2019 International Conference on Communications, Signal Processing, and their Applications (ICCSPA 2019)

Sharjah, United Arab Emirates 19-21 March 2019



IEEE Catalog Number: CFP1974T-POD ISBN:

978-1-7281-2086-7

Copyright © 2019 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. 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:
 CFP1974T-POD

 ISBN (Print-On-Demand):
 978-1-7281-2086-7

 ISBN (Online):
 978-1-7281-2085-0

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



TABLE OF CONTENTS

Paper	Title"I"Rci g	Authors
1	Research on the Improved Data Processing Method for Foot-Mounted Inertial Pedestrian Positioning System""3	Qiuying Wang, Chunxu Kuang, Aboelmagd Noureldin, Kaiyue Liu, Xufei Cui and Zheng Guo
2	On Analysis of Signal Detection in Relays Networks over Time-Varying Rayleigh Channels" 9	Omar Gatera, Louis Sibomana, Haci Ilhan and Ahmet H. Kayran
3	Information transmission analysis of the effects of synthetic stop consonant duration modification on speech perception""34	Thoppil George Thomas
4	Edge Based Image Steganography: Problems and Solution'"3;	Rasber Dh. Rashid and Taban F. Majeed
5	Error Correction Codes in Wireless Sensor Networks: A Systematic Literature Review""46	Meriem Bettayeb, Sara Ghunaim, Nour Mohamed, and Qassim Nasir
6	Quantitative Evaluation of Four-Dimensional versus Three- Dimensional Reconstruction on XCAT Phantom Under Different Sampling Rates'""52	Sajedah Al-Momani, Salma Elabed and Salam Dhou
7	Quantitative Evaluation of 3D Reconstruction Using Filtered Back-Projection on XCAT Phantom'"56	Jumana Farhat, Aseel Alatoom, and Salam Dhou
8	Three-Dimensional CT Image Reconstruction Techniques: Implementation and Comparison'''62	Shafiya Sabah and Salam Dhou
9	Hybrid PEM Fuel-Cell-Solar Power System Design for Electric Boat with MPPT System and Fuzzy Energy Management'"'68	Waleed Obaid, A-K. Hamid, and Chaouki Ghenai
10	FPGA Reconfigurable UWB CPW Bow-Tie Aperture Antenna for Wi-Fi Applications (4.9 GHz) by Rotating Slots'"75	Waleed Obaid, Talal Bonny, and A-K. Hamid
11	IoV Road Safety: Vehicle Speed Limiting System'"7;	Mohamed Abdelsalam and Talal Bonny
12	Low-cost IMU Data Denoising using Savitzky- Golay Filters'"87	Malek Karaim, Aboelmagd Noureldin, and Tashfeen Karamat
13	Joint Frequency Offset and Channel Estimation for Two- way Relays in the Presence of Timing Offsets" 92	Ahmed I. Salameh,. Saeed Abdallah and Mohamed Saad
14	The Impact of Communications Considerations in Multi-Robot Systems'"96	Manu Nair and Sidney Givigi
15	A Review on Small-Diameter Pipeline Inspection Gauge Localization Techniques: Problems, Methods and Challenges "": 2	Lianwu Guan, Yanbin Gao, Hongyu Liu, and Wendou An, Abeolmag Noureldin

16	An Efficient Multi-View Panoramic Imaging and Extra Compression of Surveillance Cameras' Footage Using Stitching'": 8	Mohamed Saleh el Shehaby, Sherin Youssef, and Salema Fayed
17	ALOS: Acoustic Localization System Applied to Indoor Navigation of UAVs""; 6	Kleber M. Cabral, Sergio R. Barros dos Santos, Cairo L. Nascimento, Jr. and Sidney Givigi, Jr.
18	Design and Experiment of Micro Autonomous Underwater Vehicle for Twilight Zone Surveying""322	Hanxiao Rong, Lianwu Guan, and Yanbin Gao
19	Scattering from a Buried PEMC Cylinder Excited by a Line Source above a Planar Interface Separating Two Isorefractive Media''"328	Abdul Kadir Hamid and Francis Cooray
20	A Safe Systems View of IoT/ITS Solutions'"332	Abd-Elhamid M. Taha and. Najah Abu Ali
21	A New Reconfigurable Antenna for Full-band Metal-Rimmed Smartphones' Applications""337	Saqer Alja'afreh, Mallak Alshamaileh, E'qab Almajali, and Ahmad Abadleh
22	UWB Nanocellulose Coconut Coir Fibre Inspired Antenna For 5G Applications'"33;	Syuhaimi Kassim, Hasliza A Rahim, Fareq Malek, Nur Syahirah Sabli, M.E. Mat Salleh
23	Error Control Codes for Molecular Communication Channels: A Survey'"'346	Abdollah Masoud Darya, Hassan Vakani, and Qassim Nasir
24	Optimized WLAN Channel Allocation based on Gibbs Sampling with Busy Prediction using a Probabilistic Neural Network ""34:	Julian Webber, Abolfazl Mehbodniya, Kazuto Yano, and Yoshinori Suzuki
25	High Payload Steganography: Surface-Fitting The Transform Domain'"355	Tamer Rabie, Mohamad Baziyad and Ibrahim Kamel
26	Capacity Analysis of Downlink NOMA-Based Coexistent HTC/MTC in UDN""35;	Mohammed Elbayoumi, Mahmoud Kamel, Walaa Hamouda and Amr Youssef
27	A Resource Allocation based Mode Selection Scheme in D2D Communication""367	Ibtihal Ahmed, Mahmoud H. Ismail and Mohamed S. Hassan
28	Optimization Model for Time Sensitive IoT Requests'"372	Dalia Omer, Taha Landolsi, Raafat Aburukba and
29	Performance of 5GNR with Interference Alignment""376	Khawla A. Alnajjar and Mohamed El-Tarhuni
30	Role of RFID Technology in Smart City Applications"37:	Ahmed Fahmy, Hunain Altaf, Ahmed Al Nabulsi, Abdul-Rahman Al-Ali and Raafat Aburukba
31	Enhanced Training Technique for Nested Look-Up Table Based Behavioral Modeling of Nonlinear Power Amplifiers'"386	Ahmad I. Dalbah and Oualid Hammi
32	Folded Cascode Current Mirror Design using Cadence "38;	Usama M. Iqbal, Lubna S. Mahmoud, Lim Nguyen and Lutfi Albasha

33	Millimeter-Wave Analog Pre-distorted Power Amplifier	Nasir A. Quadir, Seyed
	at 65nm Node '""395	Kashfi, Amit Jain and Lutfi
		Albasha
34	Ultrathin Metamaterial Microwave Absorber Using	Nurul Fatihah Nabila Yah,
	Coconut Coir Fibre over X-Band Frequency Range'"399	Hasliza A Rahim, Mohd
		Fareq Abd Malek, Yeng
		Seng Lee, Nor Zakiah
		Yahaya, Muzammil Jusoh,
		Qammer H Abbasi and
		Sehar Mirza
35	A Symmetrically Increasing Frequency Offset for Short	Mobeen Mahmood and
	Range Beam pattern Synthesis'"3: 4	Hasan Mir
36	Forward and Reciprocal Noisy Coded Networks:	Samah A. M. Ghanem
	Precoding, Topology, and Error Analysis'"3: 8	