

2018 4th International Conference on Cloud Computing Technologies and Applications (Cloudtech 2018)

**Brussels, Belgium
26 – 28 November 2018**



**IEEE Catalog Number: CFP18B66-POD
ISBN: 978-1-7281-1638-9**

**Copyright © 2018 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:	CFP18B66-POD
ISBN (Print-On-Demand):	978-1-7281-1638-9
ISBN (Online):	978-1-7281-1637-2

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

TABLE OF CONTENTS

AUTOMATED BREAST TUMOR SEGMENTATION IN DCE-MRI USING DEEP LEARNING	1
<i>Mohammed Benjelloun ; Mohammed El Adoui ; Mohamed Amine Larhman ; Sidi Ahmed Mahmoudi</i>	
CLOUD-BASED ACOUSTIC BEAMFORMING EMULATOR FOR FPGA-BASED SOUND SOURCE LOCALIZATION	7
<i>Laurent Segers ; Bruno Da Silva ; An Braeken ; Abdellah Touhafi</i>	
DEADLINE AND ENERGY AWARE TASK SCHEDULING IN CLOUD COMPUTING	13
<i>Hicham Ben Alla ; Said Ben Alla ; Abdellah Touhafi ; Abdellah Ezzati</i>	
INTERACTIONS AND COMPARISON OF IT RISK ANALYSIS METHODS	21
<i>Chaymaa Fakrane ; Boubker Regragui</i>	
DESIGN AND IMPLEMENTATION OF A SMART GATEWAY FOR IOT APPLICATIONS USING HETEROGENEOUS SMART OBJECTS	28
<i>Yasser Mesmoudi ; Mohammed Lamnaour ; Yasser El Khamlichi ; Abderrahim Tahiri ; Abdellah Touhafi ; An Braeken</i>	
ANALYZING FAULT TOLERANCE MECHANISM OF HADOOP MAPREDUCE UNDER DIFFERENT TYPE OF FAILURES	35
<i>Samadi Yassir ; Zbakh Mostapha ; Claude Tadonki</i>	
ARTIFACT IDENTIFICATION IN DIGITAL PATHOLOGY FROM WEAK AND NOISY SUPERVISION WITH DEEP RESIDUAL NETWORKS	42
<i>Adrien Foucart ; Olivier Debeir ; Christine Decaestecker</i>	
DEEP LEARNING FOR A SMART E-LEARNING SYSTEM	48
<i>Abdessamad Chanaa ; Nour-Eddine El Faddouli</i>	
PROXIMITY TEST FOR SENSITIVE CATEGORICAL ATTRIBUTES IN BIG DATA	56
<i>Zakariae El Ouazzani ; Hanan El Bakkali</i>	
DTLS INTEGRATION IN ONEM2M BASED ON ZOLERTIA RE-MOTES	63
<i>Simone Patonico ; Thanh-Long Nguyen ; Placide Shabisha ; An Braeken ; Kris Steenhaut</i>	
PERFORMANCE EVALUATION OF IOT-FAG-CLOUD DEPLOYMENT FOR HEALTHCARE SERVICES	71
<i>Said El Kafhali ; Khaled Salah ; Said Ben Alla</i>	
OPTIMIZING MICROPHONE ARRAYS FOR DELAY-AND-SUM BEAMFORMING USING GENETIC ALGORITHMS	77
<i>Dugagjin Lashi ; Quentin Quévy ; Jan Lemeire</i>	
STORAGE AND COMPUTATION OPTIMIZATION OF PUBLIC-KEY SCHEMES ON EMBEDDED DEVICES	82
<i>Jori Winderickx ; An Braeken ; Nele Mentens</i>	
CLOUD SECURED PROTOCOL BASED ON PARTIAL HOMOMORPHIC ENCRYPTIONS	90
<i>Mostapha Derfouf ; Mohsine Eleuldj</i>	
A CLOUD-BASED ARCHITECTURE FOR REMOTE ACCESS TO DIGITAL FABRICATION SERVICES FOR EDUCATION	96
<i>Gianluca Cornetta ; Abdellah Touhafi ; F. Javier Mateos ; Gabriel-Miro Muntean</i>	
RESOURCE ALLOCATION OPTIMIZATION FOR HIERARCHICAL CLOUD DATA CENTERS	102
<i>Rafael Fogarolli Vieira ; Paulo Henrique Alves Pereira ; Diego Lisboa Cardoso</i>	
A COMPARATIVE ANALYSIS OF LOCAL AND CLOUD ACCESS ASSESSMENT FOR MULTIMODAL INTERACTIVE APPLICATION	108
<i>Igor W. S. Falcão ; Marcos C. R. Seruffo ; Daniel Da S. Souza ; Diego L. Cardoso ; José J. H. Ferreira ; Marcelino S. Da Silva</i>	
TWO-LEVEL ALLOCATION FOR H-CRAN ARCHITECTURE BASED IN OFFLOADING	115
<i>Mariane De Paula Da Silva Gonçalves ; Matheus Barros Leto ; Rafael Fogarolli Vieira ; Fabrício José Brito Barros ; Diego Lisboa Cardoso</i>	
SYMMETRIC-KEY BASED SECURITY FOR MULTICAST COMMUNICATION IN WIRELESS SENSOR NETWORKS	120
<i>Matthias Carlier ; Kris Steenhaut ; An Braeken</i>	
RGB GUIDED THERMAL SUPER-RESOLUTION ENHANCEMENT	126
<i>Feras Almasri ; Olivier Debeir</i>	
ROBUST FACIAL RECOGNITION USING EXTENDED LOCAL BINARY PATTERNS	131
<i>Gafour Yacine ; Djamel Berrabah ; Sidi Ahmed Mahmoudi</i>	

HETEROGENEOUS CLOUD COMPUTING: DESIGN METHODOLOGY TO COMBINE HARDWARE ACCELERATORS	139
<i>Bruno Da Silva ; Jan G. Cornelis ; An Braeken ; Erik H. D'Hollander ; Jan Lemeire ; Abdellah Touhafi</i>	
AUTONOMOUS WIRELESS SENSOR NETWORKS IN AUTOMATED IPM	147
<i>Mina Petric ; Cedric Marsboom ; Tom Matheusen ; Els Ducheyne ; Jurgen Vandendriessche ; Abdellah Touhafi</i>	
ON-BOARD-UNIT DATA: A BIG DATA PLATFORM FOR SCALABLE STORAGE AND PROCESSING	153
<i>Giovanni Bironi ; Yann-Ael Le Borgne ; Gianluca Bontempi ; Karl Determe</i>	
SECURITY PATTERN FOR CLOUD SAAS: FROM SYSTEM AND DATA SECURITY TO PRIVACY	158
<i>Bojan Spasic ; Annanda Th. Rath ; Philippe Thiran ; Nick Boucart</i>	
INTERNET OF THINGS: LEARNING AND PRACTICES. APPLICATION TO SMART CITY	166
<i>Olivier Debauche ; Said Mahmoudi ; Sidi Ahmed Mahmoudi</i>	
BLOCKCHAIN AND IOT FOR SECURITY AND PRIVACY: A PLATFORM FOR DIABETES SELF-MANAGEMENT	173
<i>Kebira Azbeg ; Ouail Ouchetto ; Said Jai Andaloussi ; Leila Fetjah ; Abderrahim Sekkaki</i>	
TOWARDS A SEMANTIC VIDEO ANALYSIS USING DEEP LEARNING AND ONTOLOGY	178
<i>Jemai Bornia ; Sidi Ahmed Mahmoudi ; Ali Frihida ; Pierre Manneback</i>	
WIRELESS SENSOR NETWORKS AS PART OF IOT: PERFORMANCE STUDY OF WIMAX - MOBIL PROTOCOL	184
<i>Hamza Zembrane ; Aiman Nait Abbou ; Youssef Baddi ; Abderrahim Hasbi</i>	
AN ADAPTIVE TASK SCHEDULER FOR A CLOUD OF DRONES	192
<i>Hazzaa N. Alshareef ; Dan Grigoras</i>	
Author Index	