Amphitheater I)
15:50-16:15	Coffee break	
16:15-17:30	Panel discussion	
Saturday 22nd July 2017		
08:30-09:00	Registration	
09:00-09:50	Keynote 2	Tarek El-Ghazawi
09:50-10:20	Coffee break	
10:20-12:00	Oral Session 4	
	Session SDE-4 (Amphith. I)	Session SDE-4 (Amphith. II)
12:00-13:05	Lunch	
13:10-14:50	Oral Session 5	
	Session SDE-5 (Amphith. I)	Session SDE-5 (Amphith. II)
14:50-15:20	Poster Session 1	
15:20-15:50	Coffee break	
15:50-17:30	Oral Session 6	
	Session SDE-6 (Amphith. I)	Session SDE-6 (Amphith. II)
Sunday 23th July 2017: Social event		

**Day 1:****US / Morocco Workshop on Sensors and Wireless Network for Smart Cities**

Day 1: Friday 21st July 2017	
8:30 - 9:00 AM	<b>Registration</b>
<b>Session 1- Opening Session</b>	
9:00– 9:30 AM	<b>Opening Ceremony</b>
9:30 - 10 :20 AM	<b>Keynote speaker:</b> Dr. Samir El-Ghazaly <b>Developing Technology to support smart and connected communities</b>
10:20-10:50 AM	<b>Coffee break and Networking</b>
<b>Session 2- Sensing for Smart Cities</b>	
10:50 – 11:10 AM	<b>P1.</b> Dr. Sajal Das, Missouri Univ. of S&T, USA <b>Securing Big Data and IoT Networks in Smart Cyber-Physical Environments</b>
11:10 - 11:30 AM	<b>P3.</b> Prof. Omprakash Gnawali, UH, USA <b>Room Occupancy Estimation Through WiFi, UWB, and Light Sensors Mounted on Doorways</b>
11:30 – 11:50 AM	<b>P4.</b> Dr. Alan Michelson, University of Colorado, USA <b>Water Quality Sensors for Smart Cities</b>
11:50 - 12 :10 AM	<b>P5.</b> Dr. Ala Al-Fuqaha, Western Michigan University, USA <b>Crowdsourcing Apps for More Livable Communities</b>
12:15 – 1:30 PM	<b>Interaction time during lunch</b>
<b>Session 3- Enabling Technologies</b>	
2 :30 – 2:50 PM	<b>P7.</b> Dr. Tahar El-Korchi, Worcester Polytechnic Institute, USA <b>4D Model for Smart Cities</b>
2:50 – 3:10 PM	<b>P8.</b> Dr. Houssain Kettani <b>Advances in High Performance Computing and Their Impact on Smart Cities</b>
3:10 – 3:30 PM	<b>P2.</b> Prof. Tarek El-Ghazawi, George Washington University, USA <b>High-End Computing and Smart Cities</b>
3:30 – 3:50 PM	<b>P6.</b> Dr. Driss Benhaddou, University of Houston, USA <b>Living Building: a Building block of Smart city</b>
3:50 – 4:15 PM	<b>Coffee Break</b>
4:15 – 5:30 PM	Interactive panel discussion and brainstorming about key challenges and collaborative opportunities between US and Morocco.

**Day 2:****International Conference On Smart Digital****Day 2: Saturday 22nd July 2017**

8:30 - 9:00 AM	<b>Registration</b>
9:00 - 9:50 AM	<b>Keynote speaker:</b> Dr. Tarek El-Ghazawi, George Washington University, USA Chair of IEEE Ethics Committee <b>An Insight Into the Publication Process, Practice and Ethics</b> <b>Session Chair :</b> Pr. Mohamed Essaaidi, ENSIAS Director, Mohammed V University of Rabat, Morocco
9:50 - 10:20 AM	<b>Coffee break</b>
10:20 - 12:00 AM	<b>Oral Session 4 – SDE-4</b> <b>Session Chair:</b> Dr. Ala Al-Fuqaha, Western Michigan University, USA <b>Room:</b> Amphitheater I
<b>Smart Campus Energy Management System: Advantages, Architectures, and the Impact of using Cloud Computing</b> Hanaa Talei (AL Akhawayn University, Morocco), Driss Benhaddou (University of Houston, USA) and Mohamed Essaaidi (Mohammed V University, Morocco)	
<b>Node localization to optimize the MPR selection in smart mobile communication</b> Mohammed Souidi, Ahmed Habbani, Halim Berradi (ENSIAS, Mohammed V University, Morocco) and Essaid Bilal (Mohammed VI Polytechnic University, Morocco)	
<b>Multi-path routing protocol in the Smart Digital Environment</b> Chaimae Benjbara, Fatna El Mehdi, Ahmed Habbani (ENSIAS, Mohammed V University) and Bilal Essaïd (Mohammed VI Polytechnic University, Morocco)	
<b>Smart Load-Balancing for Web Applications</b> Gandhimathi Velusamy and Ricardo Lent (University of Houston, USA)	
10:20 - 12:00 AM	<b>Oral Session 4 – SDE-4</b> <b>Session Chair:</b> Dr. Essaid Bilal, Mohammed VI Polytechnic University, Morocco <b>Room:</b> Amphitheater II
<b>Room Occupancy Estimation Through WiFi, UWB, and Light Sensors Mounted on Doorways</b> Hessam Mohammad moradi, Shengrong Yin and Omprakash Gnawali (University of Houston, USA)	
<b>SAS-IMS for Smart Mobile Security in IP Multimedia Subsystem</b> Ayoub Bahasse, Mohamed Talea, Fatima Ezzahraa Louhab (FS, Hassan II University, Morocco), Sara Laafar (Cadi Ayyad University, Morocco), Adel Harbi (FS, Hassan II University, Morocco) and Khat Azeddine (ENSET-M, Hassan II University, Morocco)	
<b>Using BECAMEDA method to specify and verify a Smart Home system</b> Abdelhay Haqiq and Bouchaïb Bounabat (ENSIAS, Mohammed V University, Morocco)	
<b>Comparison between GA and ACO for Emergency Coverage Problem in a Smart Healthcare Environment</b> Meryam Benabdouallah and Chakib Bojji (ENSET-R, Mohammed V University, Morocco)	
<b>An Intelligent Islanding Selection Algorithm For Optimizing the Distribution Network Based on Emergency Classification</b> Youssef Hamdaoui, Abdelilah Maach (EMI, Mohammed V University, Morocco)	
12:00 - 13:05 PM	<b>Lunch</b>

13:10 - 14:50 PM	<b>Oral Session 5 – SDE-5</b> <b>Session Chair:</b> Dr. Faissal El Bouanani, Mohammed V University, Morocco <b>Room:</b> Amphitheater I
<b>Analyzing Breast Tumor Heterogeneity To Predict The Response To Chemotherapy Using 3D MR Images Registration</b> Mohammed El Adoui, Stylianos Drisis and Mohammed Benjelloun (University of Mons, Belgium)	
<b>Moisture vulnerability of antenna operation in UHF band</b> Mounir El Mejjatti, Ahmed Habbani (ENSIAS, Mohammed V University, Morocco) and Bilal Essaid (Mohammed VI Polytechnic University, Morocco)	
<b>Automatic motion segmentation using random walks</b> Idir Boulfrifi, Khalid Housni and Abdelaziz Mouloudi (FS, Ibn Tofail University, Morocco)	
<b>Time series analysis for Waste Quantities Prediction in a north African City</b> Ismail Boulahna, Noha El Khattabi and Zouhir El Hadri (FS, Mohammed V University, Morocco)	
<b>Discrete Swallow Swarm Optimization algorithm for Travelling Salesman Problem</b> Safaà Bouzidi and Mohammed Essaid Riffi (FS, Chouaib Doukkali University, Morocco)	
13:10 - 14:50 PM	<b>Oral Session 5 – SDE-5</b> <b>Session Chair:</b> Dr. Zouhair Guennoun, Mohammed V University, Morocco <b>Room:</b> Amphitheater II
<b>Performance Analysis of mixed RF/FSO Communication System with the presence of Pointing Error Using the MGF-based Approach</b> Elmehti Illi, Faissal El Bouanani (ENSIAS, Mohammed V University, Morocco) and Fouad Ayoub (CRMEF-K, Morocco)	
<b>Using Markov Decision Process in cognitive radio networks towards the optimal reward</b> Said Lakhal and Zouhair Guennoun (EMI, Mohammed V University, Morocco)	
<b>Application of MVDR and MUSIC Spectrum Sensing Techniques with Implementation of Node's Prototype for Cognitive Radio Ad Hoc Networks</b> Soumaya El Barrak, Abdelouahid Lyhyaoui, Amina El Gonnouni (ENSAT, Abdelmalek Essaâdi University, Morocco), Antonio Puliafito and Salvatore Serrano (University of Messina, Italy)	
<b>Design and performance measurement of a digital embedded system implementing a I/Q demodulator for AoA range-based localization in underwater environment</b> Redouane Es-Sadaoui and Jamal Khallaayoune (INPT, Morocco)	
<b>An Empirical Comparison of the Development History of CloudStack and Eucalyptus</b> Ahmed Zerouali and Tom Mens (University of Mons, Belgium)	
13:10 - 14:50 PM	<b>Poster Session 1</b> <b>Session Chair:</b> Dr. Ahmed Habbani, Mohammed V University, Morocco
<b>Computer Vision Toolbox in the Cloud</b> Sidi Ahmed Mahmoudi, Mohammed El Adoui, Mohammed Amin Belarbi, Mohammed Amine Larhman and Fabian Lecron (University of Mons, Belgium)	
<b>Intelligibility of Erdős-Rényi Random Graphs and Time Varying Social Network Modeling</b> Ali Hamlili (ENSIAS, Mohammed V University, Morocco)	
<b>Toward a merged approach for cross-platform applications (Web, Mobile and Desktop)</b> El Hassane Ettifouri, Abdelkader Rhouati, Jamal Berrich and Bouchentouf Toumi (ENSAO, Mohammed I University, Morocco)	



<b>Protecting Medical Data in Cloud Storage Using Fault-Tolerance Mechanism</b>	
Mbarek Marwan, Ali Kartit and Hassan Ouahmane (ENSAJ, Chouaïb Doukkali University, Morocco)	
<b>Study of security in MANET and evaluation of network performance using ETX metric</b>	
Fatna El Mahdi, Ahmed Habbani, Nada Mouchfiq (ENSIAS, Mohammed V University, Morocco) and Bilal Essaid (Mohammed VI Polytechnic University, Morocco)	
<b>Dielectric and Optical Characterization of the New Material LiMn<sub>2</sub>O<sub>4</sub> for the Use of Generation of Electrons</b> , Souaad. Douafer (FES, Bejaia University, Algeria), H.Lahmar (FC, USTHB University, Algeria) and M. Benamira (MESB University, Algeria)	
<b>15:20-15:50 PM</b>	<b>Coffee Break</b>
<b>15:50 - 17:30 PM</b>	<b>Oral Session 6 – SDE-6</b>
	<b>Session Chair:</b> Dr. Asmaa Hamyani, Mohammed V University, Morocco
	<b>Room:</b> Amphitheater I
<b>An analysis approach for distributed generation placement and sizing in power distribution system</b>	
Abderrahim Amar Mancour and Tamou Nasser (ENSIAS, Mohammed V University, Morocco)	
<b>DTC-SVM Based on Active Disturbance Rejection Control Applied on Sensorless Induction Motor</b>	
Haitam Chalawane, Ahmed Essadki (ENSET, Mohammed V University, Morocco) and Tamou Nasser (ENSIAS, Mohammed V University, Morocco)	
<b>Maximum Power Point Tracking using Fuzzy Logic based controllers compared to P&amp;O technique in photovoltaic generator</b>	
Otmame Manari, Malika Zazi and Ihssane Chtouki (ENSET, Mohammed V University, Morocco)	
<b>Optimization of Synthesis Parameters of Adaptive Generalized Predictive Control using Genetic Algorithms</b>	
Abdelaziz Mouhou, Abdelmajid Badri, Abdelhakim Ballouk and Yassine Sayouti (FSTM, Hassan II University, Morocco)	
<b>15:50 - 17:30 PM</b>	<b>Oral Session 6 – SDE-6</b>
	<b>Session Chair:</b> Dr. Idriss Chana, Moulay Ismail University, Morocco
	<b>Room:</b> Amphitheater II
<b>Generic approach to knowledge management from databases</b>	
Jakjoud Widad and Bahaj Mohamed (FST-S, Hassan II unverity, Morocco)	
<b>The EOLES project remote labs across the Mediterranean – an example of a successful experience</b>	
Fahd Ouatik (Cadi Ayyad University, Morocco), Mohamed El Mohadab (Sultan moulay sliman university), Mustapha Raoufi, Mohamed Skouri Ouatik (Cadi Ayyad University, Morocco) and Belaid Boukheilen (Sultan moulay sliman university)	
<b>Information Sharing in UAVs Cooperative Search Based on calculating the Minimum Time</b>	
Hassan Saadaoui and Faissal El Bouanani (ENSIAS, Mohammed V University, Morocco)	
<b>Topic and sentiment model applied to the colloquial arabic : A case study of Maghrebi arabic</b>	
Taoufiq Zarra, Raddouane Chiheb, Rajae Moumen, Rdouan Faizi and Abdellatif El Afia (ENSIAS, Mohammed V University, Morocco)	



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