



**SENSET2017**  
**International Conference on SENSORS,**  
**NETWORKS, SMART And EMERGING TECHNOLOGIES**  
**Movenpick Hotel, Beirut, LEBANON**  
**September 12-14, 2017**



September 12, 2017 Day-1 Tuesday		
12h00-17h00	REGISTRATION	
17h00-17h30	OPENING CEREMONY	
17h30-18h15	Keynote speaker and Conference Honorary Chair : Pr. Isam Shahrouf , University of Lille, France "What do we know about Smart Cities Concept and Implementation"	
<i>18h15</i>	<i>Reception</i>	
September 13, 2017 Day-2 Wednesday Morning		
9h-10h30	<i>Keynote Session 1</i> <i>Chair: Prof. Isam Shahrouf, University of Lille, France</i>	
9h00-9h45	Keynote Speaker: Mr. Gilles Betis, Chair of IEEE Smart Cities Initiative, France "Open Data, a new common for the development of the Smart Territories"	
9h45-10h30	Keynote Speaker: Mr. José Ignacio Castillo Velázquez, Autonomous University of Mexico City, Mexico "Smart Cities as technology integrators: A holistic view"	
<i>10h30-10h50</i>	<i>Coffee Break</i>	
10h50-12h50	<i>Technical Session 2: Antennas and Sensors</i> <i>Chair: Prof. Raed Shubair, Khalifa University, UAE</i>	
10h50-11h10	"A Wearable RF Sensor on Fabric Substrate for Pulmonary Edema Monitoring", Muhammad Tayyab; <b>Mohammad S. Sharawi</b> ; Atif Shamim, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia	
11h10-11h30	"Pixel and Patch Comparison Circular Polarization", <b>Ali Siblini</b> ; Hussein AbouTaam; Bernard Jecko; Mohamed Rammal; Anthony Bellion, University of Limoges, France, Lebanese University, Lebanon	
11h30-11h50	"Some Issues in the Design of Recent MIMO Antenna Systems", <b>Mohammad S. Sharawi</b> , King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia	
11h50-12h10	"Performance Evaluation of SMS Rectangular Microstrip Patch Antennas", <b>Manal Fattoum</b> ; Hamza Issa; Soubhi Abou Chahine; Ali F. Almutairi, Beirut Arab University, Lebanon	
12h10-12h30	"AGC with Signal Offset and Peak-to-Peak Amplitude Stabilization through Feedback Control", <b>Ali Daher</b> ; Ziad Osman; Ali Massoud Haidar, Beirut Arab University, Lebanon	
12h30-12h50	"On the Design of Wearable Antennas for Emerging Medical" , <i>Invited paper</i> , Nadeen R. Rishani, <b>Raed M. Shubair</b> , and Ghadah AlDabbagh, Khalifa University, UAE	

10h50-12h50	<i>Technical Session 3: Signal and Image Processing</i> <i>Chair: Dr. Dany Obeid - Dr. Alaa Hilal</i>	
10h50-11h10	"Acoustic source localization based on the similarity rate between frequency-time images", Karl Hourany; Farouk Benmeddour; Emmanuel Moulin; Dorothee Callens; Jamal Assaad; Youssef Zaatat, University of Valenciennes, France, Lebanese University, Lebanon	
11h10-11h30	"Copy-Move Forgery Detection using Principal Component Analysis and Discrete Cosine Transform", Alaa Hilal; Taghreed Hamzeh; Samer Chantaf, Lebanese University, Lebanon	
11h30-11h50	"Time Reversal Receive Antenna Shift Keying On MIMO LOS Channel", Ali Mokh; Yvan Kokar; Maryline H�elard; Matthieu Cruss�iere, INSA - University of Rennes, France	
11h50-12h10	"ElectroEncephalographic Based Brain Computer Interface for Unspoken Speech", Nassib Abdallah; Bassam Daya; Pierre Chauvet; Shadi Khawandi, University of Angers, France, Lebanese University, Lebanon	
12h10-12h30	"Sentiment Analysis: Arabic Sentiment Lexicons", Khaled Sabra; Rached Zantout; Mohamad El Abed; Lama Hamandi, Rafic Hariri University, Lebanon	
12h30-12h50	"Determinant characteristics in EEG signal based on bursts amplitude segmentation for predicting pathological outcomes of a premature newborn", Yasser Al Hajjar; Abd El Salam Al Hajjar; Bassam Daya; Pierre Chauvet, University of Angers, Lebanon	
10h50-12h50	<i>Technical Session 4: Smart City and Smart technologies</i> <i>Chairs: Prof. Fadi Hage Chehade - Prof. Farouk Fardoun</i>	
10h50-11h10	"Comprehensive Management Platform for Smart Cities", Isam Shahrour; Sheyar Ali; Zahra Maaziz; Aziz Soulhi, university of Lille, France	
11h10-11h30	"Smart Cities: System and Tools used for the digital Modelling of Physical Urban Systems", Isam Shahrour; Abdurahman Al furjani; Lyes Alileche, University of Lille, France	
11h30-11h50	"Smart Technology for Water Quality Control: Feedback about use of water quality sensors", Christine Saab; Isam Shahrour; Fadi Hage Chehade, University of Lille, France, Lebanese University, Lebanon	
11h50-12h10	"Theory of Change for the Transformation towards Smart Sustainable Cities", Maysoun Ibrahim; Ali El-Zaart; Carl Adams, Beirut Arab University, Lebanon	
12h10-12h30	"Multi-Objective Decision Making Optimization of a Residential Net Zero Energy Building in Cold Climate", Fatima Harkouss; Farouk Fardoun; Pascal-Henry Biwole, Lebanese University, Lebanon	
12h30-12h50	"Design and Optimization of a Hybrid Micro Grid", Rabih Rammal; Ali Koubayssi, Lebanese International University, Lebanon	
13h-13h50	<i>Special Session 5 : Invited papers on Antennas and Smart Cities</i> <i>Chairs : Dr. Hanna Farhat, Mr. Gilles Betis</i>	
13h-13h25	"Frugal Social Sustainable Collaborative Smart City Casablanca paving the way towards building new concept for "Smart Future Cities By and for All", Aawatif HAYAR, Gilles Betis, University Hassan II Casablanca, Morocco	
13h25-13h50	"Terahertz Spectroscopy and Imaging for the Detection and Identification of Illicit Drugs", Maryam O. AlNabooda, Raed M. Shubair, Nadeen R. Rishani, and Ghadah AlDabbagh, Khalifeh University, UAE	
13h50-15h	<i>Lunch Break</i>	

<b>September 13, 2017 Day-2 Wednesday Afternoon</b>		
<b>15h-16h30</b>	<b>Keynote Session 6</b> <i>Chair: Dr. Mohamad Husseini, Beirut Research and Innovation Center, Lebanon</i>	
<b>15h-15h45</b>	Keynote Speaker: Pr. Mohamad Sharawi, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia <b>"MIMO Antenna System Designs for 4G and 5G Applications: Current Status and Future Forecast"</b>	
<b>15h45-16h30</b>	Keynote Speaker: Pr. Yahia Antar, Royal Military college of Canada and Queen's University, Canada <b>"Overview of Some Recent Advances and Future Trends in Antenna Research"</b>	
<b>16h30-16h50</b>	<i>Coffee Break</i>	
<b>16h50-18h50</b>	<b>Technical Session 7: Networks, Security, Applications</b> <i>Chairs: Dr. Michel Owayjan - Dr. Anis Ismail</i>	
<b>16h50-17h10</b>	<b>"Parking Management System Using Mobile Application", Michel J Owayjan; Bahaa Sleem; Elio Saad; Amer Maroun, American University of Science and Technology, Lebanon</b>	
<b>17h10-17h30</b>	<b>"Emulation of backbone's connectivity and management for the advanced network in Latin America: 2016's topology", Jose-Ignacio Castillo-Velazquez; Daniel-Javier Serrano-Martínez; Augusto Morales, Autonomous University of Mexico City, Mexico</b>	
<b>17h30-17h50</b>	<b>"Enhancing mobile workflow execution by modeling flexible security controls", Augusto Morales; Miguel Hernandez y Lopez; Jose-Ignacio Castillo-Velazquez; Borja Bordel Sanchez, Autonomous University of Mexico City, Mexico</b>	
<b>17h50-18h10</b>	<b>"Uni-Bus Assist: A smarter safer bus", Ali Bazzi; Zaynab Kassem; Moustafa Rahal; Majd Ghareeb; Samih Abdul-Nabi, Lebanese International University, Lebanon</b>	
<b>18h10-18h30</b>	<b>"Smart Bus: A Tracking System for School Buses", Majd Ghareeb; Athar Ghamloush; Hawraa Hamdan; Ali Bazzi; Samih Abdul-Nabi, Lebanese International University, Lebanon</b>	
<b>18h30-18h50</b>	<b>"Arduino Based Human-Following IV Stand", Ali Merhi; Murtada Hasan; Samih Abdul-Nabi; Ali Bazzi; Majd Ghareeb, Lebanese International University, Lebanon</b>	

<b>16h50-18h50</b>	<b><i>Technical Session 8: Smart Cities and Energy</i></b> <b><i>Chairs: Prof. Marwan SADEK - Prof. Ali El-Zaart</i></b>	
<b>16h50-17h10</b>	<b>"Smart Water for Leakage Detection: Feedback about the Use of Automated Meter Reading Technology"</b> , Elias Farah; Isam Shahrouh, University of Lille, France, Lebanese University, Lebanon	
<b>17h10-17h30</b>	<b>"Real-Time Scheduling of aperiodic tasks in Energy Harvesting Devices"</b> , Rola El Osta; Maryline Chetto; Hussein El Ghor; Rafic Hage, University of Nantes, France	
<b>17h30-17h50</b>	<b>"Energy Performance Evaluation of Geothermal Boreholes"</b> , Zahraa Mohamad; Farouk Fardoun, Lebanese University, Lebanon	
<b>17h50-18h10</b>	<b>"Assessing Smartness of Smart Sustainable Cities: a Comparative Analysis"</b> , Sukaina Al-Nasrawi; Ali El-Zaart; Carl Adams, Beirut Arab University, Lebanon,	
<b>18h10-18h30</b>	<b>"Analysis of the use of LoRaWan technology in a Large-Scale Smart City Demonstrator"</b> , Marine Lorient; Ammar Aljer; Isam Shahrouh, University of Lille, France	
<b>18h30-18h50</b>	<b>"Use of GIS for SunRise Smart City project, large scale demonstrator of the Smart City"</b> , Ahmad Afaneh; Isam Shahrouh, University of Lille, France	
<b>16h50-18h30</b>	<b><i>Technical Session 9: Sensors for Biomedical Applications</i></b> <b><i>Chair: Prof. Mohamad Ismail Annagar</i></b>	
<b>16h50-17h10</b>	<b>"Miniaturized SIW sensor for liquid Permittivity Measurements"</b> , Mohamad Khalil, Jalal Jomaah, Mahmoud Kamarei, University of Tehran, Iran, Lebanese University, Lebanon	
<b>17h10-17h30</b>	<b>"Graphene Oxide - Nylon ECG Sensors for Wearable IoT Healthcare"</b> , Nicholas Hallfors; Maguy Abi Jaoude; Kin Liao; Mohammed Ismail; Abdel F. Isakovic, Khalifa University, United Arab Emirates	
<b>17h30-17h50</b>	<b>"Comparison Between Single and Two-Antenna VNA System Used for Heartbeat Rate Extraction"</b> , Sarah El-Samad; Dany Obeid; Gheorghe Zaharia; Sawsan Sadek; Ghais El Zein, INSA, University of Rennes, France, Lebanese University, Lebanon	
<b>17h50-18h10</b>	<b>"A Novel Low SAR Water-Based Mobile Handset Antenna"</b> , Dina Serhal; Najat Nasser; Patrick Vaudon; Mohamed Rammal; Rabih Barake, Rafic hariri University, Lebanese university, Lebanon	
<b>18h10-18h30</b>	<b>"A UWB modified patch Antenna in direct breast contact for Cancer Detection"</b> , Zahra Katbay; Andre Perennec; Marc Le Roy; Sawsan Sadek; Raafat Lababidi; Saadou Almkdad, University of Brest Occidental, France, Lebanese University, Lebanon	
<b>20h</b>	<b><i>Gala Dinner</i></b>	

**September 14, 2017 Day-3 Thursday Morning**

<b>9h15-10h</b>	<b>Poster Session S10 : Chairs Dr. Anis Ismail - Dr. Hanna Farhat</b>	
	"Role based access control model extended with attributes", Yasser Almofaalani, HIAST, Syria	
	"Smart Technology for a comprehensive approach of comfort in social housing", Isam Shahrour; Khadija Jnat; Yasser Abdelghani; Afif Benyahya, University of Lille, France, Lebanese University, Lebanon	
	"Smart system for urban sewage: Feedback on the use of smart sensors", Yves Abou Rjeily; Oras Abbas; Isam Shahrour; Marwan Sadek; Fadi Hage Chehade, University of Lille, France, Lebanese University, Lebanon	
	"Smart System for Social Housing Monitoring", Ammar Aljer; Marine Lorient; Isam Shahrour; Afif Benyahya, University of Lille, France, Lebanese University, Lebanon	
	"Microwave Energy Harvesting Using Rectangular Micro-strip Patch Array Antenna", Mohamed Zied Chaari; Hamadi Ghariani; Mongi Lahiani; Rashid Rahimi, QSC, Qatar	
	"Superconducting dipole antennas, advantages and limitations", Hala Fawaz, Lebanese University, Lebanon	
	"A Survey of Methods for the construction of a Brain Computer Interface", Nassib Abdallah; Bassam Daya; Pierre Chauvet; Shadi Khawandi, University of Angers, France, Lebanese University, Lebanon	
	"Infinity Of Controls With Intelligent Robot Remote Control", Mohamad Saad El Dine; Ahmad Rafhi; Abdelkader Elrafe; Lara Alchamy, University Libano-Francaise, Lebanon	
	"Utilization of Data Visualization for Knowledge Discovery in Modern Logistic Service Companies", Lina Sharawi; George Sammour, Princess Sumaya University of Technology, Jordan	
	"PI-to-PI: a Solution towards Secure Peer to Peer Communication Network", Majd Ghareeb; Ali Bazzi; Mohamad Raad, Lebanese International University, Lebanon	
	"Electromagnetic Band Gap Antenna for GSM Applications", Lina Mostafa, Najib Fadlallah, Lebanese University, Lebanon	
	"Offline Group Locator and Tracking System", Anwar Al Jassem; Fatimah Farasha; Samih Abdul-Nabi; Ali Bazzi; Ismail El Sayad, Lebanese International University, Lebanon	
	"LINC Performance with Wilkinson Matched and Chireix Unmatched Combiners", Mohamad Saad El Dine; Mohamad El-Asmar; Ahmad Rafhi, University Libano-Francaise, Lebanon	
	"Hybrid Control of A Solar Tracking System Using MDOF-SUI PID Controller", Yasser Mohammed Safan; Sameh Shaaban; Mohamed Ibrahim Abu El-Sebah, October University for Modern Sciences and Arts (MSA), Egypt	
	"Design of a Miniaturized Dual Wide Band and Tri Band Artificial Magnetic Conductor in LTE Regions", Zeinab Fneish; Fatima Mazeh; Hussam Ayad; Ghaleb Faour; Majida Fadlallah; Jalal Jomaah; Ali Abou Khalil, Lebanese University, Lebanon	
	"Circular Antenna Array Design for Breast Cancer Detection", Ridha Ghayoula, Laval University, Canada	
	"Moving element method: A critical review", Reda Mezeh; Marwan Sadek; Fadi Hage Chehade; Ahmed Arab, Lebanese University, Lebanon	
	"Innovation Of A Secured Transmitter/ Receiver Chain By Creating A New Encryption Algorithm", Mohamad Saad El Dine; Diala Kahil; Maya Abou Lebdeh; Ahmad Rafhi, University Libano-Francaise, Lebanon	

10h-11h30	<i>Keynote Session 11</i> <i>Chair: Prof. Bachar ElHassan, Lebanese University, Lebanon</i>	
10h30-10h45	Keynote Speaker: Dr. Mohamed Al Hadidy, CST Middle East, Egypt "EM Simulation State of the Art for Signal Processing and Enhanced Communication Systems"	
10h45-11h30	Keynote Speaker: Mr. Bander Allaf, Chair, IEEE PES Western Saudi Arabia, CEO, Juffali Energy & Utilities, Saudi Arabia "Competitiveness of Solar Energy Applications in Middle East"	
11h30-11h45	<i>Coffee Break</i>	
11h45-13h15	<i>Keynote Session 12</i> <i>Chair: Prof. Mohamad Rammal, Lebanese University, Lebanon</i>	
11h45-12h30	Keynote Speaker: Prof. Fadi Dornaika, Professor, IKERBASQUE, Spain "Contribution to machine learning tools: Applications to visual data analysis"	
12h30-13h15	Keynote Speaker: Prof. Omar Ramahi, Professor, University of Waterloo, Ontario, Canada "Electrically-Small Resonators as a Lego for Electromagnetic Systems"	
13h15-14h30	<i>Lunch Break</i>	

**September 14, 2017 Day-3 Thursday Afternoon**

14h30-16h30	<i>Technical Session 13: Signal and Image Processing</i> <i>Chairs: Prof. Bassam Daya - Prof. Ammar Assoum</i>	
14h30-14h50	"On the Parallelization of Closed-set Patterns Classification for an Automatic License Plate Recognition System", Salah Al-Shami; Ahmed Zekri; Ali El-Zaart; Rached Zantout, Beirut Arab University, Lebanon	
14h50-15h10	"ANC-based Broadcasting Technique in Vehicular Networks", Abdel Mehsen Ahmad; Zouhair El-Bazzal; Rola Sabra, Lebanese International University, Lebanon	
15h10-15h30	"Emotion Recognition in Arabic Speech", Samira Klaylat; Lama Hamandi; Ziad Osman; Rached Zantout, Beirut Arab University, Lebanon	
15h30-15h50	"Sparse feature extraction for model-less robust face pose estimation", Charbel Chahla; Fadi Dornaika; Fahed Abdallah; Hichem Snoussi, Lebanese University, Lebanon	
15h50-16h10	"The influence of the presence of a defect in a structure on the cross-correlation, application to the tubular structure", Karl Hourany; Farouk Benmeddour; Emmanuel Moulin; Dorothee Callens; Jamal Assaad; Youssef Zaatat, University of Valenciennes	
16h10-16h30	"Atmospheric Correction of Landsat 8 TIRS Acquisitions using Split Window Algorithms for Analyzing Naameh Landfill, Lebanon", Charbel Abou Khalil; Elie El Khoury; Elsy Ibrahim, Notre-Dame University, Lebanon	
14h30-16h30	<i>Technical Session 14: Circuits and Systems</i> <i>Chairs: Dr. Aziz Barbar - Dr. Ahmad Fawzy Daw</i>	
14h30-14h50	"LandSurf: A Smart Tool for Evaluating Properties and Lands", John Massaad, Aziz Barbar, Anis Ismail, American University of Science and Technology, Lebanon	
14h50-15h10	"A Low Profile Band Pass DGS Filter for Harmonic Suppression", Ali Barzgar; Homayoon Oraizi, Iran University of Science and Technology, Iran	
15h10-15h30	"Compact High Selective DGS Band-Pass Filters for WLAN Applications", Ahmed Fawzy Daw; Ahmed A Ibrahim, October University for Modern Sciences and Arts (MSA), Egypt	
15h30-15h50	"Activity measurement for elderly population using smart phone: criterion validity in daily life", Ali Hammoud; Rana Jaber; Mohammed Ayache, Islamic University of Lebanon, Lebanon	
15h50-16h10	"Power Estimation on FPGAs Based on Signal Information Propagation Through Digital Operators", Yehya Nasser; Jean-Christophe Prévotet; Maryline Héland; Jordane Lorandel, INSA, University of Rennes, France	

<b>14h30-16h30</b>	<b><i>Technical Session 15: Wireless Network and applications</i></b> <b><i>Chairs: Prof. Samih Abdul Nabi -</i></b>	
<b>14h30-14h50</b>	<b>"Evaluating Wireless Network Vulnerabilities and Attack Paths in Smart Grid", Elie Nasr; Isam Shahrouf, American University of Science and Technology, Lebanon, University of Lille, France</b>	
<b>14h50-15h10</b>	<b>"LISA: Listening-based Immediate SCH Access scheme in VANETs", Abdel Mehsen Ahmad; Zouhair El-Bazzal; Rola Sabra, Lebanese International University, Lebanon</b>	
<b>15h10-15h30</b>	<b>"Toward enhancing connectivity through TVWS in outdoor rural isolated environment", Mohammed Amine Lahlou; Adil EL Bouzrazi; Aawatif Hayar, University Hassan II Casablanca, Morocco</b>	
<b>15h30-15h50</b>	<b>"Context-Aware Network Selection Algorithm for Heterogeneous Wireless Networks", Mohamad Zalghout; Matthieu Crussière; Samih Abdul-Nabi; Jean-François Hèlard; Ayman Khalil, Lebanese International University, Lebanon</b>	
<b>15h50-16h10</b>	<b>"Generic Hybrid Methods for Secure Connections based on the Integration of GBA and TLS/CA", Elie Kfoury; David Khoury, American University of science and Technology, Lebanon</b>	
<b>16h10-16h30</b>	<b>"Efficient and accurate monitoring of the depth information in a Wireless Multimedia Sensor Network based surveillance", Anthony Tannoury; Rony Darazi; Christophe Guyeux; Abdallah Makhoul, Antonine university, Lebanon</b>	
<b>16h30-16h45</b>	<b><i>Coffee Break</i></b>	
<b>16h45-17h15</b>	<b>Closing Ceremony</b>	
<b>17h30</b>	<b><i>Round table</i></b>	