

16th IEEE International Multi-Conference on on Systems, Signals and Devices (SSD'19)

March 21–24, 2019, Istanbul, Turkey

Organized by:

Istanbul Commerce University, İstanbul (Turkey)

University of Sfax, Ecole Nationale d'Ingénieurs de Sfax (Tunisia)

Leipzig University of Applied Sciences, (Germany)

Technische Universität Chemnitz (Germany)

Philadelphia University (Jordan)

King Fahd University of Petroleum and Minerals, Dahrán, (Saudi Arabia)

University Sidi Mohamed Ben Abdallah, Fes (Morocco)

Ecole Mohammadia d'Ingénieurs, Rabat (Morocco)

Supported by:

IEEE IMS Instrumentation & Measurement Society

IEEE IM (Instrumentation & Measurement) Chapter

IEEE Turkey Section

IEEE Tunisia Section

IEEE Tunisia CS (Control Systems) Chapter

IEEE Tunisia PES (Power Engineering) Chapter

IEEE Tunisia SP (Signal Processing) Chapter

IEEE Tunisia SSC (Solid State Circuit) Chapter

Preface

Following the success of SSD'01 held in Hammamet-Tunisia, the sixteenth International Multi-Conference on Systems, Signals and Devices - SSD'19 to be held in Istanbul, Turkey, from 21th to 24th of March 2019. The conference program consists of 4 plenary sessions, 4 Keynote Lectures and 28 oral sessions. SSD'19 multi-conference is organized to include 4 conferences covering different fundamental and applied aspects:

1. "Int. Conf. on Systems, Automation & Control" (SAC)
2. "Int. Conf. on Conference on Power Systems & Smart Energies" (PSE)
3. "Int. Conf. on Communication, Signal Processing & Information Technology" (CSP)
4. "Int. Conf. on Sensors, Circuits and Instrumentation Systems" (SCI)

SSD'19 secretariat has received 249 submissions from 28 countries: Algeria, Bahrain, Brazil, Canada, Egypt, France, Germany, India, Iran, Iraq, Italy, Japan, Jordan, Kuwait, Malaysia, Morocco, Oman, P.R. China, Pakistan, Qatar, Russia, Saudi Arabia, Serbia, Tunisia, Turkey, United Arab Emirates, United Kingdom, USA.

Each paper has been reviewed by at least two reviewers of the program committee which consisted of more than 100 scientists from more than 30 countries. Only 140 papers have been accepted.

We would like to express our deep gratitude to all chairs and members of the program committee for their substantial reviews. Special thanks are due to all members of the organizing committees for their determination to make this event a promising success.

Finally, we would like to extend our deep gratitude to all those who have contributed to the financial support of SSD'19.

Serhan Yarkan

Istanbul, Turkey

March, 2019

General Informations

Date and Location

The 16th Multi-Conference on Systems, Signals and Devices 2019 will be held in Istanbul on 21 – 24 March, 2019 to give an opportunity to contributors to visit other attractive corners of Turkey. Turkey is known as the country connecting the East to the West through Anatolia. Home to many diverse cultures, religions, empires and civilizations, Anatolia has an immense historical background to offer including one of the first settlements ever in human history and some of the world's most known cities such as Istanbul. Situated in the middle of three continents, Anatolia has always been a hub for cultural interaction, dating back to as early as 24th century BC. Surrounded by the Black Sea, the Aegean Sea and the Mediterranean Sea, the Anatolia Peninsula is home to varying climates enabling vegetation and therefore human settlements.

Location and Access:

The conference will be held at the Sötlüce Campus of Istanbul Commerce University on the European side of Istanbul. Istanbul has three airports. Buses, taxis, and car rental agencies are all available at the airports to connect travelers to the conference location. Depending on the airport, you have the following options:

Transportation from Atatürk Airport (IST):

Transportation via taxi: Distance: 17.1 km Estimated Time: 30 min. Estimated Price: 47 TL.

Transportation via public: From Atatürk Airport take the metro M1A line. Take off at Ataköy-Sirinevler interchange station in order to get on the Metrobus. Take any on 34, 34AS and 34BZ lines and take off at Ayvansaray station. From there you take 41ST bus line up until Istanbul Ticaret Üniversitesi station.

Transportation from Sabiha Gokcen Airport (SAW):

Transportation via taxi: Distance: 62.8 km Estimated Time: 68 min. Estimated Price: 161 TL.

Transportation via public: From Sabiha Gökçen Airport take the E-3 bus line. After that take off at 4. Levent Metro-Kağıthane station. Walk towards Depo Arkası station in order to take 41ST bus line. From there take 41ST bus line up until Istanbul Ticaret Üniversitesi station.

Transportation from Istanbul Airport (ISL):

Transportation via taxi: Distance: 43.6 km Estimated Time: 58 min. Estimated Price: 113 TL.

Traveling Agencies::

MiaVIP Tours offers airport pickup services and car rental services to our guests with Turkish/English/Arabic speaking drivers.

- GSM: +90545 345 54 45
- Tel: +90850 888 0642
- Email: info@miaviptour.com

Hotel Information

There are numerous different hotels for different budgets in Istanbul. However, we recommend nearby hotels to avoid traffic.

Clarion Hotel Golden Horn

- Address : Sötlüce, Sivaseli Sokak No:10, İmrahor Cd., 34445 Beyođlu
- Telephone : +90 212 314 04 44
- Website : www.clariongoldenhorn.com

Hilton Garden Inn Istanbul Golden Horn

- Address : Sötlüce Mahallesi, İmrahor Cd., 34445 Beyođlu/Istanbul
- Telephone : +90 212 314 50 00
- Website : www.hilton.com.tr/oteller/turkiye/istanbul/hilton-garden-inn-istanbul-golden-horn-turkey

Lazzoni Hotel

- Address : Sötlüce Mahallesi, İmrahor Cd. No:14, 34445 Beyođlu/Istanbul
- Telephone : +90 212 311 00 00
- Website : www.lazzonihotel.com/en/

The Host Country Turkey

Official Language:

The official language in Turkey is Turkish. The second language, which is taught at school until baccalaureate is English.

Currency Exchange:

International currencies can be changed in every bank or post-office in Turkey to Turkish Lira (TL). The exchange rates to and from € and US\$ are approximately:

1 TL \approx 0.17 €	1 € \approx 5.95 TL
1 TL \approx 0.19 US\$	1 US\$ \approx 5.25 TL



Conference Web-Site

► www.ssd-conf.org

Conference Registration Desk

The Conference registration desk will be located in the Sütluce Campus of Istanbul Commerce University and will be open throughout the whole event.

General Chairs

Serhan Yarkan (Turkey)
Moez Feki (Tunisia)
Olfa Kanoun (Germany)

General Co-Chairs

Kasim Al-Aubidy (Jordan), Abdallah Kouzou (Algeria)
and Abdul Wahid Al-Saif (Saudi Arabia)

Honorary Chairs

Nazim Ekren (Turkey)
Hans-Rolf Tränkler (Germany)
and Nabil Derbel (Tunisia)

International Steering Committee

Al-Aubidy, Kasim (Jordan)	Kabbaj, Nabil (Morocco)
Al-Saif, Abdul Wahid (Saudi Arabia)	Kanoun, Olfa (Germany)
Baniyounis, Mohammed (Tunisia)	Kouzou, Abdallah (Algeria)
Benbrahim, Mohamed (Morocco)	Krichen, Lotfi (Tunisia)
Benjelloun, Khaled (Morocco)	M'Saad, Mohamed (France)
Chtourou, Mohamed (Tunisia)	Martinez Salamero, Luis (Spain)
Cuadras, Angel (Spain)	Melchior, Pierre (France)
Derbel, Faouzi (Germany)	Nouri, Ahmed Said (Tunisia)
Djemel, Mohamed (Tunisia)	Solaiman, Basel (France)
Feki, Moez (Tunisia)	Soufi, Youcef (Algeria)
Fischerauer, Gerhard (Germany)	Younis, Mohamed bani (Jordan)

Organizing Committee

Ali Boyacı
Enes Öz
Esat Elezi

Göksel Çankaya
Gamze Kirman
Halil Said Cankurtaran

Okan Kaya
Özgür Alaca
Uğurcan Altunay

Conference on Systems, Automation & Control

Conference Chairs:

Muhammed Ali Aydın (Turkey)
Mohamed Ksantini (Tunisia)
Mujahed Al-Dhifallah (Saudi Arabia)

Scientific Program Committee:

Abdel-Hafez, Mamoun F. (UAE)	Boudjemaa, Fares (Algeria)	Kabbaj, M. Nabil (Morocco)
Abdelkrim, M. Naceur (Tunisia)	Boukhnifer, Moussa (France)	Kammouri Alami, S. (Morocco)
Acosta, Gerardo (Argentina)	Boumhidi, Ismail (Morocco)	Ksantini, Mohamed (Tunisia)
Aguiar, Antonio Pedro (Portugal)	Castillo-Toledo, Bernardino (Mexico)	Loria, Antonio (France)
Ait Rami, Mostafa (Morocco)	Chaabane, Mohamed (Tunisia)	Mahir, Rami A. (Jordan)
Al-Aubidy, Kasim Mousa (Jordan)	Chaillet, Antoine (France)	Mazenc, Frederic (France)
Al-Dhaifallah, M. (Saudi Arabia)	Chemori, Ahmed (France)	Melchior, Pierre (France)
Al-Tikriti, Munther N. (Jordan)	Choura, Slim (Tunisia)	Mnif, Faiçal (Oman)
Al-Hiddabi, Saif (Oman)	Cohen, Kelly (USA)	Mouhib, Omar (Morocco)
Ali, Mohammad M. (Jordan)	Cotta, Carlos (Spain) (Spain)	M'Saad, Mohamed (France)
Al-Saif, A. Wahid (Saudi Arabia)	Dahhou, Boutaieb (France)	Msahli, Faouzi (Tunisia)
Al-Shabi, Mohammed (Jordan)	Derbel, Nabil (Tunisia)	Ould Bouamama, B. (France)
Al-Sunni, Fouad (Saudi Arabia)	Dieulot, Jean-Yves (France)	Paul, Leesha Paul (India)
Al-Taee, Majid (UK)	Djemel, Mohamed (Tunisia)	Pilishkin, Vladimir (Russia)
Amairi, Messaoud (Tunisia)	El Ferik, Sami (Tunisia)	Poisson, Gerard (France)
Bani Younis, Mohammad (Jordan)	Farza, Mondher (France)	Saad, Maarouf (Canada)
Ben Amar, Faiz (France)	Feki, Moez (Tunisia)	Saeed, Walla K. (Iraq)
Benabdenour, Ridha (Tunisia)	Gao, Zhiwei (China)	Soudani, Dhaou (Tunisia)
Benali, Abderraouf (France)	Garcia, Germain (France)	Tanner, Harbert (USA)
Benbrahim, Mohammed (Morocco)	Gasmi, Moncef (Tunisia)	Tutunji, Tareq (Jordan)
Benhadj Braiek, Naceur (Tunisia)	Gauthier, Guy (Canada)	Werner, Herbert (Germany)
Benjelloun, Khalid (Morocco)	Ghommam, Jawhar (Tunisia)	Yang, Jianxi (China)
Bettayeb, Maamar (UAE)	Jumah, Mazin (Bahrain)	Yusuf, Hasan (Oman)
Bouani, Faouzi (Tunisia)		Zhu, Quanmin (UK)
Boubaker, Olfa (Tunisia)		

Topics:

Advances in linear control theory	Variable Structure Control
System optimization	Robust control
Multivariable control	Hierarchical and man-machine systems
Large scale systems	Intelligent control systems
Infinite dimension systems	Robotics and mechatronics
Nonlinear control	System identification
Distributed control	Biological and economical models & control
Predictive control	Neural networks and neural control
Geometric control	Fuzzy systems and fuzzy control
Adaptive control	
Optimal and stochastic control	

Conference on Power Systems & Smart Energies

Conference Chairs:

Yasin Özçelep (Turkey)
Ahmed Hafaifa (Algeria)

Scientific Program Committee:

Addaim, Adnane (Morocco)	Dhifaoui, Rachid (Tunisia)	Machkour, Nadia (Morocco)
Aït-Ahmed, Nadia (France)	Diallo, Demba (France)	Magetto, Gaston (Belgium)
Al-Atrash, Jeris (Jordan)	Djenoune, Said (Algeria)	Mahmoudi, Hassan (Morocco)
Alazzawi, Wagah F. (Jordan)	El Amraoui, Lilia (Tunisia)	Marchand, Claude (France)
Alolah, A. (Saudi Arabia)	El Hsnaoui, Abdennebi (Morocco)	Marta, Molinas (Norway)
Ayadi, Moez (Tunisia)	El-Antably, Ahmed (USA)	Masmoudi, Ahmed (Tunisia)
Belahrach, Hassan (Morocco)	El-Badsi, Bassem (Tunisia)	Mekidèche, Mohamed (Algeria)
Belhadj, Chokri (Saudi Arabia)	El-Barbari, Said (Tunisia)	Mimouni, M. Faouzi (Tunisia)
Belhaj Slama, Jejel (Tunisia)	El-Hajjaji, Ahmed (France)	Moghavvemi, Mahmoud (Malaysia)
Belkhodja Slama, Ilhem (Tunisia)	El-Kady, Mohamed (Saudi Arabia)	Monmasson, Eric (France)
Ben Alla, Hocine (Algeria)	Elleuch, Mohamed (Tunisia)	Montesinos-Miracle, Daniel (Spain)
Ben Attia Sethom, H. (Tunisia)	Elmenzhi, Lamiaa (Morocco)	Mrabet, Brahim (Saudi Arabia)
Besbes, Mondher (France)	Ghodbane, Fathi (Tunisia)	Multon, Bernard (France)
Bettayeb, Maamar (UAE)	Guerhazi, Abdessattar (Tunisia)	Nair, Nirmal (New Zealand)
Bossoufi, Badre (Morocco)	Hadj Abdallah, Hsan (Tunisia)	Néji, Rafik (Tunisia)
Bouazi, Aziz (Morocco)	Hafaifa, Ahmed (Algeria)	Perfumo, Francesco (Italy)
Bouillault, Frédéric (France)	Henneberger, Gerard (Germany)	Putrus, Ghanim (UK)
Boukettaya, Ghada (Tunisia)	Ilijevic, Stephan (Spain)	Rahmani, Salem (Tunisia)
Boussak, Mohamed (France)	Jelassi, Khaled (Tunisia)	Rufer, Alfred (Switzerland)
Boutana, Ilhem (Algeria)	Kamoun, Mohamed Ben Ali (Tunisia)	Saied, Basil (Iraq)
Braham, Ahmed (Tunisia)	Kchikach, Mustapha (Morocco)	Salhi, Issam (Morocco)
Bruno François (France) (France)	Kirtley, Jim L. (USA)	Saman, Wasim (Australia)
Cairo, Josep (Spain)	Koubaa, Yassine (Tunisia)	Sanjeevikumar, P. (India)
Chebbi, Souad (Tunisia)	Kouzou, Abdellah (Algeria)	Sbita, Lassaad (Tunisia)
Colak, Tufan (UK)	Krichen, Lotfi (Tunisia)	Soufi, Youcef (Algeria)
D'Arco, Salvatore (Norway)	Lagrioui, Ahmed (Morocco)	Tamura, Junji (Japan)
Denai Mouloud A. (Algeria)	Lazim, Mohammed Tawfeeq (Jordan)	Trabelsi, Hafedh (Tunisia)
Derouich, Aziz (Morocco)	Lindemann, Andreas (Germany)	Yangui, Abderrazak (Tunisia)

Topics:

Automotive electrical systems
Electric machine design
Power electronic converters
Variable speed drives
Electric machines modeling and control

Special machines
Monitoring and diagnostics
Power systems
Renewable energy generation
Electromagnetic compatibility
Variable speed generating systems
Transformers

Conference on Communication, Signal Processing & Information Technology

Conference Chairs:

Ali Rıza Ekti (Turkey)
Faouzi Derbel (Germany)
Omar Daoud (Jordan)

Scientific Program Committee:

Aach, Til (Germany)	Drira, Khalil (France)	Maaref, Hichem (France)
Al-Aubidy, Kasim M. (Jordan)	El Alami, Rachid (Morocco)	Mahir, Rami A. (Jordan)
Al-Jubori, Karim (Jordan)	El Bekkali, Chakib (Morocco)	Mammass, Driss (Morocco)
Alouini, Mohamed S. (Saudi Arabia)	Ennaji, Abdellatif (France)	Masmoudi, Nouri (Tunisia)
Al-Sarirah, Saleh (Jordan)	Frigui, Hichem (USA)	Maussang, Frederic (France)
Al-Taee, Majid (UK)	Gharsallah, Ali (Tunisia)	Olivier, Christian (France)
Belaid, Abdelwaheb (France)	Ghezal, Adel (Tunisia)	Ouni, Kais (Tunisia)
Ben Amar, Chokri (Tunisia)	Hadid, Abdenour (Finland)	Popescu-Zeletin, R. (Germany)
Ben Amara Essoukri, Najoua (Tunisia)	Hamrouni, Kamel (Tunisia)	Prevost, Lionel (France)
Berrada, Ismail (Morocco)	Holger, Karl (Germany)	Reindl, Leonhard (Germany)
Besbes, Kamel (Tunisia)	Ibnkahla, Mohamed (Canada)	Ruan, Su (France)
Bossé, Éloi (Canada)	Jamel, Thamer M. (Jordan)	Sabri, Abdelouahed (Morocco)
Bouallegue, Ammar (Tunisia)	Jumah, Mazin (Bahrain)	Sellami, Dorra (Tunisia)
Bousslama, Faouzi (Canada)	Kallel Khanfir, Imène (Tunisia)	Sellami, Mokhtar (Algeria)
Cuppens, Frederic (France)	Kammoun Jemal, Inès (Tunisia)	Siala, Mohamed (Tunisia)
Dallet, Dominique (France)	Kamoun, Faouzi (Tunisia)	Sikora, Axel (Germany)
Daoud, Omar (Jordan)	Kamoun, Lotfi (Tunisia)	Solaiman, Basel (France)
Derbel, Faouzi (Germany)	Karray, Fakhreddine (Canada)	Speidel, Joachim (Germany)
Deriche, Mohamed (Saudi Arabia)	Khelifa, Nawres (Tunisia)	Vanheeghe, Philippe (France)
Djemel, Khalifa (France)	Lankl, Berthold (Germany)	Zakriti, Alia (Morocco)
		Zerguine, Ezzedine (Saudi Arabia)

Topics:

Data fusion	Speech recognition
Signal processing	Telecommunication systems
Communication systems	Coding compression
Digital signal processing	Information theory
Image and video compression algorithms	Communication networks
Person authentication	Wireless communication
Biometry and medical imaging	Optical communication
Modulation and signal design	Wireless sensor networks
Communication theory and techniques	MIMO communications
Communication protocols and standards	Artificial intelligence
Pattern recognition	Information retrieval
Smart antennas	Adaptive antennas

Conference on Sensors, Circuits & Instrumentation Systems

Conference Chairs:

Gülsüm Zeynep Gürkaş Aydın (Turkey)
Abdelhamid Errachid (France)

Scientific Program Committee:

Abid, Mohamed (Tunisia)	Gasulla, Manel (Spain)	Miribel Catala, Pere (Spain)
Abu-Isbeh, Ibrahim (Jordan)	Ghaffari, Fakhreddine (France)	Mukhopadhyay, Subhas (Australia)
Akama, Seiki (Japan)	Ghariani, Hamadi (Tunisia)	Nakamatsu, Kazumi (Japan)
Alazzawi, Wagah F. (Jordan)	Groza, Voicu (Canada)	Omari, Mones (Jordan)
Al-Nama, Fawzi (Pakistan)	Gruden, Roman (Germany)	Ortmanns, Maurits (Germany)
Al-Omouh, Abdullah (Jordan)	Gueaieb, Wail (Canada)	Parvis, Marco (Italy)
Ando, Bruno (Italy)	Guerhazi, Mahdi (Tunisia)	Pelegri-Sebastia, Jose (Spain)
Attar, Hani (Jordan)	Gupta, Vinod Kumar (India)	Piuri, Vincenzo (Italy)
Attari, Mokhtar (Algeria)	Himmel, Jörg (Germany)	Postolache, Octavian (Portugal)
Benbrahim, M. R. (Morocco)	Hornero, Gemma (Spain)	Preishuber-Pfluegl, Josef (Germany)
Besbes, Kamel (Tunisia)	Ismail, Mohamed (USA)	Qahwaji, Rami (UK)
Bilas, Vedran (Hungaria)	Jawdeh, Ehab (Jordan)	Qjidaa, Hassan (Morocco)
Bouchaala, Dhouha (Tunisia)	Kanaan, Hadi Y. (Lebanon)	Ramirez, Diego (Spain)
Brenner, Werner (Austria)	Kanoun, Olfa (Germany)	Ramos, Pedro (Portugal)
Casas, Roberto (Spain)	Kulpa, Krzysztof (Poland)	Reindl, Leonhard (Germany)
Chaari, Lamia (Tunisia)	Ladjici, A. Amine (Algeria)	Renaud, Sylvie (France)
Cuadras, Angel (Spain)	Landi, Carmine (Italy)	Reverter, Ferran (Spain)
Demidenko, Serge (New Zealand)	Lay-Ekuakille, Aimé (Italy)	Ripka, Pavel (Czech)
Derbel, Faouzi (Germany)	Lerch, Reinhard (Germany)	Riu, Pere (Spain)
Donida, Ruggero (Italy)	Lewis, Noelle (France)	Rjeb, Abdelilah (Morocco)
Errachid, Abdelhamid (France)	Loulou, Mourad (Tunisia)	Samet, Mounir (Tunisia)
Fakhfakh, Ahmed (Tunisia)	Lucat, Claude (France)	Sanbi, Mustapha (Morocco)
Ferrari, Vittorio (Italy)	Marco, Santiago (Spain)	Sardini, Emilio (Italy)
Fischerauer, Gerhard (Germany)	Masmoudi, Mohamed (Tunisia)	Sarirah, Saleh (Jordan)
Fonseca, Luis (Spain)	Masmoudi, Nouri (Tunisia)	Serrano, Ernesto (Spain)
Fröhlich, Thomas (Germany)	Mezghani, Brahim (Tunisia)	Silva Girao, Pedro (Portugal)

Topics:


Fundamentals and physics	Circuits and systems
Self test	Analog and digital signal processing
Fault tolerance system & diagnosis	Neural networks implementation
Simulation and design	Pulse mode neural networks
Calibration and quality insurance	Genetic algorithm implementation
Sensors and actuators	Sigma delta converters
Transducer design	Design for testability
Optical sensors and applications	Low-voltage design
Biomedical instrumentation systems	Low-power VLSI design
Full custom and semi-custom integrated circuits:	RF circuit design
– Design concepts	Smart home
– architectures and high-performances	Life sciences
– low-power circuits	Environmental applications
	Opto-electronics
	Micro-machines

SSD'19: Multi-Conference Program

Date Time	Thursday, March 21 st	Friday, March 22 nd	Saturday, March 23 rd	Sunday, March 24 th
8:30	Registration			
9:30	Opening	Plenary Session 4	Keynote Lectures	Networking & Free activities
10:30	Coffee Break	Coffee Break	Coffee Break	
11:00	Plenary Session 1	Oral Sessions: SAC4, PSE3, CSP3, SCI3	Oral Sessions: SAC7, PSE6, CSP8, CSP9, SCI6	
11:45	Plenary Session 2			
12:30	Plenary Session 3			
13:00	Lunch	Lunch	Gala & Closure Ceremony	
14:15	Oral Sessions: SAC1, SAC2, PSE1, CSP1, SCI1	Oral Sessions: SAC5, PSE4, CSP4, CSP5, SCI4	Networking & Free activities	
15:55	Coffee Break	Coffee Break		
16:15	Oral Sessions: SAC3, PSE2, CSP2, SCI2	Oral Sessions: SAC6, PSE5, CSP6, CSP7, SCI5		
18:00	SSD Meeting			
19:00				

Thursday, 21 of March, 2019

Registration		<u>Thursday, 08:30-09:30</u>
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Opening Ceremony		<u>Thursday, 09:30-10:30</u>
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Conference Hall		<u>Thursday, 10:30-11:15</u>
Plenary Session 1 :		
Chair : Ali Boyacı (Turkey)		
PL 1	
	<i>Temel Kotil</i> (Turkey)	

Coffee Break		<u>Thursday, 11:15-11:45</u>
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Conference Hall		<u>Thursday, 11:45-12:30</u>
Plenary Session 2 :		
Chair : Serhan Yarkan (Turkey)		
PL 2	Are we ready for 5G vision? What is next?	
	<i>Hüseyin Arslan</i> (Turkey)	

Conference Hall		<u>Thursday, 12:30-13:00</u>
Plenary Session 3 :		
Chair : Ali Rıza Ekti (Turkey)		
PL 3	National Program "Reversing Jordanians Brain Drain"	
	<i>Isam Mustafa</i> (Jordan)	

Lunch		<u>Thursday, 13:00-14:15</u>
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Session CSP 1 : Image processing

Chairs : Mohamed Deriche (Saudi Arabia)
Mehmet Deniz Demirci (Turkey)

- CSP 1.1 New kernel method for MRI classification
Syrine Neffati, Okba Taouali, Kais Bouzrara (Tunisia, Saudi Arabia)
- CSP 1.2 Prefiltering Effect On HEVC Intra Prediction
Ons Bougacha, Mohamed Ali Ben Ayed, Nouri Masmoudi (Tunisia)
- CSP 1.3 Compression's Methods based on Frequency and Time Frequency Transforms applied
on DNA's images
Mael Salah, Elloumi Oueslati, Zied Lachiri (Tunisia)
- CSP 1.4 Statistical analysis of QTBT structure of VersatileVideo Coding encoded videos
Naima Zouidi, Amina Kessentini, Fatma Belghith, Nouri Masmoudi (Tunisia)
- CSP 1.5 Biometric authentication based on multi-instance fingerprint fusion in degraded context

Lamia Rzouga Haddada, Najoua Essoukri Ben Amara (Tunisia)
- CSP 1.6 Detecting Recurrent Copy Number Variations from aCGH Data via Smoothness-
Constrained Models
Mustafa Shawaqfeh, Ammar Gharaibeh (Jordan)

Session PSE 1 : Renewable energy systems I

Chairs : Hafedh Trabelsi (Tunisia)
Seyit Ahmet Sis (Turkey)

- PSE 1.1 Cost benefit smart charging schedule for V2G applications
Khouloud Wali, Rayhane Koubaa, Lotfi Krichen (Tunisia)
- PSE 1.2 Voltage drop control for V2G applications
Khouloud Wali, Rayhane Koubaa, Lotfi Krichen (Tunisia)
- PSE 1.3 Management of RF Energy Harvesting: A Survey
Uthman Baroudi (Saudi Arabia)
- PSE 1.4 Robust energy management under demand uncertainty for a hybrid FC/UC electric
vehicle
Rayhane Koubaa, Seddik Bacha, Lotfi Krichen (Tunisia–France)
- PSE 1.5 Finite Element Modeling and Analysis of a 6/2 Poles Brushless Doubly-Fed Induction
Machine
Idhir Nezzari, Abdelhalim Kessal (Algeria)
- PSE 1.6 Distributed Consensus for Smart Grid Economic Dispatch with Prohibited Operating
Zones
Mounira Hamdi, Lhassane Idoumghar, Mondher Chaoui, Abdennaceur Kachouri
(Tunisia–France)

Session SAC 1 : Fractional order systems

Chairs : Messaoud Amairi (Tunisia)
 Muhammed Erdem İsenkul (Turkey)

- SAC 1.1 Fractional Controller Design for Nonlinear Systems based on Multimodel Approach .
Mohamed Lazhar Wardi, Rihab Abdelkrim, Messaoud Amairi, Mohamed Naceur Abdelkrim, Aymen Rhouma(Tunisia–Saudi Arabia)
- SAC 1.2 Heat Exchanger Control Using Fuzzy Fractional-Order PID
Mujahed Al-Dhaifallah (Saudi Arabia)
- SAC 1.3 Autonomous navigation of mobile robot with combined Fractional order PI and fuzzy logic controllers
Najah Yousofi, Donia Abid, Nabil Derbel (Tunisia)
- SAC 1.4 UM shaper for fractional order systems: Time analysis and robustness study
Rim Jallouli-Khlif, Ahmed Abid, Pierre Melchior, Nabil Derbel (Tunisia–France)
- SAC 1.5 Instrumental variables based methods for linear systems identification with fractional models
Manel Chetoui, Mohamed Aoun(Tunisia)

Session SAC 2 : Fuzzy Systems & Neural Networks

Chairs : Mohamed Njah (Tunisia)
 Ali Rıza Ekti (Turkey)

- SAC 2.1 An adaptive Fuzzy-PID control of a lower limb active prosthesis under external perturbations
Abdallah Wiem, Rahma Boucetta, Saloua Bel Hadj Ali Naoui (Tunisia)
- SAC 2.2 Nonsingular Terminal Sliding Mode Adaptive Fuzzy Type 2 Control Based on Extended State Observer
Safa Choueikh Ben Salah, Essounbouli Najib, M'sahli Faouzi (Tunisia)
- SAC 2.3 Asymptotic behavior of Takagi-Sugeno fuzzy control systems with bounded uncertainties
Mohamed Ksantini, Nizar Hadjtaieb, Mohamed Ali Hammami, François Delmotte (Tunisia–France)
- SAC 2.4 Relaxed Stabilization conditions for Takagi-Sugeno systems
Rihab Abdelkrim, Mohamed Lazhar Wardi, Hamdi Gassara, Ahmed El Hajjaji, Mohamed Chaabane, Mohamed Naceur Abdelkrim (Tunisia–Saudi Arabia–France)
- SAC 2.5 Competition and Pure Mutation based ENN for Regression
Mohamed Njah, Ridha Hamdi (Tunisia)

Room: D-403

Thursday, 14:15-15:55

Session SCI 1 : Micro and Nano Sensors

Chairs : Ammar Al-Hamry (Germany)
Serhan Yarkan (Turkey)

- SCI 1.1 Optimization of MWCNTs/ Epoxy for high strain sensor performance
Ayda Bouhamed, Xin Sun, Olfa Kanoun (Germany)
- SCI 1.2 Induced-Stress Analysis of SU-8 Polymer Based Single Mass 3-Axis Piezoresistive
MEMS Accelerometer
*Aftab Ahmed, Shardul Pandit, Pradeep Dixit, Rajul Patkar, Maryam Shojaei Baghini,
Awatef Khelifi, Fares Tounsi, Brahim Mezghani* (Tunisia–India)
- SCI 1.3 Effect of magnetic field on heat transfer enhancement using Fe₃O₄ nanofluids in a
heated pipe
Munzer Ebaid, Mamdouh Al-Bsoul, Ayoup M. Ghrair (Jordan)
- SCI 1.4 Modeling and FEM Verification of Surface-Roughness Effect on the Static Response of
RF-MEMS Switches
Hamid Nawaz, Muhammad Mubasher Saleem, Muhammad Umar Masood
..... (Pakistan)
- SCI 1.5 Investigation of stability and dynamic behavior of a carbon nanotube/epoxy composite
strain sensor
Alexander Lundberg, Xiang Zhao, Olfa Kanoun (Germany)

Thursday, 15:55-16:15

Coffee Break



Room: D-204

Thursday, 16:15-18:00

Session CSP 2 : Recognition and Detection

Chairs : Mohammed Baniyounis (Jordan)
Muhammed Erdem İsenkul (Turkey)

- CSP 2.1 An efficient method for the extraction of closed and open pores in fingerprint images
Houda Khmila, Nadia Smaoui, Imene Khanfir Kallel, Houda Ben Jmaa Derbel
(Tunisia)
- CSP 2.2 Cryptographic and Intrusion Detection System for automotive CAN bus: Survey and
contributions
Mabrouka Gmiden, Mohamed Hedi Gmiden, Trabelsi Hafedh (Tunisia)
- CSP 2.3 Data Augmentation using non-rigid CPD Registration for 3D Facial Expression Recog-
nition
Imen Hamrouni Trimech, Ahmed Maalej, Najoua Essoukri Ben Amara (Tunisia)
- CSP 2.4 Prevalence and Accuracy Measures of Diagnostic Tests for Metabolic Syndrome in
Multi-ethnic Groups
*Fazeelat Mazhar, Bilal Wajid, Faria Anwar, Nafeesa Mazhar, Mustafa AlShawaqfeh,
Erchin Serpedin* (Pakistan–Jordan–USA)
- CSP 2.5 Improving Turkish Telephone Speech Recognition with Data Augmentation and Out
of Domain Data
Zeynep Uslu, Tülay Yıldırım (Turkey)

Room: D-202

Thursday, 16:15-18:00

Session PSE 2 : Power Systems & Power Electronics

Chairs : Mohamed Elleuch (Tunisia)
Yasin Özçelep (Turkey)

- PSE 2.1 Enhancing Radial Distribution Network Performance by Optimal Reconfiguration with PSO Algorithm
Raida Sellami, Rafik Neji, Tarek Bouktir (Tunisia–Algeria)
- PSE 2.2 Comparative Investigation of Bus-Clamping PFC Strategies for IM Drives
Zouari Wiem, Imen Nouira El Badsı, Bassem El badsı (Tunisia)
- PSE 2.3 An Online Grid Impedance Estimation Using Recursive Least Square For Islanding Detection
Imen Jarraya, Jihed Hmad, Trabelsi Hafedh, Azeddine Houari, Mohamed Machmoum (Tunisia–France)
- PSE 2.4 Model predictive current control for grid-connected PWM rectifier with constant switching frequency
Kawther Fahem, Dhia Chariag, Lassaad Sbita (Tunisia)

Room: D-403

Thursday, 16:15-18:00

Session SAC 3 : Adaptive Control

Chairs : Nabil Derbel (Tunisia)
Ali Boyacı (Turkey)

- SAC 3.1 Estimation of Induction Furnace Charge Temperature Using Multiple Model Adaptive Estimator (MMAE)
Waladin Sa'id, Omar Jasim, Safanah M Raafat (Iraq)
- SAC 3.2 Adaptive Sliding Mode Control of Power System with Photovoltaic Generator
Hassan EL Fadil, Mostapha Oulcaid, Abdelhafid Yahya, Leila Ammeh, Fouad Giri (Morocco–France)
- SAC 3.3 State filtering with intermittent unknown input and retransmission delay
Taouba Rhouma, Jean-yves Keller, Karim Chabir, Dominique Sauter, Mohamed Naceur Abdelkrim (Tunisia–France)
- SAC 3.4 Neural network trajectory tracking of tracked mobile robot
Madoka Asai, Gan Chen, Isao Takami (Japan)
- SAC 3.5 Intelligent Tuning of Augmented L1 Adaptive Control for Cerebral Palsy Kids Rehabilitation
Boutheina Maalej, Ahmed Chemori, Nabil Derbel (Tunisia–France)

Room: D-402

Thursday, 16:15-18:00

Session SCI 2 : Sensor Systems 1

Chairs : Mohamed Ksantini (Tunisia)
Ali Rıza Ekti (Turkey)

- SCI 2.1 Nanocomposite Pressure Sensor array for Nip Alignment Monitoring in Roll-to-Roll Printing Systems
Rajarajan Ramalingame, Arut Prakash Kaleeshwaran, Olfa Kanoun (Germany)
- SCI 2.2 Establishing a Low and Variable Voltage Power Supply System with Digital Control
Assim Al-daraje (Jordan)
- SCI 2.3 Combining Program Slicing and Algorithmic Debugging to Diagnose a PLC program
Mohammed Bani Younis, Al-Mutaz Bellah Mesmar (Jordan)
- SCI 2.4 Flux Pipe Pads with Improved Coupling Characteristics
Seyit A Sis, Emre Orta (Turkey)
- SCI 2.5 Evaluation of CCD -based Human Device Interface Sensor for the Velocity Measurement in Floodwater
Frank Wendler, Nivedita Pagar, Olfa Kanoun (Germany)

Thursday, 18:00-19:00

SSD Meeting



Friday, 22 of March, 2019

Conference Hall

Friday, 09:30-10:30

Plenary Session 4 :

Chairs : Cengiz Polat Uzunoglu (Turkey)
Abdallah Kouzou (Algeria)

PL 4 The Electrochemical Performance of Solid-state Supercapacitors and Their Role in Storage of Solar Electricity
Amr Obeidat (Jordan)

Room: B-203

Friday, 11:00-13:00

Session CSP 3 : Signal Processing

Chairs : Omar Daoud (Jordan)
Mahmud Öztürk (Turkey)

CSP 3.1 Development of Vibration Monitoring Device for Rotating Machinery Based on $\mu C/OS$ -III
Changsong Ma, Lin Wang, Bin Liu, Sidan Dai (P.R. China)

CSP 3.2 Analysis of the SSLMS algorithm for complex-valued data
Mohammed Mujahid Ulla Faiz, Azzedine Zerguine (Saudi Arabia)

CSP 3.3 Comparison of Haar-like, HOG and LBP approaches for face detection in video sequences
Amal Adouani, Wiem Mimoun Ben Henia, Zied Lachiri (Tunisia)

CSP 3.4 Subject-Independent Multi-Domain Facial Emotion Recognition with Local Salient Features
Salma Kasraoui, Zied Lachiri, Kurosh Madani (Tunisia-France)

CSP 3.5 An Efficient PAPR Reduction Method based on Combination of Joint Segmentation and Iterative Search
Hao-lin Sun, Zhiqiang Zhou, Zhen-hao Sun, Yi-Hu Xu (P.R. China)

CSP 3.6 Simulation of Harmonic Analysis, Synthesis and Gibbs Effect of Periodic Signals
Humera Rafique (Pakistan)

Session SAC 4 : Fault Detection and Diagnosis

Chairs : K. Al-Aubidy (Jordan)
Cengiz Polat Uzunoğlu (Turkey)

- SAC 4.1 Prediction of Energy in Solar Powered Wireless Sensors Using Artificial Neural Network
Murad Al-Omary, Khaoula Hassini, Ahmed Fakhfakh, Olfa Kanoun (Tunisia–Germany)
- SAC 4.2 Fault Estimation Based on T-S Fuzzy Intermediate Observer for Nonlinear System ..
Ammar Zemzemi, Mohamed Kamel, Ahmed Toumi (Tunisia)
- SAC 4.3 Agent-based Turing Complete Transactions integrating feedback within a Blockchain System
Craig Wright (United Kingdom)

Session PSE 3 : Fault Detection and diagnosis

- PSE 3.1 Harmonics generation Due to Multi-Cycle Auto Reclosing on HV Transmission Lines
Mohammed Lazim, Samer Salah, Mohammed Bani Younis (Jordan)
- PSE 3.2 Wireless Sensor Network Based Real-Time Monitoring and Fault Detection for Photovoltaic Systems
Kasim M. Al-Aubidy, Hudefah Al-kashashneh (Jordan)
- PSE 3.3 Experimental Analysis for enhancement of unbalanced standalone Wind Energy Conversion System
Salma Keskes, Souhir Sallem, Nouha Bouchiba, Mohamed Kamoun, Larbi Chrifi-Alaoui, Said Drid (Tunisia–Algeria–France)

Session SCI 3 : Wireless Sensors

Chairs : Slim Naifar (Germany)
Aysel Ersoy Yilmaz (Turkey)

- SCI 3.1 Validation of Energy Harvesting Designs for autarkic Wireless Sensor Networks
Lydia Schott, Florian Strakosch, Faouzi Derbel (Germany)
- SCI 3.2 Hybrid Solution for Enhanced Energy Harvester from Torsional Vibration
Carlo Trigona, Slim Naifar, Christian Viehweger, Olfa Kanoun (Germany–Italy)
- SCI 3.3 Hardware Based Simulation Platform for Wireless Sensor Networks
Ilef Ketata, Sadok Bdiri, Nabil Derbel, Faouzi Derbel (Tunisia–Germany)
- SCI 3.4 A New Crass-By-Pass-Folded-Torus Design for On-Chip Communication
Usman Ali Gulzari, Sarzamin Khan, Sheraz Anjum, Waseem Abbasi, Frank Torres, Hessam Sarjoughian (Brazil–Pakistan–USA)
- SCI 3.5 Testbed Implementation of a Fuzzy based Energy Efficient Clustering for Wireless Sensor Networks
Jauhar Ben Salem, Sabrine Khriji, Mouna Baklouti, Inès Kammoun, Olfa Kanoun (Tunisia–Germany)

Friday, 13:00-14:15



Lunch

Room: B-404

Friday, 14:15-15:55

Session CSP 4 : Text & Speech recognition

Chairs : Mehmet Deniz Demirci (Turkey)
Mahmud Öztürk (Turkey)

- CSP 4.1 Improving Low Resource Turkish Speech Recognition with Data Augmentation and TTS
Ramazan Gokay, Hulya Yalcin (Turkey)
- CSP 4.2 Monaural speech separation based on linear regression optimized using gradient descent
Belhedi Wiem, Ben Messaoud Mohamed anouar, Bouzid Aicha (Tunisia)
- CSP 4.3 Gemination prediction using DNN for Arabic text-to-speech synthesis
Ikbel Hadj Ali, Zied Mnasri, Zied Lachiri (Tunisia)
- CSP 4.4 Authors' Writing Styles Based Authorship Identification System Using the Text Representation Vector
Nacer Eddine Benzebouchi, Nabiha Azizi, Nacereddine Hammami, Didier Schwab, Mohammed Chiheb Eddine Khelaifia, Monther Aldwairi .. (United Arab Emirates–Saudi Arabia–Algeria–France)
- CSP 4.5 Stressed speech recognition using MMFCC and kernel based classification
Salsabil Besbes, Zied Lachiri (Tunisia)
- CSP 4.6 Short Utterance Speaker Recognition Using Time-Delay Neural Network
Muhammet Mesut Toruk, Ramazan Gokay (Turkey)

Session CSP 5 : Software Defined Radio Network

Chairs : Faouzi Derbel (Germany)
Zeynep Turgut (Turkey)

- CSP 5.1 Securing Internet of Things (IoT) Through an Adaptive Framework
Umer Farooq, Najam Ul Hasan, Imran Baig (Oman)
- CSP 5.2 An IOT Based sensing system for remote monitoring of PV panels
Mohamed Deriche, Mohammad Raad, Wael Suliman (Saudi Arabia)
- CSP 5.3 Batch-based Power-controlled Channel Assignment for Improved Throughput in
Software-defined Networks
*Haythem Bany Salameh, Ahmed Musa, Ruba Atoum, Rami Halloush, Moayad Aloqaily,
Yaser Jararweh* (Canada–Jordan–USA)
- CSP 5.4 Developing AI Based Scheme for Project Planning by Expert Merging Revit and Pri-
mavera Software
Karim M Aljebory, Mustafa Issam (Iraq)
- CSP 5.5 A Survey of IoT Architectural Reference Models
Dogukan Aksu, M. Ali Aydin (Turkey)
- CSP 5.6 An Optimal Set of Features for Multi-Class Heart Beat Abnormality Classification ..
*Mohamed Deriche, Saeed Aljabri, Mohammed Al-Akhras, Mohammed Siddiqui, Naziha
Deriche* (United Arab Emirates–Saudi Arabia)

Session PSE 4 : Electric Machines

Chairs : Mohamed Deriche (Saudi Arabia)
Aysel Ersoy Yilmaz (Turkey)

- PSE 4.1 Hybrid Excited Claw-Pole Machines: Comparison between Different Topologies
Roua Omri, Amina Ibal, Ahmed Masmoudi (Tunisia)
- PSE 4.2 Control and safety enhancement of a Wind Energy Conversion System
Nouha Bouchiba, Souhir Sallem, Salma Keskes, Mohamed Kamoun (Tunisia)
- PSE 4.3 Application of ANN and ANFIS techniques for PSS tuning in a multimachine power
system
Kahouli Amor, Badr Alshammari, Bilel Dhouib (Tunisia–Saudi Arabia)

Room: D-405

Friday, 14:15-15:55

Session SAC 5 : Linear & Nonlinear Control

Chairs : Mohamed Ksantini (Tunisia)
Hasan Tiryaki (Turkey)

- SAC 5.1 Modelling of Capacitive De-ionization with Activated Carbon Electrodes
Syed Adnan Ali, Moustafa Elshafei, Ashraf Seleyem (Egypt–Saudi Arabia)
- SAC 5.2 Globally linearizing control system design for a semi-continuous chemical reactor
Amira Abdelkader, Moez Boussada, Koffy Fiaty, Ahmed Said Nouri, Hammouri Hassan
(Tunisia–France)
- SAC 5.3 A Pheromonal Artificial Bee Colony -pABC- Algorithm for Optimization Problems ..
Dursun Ekmekci (Turkey)
- SAC 5.4 Sliding mode differentiator-based robust backstepping control of nonlinear uncertain
system
Fatma Massaoudi, Dorsaf Elleuch, Tarak Damak (Tunisia)
- SAC 5.5 Steering Algorithm for Nonholonomic Mechanical Systems using Sliding Mode Control

*Waseem Abbasi, Fazal urRehman, Ibrahim Shah, Mohd Yaqoob Wani, Wani., Usman
Ali Gulzari* (Pakistan)

Room: D-204

Friday, 14:15-15:55

Session SCI 4 : Multi Sensor Systems

Chairs : Olfa Kanoun (Germany)
Ali Boyacı (Turkey)

- SCI 4.1 Multimodal Approach for Inattentive Driver Detection
Ibrahim Naimi, Saed Mami, Mohammad Sandoukah, Elias Haddad (Jordan)
- SCI 4.2 Multiple Object Tracking: Case of Aircraft Detection and Tracking
Ameni Ellouze, Mohamed Ksantini, François Delmotte, Mohamed Karray .. (Tunisia–
France)
- SCI 4.3 Implementation of an Emergency Indicating Line Follower and Obstacle Avoiding
Robot
Prajoona Valsalan, Priyanka Surendran (Bahrain–Oman)
- SCI 4.4 Muscle Movement Tracking Using Nanocomposite Based Pressure Sensor
Bilel Ben Atitallah, Rajarajan Ramalingame, Nabil Derbel, Olfa Kanoun ... (Tunisia–
Germany)
- SCI 4.5 Evaluation of EMG Signal Time Domain Features for Hand Gesture Distinction
Rim Barioul, Sameh Fakhfakh Ghribi, Houada Ben Jmaa Derbel, Olfa Kanoun (Tunisia–
Germany)
- SCI 4.6 Electronic Motion Capture Glove based on Highly Sensitive Nanocomposite Sensors .
*Dhivakar Rajendran, Renato Torres, Zheng Hu, Rajarajan Ramalingame, Ammar Al-
Hamry, Olfa Kanoun* (Germany)

Coffee Break



Friday, 15:55 -16:15

Session CSP 6 : WSN & MIMO

Chairs : Omar Daoud (Jordan)
Mahmud Öztürk (Turkey)

- CSP 6.1 Wireless Sensors Converged Network Enhancement
Omar R Daoud, Ahlam Damati (Jordan)
- CSP 6.2 Capacity Analysis of MIMO Mobile-to-Mobile Communication Links Using Geometry-based Modeling
Mohd Yaqoob Wani, Wani., Waseem Abbasi, Muhammad Riaz Riaz (Pakistan)
- CSP 6.3 High Isolation With Defected Ground Structures For MIMO Elliptical Multi-Antennas
Marwa Daghari, Chafai Abdelhamid, Hadi Sakli (Tunisia)
- CSP 6.4 High Isolation With Metamaterial Improvement In A Compact UWB MIMO Multi-Antennas
Chafai Abdelhamid, Marwa Daghari, Hedi Sakli, Chafaa Hamrouni (Tunisia)
- CSP 6.5 Asynchronous Time Synchronization Protocol for WSNs
Ali A. Al-Shaikhi, Ramadan Abdul-Rashid, Ahmad Masoud (Saudi Arabia)
- CSP 6.6 On the Investigation of Bandwidth Allocation for Short-Range and Long-Range Heterogeneous Wireless Networks
Can Kazdag, Özgür Alaca, Ali Rıza Ekti, Serhan Yarkan (Turkey)

Session CSP 7 : Signal Processing Applications

Chairs : Mohamed Deriche (Saudi Arabia)
Zeynep Turgut (Turkey)

- CSP 7.1 Wireless Monitoring of Respiration and Heart Rates Using Software-Defined-Radio ..
Ali Alwahedi, Mojtaba Al-Shams, Mohammed Aieash Albettar, Saleh A. Alawsh, Ali H. Muqaibel (Saudi Arabia)
- CSP 7.2 Green Energy-Powered Allocations for OFDM-based Cognitive Radio Networks
Raouia Masmoudi Ghodhbane (France)
- CSP 7.3 Iterative Signal Detection Based on MSD-CG Method for Uplink Massive MIMO Systems
Zaid Albataineh (USA)
- CSP 7.4 Applications of Artificial Intelligence and Machine Learning in the Area of SDN and NFV: A Survey
Anteneh A. Gebremariam, Muhammad Usman, Marwa Qaraqe (Qatar-Italy)
- CSP 7.5 Applications of Deep Learning and Big Data Technologies
Şükrü Okul, Dogukan Aksu, M. Ali Aydın (Turkey)

Session PSE 5 : Power Electronics in Renewable Energy Systems

Chairs : Nabil Derbel (Tunisia)
Bilal Wajid (Pakistan)

- PSE 5.1 Maximum Power Point Tracking of Photovoltaic Systems Using Innovated Genetic Algorithm Methods
Nadia Drir, Loudini Malik, Linda Barazane (Algeria)
- PSE 5.2 New Control Method for Electric Cars
Saber Hadj Abdallah, Souhir Tounsi (Tunisia)
- PSE 5.3 MPPT Control Strategies for Photovoltaic Applications: Algorithms and Comparative Analysis
Rabeb Abid, Sameh EL mahjoub, Ferdaous Masmoudi Loukil, Nabil Derbel . (Tunisia)
- PSE 5.4 Fuzzy Logic Control of Circulating Current between Parallel Interleaved Converter Connected to Grid
Ines Mehouchi, Mohamed Abbes, Souad Chebbi (Tunisia)
- PSE 5.5 A New soft switching algorithm for power control in Three phase grid connected PV plant
Amal Marrekchi, Souhir Sallem, Mohamed Kamoun (Tunisia)

Session SAC 6 : Robust Control

Chairs : Mohamed Naceur Abdelkrim (Tunisia)
Mustafa Alshawaqfeh (Jordan)

- SAC 6.1 Novel Event Triggering of Networked Control Systems under Periodic Attacks
MagdiSadek Mahmoud, Bilal Karaki (Saudi Arabia)
- SAC 6.2 Robust H_∞ Networked Control of Microgrid Systems
Abdulwahid A. Al-Saif (Saudi Arabia)
- SAC 6.3 LQR control of a Grid Side Converter of a DFIG based WECS: LMI approach based on Lyapunov condition
Sana Salhi, Salah Salhi (Tunisia)
- SAC 6.4 Remote Supervision for Uncertain NetworkControlled Systems in Set-membership Framework
Afef Najjar, Messaoud Amairi (Tunisia)

Session SCI 5 : Electrochemical Sensors

Chairs : Najla Fourati (Germany)
Serhan Yarkan (Turkey)

- SCI 5.1 Graphite Screen Printed Electrodes Functionalized with AuNPs-PEI for Nitrite Detection
Malak Talbi, Ammar Al-Hamry, Priscila Rios Teixeira, Ayda Bouhamed, Sawsen Azzouzi, Leonardo Paterno, Mounir Ben Ali, Olfa Kanoun .. (Tunisia–Brazil–Germany)
- SCI 5.2 Electrochemical detection of nitrite using screen printed graphite electrode modified by ION/rGO
Amira Ghezal, Ammar Al-Hamry, Ayda Bouhamed, Sawsen Azzouzi, Leonardo Paterno, Mounir Ben Ali, Olfa Kanoun (Tunisia–Brazil–Germany)
- SCI 5.3 Investigation of Laser Induced Graphene Electrodes Modified by MWNT/AuNPs for Detection of Nitrite
Salem Nasraoui, Ammar Al-Hamry, Adiraju Anurag, Priscila Rios Teixeira, Sami Ameer, Leonardo Paterno, Mounir Ben Ali, Olfa Kanoun (Tunisia–Brazil–Germany)
- SCI 5.4 Detection of Dimethoate Pesticide using Layer by Layer Deposition of PDAC/GO on Ag electrode
Tharun Ega, Ammar Al-Hamry, Olfa Kanoun, Tamara Lazarevic-Pašti, Danica Bajuk-Bogdanović, Igor Pašti, Raul Rodriguez, Evgeniya Sheremet, Leonardo Paterno (Brazil–Serbia–Germany–Russia)
- SCI 5.5 Thermal Analysis of a Microsensor based on GO/Polyvinyl Alcohol for Humidity Measurements
Ammar Al-Hamry, Carlo Trigona, Salvatore Baglio, Olfa Kanoun .. (Italy–Germany)

Saturday , 23 of March, 2019

D-303 Saturday, 09:30-10:30
Keynote Lecture KL-SAC 1:
Chairs : Mohamed Ksantini (Tunisia)
Yasin Özçelep (Turkey)

KL-SAC 1 Observation & Control of Hybrid Dynamical systems
Mohamed Djemai (France)

D-304 Saturday, 09:30-10:30
Keynote Lecture KL-PSE 1:
Chairs : Ahmed Hafaif (Algeria)
Yasin Özçelep (Turkey)

KL-PSE 1 Sustainable Mobility: State of the Art
Ahmed Masmoudi (Tunisia)


D-403 Saturday, 09:30-10:30
Keynote Lecture KL-CSP 1:
Chairs : Faouzi Derbel (Denmark)
Ali Rıza Ekti (Turkey)

KL-CSP 1
Mazen Hasna (Qatar)

D-405 Saturday, 09:30-10:30
Keynote Lecture KL-SCI 1:
Chairs : Olfa Kanoun (Germany)
Özgür Can Turna (Turkey)

KL-SCI 1 MIP/IIP based electrochemical sensors: great advantages and real limitations
Najla Fourati (France)

Saturday, 10:30-11:00

Coffee Break 

Room: D-303

Saturday, 11:00-13:00

Session CSP 8 : Communication

Chairs : Faouzi Derbel (Germany)
Mehmet Deniz Demirci (Turkey)

- CSP 8.1 Real-Time Data Transmission over PSTNs on Physical Layer
Sezer Can Tokgoz, Serhan Yarkan, Scott Miller, Khalid A. Qaraqe .. (Turkey–Qatar–USA)
- CSP 8.2 Performance evaluation of RPL in the context of node mobility
Ibtissem Zaatouri, Françoise Sailhan, Stephane Rovedakis, Awatef Ben Fradj Guiloufi, Nouha Alyaoui, Abdennaceur Kachouri (Tunisia–France)
- CSP 8.3 On the Chaos Synchronization in CBSC Systems over Realistic Wireless Channels ...
Walid A. Al-Hussaibi, Jaafar Alsmael, Mustafa Turkmen (Turkey–Iraq)
- CSP 8.4 Energy-Efficient Resource Allocation for NOMA Systems
Naziha Glei, Belgacem Chibani (Tunisia)
- CSP 8.5 The effect of Electronic Jammers on GPS Signals
Esat Elezi, Göksel Çankaya, Ali Boyacı, Serhan Yarkan (Turkey)

Room: D-304

Saturday, 11:00-13:00

Session CSP 9 : Hardware

Chairs : Mohamed Abid (Tunisia)
Yasin Özçelep (Turkey)

- CSP 9.1 FPGA implementation of simplified Fuzzy LRU replacement algorithm
Ali Titinchi, Naser Halasa (Oman–Jordan)
- CSP 9.2 Parallel implementation of HEVC encoder on multicore ARM-based platform
Nejmeddine Bahri, Mohamed Maazouz, Randa Khemiri, Nouri Masmoudi . (Tunisia–Algeria)
- CSP 9.3 A Hardware-Efficient Parallel Architecture for HEVC Deblocking Filter
Lella Aicha Ayadi, Wided Boubakri, Loukil Hassen, Nouri Massmoudi (Tunisia)
- CSP 9.4 Compact 5T2M ternary content addressable memory cell
Sadegh Rouhi, Sattar Mirzakuchaki (Iran)
- CSP 9.5 Exploiting Machine Learning Applications for Smart Grids
Kadir Gunel, Ali Rıza Ekti (Turkey)
- CSP 9.6 Performance Evaluation of White LED-based OFDM-VLC Systems with Blue Filters: Experimental Study
Sezer Can Tokgoz, Noha Anous, Serhan Yarkan, Ali Boyacı, Khalid A. Qaraqe (Turkey–Qatar–USA)

Session PSE 6 : Renewable energy systems II

Chairs : Souhir Sallem (Tunisia)
Serpil Üstebay (Turkey)

- PSE 6.1 Photovoltaic power forecasting through temperature and solar radiation estimation ..
Rim Ben Ammar, Mohsen Ben Ammar, Abdelmajid Oualha(Tunisia)
- PSE 6.2 PI and PR Current Controllers of Single Phase Grid: Analysis, Comparaison and
Testing
Sabri Rhili, Trabelsi Hafedh, Jihed Hmad (Tunisia)
- PSE 6.3 Wind Plant Control Under Grid Code Requirements
Imen Karray, Khadija Ben Kilani, Mohamed Elleuch (Tunisia)
- PSE 6.4 Impacts of Wind Power Generation on Static Security of Power System
Hajer Jmii, Asma Meddeb, Souad Chebbi (Tunisia)
- PSE 6.5 Comparison Between Fluctuant And Constant Power Integration In The Electrical
Network
Nahla Ben Halima, Sahar Ammous, Abdelmajid Oualha(Tunisia)

Session SAC 7 : Robotics & Automation

Chairs : Abdul-Wahid Saif (Saudi Arabia)
Özgür Can Turna (Turkey)

- SAC 7.1 Robust Adaptive Sensorless Force and Parameters Estimation for Nonholonomic Mobile
Manipulators
Mohamed Boukattaya, Tarak Damak (Tunisia)
- SAC 7.2 Method of gap combined with fuzzy logic controller designed for mobile robot navigation

Dorra Ayedi, Maïssa Boujelben, Chokri Rekik(Tunisia)
- SAC 7.3 Genetic Algorithm for Drones Multi-objective Traveling Salesman Problem
Manel Hentati, Raida Hentati (Tunisia)
- SAC 7.4 Integration of Camera and Inertial Measurement Unit for Entire Human Robot Inter-
action Using Machine Learning Algorithm
Matthias Putz, Mohamad Bdiwi, Azam Haghighi (Germany)
- SAC 7.5 Robust Adaptive Feedback Linearization Control of Human Exoskeletons
Racem Jribi, Boutheina Maalej, Nabil Derbel (Tunisia)

Room: D-403

Saturday, 11:00-13:00

Session SCI 6 : Sensor Systems 2

Chairs : Mohammed Baniyounis (Jordan)
Nabil Derbel (Tunisia)

- SCI 6.1 Investigation of the inductive link parameter variations on the WPT system efficiency
Yosra Ben Fadhel, Fatma Doub, Khaoula Yeferni, Salem Rahmani, Kamal Al-Haddad
(Tunisia-Canada)
- SCI 6.2 Multi-Parallel Sending Coils for Movable Receivers in Inductive Charging Systems ..
Ghada Bouattour, Houda Ben Jmaa Derbel, Olfa Kanoun (Tunisia-Germany)
- SCI 6.3 Street Lighting Energy-Saving System
Adnan M. Al-Smadi, Salam Salah, Areen Al-Moomani, Majd Al-Bataineh .. (Jordan)
- SCI 6.4 Hardwired solutions for a pipelined RISC processor data hazards
Hajer Najjar, Riad Bourguiba, Jaouhar Mouine (Tunisia-Saudi Arabia)
- SCI 6.5 Water Pipeline Monitoring and Leak Detection using soil moisture Sensors: IoT based
solution
*Manel Elleuchi, Raouia Khelif, Mohamed Kharrat, Mohammed Aseeri, Abdulfattah
Obeid, Mohamed Abid* (Tunisia-Saudi Arabia)

Saturday, 13:00-14:00



Lunch

Saturday, 14:00-15:00



Closure & Conference Gala

Saturday, 18:00-20:00

Networking and Free Activities

Sunday , 24 of March, 2019

Sunday, 09:30-15:00

Networking and Free Activities