2018 IEEE 5th International **Congress on Information Science** and Technology (CiSt 2018)

Marrakech, Morocco 21-27 October 2018



IEEE Catalog Number: CFP1867R-POD ISBN:

978-1-5386-4386-0

Copyright \odot 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:
 CFP1867R-POD

 ISBN (Print-On-Demand):
 978-1-5386-4386-0

 ISBN (Online):
 978-1-5386-4385-3

ISSN: 2327-185X

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

An AHP-based Method to Fix Inconsistencies in UML Collaborative Modeling Driss Allaki, Mohamed Dahchour and Abdeslam En-Nouaary (National Institute of Posts and Telecommunications, Morocco, Morocco)	P 1
Cooperation Based Coalition Formation in Distributed Systems Messaouda Ayachi (Dept of Computer Science, University of Bejaia, Algeria), Hachem Slimani (LIMED Laboratory Dept of Computer Science, University of Bejai, Algeria) and Hassina Nacer (Dept of Computer Science, University of Sciences and Technologies Houari Boumedienne, Algeria)	P 6
Towards A Language Interface Design to coordinate between Heterogeneous DSMLs Naima Essadi and Adil Anwar (Siweb Team Research, EMI, Mohamed V University, Morocco)	P 12
Institutional arrangement in the implementation of government's ESB: the case of Indonesia Agung Darono (Ministry of Finance of Republic of Indonesia, Indonesia)	P 18
Parallel Implementation of PrePost Algorithm Based on Hadoop for Big Data Yassir Rochd and Imad Hafidi (IPOSI Laboratory Hassan I University, Morocco)	P 24
Towards Exploring Context to Insure Fault Tolerance in Home Automation Medical System Meriem Zaiter (Larbi Ben M'hidi University of Oum El-Bouaghi, LIRE Laboratory at Abdelhamid Mehri University of Constantine 2, Algeria) Salima Hacini (LIRE Laboratory at Abdelhamid Mehri University of Constantine 2, Algeria) and Moussa Guedrez (BDL Bank, Algeria)	P 29
ABAC Conceptual Graph Model for Composite Web Services Nabil Djebari(LIMED Laboratory Computer Science Departement University of Bejaia, Algeria) Hassina Nacer (MOVEP Laboratory, Computer Science Department USTHB, Algeria) Djamil Aissani (LAMOS laboratory, Operational Research Department University of Bejaia, Algeria) Hachem Slimani (LIMED Laboratory, Computer Science Departement University of Bejaia, Algeria) and Beghdad Bey Kadda (Informatics Systems laboratory, Ecole Militaire Polytechnique, Algeria)	P 36
BPMN Profile for Collaborative Business Process Leila Amdah and Adil Anwar (Siweb Team Researsh EMI, Mohamed V University, Morocco)	P 42
Autonomous SLAs Negotiation based on Agreement-Broker: Services Availability Zineb Bakraouy, Amine Baina and Mostafa Bellafkih (INPT, National Institute of Posts and Telecommunications, Morocco)	P 48
Towards a New Meta-model of IoTs Interoperability Rachida Ait Abdelouahid, Abdelaziz Marzak and Nawal Sael (Hassan II University of Casablanca- Faculty of science Ben M'sik, Laboratory of technology of information and modeling, Morocco)	P 54

Constraint based Testing and Verification of Java Bytecode Programs Safaa Achour and Mohammed Benattou (LASTID Laboratory, Ibn Tofail University)	P 64
Scalable and Real-time time series Analytics : Telemedicine as use case Abdelilah Bouslama, Yassin Laaziz and Abdelhak Tali (LABTIC ENSA Tanger, Abdelmalek Essaadi University, Morocco)	P 70
The road safety information systems appropriate to the systemic approach: the case of Morocco Nassima Laaraj, Fouad Jawab and Said Boutahari (Laboratory of Energy & Sustainable Development (LPE2D), EST, Sidi Mohamed Ben Abdellah University, Morocco)	P 74
Data Lifecycle: From Big Data to Smart Data Mohammed El Arass (Mohammed V University, EMI-SIWEB Team, Morocco) and Nissrine Souissi (Ecole Nationale Supérieure des Mines, Computer Science Department, Morocco)	P 80
Visualizing an Emerging Mobility Business Ecosystem Anne Faber, Maximilian Riemhofer, Adrian Hernandez-Mendez and Florian Matthes (Department of Informatics Technical, University of Munich, Germany)	P 88
Testing rules for Mapreduce frameworks Sara Hsaini, Salma Azzouzi and My El Hassan Charaf (Laboratory of Informatics Systems and Optimization (ISO) Faculty of sciences, Ibn Tofail University, Morocco)	P 94
Transforming inheritance with constraints from XML schema to ODL schema Doha Malki and Bahaj Mohamed (Department of Mathematics and Computer Science, University Hassan 1st, Morocco)	P 99
Dynamic Data Sensitivity Access Control in Hadoop Platform Hafsa Ait Idar, Khalid Aissaoui, Hicham Belhadaoui and Reda Filali Hilali (CED Engineering Science, ENSEM, Lab. RITM/ESTC, Hassan II University, Morocco)	P 105
Capitalization of knowledge through ontologies: A Knowledge Management approach in a strategic intelligence process Majda Nabigh (Ecole Doctorale Abbé-Grégoire, CNAM, France) and Najima Daoudi (Lyrica Laboratory at ESI and SSL Laboratory at ENSIAS, Maroc)	P 110
Managing model conflicts in collaborative modeling using Constraint Programming Manar Zerrouk (Siweb, EMI, Mohamed V University, Morocco) Adil Anwar (Siweb, EMI, Mohamed V University, Morocco) and Imade Benelallam (SI2M, INSEA, Mohamed V University, Morocco)	P 117
Adaptation of the Value Stream Mapping (VSM) For the Moroccan Artisanal Enterprise Describing a new procedure and parameters of VSM for wood craft enterprise: case study Fatine Chouiraf and Anas Chafi (Laboratoire Techniques Industrielles, CED: Sciences et techniques de l'ingénieur, FST FEZ, Morocco)	P 124

Deconflicting policies in attribute-based access control systems Mohamed Yahiaoui, Ahmed Zinedine and Mostafa Harti (Faculty of sciences FSDM USMBA University Fez, Morocco)	P 130
Configurable Process Mining: Variability Discovery Approach Rabab Sikal(AlQualsadi research team, ENSIAS, Mohammed V University of Rabat, Morocco) Hanae Sbai (Faculty of Science and Technology, University Hassan II, Morocco) and Laila Kjiri (AlQualsadi research team, ENSIAS, Mohammed V University of Rabat, Morocco)	P 137
Ontology based on electronic payment fraud prevention Ahmed El Orche, Mohamed Bahaj and Soumya Ain Alhayat (Faculty of Sciences & Technologies HASSAN 1 / Department of Computer and Information Science, Morocco)	P 143
Context Aware Recommender Systems for Tourism: A Concise Review Asmae Bentaleb (LGS, National School of Applied Sciences Ibn Tofail University, Morocco) Younes El Bouzekri (LGS, National School of Applied Sciences Ibn Tofail University, Morocco) Ayoub Ait Lahcen (LGS, National School of Applied Sciences Ibn Tofail University LRIT, Faculty of Science Mohammed V University, Morocco) and Mohammed Boulmalf (International University of Rabat, Morocco)	P 149
Recommendation system based on data analysis Application on tweets sentiment analysis Sana Nabil, Jaber Elbouhdidi and Mohamed Yassin Chkouri (SIGL Team ENSA Tétoaun ABDELMALEK SAADI University, Morocco)	P 155
Deep Learning Based Recommender Systems Brahim Ouhbi (LM2I Laboratory, ENSAM Meknes Moulay Ismaïl University, Morocco) Bouchra Frikh (LTTI Laboratory, EST Fès Sidi Mohamed Ben Abdellah University, Morocco) El Moukhtar Zammouri (LM2I Laboratory, ENSAM Meknes Moulay Ismaïl University, Morocco) and Abdellwahed Abbad (LTTI Laboratory, EST Fès Sidi Mohamed Ben Abdellah University, Morocco)	P 161
Data Mining approach for modeling Murabaha Return Risk taking into account Economic Factors K Chelhi (Faculty of Sciences Ben M'Sik, University Hassan II, Morocco) M El Hachloufi (Faculty of Law, Economics Ain Sebaâ, University Hassan II, Morocco) M. Elfar (Faculty of Sciences, Dhar El Mahraz, University Sidi Mohammed Ben Abdellah, Morocco) A Eddaoui (Faculty of Sciences Ben M'Sik, University Hassan II, Morocco) and A Marzak (Faculty of Sciences Ben M'Sik, University Hassan II, Morocco)	P 167
Archiving and retrieving digital elaborations of ancient manuscripts Pasquale Savino, Anna Tonazzini, Franca Debole and Emanuele Salerno (ISTI-CNR Pisa, Italy)	P 172
Feature Selection Applied to G.729 Synthesized Speech for Automatic Speaker Recognition Kawthar Yasmine Zergat (Speech Com. and Signal Proc. LabLCPTS Faculty of Electronics and Computer Sciences, USTHB, Algeria) Sid Ahmed Selouani (Department of Information Management, University of Moncton, Canada) and Abderrahmane Amrouche (Speech Com. and Signal Proc. LabLCPTS Faculty of Electronics and Computer Sciences, USTHB, Algeria)	P 178

Word RNN as a Baseline for Sentence Completion Heewoong Park, Sukhyun Cho and Jonghun Park (Dept. of Industrial Engineering & Center for Superintelligence, Seoul National University, Republic of Korea)	P 183
A first step towards NLP from digitized manuscripts: virtual restoration Franca Debole, Muhammad Hanif, Emanuele Salerno, Pasquale Savino and Anna Tonazzini (Institute of Information Science and Technologies Italian National Research Council, Pisa, Italy)	P 188
Semantic Analysis of Arabic Texts within SAFAR Framework Mohammed Nasri (National School of Applied Sciences, Hassan I University, Morocco) Younes Jaafar (Mohammadia School of Engineers, Mohammed V University, Morocco) and Karim Bouzoubaa (Mohammadia School of Engineers, Mohammed V University, Morocco)	P 194
Link Prediction in Dynamic Social Networks: A Literature Review Mohammad Marjan, Nazar Zaki and Elfadil Mohamed (United Arab Emirates University, Ajman university, United Arab Emirates)	P 200
Identifying Corroborated and Contradicted Claims Among Witness Statements using Post-Hoc Collective Intelligence Dean Jones and Gunjan Mansingh (Department of Computing The University of the West Indies Mona, Jamaica)	P 208
Scanning is Just the Beginning: Exploiting Text and Language Technologies to Enhance the Value of Historical Manuscripts Angelo Mario Del Grosso, Andrea Bellandi, Emiliano Giovannetti, Simone Marchi and Ouafae Nahli (Institute of Computational Linguistics "Antonio Zampolli", Italian National Research Council (ILC-CNR), Italy)	P 214
A review of machine learning algorithms for web page classification Safae Lassri, El Habib Ben Lahmar and Abderrahim Tragha (laboratory information technology and modeling Ben M'sik Faculty of Science, Hassan II University, Morocco)	P 220
Visualizing and Transcribing Complex Writings through RTI Federico Ponchio(CNR-ISTI Pisa, Italy) Marion Lame (CNR-ISTI and UMR 7324 CITERES-LAT Pisa, Italy and Tours, France) Roberto Scopigno (CNR-ISTI Pisa, Italy) and Bruce Robertson (Classics, Mount Allison University Sackville, NB, Canada)	P 227
Feature Selection Based on Graph Representation Yassine Akhiat, Mohamed Chahhou and Ahmed Zinedine (LIMS Laboratory Faculty of sciences, USMBA, Morocco)	P 232
Formalization of the Maçdar category by its patterns using the NooJ platform Ahmed Bounoua, Ahmed Zinedine and Mohammed El Mohajir (Faculty of Sciences, USMBA Fez, Morocco) Mohamed El Hannach (International Agency for NLP IA4NLP)	P 238

Benefits of morphosyntactic features on English-Arabic Statistical Machine Translation Safae Berrichi and Azzeddine Mazroui (Department of computer Science Faculty of Sciences, University Mohamed First, Morocco)	P 244
Opinion and sentiment polarity detection using supervised machine learning Ibtissam Touahri and Azzeddine Mazroui (Department of Computer Science Faculty of Sciences, University Mohamed First, Morocco)	P 249
Arabic language alignment with English ontologies - Some ontological reflections Ouafae Nahli (Institute for Computational Linguistics "Antonio Zampolli" Italian National Research Council, Italy)	P 254
Statistical Machine Translation for Bilingually Low-Resource Scenarios: A Round-Tripping Approach Benyamin Ahmadnia (Autonomous University of Barcelona Cerdanyola del Valles, Spain) Gholamreza Haffari (Monash University Clayton, VIC, Australia) and Javier Serrano (Autonomous University of Barcelona Cerdanyola del Valles, Spain)	P 261
Qohelet Euporia: a Domain Specific Language to Annotate Multilingual Variant Readings Luigi Bambaci (Dipartimento di Civilt`a e Forme del Sapere Universit`a di Pisa, Italy) Federico Boschetti (CoPhiLab Istituto di Linguistica Computazionale "A. Zampolli", CNR Pisa, Italy) and Riccardo Del Gratta (LaRI Istituto di Linguistica Computazionale "A. Zampolli", CNR Pisa, Italy)	P 266
Arabic Sentiment analysis using a Levenshtein Distance Based Representation Approach Basma Essatouti (ADMIR Lab, IRDA Team, Rabat IT Center, Morocco) Hakima Khamar (ALEM Team, EMI, Rabat IT Center, Mohammed V University, Morocco) Sanaa El Fkihi (ADMIR Lab, IRDA Team, Rabat IT Center, Morocco) Rdouan Faizi (ADMIR Lab, IRDA Team, Rabat IT Center, Morocco) and Rachid Oulad Haj Thami (ADMIR Lab, IRDA Team, Rabat IT Center, Morocco)	P 270
Audio-Visual Synchronisation in Quantum Movies Fei Yan (School of Computer Science and Technology Changchun University of Science and Technology, China) Abdullah Iliyasu (Electrical Engineering Department Prince Sattam Bin Abdulaziz University Al-Kharj, Kingdom of Saudi Arabia) Sihao Jiao (School of Computer Science and Technology Changchun University of Science and Technology, China) and Huamin Yang (School of Computer Science and Technology Changchun University of Science and Technology, China)	P 274
Comparative Study of Color Image Segmentation by the Seeded Region Growing Algorithm Rajaa Charifi, Najia Essbai, Anass Mansouri and Yahya Zennayi (School of Sciences and Technologies, LERSI, University Sidi Mohammed Ben Abdellah, Embaded System Department, Mascir, Morocco)	P 279
New approach for Arabic characters recognition based on the «Hough Transform» M'barek Nasri and Mohammed Kadi (Laboratory MATSI, EST, Mohamed I University, Morocco)	P 285
Hybrid Segmentation Method for Grayscale Images	P 290

Hanane Barrah and Abdeljabbar Cherkaoui (Laboratory of Innovative technologies National School of Applied Sciences Tangier, Morocco)	
Texture classification via attractive-and-repulsive decoded gradient contours Issam El Khadiri, Mohamed Kas, Youssef El Merabet and Raja Touahni (Laboratoire LASTID, Département de Physique Faculté des Sciences, Université Ibn Tofail, Maroc) and Yassine Ruichek (Le2i FRE2005, CNRS, Arts et Métiers Univ. Bourgogne Franche-Comté, UTBM, France)	P 296
A comparison of some contour based shape descriptors after applying Bezier curve approximation with application to Brachiopods classification Youssef Ait Khouya (Qualifying High School, Alhidaya Islamiya, Ministry of National Education, Morocco) and Faouzi Ghorbel (GRIFT Research Group, CRISTAL Laboratory, National School of Computer Sciences University of Manouba, Tunisia)	P 302
Single core SIMD parallelization of GMM background subtraction algorithm for vehicles	P 308
detection Lhoussein Mabrouk, Dominique Houzet, Sylvain Huet (CNRS, Grenoble-INP, GIPSA-Lab Univ. Grenoble, France)	
Said Belkouch, Abdelkrim Hamzaoui (LGECOS Lab, ENSA Marrakech Cadi Ayyad University, Morocco) and Yahya Zennayi (Embedded systems Lab Mascir Foundation, Morocco)	
Vehicle Type Classification Using Convolutional Neural Network Hicham Bensedik, Ahmed Azough and Mohammed Meknassi (Laboratory of Informatics and Modelization Faculty of Science Dhar Mehraz, Morocco)	P 313
Fuzzy Hamming distance and Perfect Face Ratios based Face Sketch Recognition Khalid Ounachad, Abdelalim Sadiq and Abdelghani Souhar (Department of Informatics Faculty of sciences, Ibn Tofail University, Morocco)	P 317
Comparative Study of Different Association Rule Methods Otmane Stit, Jamal Riffi, Ali Yahyaouy and Hamid Tairi (LIIAN, Faculty of Sciences Dhar el Mahraz, Morocco)	P 323
Smart courses recommender system for online learning platform Karim Dahdouh, Ahmed Dakkak, Lahcen Oughdir (LSI, Department of Mathematics, Physics, and Informatics Sidi Mohamed Ben Abdellah University, FPT Taza, Morocco) and Abdelali Ibriz (High School of Technology Sidi Mohamed Ben Abdellah University, Morocco)	P 328
A Survey of Pedagogical Affordances of Augmented and Virtual Realities Technologies in IoT-Based Classroom Houda Elkoubaiti and Radouane Mrabet (Smart Systems Laboratory, ENSIAS, Mohammed V University, Morocco)	P 334
A proposed design process of a customized educational hybrid prototyping machine Jihad El Mesbahi, Ahmed Rechia, Abdelilah El Mesbahi (Laboratory of Engineering, Innovation and Industrial Management Systems Faculty of Sciences and Techniques Tangier, Morocco)	P 342

and Jihane Kojmane (Laboratory of mechanical engineering Faculty of Sciences and Techniques Fes, Morocco)	
Integrating MOOCs in Traditional Classrooms for higher education: experimental study in Chouaib Doukkali University Fatima Lakrami, Ouidad Labouidya and Najib ElKamoun (STIC Laboratory departmenet of Physics Faculty of science Chouaib Doukkali universiti EL Jadida, Morroco)	P 348
Case-Based Reasoning for E-learning Systems: State of the art Soundouss Abroun (Abdelmalek Essaidi University FSTT, Laboratory of Computer Science, Systems and Telecommunications, Morocco) Mohamed Ghailani (Abdelmalek Essaidi University ENSAT LabTIC Laboratory, Morocco) and Abdelhadi Fennan (Abdelmalek Essaidi University FSTT, Laboratory of Computer Science, Systems and Telecommunications, Morocco)	P 353
The Effect of Using Computerize Software to Solving the Problem of Fractions Learning: Case Study: Economic Course Feras Hamed Zahda and Motasem na'eem Natsheh (College of Applied Professions, Polytechnic University (PPU) Hebron, Palestine)	P 357
Knowledge Management to Support Learning Analytics in Higher Education Abdullah Alenezi, Christos Emmanouilidis and Ahmed Al-Ashaab (School of Aerospace, Transport and Manufacturing Cranfield University Cranfield, UK)	P 362
Simple Spirited Scalable E-Learning System Soma Datta (Software Engineering University of Houston Clear Lake Houston, TX, USA) and Swati Bhattacharyya (Research Services, Library University of California Riverside Riverside, CA, USA)	P 368
How to Analyze the Overall Performance of a Student: Strong or Weak Monalisa Dey, Anupam Mondal and Dipankar Das (Computer Science and Engineering Jadavpur University Kolkata, India)	P 374
Designing an IMS-LD Model for Collaboration Space of Learning Management System Mohammed Ouadoud (UAE, Faculty of Sciences (FS) Laboratory of Informatics, Research Operational and Statistic Applied (LIROSA), Morocco) Nouha Rida (Computer and Education Research Laboratory Mohammed V University, Mohammadia School of engineering, Morocco) and Mohamed Yassin Chkouri (UAE, National School of Applied Sciences Laboratory of the Information System and Software Engineering(SIGL), Morocco)	P 380
A Heuristic Evaluation of an Educational Game for Children with Dyslexia Nihal Ouherrou, Fatimaezzahra Benmarrakchi, Oussama El Hammoumi and Jamal El Kafi (Computer Science dept, Chouaib Doukkali University El Jadida, Morocco)	P 386
Mobile Graphical User Interface with People with Verbal Communication Disorders Nikolay Pavlov(Faculty of Mathematics, Informatics and Information Technologies Plovdiv University "Paisii Hilendarski" Plovdiv, Bulgaria) Yanica Chukanska (S-Ivenna Plovdiv, Bulgaria)	P 391

Nevena Mileva (Faculty of Physics and Technology Plovdiv University "Paisii Hilendarski" Plovdiv,

Bulgaria)

The TESI Project: An Adaptative Personalized System for creating Expression Tools in Social

P 396

nclusion of disadvantage learners	
Maria Jose Albert (Educational Theory and Social Pedagogy Faculty of Education, UNED Madrid, Spain)	
Clara Pérez-Molina (Dept. Electrical and Computer Engineering (ETSII) UNED Madrid, Spain) María José Mudarra (Dept. Assessment and Research Methods in Education (Educational Guidance) Faculty of Education, UNED Madrid, Spain)	
María García-Pérez (Educational Theory and Social Pedagogy Faculty of Education, UNED Madrid, Spain)	
Manuel Castro (Dept. Electrical and Computer Engineering (ETSII) UNED Madrid, Spain) Nikolay Pavlov (Faculty of Mathematics and Informatics Plovdiv University "Paisii Hilendarski" Plovdiv, Bulgaria)	
and Nevena Mileva (Plovdiv University "Paisii Hilendarski" Plovdiv, Bulgaria)	
Quality in the Mobile Digital Resources (MDR) Conceptual Model María José Albert (dept. Teoría de la Educación y Pedagogía Social School of Education, UNED Madrid, Spain)	P 398
Clara Pérez-Molina (DIEECTQAI Industrial Engineering Technical School (ETSII) UNED Madrid, Spain)	
María García-Pérez (Teoría de la Educación y Pedagogía Social School of Education, UNED Madrid, Spain)	
María José Mudarra (dept. Orientación Educativa, Diagnóstico e Intervención Psicopedagógica School of Education, UNED Madrid, Spain)	
Nevena Milena (ECIT Dept. Plovdiv Univ Plovdiv, Bulgaria) Beatriz Martin Alonso (Departamento de Ingeniería Eléctrica, Electrónica, Control, Telemática y Química Aplicada a la Ingeniería Industrial Engineering Technical School (ETSII) UNED Madrid, Spain)	
and Manuel Castro (DIEECTQAI Industrial Engineering Technical School (ETSII) UNED Madrid, Spain)	
Anna Lekova, Maya Dimitrova, Snezhanka Kostova (Institute of Robotics, Bulgarian Academy of Sciences Sofia, Bulgaria)	400
Omar Bouattane (ENSET, University Hassan II de Casablanca, Casablanca, Morocco) and Leire Ozaeta (University of the Basque Country, UPV/EHU San Sebastian, Spain)	
ReadLet: Reading for Understanding Marcello Ferro, Claudia Cappa, Claudia Marzi, Ouafae Nahli, Franco Alberto Cardillo, Vito Pirrelli (ILC CNR, Italy) and Sara Giulivi (DFA-SUPSI, Switzerland)	P 404
The Effectiveness of Development Skills Plan Framework for Learning Disabilities Children: A Systematic Literature Review	P 410
Zahidah Zulkifli (Kulliyyah of Information and Communication Technology, International Islamic Jniversity Malaysia Kuala Lumpur, Malaysia) Ely Salwana Mat Surin (Institute of Virtual Informatics (IVI), Universiti Kebangsaan Malaysia Kuala Lumpur, Malaysia)	

and Abdul Wahab Abdul Rahman (Department of Computer Science Kulliyyah of Information and Communication Technology, International Islamic University Malaysia Kuala Lumpur, Malaysia)

The Use of ICT in Dealing with Learning Disabilities: A Literature Review with a focus on Reading Arabic Texts	P 415
Mohamed Aymane Sbai, Maha El Biadi (Research Group ICT in Higher Education Laboratory of Languages, Literature, Communication and Didactics Faculty of Letters and Human Sciences Dhar Mehraz, Sidi Mohamed Ben Abdellah University, Fez, Morocco) Mohammed El Mohajir (Laboratory of Informatics, Modeling and Systems, Faculty of Sciences Dhar Mehraz, Sidi Mohamed Ben Abdellah University, Fez, Morocco)	
and Ouafae Nahli (Institute for Computational Linguistics, CNR, Pisa, Italy)	
Adaptive Dialogue System for Disabled Learners: Towards a Learning Disabilities Model Mohammed Taouil, Ahlame Begdouri and Aicha Majda (SIA - Faculty of Sciences and Technology of Fez University of Sidi Mohamed Ben Abdellah Fez, MOROCCO)	P 422
Systematic Review: OER and disability Nidia Moreno, Edmundo Tovar Caro and Rosa Cabedo (Universidad Politécnica de Madrid Spain)	P 428
Text-To-Speech technology for Arabic language learners Oumaima Zine, Abdelouafi Meziane and Meryem El Hadi (Department of Mathematics and Computer Science, Mohammed First University, Oujda, Morocco)	P 432
Dynamic Fuzzy Asset Management for Worst Scenarios with Average Value-at-Risks Yuji Yoshida (Faculty of Economics and Business Administration, University of Kitakyushu, Japan)	P 437
Empirical Path Loss Models Optimization for Mobile Communication Houcine Oudira, Lotfi Djouane and Messaoud Garah (University of Mohammde Boudiaf Laboratory of electrical engineering M'Sila, Algeria)	P 443
Wind Turbine Doubly-Fed Asynchronous Machine Diagnosis Defects -part two Fatima El Hammouchi, Lamia El Menzhi, Abdallah Saad, Yasmine Ihedrane and Badr Bossoufi (National Higher School of Electricity and Mechanic, Hassan II University, Morocco)	P 449
Solar Cell Parameters Extraction of Photovoltaic Module Using Nelder-Mead Optimization Houcine Oudira, and Amar Mezache (Département d'Electronique, Université Mohamed Boudiaf- M'sila, Laboratoire de Génie Electrique (LGE), Laboratoire SISCOM, Algérie) and Aissa Chouder (Département de Génie Electrique, Université Mohamed Boudiaf-M'sila, Laboratoire de Génie Electrique (LGE), Algérie)	P 455
The performance of Decentralized CFAR Detection using Biogeography Based Optimization Amel Gouri, Amar Mezache (Département d'Electronique, Université Mohamed Boudiaf-M'sila, Laboratoire Analyse des Signaux et des Systèmes, LASS Laboratoire SISCOM, Université de Constantine, Algérie) and Houcine Oudira (Département d'Electronique, Université Mohamed Boudiaf-M'sila, Laboratoire de Génie Electrique (LGE), Algérie)	P 460

Design of Fuzzy Control T-S for Wind Energy Conversion System based PMSG using LMI Approach Chakib Chatri and Mohammed Ouassaid (Engineering for Smart and Sustainable Systems Research Center, Mohammadia School of Engineers, Mohammed V University, Morocco)	P 466
Performance study of the Genetic Algorithm and the Levenverg-Marquardt optimization algorithm for the calibration of a rotating camera Mostafa Taibi (Laboratoire Systèmes de Télécommunications et Ingénierie de la Décision (LASTID) Faculté des Sciences Université Ibn Tofail, Maroc) Rabha Allaoui (dept. Informatique &Télécoms École nationale des sciences appliquées de Khouribga, Maroc) and Raja Touahni (Laboratoire Systèmes de Télécommunications et Ingénierie de la Décision (LASTID) Faculté des Sciences Université Ibn Tofail, Maroc)	P 472
Optimal Coordination Time Interval for DOCRs in Presence of D-FACTS Lazhar Bougouffa and Abdelaziz Chaghi (El-oued University, Batna-2 University Algeria)	P 477
A pure hardware k-SAT solver for FPGA Khadija Bousmar (Pluridisciplinary Research and Innovation Laboratory (LPRI), Moroccan School of Engineering Science (EMSI), Morocco)	P 481
Design and implementation of greenhouse remote monitor system based on embedded and wireless transmission technologies Yasmine Achour (Electrical Systems and Telecommunications Engineering Laboratory, National School of Applied Sciences, Kenitra, Morocco) Najib El Mernissi (Department of Bio-Technology, Moroccan Foundation for Advanced Science, Innovation and Research, Morocco) and Driss Zejli (Electrical Systems and Telecommunications Engineering Laboratory, National School of Applied Sciences, Kenitra, Morocco)	P 486
Support Vector Regression Based on Grid-Search Method for Agile Software Effort Prediction Abdelali Zakrani, Assia Najm and Abdelaziz Marzak (dept of Industrial Engineering ENSAM, University of Hassan II, Morocco)	P 492
A study of handling missing data methods for big data Imane Ezzine and Laila Benhlima (Ecole Mohammadia d'Ingénieurs, Mohammed V University, Morocco)	P 498
MoVITS: Moroccan Video Intelligent Transport System Omar Bourja, Kaoutar Kabbaj, Hatim Derrouz, Abderrahim El Bouziady, Rachid Oulad Haj Thami, Yahya Zennayi and François Bourzeix (ADMIR Laboratory, ENSIAS, LRIE Laboratory, Mohammadia School of Engineers, Mohammed V University, Embedded System Department, MAScIR, Morocco)	P 502
An Improvement of Performance in 4G LTE Using Software Defined Network Fatima Laassiri (IR2M Laboratory, FST, Univ Hassan UH1, Morocco) Mohamed Moughit (EEA&TI Laboratory, FST, Univ Hassan, ENSA Khouribga, Univ Hassan 1, Morocco)	P 508

and Noureddine Idboufker (National School of Applied Sciences, Univ Cadi Ayyad, Morocco)	
Secure Mobility Management using CoAP in the Internet of Things Brian Oryema, Byeonghoon Lee and Jongtae Park (School of Electronics Engineering Kyungpook National University Daegu, South Korea)	P 514
Performance evaluation of VANETs routing protocols using SUMO and NS3 Amina Bengag and Mohamed Elboukhari (MATSI Laboratory, ESTO Oujda, Morocco)	P 525
2-D MUSIC Algorithm based on Uniform Triangular Array Mohammed Amine Ihedrane and Seddik Bri (Material and Instrumentation (MIN), Electrical Engineering Department, High school of technology ESTM, Moulay Ismail University, Morocco)	P 531
Framework for optimizing the charging time of electric vehicles in public supply station deployed in smart cities Ibrahim El-Fedany, Driss Kiouach (MSTI Team High School of Technology, Ibn Zohr University, Morocco) and Rachid Alaoui (LASTIMI Laboratory High School of Technology, Mohammed V University, Morocco)	P 537
Control of three phase grid connected photovoltaic power systems Othmane Salama, Abdelmoumen Tabyaoui (LRMI Laboratory Faculty of Science and Technology Settat, Morroco) and Mohamed Benchagra (LISERT Laboratory National School of Applied Sciences Khouribga, Morroco)	P 542
Smart Resident: A Personalized Transportation Guidance System Mohammad Amin Kuhail, Bilal Ahmad and Collin Rottinghaus (School of Computing and Engineering University of Missouri-Kansas City Kansas City, MO, US)	P 547
Adaptive Traffic Light Control System Using Wireless Sensors Networks Nouha Rida, Aberrahim Hasbi (Computer and Education Research Laboratory (LRIE) Mohammadia School of Engineers Mohammed V University, Morocco), Samira Chebli (Laboratory of Systems Analysis, Information Processing Mohammadia School of Engineers Mohammed V University, Morocco) and Mohammed Ouadoud (UAE, Faculty of Sciences (FS) Laboratory of Informatics, Research Operational and Statistic Applied (LIROSA), Morocco)	P 552
Towards Mobile Node Collaboration to Ensure Data Reception in Wireless Sensor Networks Lyamine Guezouli, Kamel Barka and Souheila Bouam (LaSTIC Research Lab. University of Batna, Algeria)	P 557
Wireless Sensors Network for Traffic surveillance and management in Smart Cities Anass El Mrini and Abdellatif Ghacham Amrani (Dept of Physics Laboratory of Science and Advanced Technology Multidisciplinary Faculty of Larache, Morocco)	P 562

Optimal Shared Multicast Tree based solution for Group Key Management in mobile IPv6 Youssef Baddi (ESTSB, UCD, El Jadida, Morocco)

P 567

Performance Evaluation of IEEE 802.11p and IEEE 802.16e for Vehicular Ad hoc Networks using simulation tools	P 573
Said Benkirane (SAEDD Lab, High School of Technology, Cadi Ayyad University, Essaouira, Morocco)	
and Mohamed Benaziz (National School of Arts and Crafts, Moulay Ismail University, Meknes, Morocco)	
City logistics problems' identification: A first step toward an analysis approach Soukaina Aziz, Rachid Benmoussa and El Hassan Irhirane (Sylpro, ENSA Marrakech Cadi Ayyad University Marrakech, Morocco)	P 578
Detection MITM attack in Multi-SDN Controller Anass Sebbar, Mohammed Boulmalf , Mohamed Dafir El Kettani and Youssef Baddi (ELIT-Internationale University of Rabat, ENSIAS-Mohammed V Rabat University, Université Chouaib Doukkali, Morocco)	P 583
SDN-based solution to Improve IOT: Survey Hamza Zemrane (Mohammadia School of Engineering Department of Computer Engineering, Lab RIME, Morroco) Youssef Baddi (lab STIC, ESTSB, UCD El Jadida, Morocco) and Abderrahim Hasbi (Mohammadia School of Engineering Department of Computer Engineering, Lab RIME, Morroco)	P 588
Security challenges in V2I architectures and proposed solutions Ayoub Toubi and Mazri Tomader (Department of Electrical Engineering, Networks and Telecommunication Systems. National School of Applied Sciences. Laboratory Engineering of Electrical Systems and Telecommunications, Kenitra, Morocco)	P 594
Waijung Blockset-STM32F4 Environment for Real Time Induction Motor Speed Control Ali Hmidet (Tunis El Manar University, ISTMT ERCO Laboratory, INSAT Tunis, Tunisia) and Othman Hasnaoui (University of Tunis ERCO Laboratory, INSAT Tunis, Tunisia)	P 600
Feasibility study and optimization of a standalone hybrid system for remote area: A case study of High Atlas mountains in Morocco Abdallah El Zerk, Mohammed Ouassaid (Department of Electrical Engineering Mohammadia School of Engineers, Mohammed V University, Morocco) and Youssef Zidani (Department of Electrical Engineering, Faculty of science and technology Cadi Ayyad University, Morocco)	P 606
Simulation of MANET's single and multiple Blackhole attack with NS-3 Oussama Sbai and Mohamed Elboukhari (Department of Applied Engineering, ESTO (Higher School of Technology) Mohammed 1st University, Morocco)	P 612
Classification of Mobile Ad Hoc Networks Attacks Oussama Sbai and Mohamed Elboukhari (Department of Applied Engineering, ESTO (Higher School of Technology) Mohammed 1st University, Morocco)	P 618

Layer Optimization for Power Reduction in Integrated Circuits Lekbir Cherif, Mohamed Chentouf, Jalal Benallal, Mohammed Darmi (1Laboratory of Systems Engineering, National School of Applied Sciences, Ibn Tofail University, ICDS Department, Mentor Graphics, Morocco) and Rachid Elgouri and Nabil Hmina (Laboratory of Electrical Engineering & Telecommunication Systems National School of Applied Sciences, Ibn Tofail University, Morocco)	P 625
Energy Efficiency analysis in wireless systems by game theory Azzeddine Riahi (Department of Computer Science, Chouaib Doukkali University, Faculty of Sciences, Morocco) and Sara Riahi (IMC Laboratory, Department of Physics, Chouaib Doukkali University, Faculty of Sciences, Morocco)	P 630
A network intrusion detection based on improved Nonlinear Fuzzy Robust PCA Amal Hadri, Khalid Chougdali and Raja Touahni (LASTID Laboratory Faculty of Science, GREST Research Group, National School of Applied Sciences (ENSA), Ibn tofail University, Morocco)	P 636
RFID Application to Airport Luggage Tracking as a Green Logistics Approach Yassir Rouchdi, Achraf Haibi, Khalid El Yassini, Mohammed Boulmalf and Kenza Oufaska (IA Laboratory, Faculty of Sciences Meknes, Moulay Ismail University, International University of Rabat, TIC Lab, Morocco)	P 642
Vertical and Horizontal Compression Scheme Assessment in Cluster-Based WSNs Jihane Elaasri, Samia Al Fallah, Mounir Arioua, Ahmed El Oualkadi and Alia Zakriti (National School of Applied Sciences, Tetuan, National School of Applied Sciences, Tangier Abdelmalek Essaadi University, Morocco)	P 650