

2020 Global Mosharaka Congress on Electrical Engineering (GMC-ElecEng 2020)

**Valencia, Spain
4 – 6 September 2020**



**IEEE Catalog Number: CFP20V52-POD
ISBN: 978-1-7281-4296-8**

**Copyright © 2020, Mosharaka for Research and Studies
All Rights Reserved**

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP20V52-POD
ISBN (Print-On-Demand):	978-1-7281-4296-8
ISBN (Online):	978-1-938302-00-8

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

MIC-ElectricApps 2020 Content

Proceeding Content		I
Conference program		VI
Conference Committee		XIV
Conference Reviewers		XVI
Keynote Talks:		
ID	Authors and Title	Pages
37.Key-18	Advanced architectures of Next Generation Wireless Networks Prof. Pascal Lorenz, Université de Haute-Alsace, Colmar, France	XVIII
37.Key-22	Implementation of Ultradense Wireless Sensor Networks to enable IoT Context Aware Environments Prof. Francisco Falcone, Public University of Navarra, Pamplona, Spain	XIX
37.Key-42	Furthering Innovation in Hyper Communication Era Dr. Alex Vukovic, Innovation, Science & Economic Development, Ottawa, Canada	XX
37.Key-43	Advances in Deterministic Wireless Channel Characterization for IoT Applications Prof. Francisco Falcone, Public University of Navarra, Pamplona, Spain	XXI
37.Key-44	Surface acoustic wave sensors for industrial and biomedical applications Dr. Sami Hage-Ali, Institut Jean Lamour, Nancy, France	XXII
37.Key-45	Advances in WSNs for Internet of Things Applications Prof. Sandra Sendra, Universidad de Granada, Granada, Spain	XXIII
Papers		
29.Cnf-105	Furthering Innovation in Hyper Communication Era Dr. Alex Vukovic Ms. Ayat Alrjoub	1-5
29.Cnf-113	Address Event Representation (AER) approach to resistive sensor arrays Prof. Càndid Reig Dr. Maria-Dolores Cubells-Beltran Mr. Javio Sanchis-Muñoz Prof. Fernando Pardo Dr. Jose A. Boluda Dr. Francisco Vegara Dr. Susana Cardoso	6-9

29.Cnf-220	Implementing Low Cost and Secure Data Transmission Layer for Image Transmission in Wireless Sensor Network Prof. Cebraïl Ciflikli Mr. Kadir Aba	10-14
29.Cnf-221	Four-element UWB MIMO Antenna Design Mrs. Aïcha Mchbal Dr. Naima Amar Touhami Dr. El Ftouh Hanae Dr. Aziz Dkiouak	15-20
29.Cnf-313	Linear Time-Packing Detectors for Optical Feeder Link in High Throughput Satellite Systems Dr. Joan Bas Dr. Alexis Dowhuszko	21-26
29.Cnf-1144	Anomaly detection for aircraft electrical generator in a functional data framework Mrs. Fériel Boulfani Dr. Xavier Gendre Prof. Anne Ruiz-Gazen Mrs. Martina Salvignol	27-32
29.Cnf-1145	Towards an Intelligent control system for public transport traffic efficiency KPIs optimization Mr. Nabil Morri Dr. Sameh Hadouaj Mr. Lamjed Ben Said	33-37
29.Cnf-1146	Distribution network reconfiguration for power loss minimization using soft open point Mr. Ismail Moufid Prof. Hassane El Markhi Hassan El Moussaoui Lamhamdi Tijani	38-42
29.Cnf-1147	UWB slot antenna on shielding can for high accuracy positioning application Dr. Shaobo Chen Dr. Hongwei Liu	43-45
29.Cnf-1149	NFC Battery-Less Colour Sensor and its Applications Mr. Martí Boada Dr. Antonio Lazaro Ramón Villarino Prof. David Girbau	46-50
29.Cnf-1150	Analysis on the Effects of the Human Body on the Performance of Wearable Textile Antenna in Substrate Integrated Waveguide Technology	51-55

	Dr. Mariam El Gharbi Prof. Saida Ahyoud Prof. Noura Aknin Dr. Ignacio Gil Prof. Raul Fernandez-Garcia	
29.Cnf-1151	Broadband Planar Low Noise Amplifier for WLAN Applications Dr. Moustapha El Bakkali Dr. Mariam El Gharbi Dr. El Ftouh Hanae Dr. Naima Amar Touhami Prof. Tajeddin Elhamadi	56-60
29.Cnf-1153	CMOS Capacitance-to-Time Converter-Based Interface for Differential Capacitive Sensors Mrs. Hala Darwish Prof. Càndid Reig Dr. Maria-Dolores Cubells-Beltran Dr. Gildas Leger Dr. Andrea De Marcellis	61-64
29.Cnf-1154	Development of Optical Sensor to detect Industrial Oil in Agricultural Irrigation System Mr. Daniel Andoni Basterrechea Mr. Javier Rocher Dr. Lorena Parra Prof. Jaime Lloret	65-70
29.Cnf-1155	Implementation of an Optical Sensor to Detect Fishes in Aquiculture Tanks Mr. Daniel Andoni Basterrechea Ms. Marta Botella Campos Dr. Lorena Parra Prof. Jaime Lloret	71-76
29.Cnf-1157	Performance Optimization of Semi-Custom Memory in 7nm FPGA Mr. Sourabh Aditya Swarnkar Mr. Mohammad Anees Mr. Kumar Rahul Mr. Santosh Yachareni	77-80
29.Cnf-1159	Kalman Filter for Reducing Total Harmonics Distortion in Stand-alone PV System Ms. Liqaa Alhafadhi Dr. Jiashen Teh	81-87
29.Cnf-1161	Floating PV Solar-Powered Systems: design applied to an irrigators community in the Valencia Region – Spain	88-95

	Dr. Carlos Vargas-Salgado Mrs. Irene Mansó Borràs Dr. Manuel Alcazar-Ortega Dr. Lina Montuori	
29.Cnf-1162	Enabling the natural gas system as smart infrastructure: Metering technologies for customer applications Dr. Lina Montuori Dr. Manuel Alcazar-Ortega Dr. Carlos Vargas-Salgado Mrs. Irene Mansó Borràs	96-100
29.Cnf-1163	Communication technologies in smart grids of natural gas: new challenges Dr. Lina Montuori Dr. Manuel Alcazar-Ortega Mrs. Irene Mansó Borràs Dr. Carlos Vargas-Salgado	101-105
29.Cnf-1164	Demand Response participation in Ancillary Services: a set of regulatory proposals for policymakers in Spain Mr. Luis Larrosa López Mr. David Pecondón Mr. David Ribó-Pérez Dr. Manuel Alcazar-Ortega	106-111
29.Cnf-1165	Design and inclusion of an electric propulsion system in a traditional boat in La Albufera Mr. Diego Doménech Canosa D. Ribó-Pérez Dr. Manuel Alcazar-Ortega	112-117
29.Cnf-1166	Verification of Non-linear Arithmetic Circuits using Functionally Reduced And-Inverter-Graph (FRAIG) Dr. Sa'ed Abed Ms. Manayer Almehteb Prof. Wathiq Masnsoor Dr. Amjad Gawanmeh	118-123
29.Cnf-1167	Model Predictive Control of DC-DC Buck-Boost Converter with Various Resistive Load Values Mr. Mohamed Albira Dr. Abdullah Alzahrani Prof. Moh Zohdy	124-128

29.Cnf-1168	Frequency Reconfigurable Super Wide Band Hexagonal Patch Antenna Mr. Khaled Alhmami Mr. Abdelrahman Omar Mr. Mosab Qwakneh Dr. Yanal Faouri	129-133
-------------	--	---------