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Innovations'07

The 4th International Conference on
Innovations in Information Technology
http://www.it-innovations.ae

November 18 – 20, 2007
Madinat Jumeirah, Dubai, United Arab Emirates

CONFERENCE PROGRAM

SUNDAY, NOVEMBER 18, 2007 (Joharah Ballroom)

08:00 - 10:00:	**Registration**
10:00 - 10:30:	**Opening ceremony**
10:30 - 11:30:	**Opening Speech** **HH Sheikh Maktoum bin Mohammed bin Rashid Al Maktoum** Chairman of the Dubai Technology and Media Free Zone Authority **Keynotes:** Keynote 1: Dr Atta-Ur-Rahman, Federal Minister, Higher Education Commission, Pakistan Keynote 2: Mr. Rama Raju, Co-founder/CEO, Satyam, India Keynote 3: Dr. Thomas Andersson, President, Jönköping University, Sweden
11:30 - 11:45:	**Coffee Break**
11:45 - 12:40:	**Humanoid Robotics Session**: Is it human or is it a robot Dr. Nikolaos Mavridis, Interactive Robots and Media Lab, Director, UAE University, UAE Dr. David Hanson, Founder/Chief Scientist, Hanson Robotics, USA Dr. Hiroshi Ishiguro, Intelligent Robotics Lab., Director, Osaka University, Japan Dr. Jun Ho Oh, Director, Humanoids Laboratory, Korean Institute of Technology, Korea
12:40 - 14:00:	**Lunch** (sponsored by Innovations'07)

11:30 - 17:00:	**Joharah 1** Student Posters Session

SUNDAY, NOVEMBER 18, 2007

14:00 - 15:40
Joharah: **VIP Session**
Mr. Mike Carr, Director Research & Venturing British Telecom, UK
Mr. Michael D. King, Director, Global Education Industry, IBM Corporation, USA
Mr. Aseem Gupta, CEO, Visionaire, UAE
Dr. Tarek Al Abbady, Director, Microsoft Research & Innovation Centre, Cairo, Egypt
Mr. Thiru P. Reddy, Vice President Business Development, Strand Life Sciences, India
Dr. Sai Subramaniam, Sr. Vice President Solutions, Strand Life Sciences, India

Session 1B: Data Mining	
Chairs: Zaher Alagbari, Sharjah University and Ali Bouhouch, BizDynamix	
Dynamic index selection in data warehouses	Stéphane Azefack, University of Lyon, France Kamel Aouiche, University of Quebec at Montreal, Canada Jérôme Darmont, University of Lyon, France
Designing a Well-Structured E-Shop Using Association Rule Mining	Asem Omari, University Düsseldorf, Germany Stefan Conrad, University Düsseldorf, Germany Sadet Alcic, University Düsseldorf, Germany
The Development of an Objective Metric for the Accessibility Dimension of Data Quality	Owen Foley, Dublin City University, Ireland Markus Helfert, Dublin City University, Ireland
Web Page Analysis: Experiments Based on Web Patterns	Karel Klos, VSB - TU Ostrava, Czech Republic Jana Kocibova, VSB - TU Ostrava, Czech Republic Ondrej Lehecka, VSB - TU Ostrava , Czech Republic Milos Kudelka, VSB - TU Ostrava, Czech Republic Vaclav Snasel, VSB-TU of Ostrava, Czech Republic Hana Rezankova, University of Economics, Czech Republic
An efficient decision tree construction for large datasets	Nguyen Thi Van Uyen, Kyung Hee University, Korea Tae Choong Chung, Kyung Hee University, Korea

Session 1C: Business and Process Management	
Chairs: Reza Barkhi, American University of Sharjah and Hassan Selim, UAE University	
Collaboration as a Reusable Component in Business Process Management	John Shepherdson, British Telecommunications Plc., UK Nader Azarmi, British Telecommunications Plc., UK Habin Lee, Brunel University, UK Hyung Jun Ahn, Waikato University, Japan
An Advanced Planning and Scheduling Platform for Service Enterprise	Raphael Dorne, British Telecom, UK Chris Voudouris, British Telecom, UK Gilbert Owusu, British Telecom, UK
Metrics for Evaluating Enterprise Systems' Architecture	Khalid Khawaja, American University in Dubai, UAE
Defining the Input Specifications for the Partitioning of Automobiles E/E Systems within a Model-Driven Development Scheme	Augustin Kebemou, Fraunhofer Institute for Software and Systems Engineering, Germany Ina Schieferdecker, Fraunhofer Institute for Open Communications Systems, Germany
A Formal Model for e-Healthcare Readiness Assessment in a Developing Country Context	Ojo S.O, University of Botswana Olugbara O.O., University of Zululand, South Africa George Ditsa, UAE University, UAE Adigun M. O., Xulu S.S., University of Zululand, South Africa

Session 1D: Wireless Communications I
Chairs: Mousa Hussein, UAE University and Aziz Salah, UQAM

Robustness Assessment of Intelligent Information Fusion Techniques in Navigation Systems Encountering Satellite Outage	Ali Asadian, University of Tehran, Iran Behzad Moshiri, University of Tehran, Iran Javad Rezaie, University of Tehran, Iran
Spectrum Allocation Algorithms for Uplink Sub-carriers in OFDMA-Based Cognitive Radio Networks	Tae-Hwan Kim, Sungkyunkwan University, Korea Tae-Jin Lee, Sungkyunkwan University, Korea
Simulation of adaptive antenna for interference reduction	Rajab Legnain, University of Garyounis, Libya Abdelsalam Ambarek, University of Garyounis, Libya
Channel Allocation to Reduce Co-channel Interference in Multi-cell Cognitive Radio Networks	Seung Su Han, Sungkyunkwan University, Korea Tae-Jin Lee, Sungkyunkwan University, Korea
Resource Allocation and Game Theoretic Scheduling in IEEE 802.16 Fixed Broadband Wireless Access Systems	Jayaparvathy.R, Coimbatore Institute of Technology, India S.Geetha, Coimbatore Institute of Technology, India

15:40 - 16:00 Coffee Break

16:00 - 17:40 (SUNDAY, NOVEMBER 18, 2007)
Session 2A: Multimedia Communications
Chairs: Tarik Taleb, Tohoku University and Naeem Radi, Khawarizmi Institute

Data Taxonomy Procedure of Streaming Output of a Digital Video Broadcast via Satellite Receiver	I Made Murwantara, Universitas Pelita Harapan, Indonesia Arnold Aribowo, Universitas Pelita Harapan, Indonesia Pujianto Yugopuspito, Universitas Pelita Harapan, Indonesia
Multi-path Scheduling Algorithm for Real-Time Video Applications in Next-Generation Wireless Networks	Fernandez Juan Carlos, University of Tohoku, Japan Tarik Taleb, University of Tohoku, Japan Yushiaki Nemoto, University of Tohoku, Japan Nei Kato, University of Tohoku, Japan
Multimedia Processing in Wireless Sensor Networks	Hakan Öztarak, Middle East Technical University, Turkey Adnan Yazici, Middle East Technical University, Turkey Demet Aksoy, University of California Davis, USA Roy George, Clark Atlanta University, USA
Mobile Multiprotocol Label Switching	Sadia Ashraf, NUST, Pakistan Shoab A. Khan, NUST, Pakistan Naveed S. Khattak, NUST, Pakistan Abdur Rehman, NUST, Pakistan

Session 2B: Computer & Network Security I
Chairs: Fahim Akhter, Zayed University and Rami Sultan, Nortel UAE

Access Control in e-Health Portal Systems	Shuo Lu, Concordia University, Canada Yuan Hong, Concordia University, Canada Qian Liu, Concordia University, Canada Lingyu Wang, Concordia University, Canada Rachida Dssouli, Concordia University, Canada
Towards a better applicability of public key certificates	Safuat Hamdy, UAE University, UAE
Securing the Wireless LANs that is based on	Ghassan Kbar, American University of Dubai, UAE

Distributed Resource Management against internal attacks	Wathiq Mansoor, American University of Dubai, UAE
Copyright Protection in Overlay Multicast Communication	Emad Eldin Mohamed, UAE University, UAE

Session 2C: Ad Hoc and Sensor Networks I	
Chairs: Mohamed Abdel-Hafez, UAE University and Rashid Al-Ahmedi, DU	
Improving Directional Rumor Routing in Wireless Sensor Networks	Hamid Shokrzadeh, Islamic Azad University, Iran M. Mashaiekhi, Research Institute of Petroleum Industry, Iran A. Nayebi, Research Institute of Petroleum Industry, Iran
On The Performance Of Directed Diffusion In Dense Sensor Networks	Lyes Khelladi, CERIST Center of Research Nadjib Badache, USTHB university, LSI Lab
Functional Testing of Wireless Sensor Node Designs	Kashif Munir Virk, Technical University of Denmark, Denmark Jan Madsen, Technical University of Denmark, Denmark
Simulation of Mobile Ad hoc Routing Strategies	Ahmed Boukhalkhal, University of Laghouat, Algeria M. B. Yagoubi, University of Laghouat, Algeria M. Djoudi, University of Constantine, Algeria Ouinten Youcef, University of Laghouat, Algeria Mohamed Benmohammed, University of Constantine, Algeria

Session 2D: E-Learning & E-Society	
Chairs: Maha Shakir, Zayed University and Said Badreddine, Higher College of Technology	
The Implementation of a Web-based 3D Multimedia Learning Prototype in Biology subject: BioID	Amirrudin Kamsin, University of Malaya, Malaysia Cha Gek Teng, University of Malaya, Malaysia Tay Lee Kee, University of Malaya, Malaysia
KEA - a Mathematical Knowledge Management System combining Web 2.0 with Semantic Web Technologies	Sabina Jeschke, University of Stuttgart, Germany Marc Wilke, University of Stuttgart, Germany Nicole Natho, TU Berlin, Germany Olivier Pfeiffer, TU Berlin, Germany
Operating System Virtualization to Support E-learning with Affective Intelligent Tutoring Systems	Chris Messom, Massey University, New Zealand Abdolhossein Sarrafzadeh, Massey University, New Zealand Anton Gerdelan, Massey University, New Zealand Martin Johnson, Massey University, New Zealand Jamshid Shanbehzadeh, Tarbiat Moalem University, Iran
Building Intelligent Web-based System for Efficient Tracking Learner's Communication Activities on Discussion Forums	Madeth May, National Institute of Applied Sciences of Lyon, France Sébastien George, National Institute of Applied Sciences of Lyon, France Patrick Prévôt, National Institute of Applied Sciences of Lyon, France

20:00 - 22:00: (SUNDAY, NOVEMBER 18, 2007)

Gala Dinner

Keynote Speakers:

(1)   Dr. John Bowers, CTO Calient Networks, California, USA

(2)   Mr. Roberto Saracco, IEEE USA and Telecom Italia

Cisco Research Excellence Award

Best Student Poster Award

Distinguished Scholar Award

MONDAY, NOVEMBER 19, 2007

09:00 - 10:40

Session 3A: Computer & Network Security II
Chairs: Halim Khelalfa, Wollongong University Dubai and Safuat Hamdi, UAE University

Implementation of the automated network vulnerability assessment	Jun Yoon, Korea Information Security Agency, Korea Won Tae Sim, Korea Information Security Agency, Korea
Bottleneck Analysis of Traffic Monitoring using Wireshark	Abes Dabir, Carleton University, Canada Ashraf Matrawy, Carleton University, Canada
XML based open tool for anomalies detection in firewall filtering rules	Mohammed Anis Benelbahri, High School of Telecommunication,Tunisia Adel Bouhoula, College of Telecommunications, Tunisia Zouheir Trabelsi, UAE University, UAE
Enabling Access Control and Privacy through Ontology	Mohammad M. R. Chowdhury, UniK-University Graduate Center, Kjeller, Norway Josef Noll, UniK-University Graduate Center, Kjeller, Norway Juan Miguel Gomez, Universidad Carlos III de Madrid, Spain

Session 3B: Fuzzy Computing & Neural Networks
Chairs: Farhad Keissarian, Wollongong University and Fadi Sibai, UAE University

Using a Combination of Model Based and Intelligent methods in Automatic Landmark Detection in Cephalometry	Rahele Kafieh, Isfahan University of Medicine, Iran Saeed Sadri, Isfahan University of Technology, Iran Alireza Mehri, Isfahan University of Medicine, Iran Hamid Raji, Isfahan University of Medicine, Iran
Comparing Two Models for Word Boundary Detection in a Phoneme Sequence Using Recurrent Fuzzy Neural Networks	Mohammad Reza Feizi Derakhshi, University of Science and Technology, Iran Mohammad Reza Kangavari, University of Science and Technology, Iran Elnaz Zafarani Moattar, Islamic Azad University Mahdi Aliyari Shorehdeli, K. N. Toosi University of Technology, Iran
The Kalman Filter Information Fusion for Cement Mill Control Based on Local Linear Neuro-Fuzzy Model	Amin Ramezani, University of Tehran, Iran Hamed Ramezani, University of Tehran, Iran Behzad Moshiri, University of Tehran, Iran
Handwritten Character Recognition using Perceptual Fuzzy-Zoning and Class Modular Neural Networks	Lajish V L, Tata Consultancy Services, India

Session 3C: Web Applications I
Chairs: Hend Al-Khalifa, King Saud University and Salah Bouktif, U.A.E University

Reverse Engineering of Web Based Systems	Abdelwahab Hamou-Lhadj, Concordia University, Canada Abdeslam En-Nouaary, Concordia University, Canada Khalid Sultan, Concordia University, Canada
Capturing Forms in Web Information Systems	Hui Ma, Massey University, New Zealand Rene Noack, University of Kiel, Germany Faizal Riaz-ud-Din, Massey University, New Zealand Klaus-Dieter Schewe, Massey University, New Zealand Bernhard Thalheim, University of Kiel, Germany
A Keyword Searching Algorithm For Search Engines	Vishal Gupta, Institute of Management Studies, India
CoolRank: A Social Solution for Ranking Bookmarked Web Resources	Hend Al-Khalifa, King Saud University, Saudi Arabi
Evolution of Interdependency model based on behavioral analysis of User, Search Engine and Advertiser in Online Advertising	Shruti Kohli, Birla Institute of Technology, India Ela Kumar, YMCA Institute of Engineering, Faridabad, India

Session 3D: Pervasive Computing I
Chairs: Zakaria Maamar, Zayed University and Ammar Muhiyaddin, Cisco Dubai

Power Line Communications: An Overview of Applications, Technology and the HomePlug Standards	Muhammad Salman Yousuf, King Fahd University of Petroleum and Minerals, Saudi Arabia Mustafa El-Shafei, King Fahd University of Petroleum and Minerals, Saudi Arabia
Innovative technologies for the creative industries: Advanced human-machine interfaces for dynamic performance effects	Abdolhossein Sarrafzadeh, Massey University, New Zealand Jamshid Shanbehzadeh, Tarbiat Moalem University, Iran Chris Messom, Massey University, New Zealand Martin Johnson, Massey University, New Zealand
A Hybrid Framework to Program Smart Environments	Aiman Erbad, University of British Columbia, Canada Charles Krasic, University of British Columbia, Canada
The Flexible Service Composition Framework for Networked Appliances	Chatchawin Namman, King Mongkut's Institute of Technology North Bangkok, Thailand Anirach Mingkhwan, King Mongkut's Institute of Technology North Bangkok, Thailand Omar Abuelma'atti, Liverpool John Moores University, UK Madjid Merabti, Liverpool John Moores University, UK
Knowledge Cities: The Future of Cities in the Knowledge-based Economy	Kostas Ergazakis, National Technical University of Athens, Greece Kostas Metaxiotis, Greek Ministry of Economy and Finance, Greece Emmanouil Ergazakis, National Technical University of Athens, Greece John Psarras, National Technical University of Athens, Greece

Morjaan 1: Tutorial 1.a	
Chair: Habib Hamam, Moncton University	
RFID Technology: A methodology of evaluating its impact through modeling and simulation	Samuel Fosso Wamba, Polytechnic School of Montreal, Canada

Morjaan 2: Tutorial 2.a	
Chair: Adel Khelifi, Alhosn University	
Developing wireless products in the industrial, Scientific & Medical (ISM) Band, The Next Big Thing: The case of Zigbee Standard.	Iboun Taimiya Sylla, Texas Instruments Inc, USA

10:40 - 11:00 Coffee Break

11:00 - 12:40 (MONDAY, NOVEMBER 19, 2007)	
Session 4A: Genetic Algorithms	
Chairs: Abdellatif Tchantchane, Wollongong University	
Similarity of XML Schema Fragments Based on XML Data Statistics	Irena Mlynkova, Charles University, Czech Republic Jaroslav Pokorny, Charles University, Czech Republic
Job Scheduling in Multi Processor Architecture Using Genetic Algorithm	Elnaz Zafarani Moattar, Islamic Azad University, Iran Amir M. Rahmani, Islamic Azad University, Iran Mohammad Reza Feizi Derakhshi, University of Science and Technology, Iran
An Evolutionary Approach for Partitioning Weighted Module Dependency Graphs	Ali Asghar Pourhaji Kazem, University of Tabriz, Iran Shahriar Lotfi, University of Tabriz, Iran
An Evolutionary Data Mining Model for Fuzzy Concept Extraction	Mohammad Amin Riji, University of Mashhad, Iran Milani Fard, Ferdowsi, University of Mashhad, Iran Mohammad R. Akbarzadeh, University of Mashhad, Iran
HGGASA: An Annealing Grouping Genetic Algorithm for Finding Feasible Timetables	Amir Najafi-Ardabili, University of Ferdowsi, Iran Danial Qarouni-Fard, University of Ferdowsi, Iran Mohamad-Reza Andalibizadeh, Shahid Beheshti University, Iran Ooldooz Ghorbani, Ferdowsi University, Iran Mohammad Sadegh Sheikhaei, Amirkabir University of Technology, Iran Javad Mohammadzadeh, University of Tehran, Iran

Session 4B: Wireless Communications II	
Chairs: Mohamed Hassan American University Sharjah and Najah Abu Ali, UAE University	
Designing High Available Satellite Ground Stations	Kayvan Farzaneh, ITRC, Iran Leila Mohammady, ITRC, Iran Azam Eidi, ITRC, Iran
The Performance of a Diversity-based MC-CDMA in the Presence of Frequency Offset and Inter-Carrier Interferences	Mohamed E. Khedr, Arab Academy for Science and Technology, Egypt Mohamed M. Ramadan, Arab Academy for Science and Technology, Egypt
Efficient Utilization of Orthogonal Variable Spreading Factor Trees Using Two levels Of	Mohamed E. Khedr, Arab Academy for Science and Technology, Egypt

Hierarchies and Adaptive Rate Control Mechanism	Roshdy A. AbdelRasoul, Arab Academy for Science and Technology, Egypt Mahmoud M. Youssef, Nilesat, Cairo, Egypt
CHASS-M: Channel Assignment for Fair Payoff Based on Game Theory for Wireless Multi-hop Networks	Hyun-Ki Kim, Sungkyunkwan University, Korea Tae-Jin Lee, Sungkyunkwan University, Korea

Session 4C: Computing Systems
Chairs: Tamer Shanabieh, American University Sharjah and Alexandre Pollini, CSEM-UAE

Reconfigurable and Area-Efficient Architecture for Symmetric FIR Filters with Powers-of-Two Coefficients	Dongwon Lee, Samsung Electronics, Korea
Performance Effect of Localized Thread Schedules in Heterogeneous Multi-Core Processors	Fadi Sibai, UAE University, UAE
On Making Intelligence Performance-Inconspicuous in 3D Games	Fadi Sibai, UAE University, UAE
Using Text-to-Speech Engine to Improve the Accuracy of a Speech-Enabled Interface	Yacine Benahmed, University of Moncton, Canada Sid-Ahmed Selouani, University of Moncton, Canada Habib Hamam, University of Moncton, Canada Douglas O'Shaughnessy, INRS-EMT Telecommunication, Canada
The Implementation of a Persistent Type-Safe Object-Oriented Programming Language	Omar M. Sallabi

Session 4D: Special Session: IT Applications in Electric Power Systems I
Chair: Faraj Sheikhi, DEWA and Ahmed Gaouda, UAE University

Power Systems Monitoring & Control Centers Sharing SCADA/EMS Information in the Age of Enterprise Mobility.	Alaa Maghiub, TRANSCO Najeeb Dandachi, TRANSCO
High Voltage Circuit Breaker Modeling for Online Model-Based Monitoring and Diagnosis.	H. H. Zeineldin, University of Waterloo, Canada E. F. El-Saadany, University of Waterloo, Canada M. M. A. Salama, Univeristy of Waterloo, Canada Z. Wang, ABB Corporate Research, Canada Yasser Mohamed, University of Waterloo, Canada
Virtual SCADA Simulation System for Power Substation	Khalid Darwish, American University of Sharjah, UAE A. R. Al-Ali, American University of Sharjah, UAE Rached Dhaouadi, American University of Sharjah, UAE
An Intelligent-Based Technique for Locating Switched Capacitors in the Distribution Systems Using High Frequency	Ahmed Abu-Elanien, University of Waterloo, Canada M. M. A. Salama, Univeristy of Waterloo, Canada
PC-Based SCADA Simulator for Distribution System Analysis	Mohamed Awad, UAE Awad I. Ibrahim, UAE

Morjaan 1:   Tutorial 1.b
Chair: Habib Hamam, Moncton University

RFID Technology: A methodology of evaluating its impact through modeling and simulation	Samuel Fosso Wamba, Polytechnic School of Montreal, Canada

Morjaan 2: Tutorial 2.b	
Chair: Adel Khelifi, Alhosn University	
Developing wireless products in the industrial, Scientific & Medical (ISM) Band, The Next Big Thing: The case of Zigbee Standard.	Iboun Taimiya Sylla, Texas Instruments Inc, USA

12:40 - 14:00: Lunch Break

14:00 - 15:40 (MONDAY, NOVEMBER 19, 2007)	
Session 5A: Embedded & Real-Time Systems	
Chairs: Fadi Aloul, American University Sharjah and Shahzad Abid, Nokia	
Live Range Splitting at Recursive Function Calls	Stefan Schaeckeler, Santa Clara University, USA Weijia Shang, Santa Clara University, USA
Evaluation of I-Cache Locking Technique for Real-Time Embedded Systems	Abu Asaduzzaman, Florida Atlantic University, USA Niranjan Limbachiya, Florida Atlantic University, USA Imad Mahgoub, Florida Atlantic University, USA Fadi Sibai, UAE University, UAE
Minimizing Response Time Implication in DVS Scheduling for Low Power Real-Time Embedded Systems	Nasaro Min-Allah, Chinese Academy of Sciences, China Asad-Raza Kazmi, Chinese Academy of Sciences, China Ishtiaq Ali, COMSATS University, Pakistan Xing Jian-Sheng, Graduate School, CAS, China Wang Yong-Ji, Chinese Academy of Sciences, China
EVO-EXPLORER: A Tool for Designing High-Performance Digital Systems	Azeddien Sllame, Al Fateh University, Libya
Online Feasibility Analysis with Composite-Deadline	Nasaro Min-Allah, Chinese Academy of Sciences, China Imran Ali, Chinese Academy of Sciences, China Xing Jian-Sheng, Chinese Academy of Sciences, China Wang Yong-Ji, Chinese Academy of Sciences, China

Session 5B: Ad Hoc and Sensor Networks II	
Chairs: Jawad Berri, Etisalat University College and Tarek Sheltami, KFUPM	
Admission Control Scheme and Bandwidth Management Protocol for 802.11 Ad hoc Networks	Abdelouahid Derhab, CERIST Research Center, Algeria Abdelmadjid Bouabdallah, Heudiasyc-UMR CNRS, France
Supporting Data-Intensive Wireless Sensor Applications using Smart Data Fragmentation and Buffer Management	Mbonisi Masilela, Virginia Commonwealth University, USA Ju Wang, Virginia Commonwealth University, USA Ramana Pidaparti, Virginia Commonwealth University, USA
A Functional Component Based Framework for Cross-Layer Design	Mike Slavik, Florida Atlantic University, USA Imad Mahgoub, Florida Atlantic University, USA Ahmed Badi, Florida Atlantic University, USA Fadi Sibai, UAE University, UAE
An Adaptive Clustering Algorithm with Power Control in Wireless Sensor Networks	Hye-Sun Hur, Chungnam National University, Korea Kyungsup Kim, Chungnam National University, Korea
Power Saving Deviation and Sudden Demise Effect of Cluster Head (CH) in the WEAC	Hafiz M. Asif, COMSATS Institute of Information Technology, Pakistan

Protocol	Tarek R. Sheltami, King Fahd University of Petroleum & Minerals, Saudi Arabia

Session 5C: Algorithms & Heuristics
Chairs: Peter Warren, UAE University

Wave-Fronts Parallelization and Scheduling	Saeed Parsa, Iran University of Science and Technology, Iran Shahriar Lotfi, Iran University of Science and Technology, Iran
Finding Feasible Timetables with Particle Swarm Optimization	Danial Qarouni-Fard, University of Ferdowsi, Iran Amir Najafi-Ardabili, University of Ferdowsi, Iran M- hossein Moeinzadeh, University of Tehran, Iran Sarah Sharifian Razavi, Ferdowsi University of Mashhad, Iran Ehsan Asgarian, Sharif University of Technology, Iran Javad Mohammadzadeh, University of Tehran, Iran
Behavior of the Concept Lattice Reduction to visualizing data after Using Matrix Decompositions	Vaclav Snasel, VSB-Technical University of Ostrava, Czech Republic Hussam M. Dahwa Abdulla, VSB Technical University Ostrava, Czech Republic Martin Polovincak, VSB Technical University Ostrava, Czech Republic
Solving MEC and MEC/GI Problem Models Using Information Fusion and Multiple Classifier Systems	Ehsan Asgarian, Sharif University of Technology, Iran M- hossein Moeinzadeh, University of Tehran, Iran Javad Mohammadzadeh, University of Tehran, Iran Ali Ghazinezhad, Ferdowsi University of Mashhad, Iran Jafar Habibi, Sharif University of Technology, Iran Amir Najafi- Ardabili, University of Ferdowsi, Iran
Three Heuristic Clustering Methods for Haplotype Reconstruction Problem with Genotype Information	M- hossein Moeinzadeh, University of Tehran, Iran Ehsan Asgarian, Sharif University of Technology, Iran Amir Najafi- Ardabili, University of Ferdowsi, Iran Sarah Sharifian Razavi, Ferdowsi University of Mashhad, Iran Javad Mohammadzadeh, University of Tehran, Iran Mohammad-Sadegh Shaikhaei, Amirkabir University of Technology, Iran

Session 5D: Special Session: IT Applications in Electric Power Systems II
Chair: Ahmed Gaouda, UAE University and Haifa Bu Hazzaa, TRANSCO

System of Support of Decision-Making for Electrical Power System Staff.	Diaeldin Ali Ibrahim, University of Donetsk, Ukraine I. P. Zabolotny, Donetsk State Technical University, Ukraine
Substation Automation Techniques and Future Trends	A B S Mohamed Rayees, Al Ain Distribution Company, UAE
Autonomic Computing Application in Power System Distributions.	M AL Zawi, Liverpool John Moores University, UK D. Al-Jumeily, Liverpool John Moores University, UK Abir Jaafar Hussain, Liverpool John Moores University, UK

	T. F. Abdelsalam, University of Bath, UK
An Efficient Tri-loop Controller for Photovoltaic Powered Four-wheel Electric Vehicle.	Emhemed Elbakush, University of New Brunswick, Canada A.M. Sharaf, University of New Brunswick, Canada I. H. Altas, Karadeniz Technical University, Trabzon, Turkey
A New Digital Signal Processing Based Approach for Evaluation of Reactive Power and Energy in Power Distribution Systems.	Adalet Abiyev, Girne American University, Turkey

Morjaan 1: Tutorial 3.a
Chair: Salah Bouktif, U.A.E University

Ubiquitous Communications Environment	Jeevan Bhingarkar, Group Director, Strategic Business Development, Visionaire Inc.

Morjaan 2: Tutorial 4.a
Chair: Mohamed Adel Serhani, U.A.E University

Basics of Portal Technologies Using Open source and Commercial Products.	Dr. Khalid Khawaja, American University in Dubai, UAE

15:40 - 16:00 Coffee Break

16:00 - 17:40 (MONDAY, NOVEMBER 19, 2007)
Session 6A: Natural Language Processing
Chairs: Saad Ali Amin, British University in Dubai

Stemming Versus Light Stemming as Feature Selection Techniques for Arabic Text Categorization	Rehab Duwairi, Jordan University of Science and Technology, Jordan Mohammad Al-Refai, Jordan University of Science and Technology, Jordan Natheer Khasawneh, Jordan University of Science and Technology, Jordan
Investigating Automatic Recognition of Non-Native Arabic Speech	Sid-Ahmed Selouani, University of Moncton, Canada Yousef Alotaibi, King Saud University, Saudi Arabia
Stemmer Algorithm for Arabic Words based on excessive letter locations	Riyad Al Shalabi, Arab Academy for Banking and Financial Sciences, Jordan Ghassan Kanaan, Arab Academy for Banking and Financial Sciences, Jordan Sameh Ghawanmeh, Yarmouk University, Jordan
Enhanced Arabic Information Retrieval System based on Arabic Text Classification	Sameh Ghawanmeh, Yarmouk University, Jordan Ghassan Kanaan, Arab Academy for Banking and Financial Sciences, Jordan Riyad Al Shalabi, Arab Academy for Banking and Financial Sciences, Jordan Ahmad Ababneh, Yarmouk University, Jordan
A Comparison between Interactive and Automatic Query Expansion Applied on Arabic Language	Ghassan Kanaan, Arab Academy for Banking and Financial Sciences, Jordan Riyad Al Shalabi, Arab Academy for Banking and Financial Sciences, Jordan

| | Sameh Ghawanmeh, Yarmouk University, Jordan |
| | Basel bani-Ismail, Yarmouk University, Jordan |

Session 6B: Pattern Matching and Recognition
Chairs: Lami Kaya, Sharjah University and George Dista, UAE University

Tool Support for Composition and Verification of Formal Behaviors	Siamak Kolahi, Concordia University, Canada
	Aziz Salah, University of Quebec at Montreal, Canada
	Rabeb Mizouni, Concordia University, Canada
	Rachida Dssouli, Concordia University, Canada
Face Recognition Using State Space Parameters and K-NN Classifier	Kabeer V, Kannur University, India
	T M Thasleema, Kannur University, India
	N K Narayanan, Kannur University, India
Identification of lung cancer based on shape and color	Fatma Taher, University of Sharjah, UAE
	Rachid Sammouda, University of Sharjah, UAE
License Plate Localization in ALPR Systems	Hasan R. Obeid, Hariri Canadian University, Lebanon
	Rached N. Zantout, Hariri Canadian University, Lebanon
	Fadi Sibai, UAE University, UAE
A Prerequisite Concepts for Temporal-Side Sequential Patterns Discovery	Ahmed Aburodes Assaid, Sebha University, Libya

Session 6C: Agent-Based Systems
Chairs: Moulay Badidi, UAE University

A Framework for the Evaluation of Agent-Oriented Methodologies	T. Abdelaziz, University of Duisburg-Essen, Essen, Germany
	Mohamed Elammari, University of Garyounis, Libya
	R. Unland, University of Duisburg-Essen, Essen, Germany
Agent-Based Approach for Designing and Implementing a Virtual Laboratory	Djamila Mechta, University Ferhat Abbes of Setif Algeria
	Saad Harous, University of Sharjah, UAE
	Mahieddine Djoudi, University of Poitiers, France
	Amel Douar, University Ferhat Abbes of Setif, Algeria
Pattern-Based Design for Intelligent Mobile Agents	Ananta Charan Ojha, ICFAI University, India
	Sateesh Kumar Pradhan, Utkal University, India
	Manas Ranjan Patra, Berhampur University, India
Complexity Results for Argumentation-based Agent Communication	Jamal Bentahar, Concordia University, Canada
	Zakaria Maamar, Zayed University, UAE
An Approach Towards Emotion Estimation During Chat Sessions Using Software Agents	Abu Zafar Abbasi, National University of Computer and Emerging Sciences, Karachi, Pakistan
	Dr. Zubair A. Shaikh, National University of Computer and Emerging Sciences, Karachi, Pakistan

Session 6D: Special Session: Innovations in Simulation Techniques
Chair: Alessandra Orsoni, Kingston University, UK

A Financial Literacy Simulation Model using Neural Networks	Rentian Huang, Liverpool Hope University, UK
	H. Tawfik, Liverpool Hope University, UK
	M. Samy, Liverpool Hope University, UK
	A. K. Nagar, Liverpool Hope University, UK
Use Cases and Scenarios Engineering	Abdesslam Jakimi, ENSIAS, Morocco

	Ayoub Sabraoui, ENSIAS, Morocco Elarbi Badidi, UAE University, UAE Ali Idri, ENSIAS, Morocco Mohamed Elkoutbi, ENSIAS, University MohammedV, Morocco
A Simulation Model for Large Scale Distributed Systems	Ciprian M. Dobre, Politechnica University of Bucharest, Romania Valentin Cristea, Politehnica University of Bucharest, Romania
Novel Approach in Modeling the Extents of Moving Objects	Haoran Chen, University of Science and Technology of China Jin Peiquan, University of Science and Technology of China Yue Lihua, University of Science and Technology of China
Development of a Virtual Memory Simulator to Analyze the Goodness of Page Replacement Algorithms	Fadi Sibai, UAE University, UAE Maria Ma, Fidelity Investments, USA David A. Lill, Motorola, Inc., USA
Active Tokens for Modelling Mental Health Care with Coloured Stochastic Petri Nets	Kristina Dammasch, University of Magdeburg, Germany Graham Horton, University of Magdeburg, Germany
An Interactive Web Based Decision Support System for Financial Decisions within a Team	George Rigopoulos, National Technical University of Athens, Greece Alessandra Orsoni, Kingston University, UK Javier Otamendi, Universidad Rey Juan Carlos, Spain

Morjaan 1: **Tutorial 3.b** **Chair:** Salah Bouktif, U.A.E University	
Ubiquitous Communications Environment	Jeevan Bhingarkar, Group Director, Strategic Business Development, Visionaire Inc.

Morjaan 2: **Tutorial 4.b** **Chair:** Mohamed Adel Serhani, U.A.E University	
Basics of Portal Technologies Using Open source and Commercial Products.	Dr. Khalid Khawaja, American University in Dubai, UAE

TUESDAY, NOVEMBER 20, 2007

09:00-10:40	
Session 7A: Web Services **Chairs:** Arno Scharl, Modul University Vienna and Saad Harous, Sharjah University	
Alert Notification and Resource Allocation against Disease Outbreak using Web services	Drake T. T. Lin, Hong Kong University of Science and Technology Dickson K.W. Chiu, Dickson Computer Systems
RBSLA based Implementation for Architectural Management Laws	Ahmed Alghamdi, University of Leicester, UK José Luiz Fiadeiro, University of Leicester, UK Adrian Paschke, RuleML Inc., Canada
Implementing a Facial Recognition System with Alerts and Web Services	K.W. Yu, Hong Kong University of Science and Technology Dickson K.W. Chiu, Dickson Computer Systems Patrick C. K. Hung, University of Ontario, Canada

Applying Vector Space Models to Ontology Link Type Suggestion	Albert Weichselbraun, Vienna University of Economics and Business Administration, Austria Gerhard Wohlgenannt, Vienna University of Economics and Business Administration, Austria Arno Scharl, MODUL University Vienna, Austria
Towards Peer-to-Peer Long-Lived Mobile Web Services	Fahad Aijaz, RWTH Aachen University, Germany Bilal Hameed, Aachen University of Technology, Germany Bernhard Walke, RWTH Aachen University, Germany

Session 7B: Web Applications II	
Chairs: Rawshan Basha, Sharjah University and Jerry Wiliams, RAK Free Zone	
Fuzzy Radial Basis Function Neural Networks for Web Applications Cost Estimation	Ali Idri, ENSIAS, Morocco Abdelali Zakrani, ENSIAS, Morocco Mohamed Elkoutbi, ENSIAS, Université MohammedV, Morocco, Alain ABRAN, ETS - University of Quebec, Montreal, Canada
Multidimensional Sessions Comparison Method Using Dynamic Programming	Natheer Khasawneh, Jordan University of Science and Technology, Jordan Chien-Chung Chan, University of Akron, USA
Content Classification for Caching under CDNs	George Pallis, Aristotle University of Thessaloniki, Greece Charilaos Thomos, Aristotle University of Thessaloniki, Greece Konstantinos Stamos, Aristotle University of Thessaloniki, Greece Athena Vakali, Aristotle University of Thessaloniki, Greece George Andreadis, Aristotle University of Thessaloniki, Greece
Web2.0 for Machines and Services: Human Oriented Service Identity Management	David J. Lutz, Universitaet Stuttgart, Germany
Cluster Processing of Containment Queries in XML Databases	Ghassan Qadah, American University of Sharjah, UAE

Session 7C: Pervasive Computing II	
Chairs: Mahir Ali, Ajman University and Waleed Al Ali, Dubai Holdings	
P2P File-Sharing Application on Mobile Phones Based on SIP	Liang Li, Institute of Computing Technology, Chinese Academy of Sciences, China Xinshe Wang, Hopen Software Engineering Co., Ltd
Virtual Human Interaction based on Emotional Cognition	Hamido Fujita, Iwate Prefectural University, Japan Jun Hakura, Iwate Prefectural University, Japan Masaki Kurematsu, Iwate Prefectural University, Japan
Integration of Telemedicine Activities in the Czech Republic	Otto Dostal, Masaryk University in Brno, Czech Republic Michal Javornik, Masaryk University in Brno, Czech Republic Karel Slavicek, Masaryk University in Brno, Czech

	Republic
	Pavel Ventruba, Masaryk University in Brno, Czech Republic
Document Adaptation and Efficient Exploring of Adapted Document on Mobile Devices	Hassan NADERI, University of INSA of Lyon, France
	Béatrice Rumpler, University of INSA of Lyon, France
	Jean-Marie Pinon, University of INSA of Lyon, France
Noise Field Measurements for Safety use of Environmel Electronic and Electrical Equipment	Iman Gamal Eldin Morsi, Arab Academy for Science and Technology, Egypt
	Hassan Elkamchouchi, University of Alexandria, Egypt

Session 7D: Advanced Issues in Communication Networks
Chairs: Rachida Dssouli, Concordia University and Khaled Shuaib, UAE University

Induced Packet Loss Reduction by Max-Heap Overlay Construction Based on the Bandwidth-Latency Product Measures	Omar F Hamad, Chonnam National University, Korea
	Mi-Young Kang, Chonnam National University, Korea
	Jin-Han Jeon, Chonnam National University, Korea
	Kyung-Hoon Kim, Chonnam National University, Korea
	Ji-Seung Nam, Chonnam National University, Korea
Efficient Hierarchical Double Ring Application Layer Multicast Model Based on Diff-App	XU Jianzhen, Nanjing University of Posts & Telecommunications, China
	XU Mihua, Nanjing University of Posts & Telecommunications, China
	ZHANG Fuyan, Nanjing University, China
A New Approach in Grouping and Furthest Away Recently for Optimizing Management Cache in Mobile Environment	Amir M. Rahmani, Islamic Azad University, Iran
	Feridon Shams, University of Beheshti, Iran
	Majid Momenizadeh, Islamic Azad University, Iran
IEEE 802.21 MIH based Handover for Next Generation Mobile Communication Systems	Jae-Han Seol, Yonsei University, Korea
	Jong-Moon Chung, Yonsei University, Korea
A Decision Scheme for Vertical Handoff in Overlay Wireless Networks	Rami Tawil, Pierre et Marie Curie University, France
	Guy Pujolle, Pierre et Marie Curie University, France
	Oscar Salazar, Telecom Paris (ENST), France
	Jacques Demerjian, PhdGroup.org Association, France

Morjaan 1:   Tutorial 5.a
Chair: Mohamed Salem, Wollongong University

Software Engineering of video games.	Prof. Boumediene Belkhouche, UAE University, UAE

10:40 - 11:00   Break

11:00 - 12:40

Session 8A: MIMO & Coding Techniques
Chairs: Mohamed Tarhuni, American University Sharjah and Karel Slavicek, Masaryk University

Iterative Semi-blind Beamforming Algorithm in MIMO-OFDM Systems	Simin Bokharaiee Najafee, Ferdowsi University of Mashhad, Iran
	Hossein Zamiri-Jafarian, University of Toronto, Canada
Optimization of DCF Location for WDM Systems using RZ, Chirped RZ and Carrier-Suppressed RZ Modulations	Taha Landolsi, American University of Sharjah, UAE
	Mohamed El-Tarhuni, American University of Sharjah, UAE
Two-Stage Hybrid Decoding for Low-Density	Hany Zeidan, German University in Cairo, Egypt

Parity Check codes	Maha M. Elsabrouty, German University in Cairo, Egypt
A Cross-Layer Vertical Handover Decision Model for Heterogeneous Wireless Networks	Syed Zubair Ahmad, Mohammad Ali Jinnah University, Pakistan Mohammad Saeed Akbar, Mohammad Ali Jinnah University, Pakistan Mohammad Abdul Kadir, Mohammad Ali Jinnah University, Pakistan

Session 8B: Computer & Network Security III
Chairs: Lingyu Wang, Concordia University and Issa Khalil, UAE University

Simulation Based Study of Communication Induced Checkpointing Protocols Ensuring the RDT Property	Zohra Abdelhafidi, University Amar Telidji, Algeria Mohamed Djoudi, University Amar Telidji, Algeria Mohamed Yagoubi, University Amar Telidji, Algeria
A Hierarchical Approach to the Specification of Privacy Preferences	Yuan Hong, Concordia University, Canada Shuo Lu, Concordia University, Canada Qian Liu, Concordia University, Canada Lingyu Wang, Concordia University, Canada Rachida Dssouli, Concordia University, Canada
An Image Watermarking Scheme based on Image Visual Activity for Copyright Protection	Farhad Keissarian, University of Wollongong in Dubai, UAE
Reverse Engineering: Malware Analysis	Madihah Mohd Saudi, Islamic Science University of Malaysia Emran Mohd Tamil, University of Malaya (UM) Siti Aishah Md Nor, Islamic Science University of Malaysia Mohd Yamani Idna Idris, Univeristy of Malaya (UM)
A Digital ID Purse Mechanism using USIM in a Mobile Environment	Dongho Song, Korea University, Korea Sun Hee Lim, Korea University, Korea Okyeon Yi, Kookmin University, Korea Jongin Lim, Korea University, Korea

Session 8C: Image Computing
Chairs: Rachid Samouda, Sharjah University

New image matching method based on spatial inter-region relationships	Ines Karouia, ISI, Tunisia Ezzeddine Zagrouba, ISI, Tunisia
Decomposition of an alignment problem of two 3D images by a multi-agent approach	Mohamed A. Jallouli, Institut Supérieur d'Informatique, Tunisia Ezzeddine Zagrouba, ISI, Tunis, Tunisia Narjes Doggaz, Faculté des Sciences de Tunis, Tunisia Mongi Abidi, IRIS, Tunisia
Interactive Object and Collision Detection Algorithm Implementation on a Virtual Museum based on Croquet	Riri Fitri Sari, University of Indonesia, Indonesia Muliawan, University of Indonesia, Indonesia
A Hybrid Digital Image Watermarking Algorithm	Ali Al-Haj, University of Jordan, Jordan

Session 8D: QoS & Resource Allocation
Chairs: Madjid Merabti, Liverpool John Moores University and Nader Faisal, UAE University

Quality of Service Support and Local Recovery Approach for ODMRP Multicast Routing in Ad	Mehdi Effatparvar, Islamic Azad University, Iran Amir Dareshorzadeh, Iran University of Science and

hoc Networks	Technology, Iran Mehdi Dehghan, AmirKabir University of Technology, Iran Ali Movaghar, Sharif University of Technology, Iran Mohammad Reza Effatparvar, Islamic Azad University, Iran
Fair-Sharing Resource Management Schema for Multi-service Wireless and Mobile Networks	Hang Chen, Johnson C. Smith University, USA Magdy Attia, Johnson C. Smith University, USA
Opportunistic Uplink Scheduling for 3G LTE Systems	Mohammed Al Rawi, Helsinki University of Technology, Finland Riku Jäntti, Helsinki University of Technology, Finland Johan Torsner, Ericsson Research, Finland Mats Sågfors, Ericsson Research, Finland
Preemption Scheme for Improving Source Level Fairness in Optical Burst Switching Networks	Tananun Orawiwattanakul, The Graduate University for Advanced Studies Japan Yusheng Ji, National Institute of Informatics, Japan
Optimal Frame Length for Keeping Normalized Goodput with Lowest Requirement on BER	Jian Qi, University of Quebec, INRS-EMT, Canada Sonia Aissa, University of Quebec, INRS-EMT, Canada Xinsheng Zhao, Southeast University Nanjing, China

Morjaan 1:   Tutorial 5.b **Chair:** Mohamed Salem, Wollongong University

Software Engineering of video games.	Prof. Boumediene Belkhouche, UAE University, UAE

12:40 - 13:30
Closing ceremony Best paper award announcement