

IEEE

May 8-11, Niagara Falls, Canada

IEEE CCECE 2011

Schedule of Events

Session Code:

Day: Monday, Tuesday, Wednesday

Program: Morning, Afternoon, Evening

Session Number, Presentation Number

Example: WM03.06 = Wednesday Morning Session 3 Presentation 6

Procedure Page Numbers refer to the Conference USB Drive

Edas Paper Numbers (last six digits) are shown thus: [123456]

IEEE CCECE 2011 - 000043

IEEE

Plenary Session 1

Monday, May 9, 2011 at 8:15am in Oakes Ballroom

“Canada’s Transportation Sector and Collaborative Automotive Research & Education in Canada”

Presented by: Prof. Peter R. Frise

Scientific Director and CEO – AUTO21 Network of Centers of Excellence and Professor of Automotive Engineering and Executive Director of Automotive Research & Studies at the University of Windsor

IEEE CCECE 2011 - 000044

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems		
Session: MM01	Renewable Energy I		
Monday, May 9, 2011	Time: 9:45 a.m. - 11:30 a.m.		Room: Hennepin South
	Chair: M. El-Hawary	Dalhousie U., Canada	
			Proceedings Page No.
MM01.01: Design of Self-Excited Induction Generators for Wind Applications [397909]			0195
Roger Vieira (University of Trinidad and Tobago, TT); Adel Sharaf (University of New Brunswick, CA)			
MM01.02: Performance Evaluation of a Hybrid Wind-Diesel-Compressed Air Energy Storage System [398173]			0270
Hanif Sedigh Nejad (Memorial University of Newfoundland, CA)			
MM01.03: Short-term Hydro-thermal Scheduling with Environmental Considerations using Bacterial Foraging Algorithm [399047]			0425
Ibrahim Farhat (Dalhousie University, CA); Mohamed El-Hawary (Dalhousie University, CA)			
Symposium: Power Electronics and Systems - Distributed Generation (DG) Systems			
Session: MM02 Chair: Gerry Moschopoulos U of Western Ontario, Canada			
MM02.04: The Impact of Mechanical Dynamics of Wind Turbine on the Flicker Level in a Wind Diesel System [397889]			0191
Roohollah Fadaeinedjad (Kerman Graduate University of Technology, IR); Gerry Moschopoulos (University of Western Ontario, CA); Mohsen Mohammadian (Shahid Bahonar University of Technology, IR)			
MM02.05: Optimal DG Placement for Minimizing Power Loss in Distribution Feeder Systems using Sensory-Deprived Optimization Algorithm [397943]			0205
Fahad Abu-Mouti (Dalhousie University, CA); Mohamed El-Hawary (Dalhousie University, CA)			
MM02.06: LQR with integral action applied to a wind energy conversion system based on doubly fed induction generator [400947]			0717
Bachir Kedjar (Ecole de Technologie Supérieure, CA); Kamal Al-Haddad (Ecole de Technologie Supérieure, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Biomedical Engineering and Health Informatics			
Session: MM03	Biomedical Applications			
Monday, May 9, 2011	Time: 9:45 a.m. - 11:30 a.m.			Room: Salon A
	Chair: TBA	TBA	Seyed Alireza Banani <sab8@sfu.ca>	
				Proceedings Page No.
MM03.01: Using Cyclic Redundancy Check to Eliminate Key Storage for Revocable Iris Templates [394871]				0117
Marwa Fouad (University of Ottawa, CA); Abdulmotaleb El Saddik (University of Ottawa, CA)				
MM03.02: A Multichannel Intracerebral EEG Monitoring system For Epilepsy Presurgical Evaluation [398503]				0325
Muhammad Salam (Ecole Polytechnique de Montreal, CA); Dang Nguyen (Notre-Dame Hospital, Centre Hospitalier de Université de Montréal, CA); Mohamad Sawan (École Polytechnique de Montréal, CA)				
MM03.03: Protein Coding Region Prediction Based On The Adaptive Representation Method [399021]				0415
Sajid Marhon (University of Guelph, CA); Stefan Kremer (University of Guelph, CA)				
MM03.04: A Voice Activated Device for Insulin Dosage Calculations for Visually Impaired Diabetes [401899]				0904
Hossein Radfar (University of Toronto, CA); Michael Hamilton (University of Toronto, CA); Aaron Ming (University of Toronto, CA)				
MM03.05: Data Providing Web Service-Based Integration Framework for use in a Health Care Context [402793]				1069
Kevin Brown (University of Western Ontario, CA); Katarina Grolinger (University of Western Ontario, CA); Miriam Capretz (University of Western Ontario, CA); Pamela Hines (CMHA Windsor-Essex County Branch, CA)				
MM03.06: A method for interactive hypothesis testing for Clinical Decision Support Systems using Ptolemy II [403111]				1278
Rishikesan Kamaleswaran (University of Ontario Institute of Technology, CA); Mike Eklund (University of Ontario Institute of Technology, CA)				

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Communications and Networking		
Session: MM04	Cooperative Communications I		
Monday, May 9, 2011	Time: 9:45 a.m. - 11:30 a.m.	Room: Oakes NE	
	Chair: Prof. Mehmet Ali	Concordia U., Canada	
			Proceedings Page No.
MM04.01: Cooperative Inter-Vehicular Communications in Highway Traffic [399101]			0460
Mohamed Feteiha (University of Waterloo, CA); Murat Uysal (Ozyegin University, TR); Abdul-Rahim Ahmad (Dalhousie University - School of Business Administration, CA)			
MM04.02: Novel Techniques in Cooperative Wireless Networks using Network Coding [399397]			0557
Mohammad Jabbari Hagh (Concordia University, CA); M. Reza Soleymani (Concordia University, CA)			
MM04.03: Performance of 2-1-1 Coded Cooperative Relaying Scheme [401051]			0727
Khuong Ho-Van (McGill University, CA); Tho Le-Ngoc (McGill University, CA)			
MM04.04: Experimental Evaluation of Collaborative Data Dissemination in WSNs using Network Coding and Store and Forward Techniques [402809]			1079
Taimoor Khan (Dalhousie University, CA); Jacek Ilow (Dalhousie University, CA); Nauman Aslam (Dalhousie University, CA)			
MM04.05: Throughput Performance of Incremental Decode-and-Forward Using Infra-Structured Relays and Adaptive Modulation and Coding [402781]			1060
Hirley Alves (Federal University of Technology of Paraná, BR); Glauber Brante (Federal University of Technology - Paraná (CPGEL/UTFPR), BR); Richard Demo Souza (Federal University of Technology - Paraná (UTFPR), BR)			
MM04.06: Aqua-Net: A Flexible Architectural Framework for Water Management Based on Wireless Sensor Networks [399145]			0481
Ijlal Shah (Freescale, US); Marwan Fayed (University of Stirling, UK); Muhammad Dhodhi (Ross Video Ltd., CA); Hussein Mouftah (University of Ottawa, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium Signal and Multimedia Processing - 1
Session: MM05 Image Processing I
Monday, May 9, 2011 Time: 9:45 a.m. - 11:30 a.m. **Olivier Trescases** Room: Oakes NW
Chair: TBA

Proceedings Page No.

MM05.01: Analysis Of Acoustic Features Of Infant Cry For Classification Purposes [393211] **0089**
Ali Messaoud (École de Technologie Supérieure, CA); Chakib Tadj (Ecole de Technologie Supérieure, CA)

MM05.02: No Reference Medical Image Quality Measurement based on Spread Spectrum and Discrete Wavelet Transform using ROI Processing [396745] **0121**
Arash Ashtari (Iran University of Science and Technology, IR)

MM05.03: An Empirical Investigation into Application of a Fast Discrete 2D S-transform Algorithm to Provide Localized Measures of Texture in Images [397915] **0201**
Michael Smith (University of Calgary, Schulich School of Engineering, CA); Robert Brown (Seaman Family MR Research Centre, CA); Maryam Helmi (University of Calgary, CA); Rangaraj Rangayyan (University of Calgary, Schulich School of Engineering, CA)

Symposium: Signal and Multimedia Processing - 2 - Radar & Array Processing
Session: MM06 Chair: TBA TBA

MM06.04: A New Neural Network for Sea Target Detection [376759] **0033**
Saeed Mirghasemi (University of Tarbiat Modares, IR); Ali Khayati (Islamic Azad University Parand Branch, IR)

MM06.05: An Algorithm for Object Tracking Based on Adaptive Triangle Shape Mesh Estimation Method [398639] **0354**
Mahdi Koohi (Department of Electronic Engineering Azad University South Tehran Branch, IR)

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Controls and Robotics		
Session: MM07	Adaptive Control		
Monday, May 9, 2011	Time: 9:45 a.m. - 11:30 a.m.		Room: Ontario
	Chair: Mu-Chiao Lu	EVSCI, Canada	
			Proceedings Page No.
MM07.01: A new adaptive state feedback controller for the ball and beam system [398147]			0247
Donatien Nganga-Kouya (ENSET of Gabon, CD); Francis Okou (Royal Military College of Canada, CA)			
MM07.02: Nonlinear Adaptive Observer Design For An Electromechanical Rotative Plant [398921]			0385
Karim Khayati (Royal Military College of Canada, CA); Jiang Zhu (Concordia University, CA)			
MM07.03: A Combination of Open and Closed-Loop Control for Disturbance Rejection [399399]			0563
Jin Lu (The University of Western Ontario, CA); Lyndon Brown (University of Western Ontario, CA)			
MM07.04: Feedback-Based Iterative Learning Controller Design using the Robust Performance Condition of Uncertain Feedback Control Systems [402821]			1084
Tae Yong Doh (Hanbat National University, KR); Jung Rae Ryoo (Seoul National University of Science and Technology, KR)			
MM07.05: Adaptive Receding Horizon Control for a Class of Linear Time Delay Systems [403267]			1406
Mu-Chiao Lu (Evidence Scientific Consulting Inc., CA)			

MM07.06: On The Analysis of A New Markov Chain Which Has Applications in AI And Machine Learning, Anis Yazidi_, Ole-Christoffer (Dept. of ICT, University of Agder, Grimstad, Norway), **B. John Oommen**, (Carleton University, Ottawa, CA)

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems		
Session: MA01	Power Systems I		
Monday, May 9, 2011	Time: 1:30 p.m. - 3:15 p.m.	Room: Hennepin South	
	Chair: Rajiv Varma	U of Western Ontario, Canada	
		Proceedings Page No.	
MA01.01: Dynamic Analysis of DVR Implementation Based on Nonlinear Control by IOFL [398165]			0264
Mitra Sarhangzadeh (Electrical Engineering Department, Islamic Azad University, Tabriz Branch, IR)			
MA01.02: Design an Optimized Power System Stabilizer Using NSGA-II Based on Fuzzy Logic Principle [400777]			0683
Ebrahim Babaei (University of Tabriz, IR)			
MA01.03: A New Coordinately Design of STATCOM AND Power System Stabilizer Using Hybrid BF-NM Algorithm [400799]			0687
Amin Khodabakhshian (University of Isfahan, IR); Mohammad Javad Morshed (University of Isfahan, IR); Moein Parastegari (University of Isfahan, IR)			
MA01.04: Line to Line Compensator (LLC), A New Generation of FACTS Controllers [400965]			0723
Mehrdad Tarafdar Hagh (University of Tabriz, IR)			
MA01.05: A Novel FACTS Based Dynamic Voltage Compensation Scheme for Smart Electric Grid Stabilization and Efficient Utilization [385159]			0042
Adel Sharaf (University of New Brunswick, CA); Abdelazeem Abdelsalam (Suez Canal University, EG)			
MA01.06: An Effective Method to Formulate Electric Power System Problems for Online Assessments [397229]			0146
Walid Morsi (University of Ontario Institute of Technology, CA); Mohamed El-Hawary (Dalhousie University, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium Biomedical Engineering and Health Informatics
Session: MA02 Biomedical Instrumentation
Monday, May 9, 2011 Time: 1:30 p.m. - 3:15 p.m. **Behnaz ghoraani** <bghoraani@gmail.com> Room: Salon A
Chair: TBA

	Proceedings Page No.
MA02.01: Meander Line Antenna for RFID Applications in Health Care [398355] Mehdi Si Moussa (Ecole de Technologie Supérieure, CA); Ammar Kouki (École de technologie supérieure, CA)	0296
MA02.02: Cantilever Embedded MOSFET for Bio-sensing [399165] Shadab Rabbani (IIT Delhi, IN); Panwar Brishbhan (IIT Delhi, IN)	0489
MA02.03: A heart rate sensor based on seismocardiography for vital sign monitoring systems [400653] Anh Dinh (University of Saskatchewan, CA)	0665
MA02.04: An efficient yuv-based image compression algorithm for wireless capsule endoscopy [402075] Atahar Mostafa (University of Saskatchewan, CA); Khan Wahid (University of Saskatchewan, CA); Seok-Bum Ko (University of Saskatchewan, CA)	0943
MA02.05: Remote Point-of-Gaze Estimation with Single-Point Personal Calibration Based on the Pupil Boundary and Corneal Reflections [402179] Elias Guestrin (Toronto Rehabilitation Institute, CA); Moshe Eizenman (University of Toronto, CA)	0971
MA02.06: User-Calibration-Free Remote Eye-Gaze Tracking System With Extended Tracking Range [403099] Dmitri Model (University of Toronto, CA); Moshe Eizenman (University of Toronto, CA)	1268

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium Communications and Networking
Session: MA03 Resource Allocation and Scheduling in Wired & Wireless Networks
Monday, May 9, 2011 Time: 1:30 p.m. - 3:15 p.m. Room: Oakes NE
Chair: Tho Le-Ngoc McGill U., Canada

Proceedings Page No.

MA03.01: Resource Utilization with Relays in LTE-Advanced Networks [398661] Ali Yaver (Nokia Siemens Networks, PL); Damian Kolmas (Nokia Siemens Networks, PL); Jarosław Lachowski (Nokia Siemens Networks, PL)	0360
MA03.02: DTN QoS Metrics and Fair Resources Management Model [400919] Mohammad Alsiyabi (University of Surrey, UK); Haitham Cruickshank (University of Surrey, UK); Zhili Sun (University of Surrey, UK)	0704
MA03.03: Optimal Edge Nodes Selection and Power Allocation in Relay Enabled Network [403197] Rukhsana Ruby (University of British Columbia, CA); Victor Leung (The University of British Columbia, CA)	1347
MA03.04: Performance evaluation of novel scheduling algorithms for G/M/1 queueing system with multiple classes of self-similar traffic input [403295] Abdul Malik Rahhal (King Saud University, SA); Mansour Zuair (King Saud University, Riyadh, SA); Mohsin Iftikhar (NICTA, AU)	1420
MA03.05: Analyzing Sliding Frame Reservation-Aloha MAC Protocol against Mobile Hidden Station Problem in MANET [398367] Kazi Atiqur Rahman (University of Windsor, CA); Khaja Shazzad (University of Windsor, CA); Kemal Tepe (University of Windsor, CA)	0304
MA03.06: Towards a Unified Trust Framework for Trust Establishment and Trust Based Service Selection [402953] Zainab Aljazzaf (University of Western Ontario, CA); Mark Perry (The University of Western Ontario, CA); Miriam Capretz (University of Western Ontario, CA)	1175

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Controls and Robotics		
Session: MA06	Robotic Applications		
Monday, May 9, 2011	Time: 1:30 p.m. - 3:15 p.m.		Room: Ontario
	Chair: Marc Gallant	Carlton U.,Canada	
			Proceedings Page No.
MA06.01: A Vor-based vision tracking system using fuzzy logic control [399245]			0516
Kwangsoo Kim (Hanbat National University, KR); Yongsoo Eun (Xerox Research Center Webster, US); Jaehong Park (Seoul National University, KR); Chang-hun Lee (Seoul National University, KR); Dong-il Cho (Seoul National University, KR)			
MA06.02: Lane following system for a mobile robot using information from vision and odometry [402655]			1009
Xia Huang (Purdue University Calumet, US); Nasser Houshang (Purdue University Calumet, US)			
MA06.03: Science-Influenced Mobile Robot Guidance Using Bayesian Networks [402875]			1135
Marc Gallant (Carleton University, CA); Alex Ellery (Carleton University, CA); Joshua Marshall (Queen's University, CA)			
MA06.04: Primary Energetics Analysis of Tripedal and Quadrupedal Gaits Using the GARP-4 Robot [403025]			1206
Jamil Jivraj (Ryerson University, CA); James Smith (Ryerson University, CA)			
MA06.05: Computer-Aided System Design for Educational Purposes: An Autonomous Self-Balancing Two-Wheeled Inverted Pendulum Robot [403201]			1357
Morteza Heydari Araghi (Enable Training and Consulting Inc., CA); Mehrdad Kermani (The University of Western Ontario, CA)			
MA06.06: PD Output Feedback Control Design for Robot Manipulators:Experimental Results [403645]			1470
Shafiqul Islam (University of Ottawa, CA); Abdulmotaheb El Saddik (University of Ottawa, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Circuits, Devices and Systems	
Session: MA07	Analog Integrated Circuits	
Monday, May 9, 2011	Time: 1:30 p.m. - 3:15 p.m.	Room: Hennepin North
	Chair: Jose Marti	UBC, Canada
		Proceedings Page No.
MA07.01: Monolithic DC-DC Boost Converter with Current-Mode Hysteretic Control [403057]		1242
Ayaz Hasan (University of Guelph, CA); Stefano Gregori (University of Guelph, CA); Imran Ahmed (Kapik Integration, CA); Raymond Chik (Kapik Integration, CA)		
MA07.02: Process Variation Compensated Voltage Controlled Ring Oscillator With Subtraction-Based Voltage Controlled Current Source [401089]		0731
Cheng Zhang (Simon Fraser University, CA); Ming-Cheng Lin (Simon Fraser University, CA); Marek Syrzycki (Simon Fraser University, CA)		
MA07.03: Current Source Transistor Optimization Methodology For Noise Optimized Charge Sensitive Amplifier With Fast Shaper [401093]		0735
Ming-Cheng Lin (Simon Fraser University, CA); Marek Syrzycki (Simon Fraser University, CA)		
MA07.04: A Low power 9.5 ENOB 100MS/s Pipeline ADC Using Correlated Level Shifting [403237]		1379
Kambiz Nanbakhsh (University of Tehran, IR); Hamidreza Maghami (University of Tehran, IR); Samad Sheikhaei (University of Tehran, IR); Nasser Masoumi (University of Tehran, IR); Pedram Payandehnia (University of Tehran, IR)		
MA07.05: TO-CCII Based Voltage-Mode Universal Biquadratic Filter [399257]		0520
Shahram Minaei (Dogus University, TR); Erkan Yuce (Pamukkale University, TR)		
MA07.06: Fully-Integrated Charge Pumps Without Oxide Breakdown Limitation [403697]		1474
Jingqi Liu (University of Guelph, CA); Younis Allasasmeh (University of Guelph, CA); Stefano Gregori (University of Guelph, CA)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems	
Session: ME01	Power Converters and Drives I	
Monday, May 9, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Hennepin South
	Chair: David Xu	Ryerson U., Canada
		Proceedings Page No.
ME01.01: Modeling and simulation of a speed sensorless vector controlled induction motor drive system [374157]		0027
Dhiya Al-Nimma (University of Mosul, IQ); Salam Khather (KAR Company, IQ)		
ME01.02: Design of the Feedback Type DC Electronic Load Hardware Circuit Using IPM [397417]		0156
Haiying Lu (Tsinghua University, CN); Jing Wu (Beihang University, CN); Songling Huang (Tsinghua university, CN); Wei Zhao (Tsinghua University, CN)		
ME01.03: New Hybrid Control Methods Based on Multi-carrier PWM Techniques and Charge Balance Control Methods for Cascaded Multilevel Converters [398141]		0243
Sara Laali (Islamic Azad University, Tabriz Branch, Tabriz, IR)		
ME01.04: Global PV Incentive Policies and Recommendations for Utilities [402921]		1158
Rajiv Varma (University of Western Ontario, CA); Graham Sanderson (University of Western Ontario, CA); Ken Walsh (London Hydro Inc., CA)		
ME01.05: Optimum Controller Design for Electric Drives Technology [401253]		0753
Robert Dixon (Tomsk Polytechnic University, AE)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium Communications and Networking

Session: ME02 System Design and Implementation

Monday, May 9, 2011 Time: 3:30 p.m. - 5:15 p.m.

Room: Salon A

Chair: Prof. Sudhakar Ganti

U. Victoria, Canada

Proceedings Page No.

ME02.01: A Novel Simplified Log-MAP Algorithm Suitable for Hardware Implementation of Turbo Decoding [403593]

1463

Krishnamohan Thangarajah (University of Windsor, CA); Behnam Shahrava (University of Windsor, CA); Mohammed Khalid (University of Windsor, CA)

ME02.02: Wireless Services and Intelligent Vehicle Transportation Systems [390067]

0063

Abdulrahman Yarali (Murray State University, US)

ME02.03: Tire Pressure Monitoring System with Wireless Communication [393467]

0099

Nouman Hasan (NED University of Engineering and Technology, PK)

ME02.04: The Design, Development and Implementation of a Cross-Polarization Interference Cancellation System for Point-to-Point Digital Microwave Radio Systems [403221]

1365

Peter Noel (Dragonwave, CA); Mikhail Prokoptsov (Dragonwave, CA); Marek Klemes (Dragonwave, CA); Ching Lim (Harry) Tai (Carleton University, CA); Allan Dufour (Dragonwave, CA)

ME02.05: A Novel Diagnostic System for Adding Reliability to Communication Networks in Underground Mines [403187]

1342

Mohamed Daoud (Ryerson University, CA); Wisam Farjow (Ryerson University, CA); Xavier Fernando (Ryerson University, CA)

ME02.06: Indoor Cell-Level Localization Based on RSSI Classification [373463]

0021

Kung-Chung Lee (University of British Columbia, CA); Lutz Lampe (University of British Columbia, CA)

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium Signal and Multimedia Processing
Session: ME03 Signal Processing I
Monday, May 9, 2011 Time: 3:30 p.m. - 5:15 p.m.
Chair: TBA

Room: Oakes NE

Behnaz ghoraani <bghoraani@gmail.com>

Proceedings Page No.

ME03.01: Numerical computation of the probability density of the phase error of the FFT-Based digital interferometer [396999] 0130
Sichun Wang (Communications Research Centre, Industry Canada, CA); Robert Inkol (Defence R&D Canada, CA); François Patenaude (Communications Research Centre, CA); Sreeraman Rajan (Defence Research and Development Canada-Ottawa, CA)

ME03.02: An SVM classifier for detecting merged motor unit potential trains extracted by EMG signal decomposition using their MUP shape information [401347] 0795
Hossein Parsaei (University of Waterloo, CA); Dan Stashuk (University of Waterloo, CA)

ME03.03: Optimal Reliable Data Feedback Selection Based Iterative Decision-Directed Channel Estimation for OFDM System [399873] 0597
Jiaxin Yang (The University of Western Ontario, CA); Xianbin Wang (University of Western Ontario, CA); Xin Gao (University of Western Ontario, CA); Sung Ik Park (Electronics and Telecommunications Research Institute (ETRI), KR); Heung Mook Kim (ETRI, KR)

ME03.04: Real-time Continuous identification system using ECG signals [403155] 1313
Rafik Matta (University of Toronto, CA); Johnny Lau (University of Toronto, CA); Foteini Agrafioti (University of Toronto, CA); Dimitrios Hatzinakos (University of Toronto, CA)

ME03.05: Horizon Extraction in an Optical Collision Avoidance Sensor [397957] 0210
Cyrus Minwalla (York University, CA); Kyle Watters (York University, CA); Paul Thomas (Topaz Technology Inc., CA); Richard Homsey (York University, CA); Kristopher Ellis (National Research Council of Canada, CA); Sion Jennings (National Research Council Canada, CA)

~~**ME03.06: A simple and novel algorithm for automatic selection of ROI for dental radiograph segmentation [399219] 0504**~~
~~Chintan Modi (Indian Institute of Technology Bombay, CA); Nirav Desai (G.H.Patel College of Engineering and Technology, IN)~~

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium Signal and Multimedia Processing
Session: ME04 Speech & Audio Processing II
Monday, May 9, 2011 Time: 3:30 p.m. - 5:15 p.m.
Chair: TBA

Behnaz ghoraani <bghoraani@gmail.com>

Room: Oakes NW

Proceedings Page No.

ME04.01: Two Microphones Speech Enhancement Systems based on Instrumental Variable Algorithm for Speaker Identification [399407]	0569
Marcel Gabrea (Ecole de technologie superieure, CA)	
ME04.02: Unsupervised Language Model Adaptation Using N-gram Weighting [401761]	0857
Md. Akmal Haidar (INRS-EMT, CA); Douglas O'Shaughnessy (INRS-Énergie-Matériaux-Télécommunications, CA)	
ME04.03: Dense Stereo Disparity Maps by Dynamic Time Warp with Sparse Features and FPGA Acceleration [401827]	0874
Zheng Qian (University of Saskatchewan, CA); Kunio Takaya (University of Saskatchewan, CA)	
ME04.04: Audio Scene Analysis using Parametric Signal Features [401987]	0922
Hamid Asefi (Ryerson University, CA); Behnaz Ghoraani (Ryerson University, CA); Andy Ye (Ryerson University, CA); Sri Krishnan (Ryerson University, CA)	
ME04.05: A New Processing Hardware For Six-Port Receiver In Wave-Radio [393531]	0102
Hamze Alaeddine (École Polytechnique de Montréal, CA); Mohamed AlJerjawi (University of Montreal, CA); Chahe Nerguizian (Ecole Polytechnique, CA); Renato Bosisio (University of Montreal-Ecole Polytechnique, CA)	
ME04.06: Application of Imhof formula in the Computation of the Normalized Detection Threshold for the FFT Summation Detector [397005]	0142
Sichun Wang (Communications Research Centre, Industry Canada, CA); Robert Inkol (Defence R&D Canada, CA); François Patenaude (Communications Research Centre, CA)	

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Controls and Robotics	
Session: ME05	Optimal and Optimization-based Control	
Monday, May 9, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Ontario
	Chair: Prof. Kaamran	Dalhousie U., Canada
		Proceedings Page No.
ME05.01: Optimal PID Controller Design for AVR System Using Particle Swarm Optimization Algorithm [398533]		0337
Mohammadsadegh Rahimian (Ryerson University, CA); Kaamran Raahemifar (Ryerson University, CA)		
ME05.02: A Co-operative Control Approach to the Regulation of Nonlinear Discrete-Time Structured Systems [400011]		0611
Nasim Shams (University of Waterloo, CA); Daniel Davison (University of Waterloo, CA)		
ME05.03: A Control Continuum for Tetherless Underwater Vehicles [402797]		1073
Graham LeBlanc (Dalhousie University, CA); Peter Gregson (Dalhousie University, CA); Jason Gu (Dalhousie University, CA)		
ME05.04: Localization in large-scale underground environments with RFID [402879]		1140
Stefan Radacina Rusu (Carleton University, CA); M. John D. Hayes (Carleton University, CA); Joshua Marshall (Queen's University, CA)		
ME05.05: Identifying Network Traffic Features Suitable for HoneyNet Data Analysis [402759]		1044
Mohammed Sqalli (KFUPM, SA); Syed Naeem Firdous (KFUPM, SA); Khaled Salah (Khalifa University (KUSTAR), AE); Marwan Abu-Amara (King Fahd University of Petroleum & Minerals, SA)		
ME05.06: Towards a portable, memory-efficient Test System for Conducted Energy Weapons [402131]		0956
Peyman Rahmati (Carleton University, CA); David Dawson (Carleton University, CA); Andy Adler (Carleton University, CA)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Circuits, Devices and Systems		
Session: ME06	Micro-systems		
Monday, May 9, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Hennepin North	
	Chair: Khan Wahid	U. Saskatchewan, Canada	
			Proceedings Page No.
ME06.01: Artificial Neural Network Acceleration on FPGA using Custom Instruction [399075]			0450
Patrick Santos (University of Ottawa, CA); David Poulin (University of Ottawa, CA); Daniel Shapiro (University of Ottawa, CA); Miodrag Bolic (University of Ottawa, CA)			
ME06.02: Priority Function based Power Efficient Rapid Design Space Exploration of Scheduling and Module Selection in High Level Synthesis [399347]			0538
Anirban Sengupta (Ruerson University, CA); Reza Sedaghat (Ryerson University, CA); Pallabi Sarkar (Ruerson University, CA); Summit Sehgal (Ryerson University, CA)			
ME06.03: New Processor Array Architecture for Scalable Radix 8 Montgomery Modular Multiplication Algorithm [398949]			0389
Atef Ibrahim (Electronics Research Institute, Dokki, Cairo, EG); Fayed Gebali (The University of Victoria, CA); Hamed Elsimary (Electronics Research Institute, EG); Amin Nassar (Cairo University, EG)			
ME06.04: Resource shared architecture of multiple transforms for multiple video codecs [402081]			0947
Khan Wahid (University of Saskatchewan, CA); Muhammad Martuza (University of Saskatchewan, CA); Mousumi Das (University of Saskatchewan, CA); Carl McCrosky (University of Saskatchewan, CA)			
ME06.05: Design a Hardware Network Firewall on FPGA [400661]			0674
Anh Dinh (University of Saskatchewan, CA)			

IEEE

IEEE Canada Awards Reception and Banquet

MONDAY, May 9, 2011 - 18.00-22.00 Oakes Ballroom

**The Conference Awards Banquet will honour recipients of IEEE Canada awards.
It begins with a cocktail reception at 18:00 and dinner at 18:30.**

OPEN TO ALL DELEGATES TICKET REQUIRED (included with full registration)
(Additional tickets may be purchased at the Registration booth.)

Awards Banquet - sponsored by IEEE Canada

IEEE CCECE 2011 - 000063

IEEE
Plenary Session 2

Tuesday, May 19, 2011 at 8:15am in Oakes Ballroom

“PEEC The Power Engineering Education Consortium”

Prof. Richard J. Marceau

Provost, University of Ontario Institute of Technology

IEEE CCECE 2011 - 000064

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems		
Session: TM01	Renewable Energy II		
Tuesday, May 10, 2011	Time: 9:45 a.m. - 11:30 a.m.		Room: Hennepin South
	Chair: E. El-Saadany	U. Waterloo, Canada	
			Proceedings Page No.
TM01.01: Environmental Impact on Optimization Analysis for Standalone and Hybrid Power Generating Units [402573]			0994
Amar Kumar (Tecsis Corporation, CA); Marzia Zaman (Cistel Technology Inc., CA); Nita Goel (Tecsis Corporation, CA); Nishith Goel (Cistel, CA); Ron Church (Cistel Technology Inc., CA)			
TM01.02: State of the Art for Tidal Currents Electric Energy Resources [402855]			1119
Hamed Aly (Dalhousie University, CA); Mohamed El-Hawary (Dalhousie University, CA)			
Symposium: Power Electronics and Systems - Power Converters and Drives II			
Session: TM02 Chair: Bin Wu Ryerson U., Canada			
TM02.03: Three Phase Hybrid Multilevel Inverter Control Using Vector Transformation [398541]			0341
Saad Mekhilef (University of Malaya, MY)			
TM02.04: Approximate Dynamic Average-Value Model for Controlled Line-Commuted Converters [402137]			0966
Hamid Atighechi (The University of British Columbia, CA); Sina Chiniforoosh (The University of British Columbia, CA); Juri Jatskevich (University of British Columbia, CA)			
TM02.05: Modeling and Control of a Single-Stage Three-Level Power factor Correction AC-DC Converter [399415]			0583
Mehdi Narimani (University of Western Ontario, CA); Gerry Moschopoulos (University of Western Ontario, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium Communications and Networking
Session: TM04 MIMO/Cognitive Systems
Tuesday, May 10, 2011 Time: 9:45 a.m. - 11:30 a.m. **Ramiro Liscano UOIT** Room: Oakes NE
Chair: TBA

Proceedings Page No.

TM04.01: Optimal Linear MIMO Relay Communication Under a Constraint on the Condition Number of Relay Transform Matrix [403173]	1333
Mohammad Hassan Shariat (Shiraz University, IR); Mehrzad Biguesh (Queen's University, CA); Saeed Gazor (Queen's University, CA)	
TM04.02: MIMO Two-way relay communication based on Alamouti Code [399117]	0470
Rajab Legnain (Carleton University, CA); Roshdy Hafez (Carleton University, CA)	
TM04.03: Aggregate Interference and Capacity-Outage Analysis in a Cognitive Radio Network using Cooperative Sensing [401953]	0917
Mahsa Derakhshani (McGill University, CA); Tho Le-Ngoc (McGill University, CA)	
TM04.04: A Performance Evaluation of Cognitive Radio Networks with Multi-Antenna [390849]	0073
Suchada Chaisook (Concordia University, CA); Mustafa Mehmet-Ali (Concordia University, CA)	
TM04.05: Load Balancing for Spectrum Management in a Cluster-based Cognitive Network [403143]	1304
Ayoub Alsarhan (Concordia university, CA); Anjali Agarwal (Concordia University, CA)	

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Computer Systems and Applications	
Session: TM05	Computer Systems	
Tuesday, May 10, 2011	Time: 9:45 a.m. - 11:30 a.m.	Room: Oakes NW
	Chair: TBA	TBA
		Proceedings Page No.
TM05.01: Design and implementation of a digital LED desk lamp using the halftone method and a touch pad [398035]		0234
Chi-Huang Hung (Fu Jen Catholic University, TW); Y. Bai (Fu Jen Catholic University, TW); Ren-Yi Tsai (Fu Jen Catholic University, TW)		
TM05.02: Mobile Devices Management System in the Medical Field [397567]		0160
Hamid Mcheick (University of Quebec at Chicoutimi, CA); Joumana Dargham (Balamand University, LB)		
TM05.03: Reducing the Standby Power Consumption of Personal Computers [399211]		0493
Huang-Te Hsu (Fu Jen Catholic University, TW); Y. Bai (Fu Jen Catholic University, TW); Shih-Kuan Chao (Fu Jen Catholic University, TW)		
TM05.04: A Low-Power, Low-Cost Automotive Touchscreen with Real Controls [403283]		1416
Marc Bender (McMaster University, CA); Mark Lawford (McMaster University, CA)		
TM05.05: Efficient Architectures for Modular Exponentiation Using Montgomery Powering Ladder [403017]		1202
Yiruo He (University of Windsor, CA); Huapeng Wu (University of Windsor, CA)		
TM05.06: Finding the Punchline: On Applications of Graph Theory and Combinatorics in Canadian 'Pataphysical Poetry [381637]		0038
Joseph Brown (University of Guelph, CA); Terry Trowbridge (Brock University, CA)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Computer Systems and Applications		
Session: TM06	Computer Applications		
Tuesday, May 10, 2011	Time: 9:45 a.m. - 11:30 a.m.		Room: Ontario
	Chair: TBA	TBA	
			Proceedings Page No.
TM06.01: Un système expert pour la réinsertion professionnelle de personnes faiblement qualifiées [399309]			0528
Etienne Nogneng (ICAM (Institut Catholique des Arts et Métier) of Toulouse (France), FR)			
TM06.02: Pervasive Emotion Computing: Conceptualization and Implementation on Emotion-aware Digital Movie Guide Service [401273]			0767
Jiehan Zhou (University of Oulu, FI); C Yu (University of Oulu, FI); Mika Ylianttila (University of Oulu, FI)			
TM06.03: Bridging the Gap between Virtual and Real with Second Life Client in a Virtual Home Automation System [403033]			1212
SK Alamgir Hossain (University of Ottawa, CA); Abu Saleh Md. Mahfujur Rahman (University of Ottawa, CA); Abdulmotaleb El Saddik (University of Ottawa, CA)			
TM06.04: Augmenting Spreadsheets with Constraint Satisfaction [402703]			1028
Timothy Sample (University of Regina, CA); Malek Mouhoub (University of Regina, CA)			
TM06.05: Spam Detection System: A New Approach Based on Interval Type-2 Fuzzy Sets [398841]			0379
Reza Ariaeinejad (McMaster University, CA); Alireza Sadeghian (Ryerson University, CA)			
TM06.06: Analysis and Parallelization of JPEG-2000 Reference Software [403159]			1322
Bo Fan (Queen's University, CA); Naraig Manjikian (Queen's University, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Controls and Robotics		
Session: TM07	Control Applications		
Tuesday, May 10, 2011	Time: 9:45 a.m. - 11:30 a.m.	Room: Hennepin North	
	Chair: Mike Eklund	OUIT, Canada	
			Proceedings Page No.
TM07.01: Modelling of Robotic Bulldozing Operations for Autonomous Control [402985]			1188
Scott Olsen (McMaster University, CA); Gary Bone (McMaster University, CA)			
TM07.02: Improved Consistency of Resistance Spot Welding with Tip Voltage Control [399355]			0548
Meranda Salem (EIT, CA); Lyndon Brown (University of Western Ontario, CA)			
TM07.03: Stabilization of the Lateral Dynamics of a Roll-to-Roll Web System [401381]			0799
Zhao Jin (University of Waterloo, CA); Dong Eui Chang (University of Waterloo, CA); Kyung-Hyun Choi (Jeju National University, KR); Dong-Soo Kim (Korea Institute of Machinery & Materials, KR); Jeongdai Jo (Korea Institute of Machinery & Materials, KR)			
TM07.04: Design and development of fuzzy logic operated Smart motorized wheelchair [401777]			0869
Hamid Moslehi (Dalhousie University, CA); Jason Gu (Dalhousie University, CA)			
TM07.05: Attitude determination and control sub-system satellite controller [403309]			1440
Mike Eklund (University of Ontario Institute of Technology, CA); Muhammad Abbas (University of Ontario Institute of Technology, CA)			
TM07.06: M-best Subset Selection from N Alternatives Based on Genetic Algorithm [400139]			0621
Ping Zhang (Nanjing University of Aeronautics and Astronautics, CN); Ju Jiang (Nanjing University of Aeronautics and Astronautics, CN); Xueshan Han (Nanjing University of Aeronautics and Astronautics, CN); Zhuoxun Lin (Nanjing University of Aeronautics and Astronautics, CN)			

IEEE

McNaughton Lecture

Tuesday, May 10, 2011 at 12:30pm in Oakes North Ballroom

Gregor v. Bochmann (FIEEE)

Professor at the School of Information Technology and Engineering
at the University of Ottawa

2011 A.G.L. McNaughton Gold Medal Winner

IEEE CCECE 2011 - 000071

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium Power Electronics and Systems
Session: TA01 Power Converters and Drives III
Tuesday, May 10, 2011 Time: 1:30 p.m. - 3:15 p.m. Room: Hennepin South
Chair: Juri Jatskevich UBC, Canada

Proceedings Page No.

- TA01.01: Brushless DC Motor Drive Based on Multi-Input DC Boost Converter Supplemented by Hybrid PV/FC/Battery Power System [399067] 0442**
M Feyzi (Faculty of Electrical and Computer Engineering, University of Tabriz, Tabriz, IR); Seyedabdolkhalegh Mozaffari niapour (University of Tabriz, IR); Farzam Nejatkhan (University of Tabriz, IR); Saeed Danyali (University of Tabriz, IR); Arshya Feizi (University of Tabriz, IR)
- TA01.02: New High-Frequency Unidirectional DC-DC Converter for Fuel-Cell Electrical Vehicle [403577] 1451**
H. Amiri (URAI, U. Carthage, Tunisia); J. Ghoul (U. Moncton, Canada); F. Bacha (URAI, U. Carthage, Tunisia)
- TA01.03: A new resonant single stage power factor correction converter [401521] 0836**
Mohammad Mahdavi (Isfahan University of Technology, IR); Amin Emrani (Isfahan University of Technology, IR); Hosein Farzanehfard (Isfahan University of Technology, IR)
- TA01.04: Reduced-Order Representation of the Deep-Rotor-Bar Phenomena in Induction Machines [402133] 0961**
Sina Chiniforoosh (The University of British Columbia, CA); Hamid Atighechi (The University of British Columbia, CA); Juri Jatskevich (University of British Columbia, CA)

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Communications and Networking	
Session: TA02	Channel/Source Coding and Modulation	
Tuesday, May 10, 2011	Time: 1:30 p.m. - 3:15 p.m.	Room: Salon A
	Chair: TBA	TBA
		Proceedings Page No.
TA02.01: On the Characteristics of Concentration-Encoded M-ary Amplitude Modulated Unicast Molecular Communication [398417]		0312
Mohammad Mahfuz (University of Ottawa, CA); Dimitrios Makrakis (University of Ottawa, CA); Hussein Mouftah (University of Ottawa, CA)		
TA02.02: Improved Performance at Higher Data Rates of DSRC Systems using a Linear Demapper [398771]		0370
Nabih Jaber (University of Windsor, CA); Kemal Tepe (University of Windsor, CA); Esam Abdel-Raheem (University of Windsor, CA)		
TA02.03: Blind Correlated TDL Equalization in Fast Rician Fading Channels [399375]		0552
Seyed Alireza Banani (Simon Fraser University, CA); Rodney Vaughan (Simon Fraser University, CA)		
TA02.04: Joint Evaluation and Mitigation of RF Impairments and Nonlinear Distortion in WiMAX Transceiver under Nakagami-m Fading Channel [401999]		0926
Shubhrajit Bhattacharjee (University of Calgary, CA); Karun Rawat (University of Calgary, CA); Meenakshi Rawat (University of Calgary, CA); Donglin Wang (University of Calgary, CA); Mohamed Helaoui (University of Calgary, CA); Henry Leung (University of Calgary, CA); Fadel Ghannouchi (University of Calgary, CA)		
TA02.05: Codage conjoint source-canal stochastique: Application au codage robuste de la parole à bas débit [399349]		0544
Merouane Bouzid (USTHB University, Electronics Faculty, DZ)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Communications and Networking		
Session: TA03	WiFi and Wireless Mesh Networks		
Tuesday, May 10, 2011	Time: 1:30 p.m. - 3:15 p.m.	Room: Oakes NE	
	Chair: Prof. Ramiro Liscano	UOIT, Canada	
			Proceedings Page No.
TA03.01: Interoperability between WiMAX and WiFi In a Testbed Environment [402899]			1144
Maria Gracias (Ryerson University, CA); Veljko Knezevic (Ryerson University, CA); Amir Esmailpour (University of Toronto, CA)			
TA03.02: Delay and Delay Variation for Random Network Coding CDMA/TDD System in Mesh Networks [399123]			0475
Juma Ben saleh (Concordia University, CA); Ahmed Elhakeem (Concordia University, CA)			
TA03.03: Electromagnetic-interference-aware Adaptive Routing for Wireless Communication Networks Deployed in Heathcare Institutions [401341]			0787
Quang-Dung Ho (McGill University, CA); Thanh-Ngon Tran (McGill University, CA); Tho Le-Ngoc (McGill University, CA)			
TA03.04: A novel routing metric for mesh networks [403255]			1396
Usman Ashraf (Quaid-i-Azam University, PK)			
TA03.05: A Semi-Automated Approach to Transforming Database Schemas into Ontology Language [402003]			0930
Ashraf Iqbal (Dalhousie University, CA); Abidalrahman Moh'd (Dalhousie University, CA); Zahoor Khan (Dalhousie University, CA)			
TA03.06: Classifying the Arabic Web - A pilot study [401765]			0865
Mohammad Abdeen (Ain Sham University, EG); Amr Elsehemy (Ain Shams University, EG); Taymoor Nazmy (Ain Shams University, EG); Mustapha Yagoub (University of Ottawa, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Computer Systems and Applications		
Session: TA04	NoC/SoC and Embedded Systems	Naraig Manjikian, P	
Tuesday, May 10, 2011	Time: 1:30 p.m. - 3:15 p.m.	Associate Professor	Room: Oakes NW
	Chair: TBA	Queen's University	Proceedings Page No.
TA04.01: Flexible Simulation and Modeling for 2D Topology NoC System Design [397861]			0180
Masoud Oveis Gharan (Ryerson University, CA); Gul Khan (Ryerson University, CA)			
TA04.02: A Flash Resident File System for Embedded Sensor Networks [403259]			1400
Scott Fazackerley (University of British Columbia Okanagan, CA); Ramon Lawrence (University of British Columbia Okanagan, CA)			
TA04.03: Analyzing the Software Aspect of an Embedded System's Power Consumption [401715]			0853
Christopher Martinez (University of New Haven, US)			
TA04.04: Opportunities for Embedded Software Power Reductions [401261]			0763
Omid Assare (Sharif University of Technology, IR); Maziar Goudarzi (Sharif University of Technology, IR)			
TA04.05: An MOPSO Method for Mapping Multimedia Applications onto MP-SOC Architectures [403219]			1361
Sima Sinaei (University of Tehran, IR); Omid Fatemi (University of Tehran, IR)			
TA04.06: Domination in Iterated Prisoner's Dilemma [402865]			1125
Joseph Brown (University of Guelph, CA); Daniel Ashlock (University of Guelph, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Signal and Multimedia Processing		
Session: TA05	Image & Video Processing II		
Tuesday, May 10, 2011	Time: 1:30 p.m. - 3:15 p.m.	Room: Ontario	
	Chair: TBA	TBA	
			Proceedings Page No.
TA05.01: A New Robust Reference Watermarking Framework in Gyrator Domain [400569]			0648
Gaurav Bhatnagar (University of Windsor, CA); Jonathan Wu (University of Windsor, CA)			
TA05.02: Lagrange Multiplier Selection For Video Coding With Varying Quantization [401699]			0849
Alireza Aminlou (University of Tehran, IR); Alireza Yazdanpanah (University of Tehran, IR); Mahmoud Reza Hashemi (University of Tehran, IR)			
TA05.03: Video Codec Comparative Analysis between H.264 AND DIRAC PRO/VC-2 [402093]			0951
Vishesh Kalra (University of Saskatchewan, CA); Khan Wahid (University of Saskatchewan, CA); Anh Dinh (University of Saskatchewan, CA)			
Symposium: Signal and Multimedia Processing - Signal Processing Algorithms & Architectures I			
Session: TA06 Chair: TBA TBA			
TA06.04: Received Signal Strength Localization with an Unknown Path Loss Exponent [399079]			0456
Y. t. Chan (Royal Military College of Canada, CA); Bernard Lee (Royal Military College of Canada, CA); Robert Inkol (Defence R&D Canada, CA); Francois Chan (Royal Military College, CA)			
TA06.05: Automatic validation of motor unit potential trains extracted by EMG signal decomposition [401343]			0791
Hossein Parsaei (University of Waterloo, CA); Dan Stashuk (University of Waterloo, CA)			
TA06.06: Examination of Convolutional Blind Source Separation Algorithms Based on Information Theoretic [400681]			0679
Amin Kheradmand (Amirkabir University, IR); Hamid Sheikhzadeh (Ryerson University, CA); Kaamran Raahemifar (Ryerson University, CA); Ebrahim Ghanavati (Amir Kabir University, IR)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium Controls and Robotics
Session: TA07 Digital Integrated Circuits
Tuesday, May 10, 2011 Time: 1:30 p.m. - 3:15 p.m. Room: Hennepin North
Chair: Andrew Kennings U. Waterloo, Canada

Proceedings Page No.

- TA07.01: An Optimal Formulation for Test Scheduling Network-on-Chip Using Multiple Clock Rates [397979]** **0215**
Hassan Salamy (Texas State University, US); Haidar Harmanani (Lebanese American University, LB)
- TA07.02: Analysis of Power Supply Noise Mitigation Circuits [403073]** **1250**
Tasreen Charania (University of Waterloo, CA); Pierce Chuang (University of Waterloo, CA); Ajoy Opal (University of Waterloo, CA); Manoj Sachdev (University of Waterloo, CA)
- TA07.03: A Signal Integrity Enhancement Technique for High Speed Test Systems [403141]** **1300**
Nabeeh Kandalafi (University of Windsor, CA); Rashid Rashidzadeh (Supervisor, CA); Majid Ahmadi (University of Windsor, CA)
- TA07.04: A 7GHz 1mV-input-resolution comparator with 40mV-input-referred-offset compensation capability in 65nm CMOS [398529]** **0333**
Anh Huynh (The University of Melbourne, AU); Chien Ta (University of Melbourne, AU); Praveen Nadagouda (NICTA, AU); Robin Evans (University of Melbourne, AU); Efstratios Skafidas (National ICT Australia, AU)

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems		
Session: TE01	Poster Session		
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Oakes South	
	Chair: TBA	TBA	
			Proceedings Page No.
TE01.01: A New Differential Protection Scheme for Busbar Considering CT Saturation Effect [364493]			0007
Bhalja Bhavesh (A D Patel Institute of Technology, IN); Nilesh Chothani (ADIT, IN)			
TE01.02: A Complete Copper Optimization Technique Using BB-BC in a Smart home for a Smarter grid and A Comparison with GA [390613]			0069
Potuganti Prudhvi (National institute of Technology, warangal, IN)			
TE01.03: HTS Cables Impact on Power Transient and Dynamic Stability in Power Systems [391679]			0077
Bahram Najafisaadatpisheh (West Azarbaijan Electric Power Distribution Company, IR); Ali Bahramiazar (West Azarbaijan Electric Power Distribution Company, IR)			
TE01.04: Design of a Low Cost Digital Protection Relay Used as a Teaching Platform [394041]			0112
Daniel Fischer (University of Ontario Institute of Technology, CA); Bob Beresh (Kinectrics, CA)			
TE01.05: Incremental Conductance MPPT Method for PV Systems [398581]			0345
Saad Mekhilef (University of Malaya, MY)			
TE01.06: A PSO-DV Based Approach for Capacitor Placement in Radial Distribution Systems [398969]			0400
Damanjeet Kaur (UIET, Panjab University, Chandigarh, IN)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems		
Session: TE02	Poster Session		
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Oakes South	
	Chair: TBA	TBA	
			Proceedings Page No.
TE02.01: A New Single Current Strategy for High-Performance Brushless DC Motor Drives [399033]			0419
M Feyzi (Faculty of Electrical and Computer Engineering, University of Tabriz, Tabriz, IR); Mohsen Ebadpour (University of Tabriz, IR); Seyedabdolkhalegh Mozaafari niapour (University of Tabriz, IR); Arshya Feizi (University of Tabriz, IR); Reza Mousavi Aghdam (University of Tabriz, IR)			
TE02.02: Development of Switching Peak Current Reduction Method in Switched-Capacitor dc-dc Converters to n- Level Converter [400335]			0634
Ebrahim Babaei (University of Tabriz, IR)			
TE02.03: A New Zero Current Switching Resonant Buck Converter [400641]			0656
Amin Emrani (Isfahan University of Technology, IR); Hosein Farzanehfard (Isfahan University of Technology, IR)			
TE02.04: A New Power System Stabilizer Design by Using Smart Bacteria Foraging Algorithm [400941]			0713
Amin Khodabakhshian (University of Isfahan, IR); Majid Moazzami (University of Isfahan, IR); Ehsan Daryabeigi (IAU-YRC, IR)			
TE02.05: Intelligent Control Based Maximum Power Extraction Strategy for Wind Energy Conversion Systems [402735]			1040
Shakil Khan (Dhaka International University, BD)			
TE02.06: A Novel Approach for Automatic Generation Control of a Multi-Area Power System [402975]			1182
Swasti Khuntia (National Institute of Science & Technology, IN)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems	
Session: TE03	Poster Session	
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Oakes South
	Chair: TBA	TBA
		Proceedings Page No.
TE03.01: Determination of the Spectrum of Frequencies Generated by a Saturated Transformer [403105]		1272
Jon Berge (University of Western Ontario, CA); Rajiv Varma (University of Western Ontario, CA)		
TE03.02: Power Quality Improvement of a Stand Alone Hybrid Wind/Tidal Energy Conversion System Using Dynamic Voltage Regulation [403151]		1308
Tarek Aboul-Seoud (University of New Brunswick, CA)		
TE03.03: A Modulated Power Filter Compensator For Rural Grid Connected Wind Energy Utilization Scheme [403157]		1317
Tarek Aboul-Seoud (University of New Brunswick, CA)		
TE03.04: Comparison of Apartment Building Heating Control Systems [403303]		1435
Ryan Naughton (University of Ontario Institute of Technology, CA); Muhammad Abbas (University of Ontario Institute of Technology, CA); Mike Eklund (University of Ontario Institute of Technology, CA)		
TE03.05: Simulation of Power System Based on Grey Predictive Excitation control [403713]		1478
Hui Zhou (Beijing Jiaotong University, CN)		
TE03.06: System Identification and Predictive Control of a Building Heating System with Multiple Boilers [403729]		1483
Muhammad Abbas (University of Ontario Institute of Technology, CA); Ryan Naughton (University of Ontario Institute of Technology, CA); Mike Eklund (University of Ontario Institute of Technology, CA)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Biomedical Engineering and Health Informatics	
Session: TE04	Poster Session	
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Oakes South
	Chair: TBA	TBA
		Proceedings Page No.
TE04.01: A new measure of Echogenicity of Ultrasound Images for Liver classification [398423]		0317
Mandeep Singh (Thapar University, IN)		
TE04.02: Optimally Designed Wavelet for De-noising of SPECT Images with Application in Nuclear Medicine [399005]		0411
Ali Fayazi (valie-asr university Of Rafsanjan, IR)		
TE04.03: Differentiation of digital TB images using multi-fractal analysis [403299]		1431
Ebenezer Priya (Anna University Chennai, Chennai, IN); Srinivasan Subramaniam (MIT Campus, Anna University, IN); Ramakrishnan Swaminathan (IIT Madras, IN)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Communications and Networking		
Session: TE05	Poster Session		
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.		Room: Oakes South
	Chair: TBA	TBA	
			Proceedings Page No.
TE05.01: Characterization of Intersymbol Interference in Concentration-Encoded Unicast Molecular Communication [397611]			0164
Mohammad Mahfuz (University of Ottawa, CA); Dimitrios Makrakis (University of Ottawa, CA); Hussein Mouftah (University of Ottawa, CA)			
TE05.02: Fault Tolerance Analysis of Heterogeneous Wireless Sensor Network [397817]			0175
Raza Abedi (Institute of Business Administration, Karachi, PK); Nauman Aslam (Dalhousie University, CA); Muhammad Sayeed Ghani (Institute of Business Administration, PK)			
TE05.03: A Novel Evaluation Function for Feature Selection Based Upon Information Theory [398963]			0395
Gulshan Kumar (MIMIT Malout, IN)			
TE05.04: Error Performance of Free Space Optical MIMO Systems in Weak, Moderate, and Severe Atmospheric Turbulence Channels [401319]			0777
Heba Shaban (Arab Academy for Science, Technology & Maritime Transport, EG); Salma Darwish (Arab Academy for Science and Technology, EG); Ahmed AboulSeoud (University of Alexandria, EG); Moustafa Aly (Arab Academy for Science, Technology & Maritime Transport, EG)			
TE05.05: A study of Femtocell architectures for long term evolution (LTE)-advanced network [401479]			0817
Muhammad Farhan Khan (Aalto University School of Science and Technology, FI); Muhammad Khan (Ryerson University, CA); Kaamran Raahemifar (Ryerson University, CA); Muhammad Farhan Khan (Aalto University School of Science and Technology, FI)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Communications and Networking		
Session: TE06	Poster Session		
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Oakes South	
	Chair: TBA	TBA	
			Proceedings Page No.
TE06.01: Local IP Access (LIPA) enabled 3G and 4G Femtocells Architectures [402767]			1049
Muhammad Farhan Khan (Helsinki University of Technology, FI); Muhammad Khan (Ryerson University, CA); Kaamran Raahemifar (Ryerson University, CA)			
TE06.02: Simulation and Assessment of Wireless Fieldbus Networks over IEEE802.11 [402775]			1054
Ensieh Taghimohammadi (Islamic Azad University, IR); Mohammad Taghi Hamidi beheshti (Tarbiat Modares University, IR); Ahmad Fakharian (Luleå University of Technology, SE)			
TE06.03: Emerging Threats, Risks and Mitigation Strategies in Network Forensics [403041]			1228
Joshua Nehinbe (University of Essex, UK)			
TE06.04: Interoperability Between IEEE 802.11n and IEEE 802.11a/g Devices: Analytical and Simulation Results [403621]			1466
Roger Pierre Hoefel (Federal University of Rio Grande do Sul (UFRGS), BR); André Câmara (Federal University of Rio Grande do Sul (UFRGS), BR)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Computer Systems and Applications		
Session: TE07	Poster Session		
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.		Room: Oakes South
	Chair: TBA	TBA	
			Proceedings Page No.
TE07.01: Integrated Scheduling, Allocation and Binding in High Level Synthesis for Performance-Area Tradeoff of Digital Media Applications [399335]			0533
Anirban Sengupta (Ruerson University, CA); Reza Sedaghat (Ryerson University, CA); Pallabi Sarkar (Ruerson University, CA); Summit Sehgal (Ryerson University, CA)			
TE07.02: Analysis of Geometric and Non-Linear Programming as Optimization Algorithms for Low Power VLSI Circuits [400059]			0617
Mohsen Radfar (La Trobe University, AU); Saadat Pour Mozafari (AmirKabir University of Technology, IR); Kriyang Shah (La Trobe University, AU); Jugdutt Singh (La Trobe University, AU)			
TE07.03: Block-Based Atomicity to Simplify the Verification of Distributed Applications [401847]			0887
Eslam Al Maghayreh (Yarmouk University, JO)			
TE07.04: Directory-Based Cache Coherence Protocol for Power-Aware Chip Multiprocessors [402711]			1036
Rana Ahmed (American University of Sharjah, AE); Muhammad Dhodhi (American University of Sharjah, AE)			
TE07.05: Optimizing Interprocess Communication for Best Performance in Real-Time Systems [403241]			1383
Hosein Marzi (St. Francis Xavier University, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Signal and Multimedia Processing	
Session: TE08	Poster Session	
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Oakes South
	Chair: TBA	TBA
		Proceedings Page No.
TE08.01: A New Approach for Target Localization Using Maximum Likelihood Estimation in MIMO Radar [401169]		0745
Mojtaba Dianat (Yazd University, IR); Mohammad Reza Taban (yazd University, IR); Ali A. Tadaion (Yazd University, IR)		
TE08.02: Digital Image Watermarking in DCT Domain Using Fuzzy Inference System [401487]		0822
Charu Agarwal (University of Delhi, IN); Anurag Mishra (University of Delhi, IN); Arpita Sharma (Delhi University, IN)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Circuits, Devices and Systems		
Session: TE09	Poster Session		
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Oakes South	
	Chair: TBA	TBA	
			Proceedings Page No.
TE09.01: Portable Device for real-time ECG recording and telemetry [399239]			0508
MReza Naeemabadi (Isfahan University of Medical Sciences, IR); Nooshaz Amirahmadi Chomachar (Biomedical Engineering Dept., Islamic Azad University Mashhad Branch, IR); Mohammad Ali Khalilzadeh (Biomedical Engineering Dept., Islamic Azad University Mashhad Branch, IR)			
TE09.02: An Interactive Approach to the Design of Adaptive Impedance Matching Circuits [399957]			0607
Ahmad El-Dahshan (Military Technical College, EG); Hesham Ahmed (Military Technical College, EG); Ayman El-Tager (Military Technical College, EG)			
TE09.03: Development of hybrid SAW-ED system for conductive thin-layer [402329]			0981
Jeong-Beom Ko (University of Electronic Engineering, KR); Kim Hyung chan (Jeju National University, KR); Yang-Hoi Doh (University of Researching, Jeju National University, KR); Dong-Soo Kim (Korea Institute of Machinery & Materials, KR); Jeongdai Jo (Korea Institute of Machinery & Materials, KR)			
TE09.04: C-Band Microstrip Based Band-Pass Filter with Design Oriented Transmission Zeros Allocation [402973]			1179
Karun Rawat (University of Calgary, CA); Fadhel Ghannouchi (University of Calgary, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Controls and Robotics		
Session: TE10	Poster Session		
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.		Room: Oakes South
	Chair: TBA	TBA	
			Proceedings Page No.
TE10.01: H2 Static State Feedback Control Of Linear Singular Perturbation Systems: A New Approach [359477]			0001
Ahmad Fakharian (Luleå University of Technology, SE)			
TE10.02: Control Of An Unmanned Coaxial Helicopter Using Hybrid Fuzzy-PID Controllers [402783]			1064
Bogdan Arama (Purdue University Calumet, US); Barissi Sasan (Purdue University Calumet, US); Nasser Houshang (Purdue University Calumet, US)			
TE10.03: Decoupled Teleoperation of a Holonomic Mobile-Manipulator System Using Automatic Switching [402943]			1164
Michael Wrock (University of Ontario Institute of Technology, CA); Scott Nokleby (University of Ontario Institute of Technology, CA)			
TE10.04: Motion and Balance Neural Control of Inverted Pendulums with Nonlinear Friction and Disturbance [403039]			1222
Hicham Chaoui (Université du Québec à Trois-Rivières, CA); Pierre Sicard (Université du Québec à Trois-Rivières, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Engineered & Natural Complex Systems: Modeling, Simulation & Analysis		
Session: TE11	Poster Session		
Tuesday, May 10, 2011	Time: 3:30 p.m. - 5:15 p.m.		Room: Oakes South
	Chair: TBA	TBA	
			Proceedings Page No.
TE11.01: Globally Delay-Independent Stability of Ring-Structured Genetic Regulatory Networks [398415]			0308
Fang-Xiang Wu (University of Saskatchewan, CA); Li-Ping Tian (Beijing Wuzi University, CN)			
TE11.02: Resistively and capacitively shunted Josephson junctions model for unconventional superconductors [400447]			0644
Linda Ponta (Politecnico di Torino, IT); Anna Carbone (Politecnico di Torino, IT); Marco Gilli (Politecnico di Torino, IT); Piero Mazzetti (Politecnico di Torino, IT)			
TE11.03: A 3D simulation of a single section electrostatic precipitator for dust particles removal [401229]			0749
Nilofar Farnoosh (University of Western Ontario, CA); G. S. Peter Castle (University of Western Ontario, CA); Kazimierz Adamiak (University of Western Ontario, CA)			

IEEE
Plenary Session 3

Wednesday, May 11, 2011 at 8:15am in Oakes Ballroom

**“Why don't we have more high-tech entrepreneurs
in Canada?”**

Chris Ouslis

**Vice President and Co-founder, Fresco Microchip,
Markham, ON**

IEEE CCECE 2011 - 000090

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems	
Session: WM01	Power Systems II	
Wednesday, May 11, 2011	Time: 9:45 a.m. - 11:30 a.m.	Room: Hennepin South
	Chair: Bala Venkatesh	Ryerson U., Canada
		Proceedings Page No.
WM01.01: Coordination between Reactive Current Compensation (RCC) and Power System Stabilizer (PSS) [401419]		0807
Chu Liu (Independent, CA)		
WM01.02: A Novel FACTS-Stabilization Switched Filter-Compensator Scheme for SMIB-Generator System [402007]		0934
Ali Hozouri (University of New Brunswick, CA); Adel Sharaf (University of New Brunswick, CA)		
Symposium: Power Electronics and Systems - Power Engineering II - Protection		
Session: WM02 Chair: Bob Beresh Kinectrics, Canada		
WM02.03: Mathematical model for service methodology to enhance the life of a faulty transformer [396979]		0126
Anjali Chatterjee (Central Mechanical Engineering Research Institute, IN)		
WM02.04: A New Approach to Digital Protection of Power Transformer Using Support Vector Machine [367953]		0011
Ashesh Shah (ADIT, IN); Bhalja Bhavesh (A D Patel Institute of Technology, IN)		
WM02.05: Comprehensive Analysis of Insertion Elements in Circuit Breaker to Reduce Switching Overvoltages [398117]		0239
Ebrahim Babaei (University of Tabriz, IR)		
WM02.06: Comparison Of Brushless DC Motors with Trapezoidal and Sinusoidal Back-EMF [401409]		0803
Kamran Tabarraee (University of British Columbia, CA); Jaishankar Iyer (University of British Columbia, CA); Sina Chiniforoosh (The University of British Columbia, CA); Juri Jatskevich (University of British Columbia, CA)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Signal and Multimedia Processing		
Session: WM03	Image Processing II		
Wednesday, May 11, 2011	Time: 9:45 a.m. - 11:30 a.m.		Room: Salon A
	Chair: TBA	TBA	
			Proceedings Page No.
WM03.01: Local Relative GLRLM-Based Texture Feature Extraction for Classifying Ultrasound Medical Images [402827]			1092
Abu Sayeed Md. Sohail (Concordia University, CA); Prabir Bhattacharya (University of Cincinnati, US); Sudhir Mudur (Concordia University, CA); Srinivasan Krishnamurthy (Royal Victoria Hospital, CA)			
WM03.02: Unsupervised Time Reversal Based Microwave Imaging for Breast Cancer Detection [403277]			1411
Mohammad Sajjadih (York University, CA); Amir Asif (York University, CA)			
WM03.03: A Novel Accelerated Greedy Snake Algorithm For Active Contours [397887]			0186
Naimul Khan (Ryerson University, CA); Kaamran Raahemifar (Ryerson University, CA)			
Symposium: Signal and Multimedia Processing - Speech & Audio Processing III			
Session: WM04 Chair: TBA TBA			
WM04.04: The probability of false alarm of the cross-spectrum based detector for a Two-Channel Interferometer [397813]			0169
Sichun Wang (Communications Research Centre, Industry Canada, CA); Robert Inkol (Defence R&D Canada, CA)			
WM04.05: Low-Complexity OFDM Channel Predictor Design with Varying Speed Receivers in Time-Varying Wireless Channels [402709]			1032
Edwin Christopher (University of Western Ontario, CA); Gejie Liu (University of Western Ontario, CA); Xianbin Wang (University of Western Ontario, CA); Jagath Samarabandu (University of Western Ontario, CA)			
WM04.06: Bounded complexity tree search MMSE detection for MIMO systems using improved channel partition preprocessing [400925]			0708
Djelili Radji (MCGILL University, CA); Harry Leib (McGill University, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Communications and Networking		
Session: WM05	Wireless and Wired Networks		
Wednesday, May 11, 2011	Time: 9:45 a.m. - 11:30 a.m.	Room: Oakes NE	
	Chair: TBA	TBA	
			Proceedings Page No.
WM05.01: Delay Optimization of Wireless Networks with Network Coding [403115]			1282
Mohammadhossein Alvandi (Concordia University, CA); Mustafa Mehmet-Ali (Concordia University, CA); Jeremiah Hayes (Concordia University, CA)			
WM05.02: Aggregation of Traffic Classes in MPLS Networks [403089]			1260
William Vallat (University of Victoria, CA); Sudhakar Ganti (University of Victoria, CA)			
WM05.03: Performance Evaluation for Multicast Transmissions in VANET [402839]			1105
Aslinda Hassan (Memorial University of Newfoundland, CA)			
WM05.04: Shortest Paths in Synchronized Traffic-Light Networks [401835]			0882
Mohammad Khanjary (Islamic Azad University, IR); Karim Faez (Amirkabir U. of Technology, IR); Mohammad Reza Meybodi (Amirkabir U. of Technology, IR); Masoud Sabaei (Amirkabir U. of Technology, IR)			
WM05.05: Internet Access Denial By Higher-Tier ISPs: A NAT-Based Solution [402633]			1004
Abdulaziz Al-Baiz (King Fahd University of Petroleum & Minerals, SA); Marwan Abu-Amara (King Fahd University of Petroleum & Minerals, SA); Ashraf Mahmoud (KFUPM, SA); Mohammed Sqalli (KFUPM, SA); Farag Azzedin (King Fahd University of Petroleum & Minerals, SA)			
WM05.06: XTEA Encryption based Novel RFID Security Protocol [388731]			0058
Jack Yu (Ryerson University, CA); Gul Khan (Ryerson University, CA); Fei Yuan (Ryerson University, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Computer Systems and Applications	
Session: WM06	Software - Testing and Debugging	
Wednesday, May 11, 2011	Time: 9:45 a.m. - 11:30 a.m.	Room: Oakes NW
	Chair: TBA	TBA
		Proceedings Page No.
WM06.01: Inquiry On Usability of Two Software Process Modeling systems Using ISO/IEC 9241 [401283]		0773
Noureddine Kerzazi (Ecole Polytechnique of Montreal, CA)		
WM06.02: Integration testing object-oriented software systems: an experiment-driven research approach [400639]		0652
Yvan Labiche (Carleton University, CA)		
WM06.03: A complete framework for kernel trace analysis [403297]		1426
Hashem Waly (Laval University, CA); Béchir Ktari (Laval University, CA)		
WM06.04: Finding software fault relevant subgraphs: A new graph mining approach for software debugging [401919]		0908
Zaynab Mousavian (Iran University of Science and Technology, IR); Mojtaba Vahidi-Asl (Iran University of Science and Technology, IR)		
WM06.05: A Tool for Monitoring and Tracing Multi-agent Applications [401831]		0878
Eslam Al Maghayreh (Yarmouk University, JO); Iyad Abu Doush (Yarmouk University, JO); Faisal Alkhateeb (Yarmouk University, JO); Shadi Aljawarneh (Isra Private University, JO)		
WM06.06: Dependency of Components in MVC Distributed Architecture [400811]		0691
Hamid Mcheick (University of Quebec at Chicoutimi, CA); Yan Qi (University of Quebec at Chicoutimi, CA)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Computer Systems and Applications		
Session: WM07	FPGA	Sazzadur Chowdhury [mailto:sazzadur@uwindsor.ca]	Room: Ontario
Wednesday, May 11, 2011	Time: 9:45 a.m. - 11:30 a.m.		
	Chair: TBA		
			Proceedings Page No.
WM07.01: Parallel FPGA technology mapping using multi-core architectures [398183]			0274
Andrew Kennings (University of Waterloo, CA); Chirag Ravishankar (University of Waterloo, CA)			
WM07.02: Routing Architecture and Algorithms for a Superconductivity Circuits-Based Computing Hardware [402189]			0977
Farhad Mehdipour (Kyushu University, JP)			
WM07.03: Performance-Optimized FPGA Implementation for The Flexible Triangle Search Block-Based Motion Estimation Algorithm [400347]			0640
Rasha El-Ashry (British University in Egypt, EG); Mohamed Rehan (British University in Egypt, EG); Hassan El Kamchouchi (Alexandria University, EG); Fayez Gebali (The University of Victoria, CA)			
WM07.04: Using GPUs to Accelerate FPGA Wirelength Estimate for use with Complex Search Operators [402867]			1129
Christian Fobel (University of Guelph, CA); Gary Grewal (University of Guelph, CA); Deborah Stacey (University of Guelph, CA)			
WM07.05: 2D Mobile Multi-sensor Navigation System Realization using FPGA-based Embedded Processors [403037]			1218
Walid Abdelfatah (Queen's University, CA); Jacques Georgy (Trusted Positioning Inc., CA); Umar Iqbal (Queen's University, CA); Aboelmagd Noureldin (Royal Military College of Canada, CA)			
WM07.06: Controller Design for Matrix Multiplication on FPGAs [403171]			1327
Ahmad Khayyat (Queen's University, CA); Naraig Manjikian (Queen's University, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Circuits, Devices and Systems		
Session: WM08	Nano and Optoelectronic Devices		
Wednesday, May 11, 2011	Time: 9:45 a.m. - 11:30 a.m.	Room: Hennepin North	
	Chair: Fayez Gebali	U. Victoria, Canada	
			Proceedings Page No.
WM08.01: A Technique for Implementing Monolithic Resistors with Near-Zero Temperature Coefficient [403131]			1292
Nima Sadeghi (University of British Columbia, CA); Shahriar Mirabbasi (University of British Columbia, CA)			
WM08.02: Reconfigurable Logic Based on Tunable Periodic Characteristics of Single-electron Transistor [399161]			0485
Bingcai Sui (National University of Defense Technology, CN); Liang Fang (National University of Defense Technology, CN); Chao Zhang (National University of Defense Technology, CN)			
WM08.03: Efficient Parameters Selection for Artificial Intelligence Models of Nanoscale MOSFETs [401547]			0840
Amir hossein Abdollahi nohoji (Scientific Association of Electrical and Electronic Engineering, Islamic Azad University, IR)			
WM08.04: Development of a device characterization curve tracer based on transient thermal measurement [403001]			1198
Elahe Talebi Nejad (Ryerson University, CA); Farah Mohammadi (Ryerson University, CA); Eduard Astvatsatryan (Ryerson University, CA)			
WM08.05: A Simulator for Local Anodic Oxidation of Silicon Surfaces [400855]			0695
Lado Filipovic (Vienna University of Technology, AT); Hajdin Ceric (Vienna University of Technology, AT); Johann Cervenka (Vienna University of Technology, AT); Siegfried Selberherr (Vienna University of Technology, AT)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems	
Session: WA01	Smart Grids and EV I	
Wednesday, May 11, 2011	Time: 1:30 p.m. - 3:15 p.m.	Room: Hennepin South
	Chair: Luiz Lopes	Concordia U., Canada
		Proceedings Page No.
WA01.01: A Distributed Ethernet-Based Communication Network for Actively Controlled RETs in Hybrid Mini-Grids [402667]		1019
Mohammad Sharafat (Concordia University, CA); Luiz A. C. Lopes (Concordia University, CA)		
WA01.02: Road testing of electric vehicle in Macau [399213]		0499
T. W. Ching (University of Macau, MO)		
WA01.03: A Novel Hybrid FC-Battery Drive System For Electric Vehicles [402949]		1169
Emhemed Elbakush (University of New Brunswick, CA); Adel Sharaf (University of New Brunswick, CA)		
WA01.04: Management of PHEV Charging from the Smart Grid Using Sensor Web Services [403067]		1246
Omar Asad (University of Ottawa, CA); Melike Erol-Kantarci (University of Ottawa, CA); Hussein Mouffah (University of Ottawa, CA)		
WA01.05: Conservation énergétique du chauffage électrique par le contrôle et la gestion à distance [403133]		1296
Mohsen Ghribi (Université de Moncton, CA)		
WA01.06: Repurposed Battery For Energy Storage In Applications Of Renewable Energy For Grid Applications [403477]		1446
Dexter Williams (University of Manitoba, CA); Ani Gole (University of Manitoba, CA); Randy Wacha (Manitoba HVDC Research Centre, CA)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems	
Session: WA02	Energy Conversion I	
Wednesday, May 11, 2011	Time: 1:30 p.m. - 3:15 p.m.	Room: Salon A
	Chair: Juri Jatskevich	UBC, Canada
		Proceedings Page No.
WA02.01: A Comprehensive Review on the Performance Improvement in Switched Reluctance Motor Design [398589]		0348
M Feyzi (Faculty of Electrical and Computer Engineering, University of Tabriz, Tabriz, IR); Reza Mousavi Aghdam (University of Tabriz, IR); Yousef Ebrahimi (University of Tabriz, IR)		
WA02.02: A Study On Determination Of Parameters For Permanent Magnet Synchronous Machine By Comparing Load Tests And Finite Element Analysis [399867]		0587
David Carpenter (NAIT, CA); Sorin Deleanu (NAIT, CA); Michael Lau (NAIT, CA); Cuong Nguyen (NAIT, CA); Muhammad Rahman (NAIT, CA)		
WA02.03: Saturation Factors and T'do in WECC/NERC Generator Model Validation [399871]		0593
Quincy Wang (Powertech Labs Inc. BC, Canada); Ali Moshreef (Powertech Labs Inc. BC, Canada)		
WA02.04: Advantages of longitudinal flux linear switched reluctance motor compared to transverse flux linear switched reluctance motor for levitation purposes [401501]		0832
Saeed Darabi (K. N. Toosi, IR)		
WA02.05: Commande par logique floue d'un moteur synchrone à aimants permanents [402473]		0989
Mohsen Ghribi (Université de Moncton, CA)		
WA02.06: An Improved VF Control Scheme for Symmetric Mechanical Load Sharing of Induction Drives [406061]		1487
Jaishankar Iyer (University of British Columbia, CA); Kamran Tabarraee (University of British Columbia, CA); Sina Chiniforoosh (The University of British Columbia, CA); Juri Jatskevich (University of British Columbia, CA)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium Power Electronics and Systems
Session: WA03 Distributed Generation (DG) Systems II
Wednesday, May 11, 2011 Time: 1:30 p.m. - 3:15 p.m. Room: Oakes NE
Chair: Gesa Joos McGill U., Canada

	Proceedings Page No.
WA03.01: Multilevel Inverter Interface of Distributed Generation Sources for Medium Voltage Distribution Networks [398011] Ayman Eltantawy (University of Waterloo, CA); Ehab El-Saadany (University of Waterloo, CA); Magdy Salama (University of Waterloo, CA)	0223
WA03.02: Comparison of Inertial Response Implementations in DFIG-Based Wind Turbines [401889] Samer EL Itani (McGill University, CA); Geza Joos (McGill University, CA)	0900
WA03.03: Assessment of Voltage Sag in Distribution System Regarding The Uncertainty of Wind Based Distributed Generation [401887] Khanh Bach (Hanoi University of Science and Technology, VN)	0896

Symposium: Signal and Multimedia Processing - Signal Processing III

Session: WA04 Chair: TBA TBA

WA04.04: A Comparison of the normalized detection threshold for the overlapped and non-overlapped FFT summation detectors [397003] Sichun Wang (Communications Research Centre, Industry Canada, CA); Robert Inkol (Defence R&D Canada, CA); Sreeraman Rajan (Defence Research and Development Canada-Ottawa, CA); François Patenaude (Communications Research Centre, CA)	0136
WA04.05: A fast-transform basis with hysteretic features [398161] Artur Sowa (University of Saskatchewan, US)	0253
WA04.06: Frequency Tuned Salient Edge Detection [403085] Yusuf Saber (Ryerson University, CA); Matthew Kyan (Ryerson University, CA)	1256

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Communications and Networking		
Session: WA05	Genetic Algorithms and Neural Network Modelling		
Wednesday, May 11, 2011	Time: 1:30 p.m. - 3:15 p.m.		Room: Oakes NW
	Chair: TBA	TBA	
		Prof. Isaac Wolfgang	Proceedings Page No.
WA05.01: Group Key Exchange using Neural cryptography with Binary Trees [401327]			0783
Hazem Abbas (Ain Shams University, Eg); Ahmed Allam (Ain Shams University, EG)			
WA05.02: Neural Network Approach for the Determination of Heat Source Parameters from Surface Temperature Image [402843]			1109
Md Shazzat Hossain (Ryerson University, CA); Elahe Talebi Nejad (Ryerson University, CA); Farah Mohammadi (Ryerson University, CA)			
WA05.03: Control Theoretic Modeling of a Genetic Switch [399893]			0603
Youcef Derbal (Ryerson University, CA)			
WA05.04: Performance Analysis Of Constraint Solvers For Coverage Directed Test Generation: A Car Sequencing Problem [402905]			1154
Jomu George Mani Paret (Concordia University, CA); Otmame Ait Mohamed (Concordia University, CA)			
WA05.05: Novel Algorithms to Attain Economical Comfort Control in Residential Spaces using Wireless Sensor Networks [403231]			1374
Rami Henry (Ciena Corporation, CA); Hussein Mouftah (University of Ottawa, CA)			
WA05.06: An Improved Multiphysics Modelling Approach for Dielectrophoresis-Based Cell Separation [403247]			1387
Amine Miled (Ecole Polytechnique of Montreal, CA); Mohamad Sawan (École Polytechnique de Montréal, CA); Antoine Gagné (Ecole Polytechnique de Montreal, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Signal and Multimedia Processing	
Session: WA06	Signal and Multimedia Processing and Applications II	
Wednesday, May 11, 2011	Time: 1:30 p.m. - 3:15 p.m.	Room: Ontario
	Chair: TBA	TBA
		Proceedings Page No.
WA06.01: Multiprocessor FPGA Implementation of a 2D digital Filter [400287]		0630
Danny Tsuei (University of Waterloo, CA); Mohamed-Yahia Dabbagh (University of Waterloo, CA); Manoj Sachdev (University of Waterloo, CA)		
WA06.02: Real Time Diagnostic Prognostic Solution for Life Cycle Management of Thermomechanical System [402595]		0999
Amar Kumar (Tecsis Corporation, CA); Bhavaye Saxena (University of Ottawa, CA); Alka Srivastava (Tecsis Corporation, CA); Alok Goel (Omtec Engineering, CA)		
WA06.03: Hardware-Software Analysis of Pole Model Features [403129]		1288
Hamid Asefi (Ryerson University, CA); Behnaz Ghoraani (Ryerson University, CA); Andy Ye (Ryerson University, CA); Sri Krishnan (Ryerson University, CA)		
WA06.04: Investigating Potential Energy Savings From Raw Materials Variability Attenuation: A Case Study in Pulp and Paper Industry [398745]		0366
Kyarash Shahriari (CRIQ, CA); Feng Ding (CRIQ, CA)		
WA06.05: Implementing a Reconfigurable Architecture of Discrete Wavelet Packet Transform with Three types of Multiplier on FPGA [403585]		1459
Mohsen Amiri Farahani (University of New Brunswick, CA); Saeid Mirzaei (Azad University of Shaharyar, IR); Hossein Amiri Farahani (Azad University of Shaharyar, IR)		

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Circuits, Devices and Systems		
Session: WA07	RF and Microwave Components		
Wednesday, May 11, 2011	Time: 1:30 p.m. - 3:15 p.m.		Room: Hennepin North
	Chair: Fadhel Ghannouchi	U. Calgary, Canada	
			Proceedings Page No.
WA07.01: Complex Digital Compensator for RF Filter Distortions [392965]			0085
Mehdi Alijan (University of Saskatchewan, CA); Eric Salt (University of Saskatchewan, CA)			
WA07.02: Novel MHMIC Millimeter Wave Power Divider/Combiner [398191]			0280
Djilali Hammou (INRS (Institut National de la Recherche Scientifique), CA); Emilia Moldovan (Institut national de la recherche scientifique, CA); Serioja Ovidiu Tatu (Institut National de la Recherche Scientifique - INRS, CA)			
WA07.03: High Gain Rectangular Dielectric Resonator Antenna for Broadband Millimeter-waves Underground Communications [402825]			1088
Yacouba Coulibaly (University du Quebec en Abitibi Témiscamigue, CA)			
WA07.04: Design of a Buried Hybrid Coupler For Wideband Applications Using LTCC Technology [402835]			1101
Nouria Belambri (Ecole de Technologie Supérieure, CA); Ammar Kouki (Ecole de Technologie Supérieure, CA); Francois Gagnon (Ecole de Technologie Supérieure, CA); Christian Talbot (Ecole de Technologie Supérieure, CA); Dominique Dubouil (Ultra Electronics TCS, CA)			

IEEE Canadian Conference on Electrical and Computer Engineering

Symposium	Power Electronics and Systems	
Session: WE01	Renewable Energy III	
Wednesday, May 11, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Hennepin South
	Chair: Magdy Salama	U. Waterloo, Canada
		Proceedings Page No.
WE01.01: Utilization of Matrix Inverter Control in Wind Energy Conversion: State of the Art [403251]		1391
Tarek Aboul-Seoud (University of New Brunswick, CA)		
WE01.02: Short-term Coordination of Hydro-thermal Systems with Cascaded Reservoirs using Bacterial Foraging Algorithm [399051]		0430
Ibrahim Farhat (Dalhousie University, CA); Mohamed El-Hawary (Dalhousie University, CA)		
WE01.03: Scheduling of Variable-Head Hydro-thermal Generation using an Enhanced Bacterial Foraging Algorithm [399057]		0436
Ibrahim Farhat (Dalhousie University, CA); Mohamed El-Hawary (Dalhousie University, CA)		
Symposium: Power Electronics and Systems - Other Technologies in Power Engineering I (Transients)		
Session: WE02 Chair: Walid Morsi UOIT, Canada		
WE02.04: Transient Electromagnetic Response of Frequency-Dependent Multiconductor Underground Cables [400225]		0625
Pooya Taheri (University of Alberta, CA); Behzad Kordi (University of Manitoba, CA)		
WE02.05: Ultra-Sensitive Disturbances Detection on Transmission Lines using Principal Component Analysis [393257]		0093
Rommel Aguilar (Universidad Nacional de San Juan, AR); Fabián Pérez (Universidad Nacional de San Juan, AR); Eduardo Orduña (Universidad Nacional de San Juan, AR)		
WE02.06: Advanced Statistical Method for Evaluating of Lightning Performance of Overhead Transmission Lines Based On Accurate Modelling and Considering Non-Vertical Strokes [401137]		0739
Amir Shafaei (Iran University of Science and Technology, IR); Ahmad Gholami (Iran University of Science and Technology, DZ); Reza Shariatinasab (Birjand University, IR)		

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Symposium	Communications and Networking		
Session: WE03	Optical Communications and Networking	Jens Bornemann	
Wednesday, May 11, 2011	Time: 3:30 p.m. - 5:15 p.m.	University of Victoria	Room: Salon A
	Chair: TBA	TB	
			Proceedings Page No.
WE03.01: On Signatures Reconfiguration of Waveguide-Grating-based Optical CDMA Network Coder/Decoders [393867]			0107
Jen-Fa Huang (National Cheng Kung University, TW); Dai You-da (NCKU, TW); Da-Jun Nie (National Cheng Kung University, TW)			
WE03.02: Second-Order Theory For Nonlinear Phase Noise In Coherent Fiber-Optic System Based On Phase Shift Keying [399103]			0466
Mahdi Malekiha (McMaster University, CA); Shiva Kumar (McMaster University, CA)			
WE03.03: A control framework of survivable multi-domain optical networks [387661]			0054
He He (University of Ottawa, CA); Hussein Mouffah (University of Ottawa, CA); Jing Wu (Communications Research Centre Canada, CA)			
WE03.04: Design of an Ultrawideband Ring Patch using Coplanar Waveguide Technology for Underground Mining Communications [401671]			0845
Yacouba Coulibaly (University du Quebec en Abitibi Témiscamigue, CA)			
WE03.05: Mode-Matching Analysis of Substrate-Integrated Waveguide Circuits [399413]			0579
Jens Bornemann (University of Victoria, CA); Farzaneh Taringou (University of Victoria, CA)			

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Symposium	Communications and Networking	
Session: WE04	Wireless ad hoc / Sensor Networks	
Wednesday, May 11, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Oakes NE
	Chair: Prof. Isaac Wolfgang	Ryerson U., Canada
		Proceedings Page No.
WE04.01: A novel genetic algorithm in LEACH-C routing protocol for sensor networks [402833]		1096
Armin Rahmadian (Iran University of Science and Technology, IR); Hesam Omranpour (Amirkabir University Of Technology, IR); Mohammad Kazem Akbari (Amirkabir University of Technology, IR); Kaamran Raahemifar (Ryerson University, CA)		
WE04.02: Mobility and Routing in Wireless Sensor Networks [399409]		0573
Nidal Nasser (University of Guelph, CA); Anwar Al-Yatama (Kuwait University, KW); Kassem Saleh (Kuwait University, KW)		
WE04.03: A Dot Net Framework based Physical Testbed for Ad hoc Network Routing Protocols [398023]		0229
Isaac Woungang (Ryerson University, CA)		
WE04.04: Weighted Probability Ant-Based Routing (WPAR) In Mobile Ad Hoc Networks [401495]		0826
Gholamhasan Sajedy-Abkenar (Central Tehran Branch, Islamic Azad University, IR)		
WE04.05: Design of a Delay-Sensitive WSN for Wind Generation Monitoring in The Smart Grid [403223]		1370
Irfan Al-Anbagi (University of Ottawa, CA); Hussein Mouffah (University of Ottawa, CA); Melike Erol-Kantarci (University of Ottawa, CA)		

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Symposium	Signal and Multimedia Processing	
Session: WE05	Signal Processing Algorithms & Architectures II	
Wednesday, May 11, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Oakes NW
	Chair: TBA	TBA
		Proceedings Page No.
WE05.01: Information Theoretic Assessment of Correlated Noise in Hyperspectral Signal Unmixing [402033]		0938
Masoud Farzam (University of Ryerson, CA); Soosan Beheshti (Ryerson, CA)		
WE05.02: Received Signal Strength Difference Emitter Geolocation Least Squares Algorithm Comparison [402853]		1113
Brad Jackson (Defence R&D Canada, CA); Sichun Wang (Communications Research Centre, Industry Canada, CA); Robert Inkol (Defence R&D Canada, CA)		
WE05.03: Quantization Noise Estimation For Log-PCM [403179]		1337
Mohamed Konaté (McGill University, CA); Peter Kabal (McGill University, CA)		
Symposium: Circuits, Devices and Systems - Circuit Modelling		
Session: WE06 Chair: Carlos Christoffersen Lakehead U., Canada		
WE06.04: Mapping The AWE-RLC Model Into a Simple RC Circuit With its Application to Buffer Insertion [397265]		0152
Alaa Abdullah (Ryerson University, CA); Adnan Kabbani (Ryerson University, CA); Kaamran Raahemifar (Ryerson University, CA)		
WE06.05: Wave-Based Transient Analysis Using Block Newton-Jacobi [400655]		0669
Muhammad Kabir (MCGILL University, CA); Carlos Christoffersen (Lakehead University, CA)		
WE06.06: An Order Reduction Technique for Nonlinear 3D Interconnects Using Constraint Variables [401763]		0861
Ehsan Rasekh (University of Western Ontario, CA); Anestis Dounavis (University of Western Ontario, CA)		

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Symposium	Circuits, Devices and Systems	
Session: WE07	Integrated Circuits for Communications	
Wednesday, May 11, 2011	Time: 3:30 p.m. - 5:15 p.m.	Room: Ontario
	Chair: Dimnitrios Hatzinakos	U. Toronto, Canada
		Proceedings Page No.
WE07.01: A High Resolution and Wideband CMOS LO Phase Shifter [398363]		0300
Javad Khajepour (University of Waterloo, CA); Safieddin Safavi-Naeini (University of Waterloo, CA)		
WE07.02: An Area-Efficient 5GHz/10GHz Dual-Mode VCO with Coupled Helical Inductors in 0.13-μm CMOS Technology [399241]		0512
Wanghui Zou (Huazhong University of Science and Technology, CN); Xiaofei Chen (Huazhong University of Science and Technology, CN); Lei Jianming (Huazhong University of Science and Technology, CN); Kui Dai (Huazhong University of Science and Technology, CN); Zou Xuecheng (Huazhong University of Science and Technology, CN)		
WE07.03: On-Line Waveform Monitoring System for The Design and Characterization of MIMO RF PAs [402693]		1024
Walid El-Deeb (University of Calgary, CA)		
WE07.04: A New FSK-Based Transmitter Dedicated For Low-Power Wireless Medical Transceivers [403053]		1238
Arash Moradi (Ecole Polytechnique de Montreal, CA); Mohamad Sawan (École Polytechnique de Montréal, CA)		
WE07.05: High Efficiency Harmonically-Tuned GaN Power amplifier for 4G applications [403097]		1264
Ramzi Darraji (University of Calgary, CA); Fadhel Ghannouchi (University of Calgary, CA)		

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Symposium	Controls and Robotics		
Session: WE08	Sensors and MEMS		
Wednesday, May 11, 2011	Time: 3:30 p.m. - 5:15 p.m.		Room: Hennepin North
	Chair: Dan Stashuk	U. Waterloo, Canada	
			Proceedings Page No.
WE08.01: A Monolithic Integration of a Tunable MEMS Capacitor with GaN Technology [399069]			0447
Imed Zine-El-Abidine (CMC Microsystems, CA); James Dietrich (University of Manitoba, CA)			
WE08.02: Real time temperature measurement for multilayered piezoelectric stack actuators [402995]			1194
Mohammad Islam (University of British Columbia, CA); Rudolf Seethaler (University of British Columbia (UBC) Okanagan, CA); David Mumford (Westport Innovations Inc., CA)			
WE08.03: Hysteresis independent on-line capacitance measurement for piezoelectric stack actuators [402903]			1149
Mohammad Islam (University of British Columbia, CA); Rudolf Seethaler (University of British Columbia (UBC) Okanagan, CA); David Mumford (Westport Innovations Inc., CA)			
WE08.04: An FPGA-Based 77 GHz MEMS Radar Signal Processing System For Automotive Collision Avoidance [403199]			1351
Sundeep Lal (University of Windsor, CA); Sazzadur Chowdhury (University of Windsor, CA)			
WE08.05: Characterization of an Optical Collision Avoidance Sensor [400915]			0699
Kyle Watters (York University, CA); Cyrus Minwalla (York University, CA); Michael Liscombe (York University, CA); Hou In Lio (York University, CA); Paul Thomas (Topaz Technology Inc., CA); Richard Hornsey (York University, CA); Kristopher Ellis (National Research Council of Canada, CA)			
WE08.06: Electrical and Mechanical Design of Multipurpose Ducted-Fan Type VTOL UAV [369811]			0015
Jahanzeb Khan (University of Toronto, CA)			