

Second International conference on

# Real Time Intelligent Systems

University Hassan II october 18 -20 Casablanca, Morocco



Conference  
Program

# RTIS 2017

جامعة الحسن الثاني بالدار البيضاء  
UNIVERSITÉ HASSAN II DE CASABLANCA



 Springer

Date	Time	Event
Day 1 – Wednesday October 18, 2017	08:00 am – 09:00 am	Registration
	09:00 am – 09:30 am	Opening Ceremony
		<b>Idriss Mansouri (President Hassan II University, Casablanca, Morocco)</b> <b>Abderrahim Sekkaki (Organizing Committee Chair)</b>
	9:30 am – 10:30 am	<b>Keynote Speaker 1: Prof. Aawatif HAYAR (ENSEM, University Hassan II, Casablanca)</b>
	10:30 am – 11:00 am	<b>Coffee Break</b>
	11:00 am – 12:40 pm	<b>Session A1:</b> Real-time intelligent Applications I
		<b>Session A2:</b> Big Data systems and applications
	12:40 pm – 02:00 pm	<b>Lunch</b>
	02:00 pm – 04:00 pm	<b>Session A3:</b> Evolutionary Optimization and Artificial Intelligence I
		<b>Session A4:</b> Cloud Computing and Internet of Things
04:00 pm – 04:30 pm	<b>Coffee Break</b>	
04:30 pm – 06:00 pm	<b>Session A5:</b> Networking I	
	<b>Session A6:</b> Privacy and Security in Intelligence	
Day 2 – Thursday October 19, 2017	09:00 am – 10:00 am	<b>Keynote Speaker 2: Prof. Gloria Bordogna (IREA CNR, Milano, Italy)</b>
	10:00 am – 10:30 am	<b>Coffee Break</b>
	10:30 am – 12:30 pm	<b>Session B1:</b> Real-time intelligent Applications II
		<b>Session B2:</b> Evolutionary Optimization and Artificial Intelligence II
	12:30 pm – 02:30 pm	<b>Lunch &amp; Best Paper Award Ceremony</b>
	2:30 pm - 6:00 pm	<b>Session B3:</b> Networking II
<b>Session B4:</b> Image & Data processing		
	05:00 pm	Closing Ceremony

# Second International Conference on Real Time Intelligent Systems

## RTIS 2017

October 18-20, 2017 Casablanca, Morocco

### Final Program

Day 1 – Wednesday October 18, 2017	
Time	Event
8:00 – 9:00	Registration
9:00 – 9:30	Welcome & Opening Ceremony <i>Prof. Idriss MANSOURI (President Hassan II University, Casablanca, Morocco)</i> <i>Prof. Abderrahim SEKKAKI (Local Organizing Committee Chair)</i>
9:30 – 10:30	<b>Keynote Speaker 1:</b> <i>Prof. Aawatif HAYAR (ENSEM, University Hassan II, Casablanca)</i> <b>Title:</b> <i>Smart Cities</i> <b>Chair:</b> <i>Prof. Abderrahim SEKKAKI (FSAC, UH2C, Casablanca, Morocco)</i> <b>Amphi des conférences</b>
10:30 – 11:00	Coffee break
11:00 – 12:40	<b>Session A1: Real-time intelligent Applications I</b>  <b>Room:</b> <i>Salle 1</i> <b>Chair:</b> <i>Prof. Madrane Nabil (FSAC, UH2C, Casablanca, Morocco)</i>  <ol style="list-style-type: none"> <li>1. <b>Modeling, design and development of a multi-agent decision support system for the real-time control of the operating theater</b> <i>Fatima TAIF, Abdelwahed NAMIR, Mohamed AZOUAZI (Faculty of Sciences Ben M'Sik Casablanca, Morocco)</i></li> <li>2. <b>A meta-model for real-time embedded systems</b> <i>Soukaina MOUJTAHID, Abdessamad BELANGOUR, Abdelaziz MARZAK (Faculty of Sciences Ben M'sik, Morocco)</i></li> <li>3. <b>Applying Data analytics and Cumulative Accuracy Profile (CAP) approach in real-time maintenance of instructional design models</b> <i>Mohamed HOUSNI, Nadia CHAFIQ, Mohammed TALBI, Abdelwahed NAMIR (Laboratory of Information Technology and Modelling (LTIM), Faculty of Sciences Ben M'Sik, Hassan II University of Casablanca, Morocco)</i></li> <li>4. <b>Two new fast and efficient hard decision decoders based on Hash techniques for real time communication systems</b> <i>Moulay Seddiq EL KASMI ALAOUI, Said NOUH, Abdelaziz MARZAK (TIM Lab, Faculty of Sciences Ben M'sik, Hassan II University, Casablanca, Morocco)</i></li> <li>5. <b>Sensor Fault Detection and Isolation for a Robot Manipulator based on High-Gain</b></li> </ol>

	<p><b>Observers</b>  <i>Khaoula OULID OMALI, Mohammed Nabil KABBAJ, Mohammed BENBRAHIM(Sidi Mohamed Ben Abdellah University Fez, Morocco)</i></p> <p><b>6. An efficient traffic monitoring model using a stream processing platform based on smart highways events generator</b>  <i>Abdelaziz DAAIF, Omar BOUATTANE, Mohamed YOUSSEFI, Sidi Mohamed SNINEH (SSDIA Lab. ENSET Mohammedia, Hassan II University of Casablanca, Morocco)</i></p> <p><b>Session A2:Big Data systems and applications</b></p> <p><b>Room:</b> Salle 2  <b>Chair:</b> Prof. Said Jai Andaloussi (FSAC, UH2C, Casablanca, Morocco)</p> <ol style="list-style-type: none"> <li><b>1. A Semantic Web Architecture for Context Recommendation System in E-learning Applications</b>  <i>Bouchra BOUIHI (Faculty of Science And Technology Settat)</i></li> <li><b>2. Storing RDF Data into Big Data NoSQL Databases</b>  <i>Mouad BANAN, Abdessamad BELANGOUR, El Houssine LABRIJI ( Laboratory of Information Technology and Modeling University Hassan II, Faculty of Sciences Ben M'sik, Morocco)</i></li> <li><b>3. Design of sunflower system based on shape memory alloy actuator</b>  <i>Amine RIAD, Mouna BENZOHRRA, Abdeleliah ALHAMANY (Laboratory, FST of Settat, Hassan 1st University of Settat-Morocco)</i></li> <li><b>4. Mixed-profiling recommender system for big data environnement</b>  <i>Siham YOUSFI, Maryem RHANOU, Abdelkrim TAHIRI, Mohamed AMAADID, Amine SENNOUNI, Dalila CHIADMI(Computer Science Department, EMI School, Mohammed V University in Rabat, Morocco)</i></li> <li><b>5. A Review of Scalable Algorithms for Frequent Itemset Mining for Big Data using Hadoop and Spark</b>  <i>Yassir ROCHD, Imad HAFIDI, BAJIL, OUARTASSI ( Hassan I University, IPOSI Laboratory, Morocco)</i></li> </ol>
12:40 – 2:00	<b>Lunch</b>
2:00 – 4:00	<p><b>Session A3:Evolutionary Optimization and Artificial Intelligence I</b></p> <p><b>Room:</b> Salle 1  <b>Chair:</b> Prof. Iyad Abu Doush</p> <ol style="list-style-type: none"> <li><b>1. Penalized Latent Class Model for Clustering with Application to Variable Selection</b>  <i>Abdelghafour TALIBI, Boujemâa ACHCHAB, Ahmed NAFIDI (Université Hassan 1er, Ecole Supérieure de Technologie, Laboratoire d'Analyse et Modélisation des Systèmes et Aide à la Décision, Berrechid, Morocco)RamónGutiérrez-Sánchez(University of Granada,DepartmentStatistics and Operations Research, Granada, Spain)</i></li> <li><b>2. Using Continuous Hopfield Neural Network for Choice Architecture of Probabilistic self-Organizing Map</b>  <i>Nour-eddine JOUDAR, Zakariae EN-NAIMANI, Mohamed ETTAOUIL (FST, USMBA, Fès, Morocco)</i></li> </ol>

	<p><b>3. The Hybrid Framework for Multi-objective Evolutionary Optimization Based On Harmony Search Algorithm</b>  <i>Iyad Abu DOUSH, Mohammad BATAINEH, Mohammed EL-ABD(American University of Kuwait, Kuwait)</i></p> <p><b>4. New prior model for Bayesian Neural Networks learning and application to Classification of tissues in Mammographic images</b>  <i>Hassan RAMCHOUN, Mohamed ETTAOUIL(Faculty of Science and Technology, Morocco)</i></p> <p><b>5. Multilayer Perceptron: NSGA II for a New Multi-objective learning method for training and model complexity</b>  <i>Kaoutar SENHAJI, Hassan RAMCHOUN, Mohamed ETTAOUIL( Laboratory of modeling and scientific calculing, University Sidi Mohamed Ben Abdellah, FST, Morocco)</i></p> <p><b>Session A4:Cloud Computing and Internet of Things</b></p> <p><b>Room:</b> Salle 2  <b>Chair:</b> Pr.RAOUYANE Brahim (FSAC, University Hassan II, Morocco)</p> <p><b>1. Hierarchical Load Balancing Strategy in Cloud Environment</b>  <i>Amal ZAOUCH, Faouzia BENABBOU (Science Faculty Ben M'sik, Morocco)</i></p> <p><b>2. Impact of Hybrid Virtualization using VM and Container on Live Migration and Cloud Performance</b>  <i>Oussama SMIMITE, Karim AFDE (LabSiV- IbnZohr University Agadir, Morocco)</i></p> <p><b>3. IoT Interoperability Architectures: Comparative Study</b>  <i>Rachida AIT ABDELOUAHID, Loubna CHHIBA , abdelaziz MAMOUNI,abdelaziz MARZAK, Nawal SAEL(UNIVERSITY HASSAN II, FACULTY OF SCIENCES BEN M'SIK CASABLANCA, Morocco)</i></p> <p><b>4. Performance Evaluation of the MQTT Protocol in the Internet of Things</b>  <i>Laid KAHLOUL, Manel HOUIMLI, Siham BENAOUN(LINFI Laboratory, Computer Science Department, BiskraUniversity,Algeria)</i></p> <p><b>5. Collaborative and Communicative Logistics flows Management using Internet of Things</b>  <i>Loubna TERRADA, Jamila BAKKOURY, Mohammed EL KHAILI, azzedine KHIAT (Laboratory: Signals, Distributed Systems and Artificial Intelligence (SSDIA), ENSET Mohammedia, Hassan II University, Casablanca, Morocco)</i></p>
4:00 – 4:30	<b>Coffee break</b>
4:30 – 6:00	<p><b>Session A5:Networking I</b></p> <p><b>Room:</b> Salle 1  <b>Chair:</b> Prof. Mohamed EL KHAILI(ENSET Mohammadia, UH2C, Casablanca, Morocco)</p> <p><b>1. Matched Filtering Based Spectrum Sensing Technique for 4G Cellular Network</b>  <i>Farhan BASHIR SHAIKH, SHADABKALHORO, Fahim Aziz UMRANI, Mustahsan ALI KHAN (Sindh University, Dadu Campus, Pakistan)</i></p>

**2. Efficient dissemination based on passive approach and dynamic clustering for VANET**

*Abdelali TOUIL, Fattehallah GHADI (IBN ZOHR University, Morocco)*

**3. Simulation Automation of Wireless Network on Opnet Modeler**

*Hafsa AIT OULAHYANE, Ayoub BAHNASSE, Mohamed TALEA, Fatima Ezzahraa LOUHAB, Adel AL HARBI (Dept. Physics FS Ben M'Sik University Hassan II Casablanca, Morocco)*

**4. Smart SDN Policy Based Management of Multipoint Virtual Private Networks**

*Adel Mohammed Ali AL-HARBI, Ayoub BAHNASSE, Mohamed TALEA, Hafsa AIT OULAHYANE, Fatima Ezzahraa LOUHAB (Laboratory LTI, Dept. Physics, Faculty of Sciences Ben M'sik, University Hassan II Casablanca, Morocco)*

**5. Towards Smart Software Defined Wireless Network for Quality of Service Management**

*Azeddine KHIAT, Ayoub BAHNASSE, Mohamed EL KHAILI, Jamila BAKKOURY, Fatima Ezzahraa LOUHAB (Lab SSDIA, ENSET Mohammedia, University Hassan II, Casablanca, Morocco)*

**Session A6: Privacy and Security in Intelligence**

**Room:** Salle2

**Chair:** Prof. Leila FETJAH (FSAC, University Hassan II, Casablanca Morocco)

**1. A new encryption scheme to perform smart computations on encrypted cloud big data**

*Ahmed EL-YAHYAOU, Mohamed Dafir, Ech-Chrif El Kettani (Mohammed V University in Rabat, Morocco)*

**2. A New Approach for ZCM Models Metamodelling based on Model Driven Architecture Concepts**

*Abdelaziz MAMOUNI, Abdelaziz MARZAK, Meriem ATIFI, Youness RAKI, Mohammed OQAIDI (Faculty of Sciences Ben M'Sik, Hassan II University of Casablanca, Morocco)*

**3. New real time method for Air Traffic Control based on the blocking area**

*Sallami CHOUGDALI, Khalifa MANSOURI, Mohamed Youssfi, Youssef Balouki (Signals, Distributed Systems and Artificial Intelligence Laboratory, Morocco)*

**4. Fusion of ANN and SVM Classifiers for Network Attack Detection**

*Takwa OMRANI, Adel DALLALI, Belgacem CHIBANI RHAIMI, Jaouhar Fattahi (Computer Science and Software Engineering Department, MACS Research Center, University of Gabes, Tunisia)*

**5. Implementation Of An Hierarchical Hybrid Intrusion Detection Mechanism In Wireless Sensor Network Based Energy Management**

*Lamyaa MOULAD, Hicham BELHADAOUI, Mounir RIFI (EST/ENSEM, Morocco)*

**6. Data Mining : une solution pour la détection de la fraude à la carte bancaire sur internet**

*Hafsa EL-KAIME, Mostafa HANOUNE, Ahmed EDDAOUI (Faculté des sciences Ben M'sik, Morocco)*

**7. Internet of Breath (IoB): Integrative Indoor Gas Sensor Applications for Emergency Control and Occupancy Detection**

*Simon Fong (University of Macau, Macau), Chintan Bhatt (Charotar University of*

*Science and Technology, India), Dmitry Korzun (Petrozavodsk State University, Russia), Shuang-Hua Yang, Lili Yan( Southern University of Science and Technology, China)*

<b>Day 2 – Thursday October 19, 2017</b>	
<b>Time</b>	<b>Event</b>
9:00 – 10:00	<p><b>Keynote Speaker 2:</b> Prof. Gloria Bordogna (IREA CNR, Milano, Italy)  <b>Title:</b> Multisource big geo data for Earth Observation: challenges and open issues  <b>Chair:</b> Prof. Bellafkih Mostafa (INPT, Rabat, Morocco)  <b>Room:</b> Amphi des conférences</p>
10:00 – 10:30	<b>Coffee break</b>
10:30 – 12:30	<p><b>Session B1:</b> Real-time intelligent Applications II</p> <p><b>Room:</b> Salle 1  <b>Chair:</b> Prof. Abdelwahab NAJI (ENSET Mohammadia, UH2C, Casablanca, Morocco)</p> <ol style="list-style-type: none"> <li><b>1. Augmenting Coarse Cloth Simulations with Wrinkles: Comparative Study</b>  Abderrazzak AIT MOUHOU, Abderrahim SAAIDI, Majid BEN YAKHLEF, Khalid ABBAD (Mohamed Ben Abdellah University fez, Morocco)</li> <li><b>2. Introduction to Sociology of Moroccan Online Social Networks: Evolution Analysis of the Moroccan Community Activity on Facebook</b>  Jaafar IDRAIS, Yassine EL MOUDENE, Abderrahim SABOUR (Modelisation, Systems and Technologies of Information (MSTI), High School of Technology - IbnZohr University, Agadir – Morocco)</li> <li><b>3. Introduction to Sociology of Online Social Networks in Morocco Data Acquisition Process: Results and Preliminary Analysis of Connectivity</b>  EL MOUDENE Yassine, IDRAIS IDRAIS, SABOUR abderrahim (IbnZohr University, Morocco)</li> <li><b>4. A New Vision For Multilingual Architecture</b>  Kawtar JNIN, IFaouzia BENABBOU, Nawal SAEL (Faculte des sciences ben msik, Morocco)</li> <li><b>5. Designing Middleware Over Real Time Operating System For Mobile Robot</b>  Mahmoud Almostafa RABBAH (RITM Labortory, ESTC, Hassan II University, Morocco)</li> </ol> <p><b>Session B2:</b> Evolutionary Optimization and Artificial Intelligence II</p> <p><b>Room:</b> Salle 2  <b>Chair:</b> Pr. Saïd NOUH (UH2C, Casablanca, Morocco) / KHALID Jebari, Faculty Chouaid Doukkali, University El Jadida, Morocco)</p> <ol style="list-style-type: none"> <li><b>1. An Analytic Hierarchy Process Based Comparative Study Of Web Data Extraction Approaches</b></li> </ol>

	<p><i>Said Sadik, AbdessamadBelangour, AbdelazizMarzak ( University hassan 2 Morocco)</i></p> <p><b>2. A platform for adaptive Massive Open Online Courses based on Fuzzy Analytic Hierarchy Process</b> <i>Yassine AFA, Amal BATTOU, Omar BAZ (Laboratoire IRF-SIC, Université IBN ZOHR, Morocco)</i></p> <p><b>3. Constructing some Quasi-Cyclic Majority Logic Codes by Genetic Algorithm</b> <i>Karim RKIZAT, Said NOUH(ENSIAS, Moammed V University in Rabat, Morocco)</i></p> <p><b>4. Photovoltaic forecast based on Fuzzy-Neural Approach</b> <i>Moulay Rachid DOUIRI, Mohamed CHERKAoui (Cadi Ayyad University, Higher School of Technology Morocco)</i></p> <p><b>6. Intelligence Influenced Prediction of Coordinate Measuring Machines Geometric Errors</b> <i>Loubna LAAOUINA, Abdelhak NAFI, Ahmed MOUCHTACHI (ENSAM-Casablanca, Morocco)</i></p>
12:30 – 2:30	<b>Lunch &amp; Best Paper Award Ceremony</b>
2:30– 6:00	<p><b>Session B3: Networking II</b></p> <p><i>Room: Salle 1</i> <i>Chair: Youssef BADDI (UCD, El Jadida, Morocco) / Mohamed Lahby(UH2C, Casablanca, Morocco)</i></p> <p><b>1. Performance analysis of the vertical handover across Wifi/3G networks based on IEEE 802.21</b> <i>LAHBY Mohamed, SEKKAKI Abderrahim (ENS, Casablanca, Morocco)</i></p> <p><b>2. Network pricing optimization in transportation networks with elastic demand</b> <i>QUOC BAO VO (Swinburne University of Technology, Australia)</i></p> <p><b>3. A Software Tool For Wireless Sensor Network Code Generation</b> <i>Laid KAHLOUL, Sara HOUHOU, Saber BENHARZALLAH, Roufaida BETTIRA(LINFI Laboratory, Computer Science Department, Biskra University Algeria)</i></p> <p><b>4. Flexible Mobile Network Service Chaining in an NFV Environment : IMS Use Case</b> <i>Youssef SERAOUI (INPT, Morocco), Brahim RAOUYANE(FSAC, Morocco), Mostafa BELMEKKI, Mostafa BELLAFKIH (INPT, Morocco)</i></p> <p><b>Session B4: Image &amp; Data processing</b></p> <p><i>Room: Salle 2</i> <i>Chair: Mohamed KISSI (FST Mohammadia, UH2C, Casablanca, Morocco)</i></p> <p><b>1. A New Medical Image Processing Approach for the Security of Cloud Services</b> <i>Mbarek MARWAN, Ali KARTIT, Hassan OUAHMANE, (University ChouaibDoukkali – El Jadida, Laboratory LTI, Department TRI, ENSAJ, Jadida, Morocco)</i></p> <p><b>2. Content-Based Image Retrieval Using Convolutional Neural Networks</b> <i>Mohamed OUHDA, Khalid EL ASNAOUI, Mohammed OUANAN, Brahim AKSASSE (Moulay Ismail University, Faculty of Sciences and Technologies, Department of Computer Science, ASIA Team, M2I Laboratory, Errachidia, Morocco)</i></p> <p><b>3. A New Mechanism Suitable to Dynamic Image Encryption Based on a Method</b></p>



**Database**

*Wafae SABBAR, Said HRAOUI, Faiq GMIRA (Hassan II University, Casablanca : UH2C / LIM, FSTM, Morocco)*

**4. Multi-Scale Convolutional Neural Networks for human activity recognition**

*Lamyaa SADOUK, Taoufiq GADI (Faculty of Science and Technology Settat, Morocco)*

**5. Physiological Signals Based Automobile Drivers' Stress Levels Detection using HOG and LBP Feature Descriptors: An Experimental Study**

*AbdultaofeekAbayomi, Oludayo O. Olugbara, DeleneHeukelman, Emmanuel Adetiba (Durban University Of Technology, South Africa)*

**6. Is Stemming Beneficial for Learning Better Arabic Word Representations?**

*Ismail El bazi, Nabil Laachfoubi (Univ Hassan I, Morocco)*

**7. Arabic Sign Language Alphabet Recognition Methods Comparison, Combination and implementation**

*Mohamed youness FTICHI, Abderrahim BENABBOU, Khalid ABBAD ( FST of Fez, Morocco)*

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