

Program at a Glance – Tentative

Sunday, May 2nd, 2010

Opening Reception:

7:00 PM – 9:00 PM (Mountain Time)

Wainwright Hotel – Heritage Park, Calgary

Buses depart the Marriott Hotel for Heritage Park at 6:30 PM

Monday, May 3rd, 2010

Breakfast One – Calgary Telus Convention Centre – Rooms 201 to 203

Exhibits Open – 8:00 AM – Marriot Second Floor Foyer

Session One – 7:45 AM to 8:45 AM

Track One – Circuits, Devices & Systems (S1T1)

Topology Generation CAD Tool for Multi-core Embedded System on Chip

Gul N. Khan (Ryerson University, CA); Anita Tino (Ryerson University, CA)

Retimed Two-Step CRC Computation on FPGA

Christopher Kennedy (The University of Western Ontario, CA); Jonathan Manii (Independent, CA); Jeremy Gribben (University of Ottawa, CA)

Track Two – Controls & Robotics (S1T2)

Tracking Control of a Model Helicopter using LQ regulator

Mohsen Majnoon (Isfahan University of Technology, IR); Yadollah Zakeri (Esfahan University of Thechnology, IR)

Control Strategies for Visual Tracking From A Moving Platform

Jared Giesbrecht (Defence R&D Canada, CA); Peter Goldsmith (University of Calgary, CA); Jeff Pieper (University of Calgary, CA)

Track Three – Communications & Networking (S1T3)

Performance of UWB Devices in a metal turreted environment

Norbert Chan (General Dynamics Canada, CA); Yves Simoneau (Department of National Defence, CA)

Multi-technology Access Network Planning with IPTV Performance Constraints
Steven Chamberland (Ecole Polytechnique de Montreal, CA)

Track Four – Computers, Software & Applications (S1T4)

Using genetic algorithms for test case generation and selection optimization
Izzat M Alsmadi (Yarmouk University, JO)

Using NAND Flash Memory to Improve the Performance of HDDs
Huang-Te Hsu (Fu Jen Catholic University, TW); Y. W. Bai (Fu Jen Catholic University, TW)

Track Five – Power Electronics & Energy Systems (S1T5)

Thermal Behavior of Magnetic Oil subjected to Electromagnetic Induction for Energy Efficient Heating System Design
Ahmet Kucukkomurler (Ass. Prof., TR); Ramazan Selver (Ass. Prof., TR)

CANDU System Load Cycling Mode
Fayyaz Ahmed (UOIT, CA)

Track Six – Signal & Multimedia Processing (S1T6)

The Okamoto Lower Bound for the Normalized Detection Threshold of the FFT Filter Bank-Based Summation Detector
Sichun Wang (Communications Research Centre, Industry Canada, CA); Robert J. Inkol (DRDC-Ottawa, CA); Sreeraman Rajan (DRDC-Ottawa, CA); François Patenaude (Communications Research Centre, CA)

Strategies for Improving Angle of Arrival Accuracy in Direction Finding Systems
Sichun Wang (Communications Research Centre, Industry Canada, CA); Robert J. Inkol (DRDC-Ottawa, CA); Sreeraman Rajan (DRDC-Ottawa, CA); François Patenaude (Communications Research Centre, CA)

Track Seven – Engineering in Medicine & Biology (S1T7)

Motion Artifact Removal from Muscle NIR Spectroscopy Measurements

Behnam Molavi (University of British Columbia, CA); Guy Dumont (University of British Columbia, CA); Babak Shadgan (Vancouver Coastal Health Research Institute, University of British Columbia, CA)

Analysis of time cost for alternatives to enhance efficiency within the medical emergency referral system in Alberta

Simon Ferrari (University of Calgary, CA); J. Patrick H. Wyse (University of Calgary, CA); Yaoping Hu (University of Calgary, CA)

Session Two – 8:45 AM to 9:45 AM (S2)

Track One – Circuits, Devices & Systems (S2T1)

A Low-Power Low-Voltage Bandgap Reference in CMOS

Na Sun (The University of Western Ontario, CA); Robert Sobot (The University of Western Ontario, CA)

PWL Approximation of Hyperbolic Tangent and the First Derivative for VLSI Implementation

Ehsan Rasekh (University of Western Ontario, CA); Iman Rasekh (Islamic Azad University, IR); Mohammad Eshghi (Shahid Beheshti University, IR)

Track Two – Controls & Robotics (S2T2)

A Novel Technique for Estimating Intrinsic Camera Parameters in Geometric Camera Calibration

Swapna Puthukkudichalil (Memorial University of Newfoundland, CA); Nicholas Krouglicof (Memorial University of Newfoundland, CA); Ray Gosine (Memorial University of Newfoundland, CA)

Half-tone Control method in White Light LEDs by Using an Embedded Remote Controller with ZigBee Communication

Chi-Huang Hung (Fu Jen Catholic University, TW); Y. W. Bai (Fu Jen Catholic University, TW)

Track Three – Communications & Networking (S2T3)

Iterative Blind Linear Equalization in Time-Varying Dispersive Channels

Seyed Alireza Banani (Simon Fraser University, CA); Rodney Vaughan (Simon Fraser University, CA)

A Multi-stage Multi-user Decode-and-Forward Cooperative Communications Scheme using Linear Combination

Khuong Ho-Van (McGill University, CA); Tho Le-Ngoc (McGill University, CA)

Track Four – Computers, Software & Applications (S2T4)

A Directory-Based Cache Coherence Protocol for Power-Aware Chip-Multiprocessors

Rana Ahmed (American University of Sharjah, AE); Muhammad Dhodhi (Ross Video Ltd., CA)

A Multi-Objective Gravitational Search Algorithm

Hamidreza Hassanzadeh (Ferdowsi University of Mashhad, IR); Modjtaba Rouhani (Islamic Azad University, IR)

Track Five – Power Electronics & Energy Systems (S2T5)

Generators Operating with Variable Frequency Drives in an Offshore Facility

Xiaodong Liang (Schlumberger, Edmonton Product Center, CA); Joe Liu (Schlumberger, US)

Communication System for the Remote Hybrid Power System In Ramea Newfoundland

Juan Acevedo (Memorial University of Newfoundland, CA); Tariq Iqbal (Associate Professor, CA)

Track Six – Signal & Multimedia Processing (S2T6)

Dense Stereo Disparity Map for Video by Sub-pixel Dynamic Time Warp Algorithm

Kunio Takaya (University of Saskatchewan, CA)

Frame Recursive Dynamic Mean Bias Removal Technique for Robust Environment-Aware Speech Recognition in Real World Applications

Md Foezur Rahman Chowdhury (INRS-EMT, Université du Québec, CA); Sid-Ahmed Selouani (Université de Moncton, campus of Shippagan, CA); Douglas O'Shaughnessy (INRS-Énergie-Matériaux-Télécommunications, CA)

Track Seven – Engineering in Medicine & Biology (S2T7)

De-speckling of the Ultrasound Image through Overlapping Segments

Jawad Al-Asad (University of Wisconsin-Milwaukee, US); Ali Moghaddamjoo Reza (University of Wisconsin-Milwaukee, US); Leslie Ying (University of Wisconsin-Milwaukee, US)

Morphological Differences of Sigmoidal Baroreflex in High-Reactive and Non-Reactive Individuals

Pedram Ataee (University of British Columbia, CA); Guy Dumont (University of British Columbia, CA); Thomas Boyce (University of British Columbia, CA)

Break One – 9:45 AM to 10:15 AM – Marriot Second Floor Foyer

Session Three – 10:15 AM to 11:00 AM (S3)

Track One – Circuits, Devices & Systems (S3T1)

Sensitivity improvement of SOI-Based piezoresistive beams for tactile sensor

Youssef Kebbaty (Université d'Orléans, FR)

Photoconductive sensors for distributed optical sensing

Jason E Barg (University of British Columbia (UBC) Okanagan, CA); Xian Jin (University of British Columbia (UBC) Okanagan, CA); Mike Wiltshire (University of British Columbia (UBC) Okanagan, CA); Milad Abolhasani (University of British Columbia (UBC) Okanagan, CA); Jonathan F Holzman (University of British Columbia (UBC) Okanagan, CA)

Track Two – Controls & Robotics (S3T2)

A Graph-Theoretic Condition Necessary for the Stabilization of Crowds Using Cooperating Control Agents

Nasim Shams (University of Waterloo, CA); Daniel E. Davison (University of Waterloo, CA)

Robust Cascaded Feedback Linearizing Control of Nonholonomic Mobile Robot

Adel Merabet (Saint Mary's University, CA); Jason Gu (Dalhousie University, CA); Hichem Arioui (Université d'Evry Val d'Essonne, FR)

Track Three – Communications & Networking (S3T3)

Maximizing Network Lifetime in Ad Hoc Networks Using Learning Automata

Faezeh Akbari (Azad university of qazvin, IR)

The Impact of Narrowband Interference on the Performance of UWB Systems in the IEEE802.15.3a Channel Models
Ehab M. Shaheen (Carleton University, Ottawa, Canada, CA); Mohamed El-tanany (Carleton Univ, CA)

Track Four – Computers, Software & Applications (S3T4)

A Simple Method for Mining Association Rules

Roelof Kars Brouwer (Thompson Rivers University, CA); Christopher Graves (University of Alberta, CA)

Using Social Networks in Resolving Conflicts of Concept Learning Process

Shimaa El-Sherif (University of Calgary, CA); Behrouz Homayoun Far (University of Calgary, CA); Armin Eberlein (American University of Sharjah, AE)

Track Five – Power Electronics & Energy Systems (S3T5)

Modular dimmable light-emitting-diode driver for general illumination applications

T. W. Ching (University of Macau, MO)

Simulation of a House Heating System using C# - An Energy Conservation Perspective

Blerim Qela (University of Ottawa, CA); Hussein Mouftah (University of Ottawa, CA)

Track Six – Signal & Multimedia Processing (S3T6)

Spectral Verification of an Experimentally Derived Acoustical Impulse Response Function of a Music Performance Hall

Douglas Frey (University of Calgary, CA); Victor Coelho (Boston University, US); Rangaraj M. Rangayyan (University of Calgary, Schulich School of Engineering, CA)

Knowledge Based Blind Deconvolution of Non-minimum Phase FIR Systems

Milad Lankarany (Concordia University, Montreal, Canada, CA); Mohammad Hasan Savoji (ECEP, Shahid Beheshti Univ., Tehran, Iran, IR)

Track Seven – Engineering in Medicine & Biology (S3T7)

FPGA Based Pipelined Architecture for Action Potential Simulation in Biological Neural Systems

Hsiang-Yung Teng (University of Saskatchewan, CA); Peyman Pourhaj (University of Saskatchewan, CA)

An Intelligent CAD System for Automated Diagnosis of Active Tuberculosis on Chest Radiograph and CT Thorax: A Road Map

Halim Elamy (University of Alberta, CA); Behrouz Homayoun Far (University of Calgary, CA); Richard Long (University of Alberta, CA)

Session Four – 11:00 AM to 11:45 AM (S4)

Track One – Circuits, Devices & Systems (S4T1)

Integrated photonic retroreflectors for lateral cross-connects and interconnects

Emily Landry (University of British Columbia (UBC) Okanagan, CA); Brandon Born (University of British Columbia (UBC) Okanagan, CA); Gordon Ross (University of British Columbia (UBC) Okanagan, CA); Jonathan F Holzman (University of British Columbia (UBC) Okanagan, CA)

A low power 12-bit 10MS/s Algorithmic ADC

Noman Hai (University of Waterloo, CA); David Nairn (University of Waterloo, CA)

Track Two – Controls & Robotics (S4T2)

Parking Control of an Active-Joint Center-Articulated Mobile Robot Based on Feedback from Beacons
Mehdi Delrobaei (University of Western Ontario, CA); Kenneth McIsaac (The University of Western Ontario, CA)

A New Fractional Order Hold and its Capability in Frequency Response and Zero Placement
Parviz Jabedar-Maralani (University of Tehran, IR); Iraj Hassanzadeh (University of Tabriz, IR); Farzad Hashemzadeh (University of Tabriz, IR); Amin Rezaei Pish Robat (University of Tehran, IR)

Track Three – Communications & Networking (S4T3)

Quasi-Cyclic Low Density Parity Check (LDPC) Codes for Dedicated Short Range Communication (DSRC) Systems
T. Aaron Gulliver (University of Victoria, CA); Najmeh Khosroshahi (University of Victoria, CA)

A Steiner-Tree Based Information-Directed Routing Scheme for Tracking Multiple Moving Targets
Dina Megahed (University of Calgary, CA); Khaled Elsayed (Cairo University, EG)

Track Four – Computers, Software & Applications (S4T4)

Automated Synthesis of Feature Functions for Pattern Detection
Pei-Fang Guo (Concordia University, CA); Prabir Bhattacharya (Concordia University, CA); Nawwaf Kharma (Concordia University, CA)

A Tool for Ontology Visualization in 3D Graphics: Onto3DViz
Suigen Guo (University of Regina, CA); Christine W. Chan (University of Regina, CA)

Track Five – Power Electronics & Energy Systems (S4T5)

Estimation of Reduced Order Equivalent Synchronous Generator Model Based on Phasor Measurements
Behnam Mohammadi-Ivatloo (Sharif University of Technology, IR); Mostafa Parniani (Sharif University of Technology, IR); Mojtaba Shiroei (Sharif University of Technology, IR)

Sensorless Vector Control of PMSG for Variable Speed Wind Energy Applications
Jogendra Singh Thongam (STAS Inc., CA); Pierre Bouchard (STAS Inc., CA); Valentin Giurgiu (PAVAC Industries in Richmond, British Columbia, CA); Hung Tien Bui (University of Quebec at Chicoutimi, CA); Mohand Ouhruche (University of Quebec at Chicoutimi, CA)

Track Six – Signal & Multimedia Processing (S4T6)

An Approach to Recognize and Pronounce Words with Alternative Pronunciations in Farsi
Iman Rasekh (Islamic Azad University, IR); Ehsan Rasekh (University of Western Ontario, CA); Mohammad Eshghi (Shahid Beheshti University, IR)

MCL.JIT library for scalable live video in Max/MSP/Jitter
Ivan V. Bajic (Simon Fraser University, CA); Xiaonan Ma (Simon Fraser University, CA)

Track Seven – Engineering in Medicine & Biology (S4T7)

A wearable real-time fall detector based on Naive Bayes classifier

Xiuxin Yang (University of Saskatchewan, CA); Anh Dinh (University of Saskatchewan, CA); Li Chen (University of Saskatchewan, CA)

Blind's Vision

Yogees Kumar (Sri Sairam engineering college, IN)

Lunch One – 11:45 AM to 1:15 PM - Calgary Telus Convention Centre – Rooms 201 to 203

Session Five – 1:15 PM to 2:15 PM (S5)

Track One – Circuits, Devices & Systems (S5T1)

Parametric Terahertz Frequency Multiplication Using CMOS Technology
Zhixing Zhao (University of Calgary, CA); Jean-Francois Bousquet (University of Calgary / TRILabs, CA); Sebastian Magierowski (University of Calgary, CA)

Implementation of an All-Analog Active Reflector
Jean-Francois Bousquet (University of Calgary / TRILabs, CA)

Track Two – Controls & Robotics (S5T2)

Towards Underground Mine Drift Mapping with RFID
N. James Lavigne (Carleton University, CA); Joshua Marshall (Carleton University, CA); Unal Artan (Carleton University, CA)

Propeller Dynamometer for Small Unmanned Aerial Vehicle
Mohammed Hossain (Memorial University of Newfoundland, CA); Nicholas Krouglicof (Memorial University of Newfoundland, CA)

Track Three – Communications & Networking (S5T3)

Adaptive resource allocation for real-time services in OFDMA systems

Changqin Huo (University of Calgary / TRILabs, CA); Abu B Sesay (University of Calgary, CA); Abraham O Fapojuwo (University of Calgary, CA)

Energy-Efficient Target Tracking Using Forced Handoffs in Wireless Sensor Networks

Nadia Khiadani (Isfahan University of Technology, IR); Faramarz Hendessi (Associate Prof., IR); T. Aaron Gulliver (University of Victoria, CA)

Track Four – Computers, Software & Applications (S5T4)

Statistical comparison between a real-time model and a FEM counterpart for visualization of breast phantom deformation during palpation

Antoine Widmer (University of Calgary, CA); Yaoping Hu (University of Calgary, CA)

An Architectural Framework for Developing Intelligent Systems for the CO₂ Capture Process

Chuansan Luo (University of Regina, CA)

Track Five – Power Electronics & Energy Systems (S5T5)

Design and Implementation of a Bidirectional HEV Energy Management Strategy using a Switched Capacitor Luo Converter

Zahra Amjadi (Concordia University, CA); Sheldon S Williamson (Concordia University, CA)

A Comparative Study for the Common Current Regulators of Multilevel and Cascaded Inverters

Amr Elnady (Sharjah University, AE)

Track Six – Signal & Multimedia Processing (S5T6)

A Nonlinear Blind Equalizer Based on Modified Constant Modulus Algorithm

Donglin Wang (University of Calgary, CA)

Iterative Joint Source-Channel Decoding For H.264 Video Transmission Using Virtual Checking Method at the Source Decoder

Quang Nguyen (Concordia University, CA); William Lynch (Concordia University, CA); Tho Le-Ngoc (McGill University, CA)

Track Seven – Engineering in Medicine & Biology (S5T7)

Break Two – 2:15 PM to 2:45 PM – Marriot Second Floor Foyer

Session Six – 2:45 PM to 3:45 PM (S6)

Track One – Circuits, Devices & Systems (S6T1)

Fine Localization of Photons on the Pixelated Detectors Based on the Analytical Model

Fatemeh Aezinia (Simon Fraser University, CA); Mani Malekesmaeili (University of British Columbia, CA); Seyed Alireza Banani (Simon Fraser University, CA)

Design of a Six-port Junction Based on Single layer Technology for UWB Applications

Traii Mbarek (Faculty of sciences of Tunis Elmanar, TN); Mourad Nedil (UQAT, CA); Ali Gharsallah (Faculty of Science of Tunis, TN); Tayeb A. Denidni (INRS-EMT, CA)

Track Two – Controls & Robotics (S6T2)

Virtual Force Based Individual Particle Optimization for Coverage in Wireless Sensor Networks

Alireza Dirafzoon (Amirkabir University of Technology, IR); Seyyed Mohammad Amin Salehizadeh (Amirkabir University of Technology, IR); Saba Emrani (Amirkabir University of Technology, IR); Mohammad Bagher Menhaj (Amir Kabir University of Technology, IR)

H_{∞} filtering for nonuniformly sampled systems

Ghulam Mustafa (University of Alberta, CA); Tongwen Chen (University of Alberta, CA)

Track Three – Communications & Networking (S6T3)

Mode Transfer Architecture and Cross Layer Design for Connection Aware Applications in Wireless Communication Systems

Wei Li (University of Victoria, CA); Jing Zhong (University of Victoria, CA); T. Aaron Gulliver (University of Victoria, CA)

IEEE 802.11 WLANs: A Comparison on Indoor Coverage Models

Roger Pierre Fabris Hoefel (Federal University of Rio Grande do Sul (UFRGS), BR); Cassio Bento Andrade (UFRGS, BR)

Track Four – Computers, Software & Applications (S6T4)

Specification-Based Test Oracles With JUnit

Shadi G. Alawneh (Memorial University of Newfoundland, CA); Dennis K. Peters (Memorial University of Newfoundland, CA)

Design of a Custom Vector Operation API Exploiting SIMD Intrinsics within Java

Jonathan Parri (University of Ottawa, CA); John-Marc Desmarais (University of Ottawa, CA); Daniel Shapiro (University of Ottawa, CA); Miodrag Bolic (University of Ottawa, CA); Voicu Z. Groza (University of Ottawa, CA)

Track Five – Power Electronics & Energy Systems (S6T5)

Impact of Maximum Power Point Tracking on Grid-Connected Photovoltaic System Dynamics

Prajna Dash (University of Waterloo, Canada, CA); Mehrdad Kazerani (University of Waterloo, CA)

Modeling and Simulation of Stand Alone Wind/Diesel System Connected to Estimated Variable Load

Behzad Sedaghat (Zanjan University, IR); Abolfazl Jalilvand (Zanjan University, IR); Reza Noroozian (Zanjan University, IR)

Track Six – Signal & Multimedia Processing (S6T6)

Visual Sorting of Recyclable Goods Using a Support Vector Machine

Michael Nawrocky (Redeemer University College, CA); Derek C. Schuurman (Redeemer University College, CA); Jeff Fortuna (McMaster University, CA)

Highly Accurate Extraction of Faces and Facial Parts Taking into Consideration People with Glasses and the Specific Areas of the Face for Extracting Specific Features Used in the Recognition of Facial Expressions.

Teruaki Hirano (Kanto Gakuin University, JP); Yuuki Nakagawa (Kogakuin University, JP); Osamu Nakamura (Kogakuin University, JP)

Track Seven – Engineering in Medicine & Biology (S6T7)

Exhibits Close – 4:30 PM

Awards Reception – 6:30 PM – Macleod Hall A – Calgary Telus Convention Centre

Awards Ceremony & Banquet – 7:00 PM - Macleod Hall A – Calgary Telus Convention Centre

Tuesday, May 4th, 2010

Breakfast Two – 7:00 AM to 8:00 AM - Calgary Telus Convention Centre – Rooms 201 to 203

Exhibits Open – 8:00 AM – Marriot Second Floor Foyer

Session Seven – 7:45 AM to 8:45 AM (S7)

Track One – Circuits, Devices & Systems (S7T1)

Multi-Variable Optimization For Q-Switched Double Clad Fiber Laser Systems

Angie Eldamak (Ryerson University, CA); Kaamran Raahemifar (Ryerson University, CA)

Instruction Set Extension in the NIOS II: A Floating Point Divider for Complex Numbers

Philipp Digeser (DHBW Loerrach, DE); Marco Tubolino (DHBW Loerrach, DE); Martin Klemm (DHBW Loerrach, DE); Daniel Shapiro (University of Ottawa, CA); Miodrag Bolic (University of Ottawa, CA)

Track Two – Controls & Robotics (S7T2)

Kernel Locally Linear Embedding Approach to Process Control

Abdessamad Ben Hamza (Concordia University, CA)

Track Three – Communications & Networking (S7T3)

Merger of Polarization and Spatial Diversity by Moving a Pair of Orthogonally Polarized Dipoles

Vahid Dehghanian (University of Calgary, CA); John Nielsen (University of Calgary, CA); Gerard Lachapelle (University of Calgary, CA)

Diversity Gain through Synthesizing Multiple Polarizations

Vahid Dehghanian (University of Calgary, CA); John Nielsen (University of Calgary, CA); Gerard Lachapelle (University of Calgary, CA); Pouya Aflaki (University of Calgary, CA)

Track Four – Computers, Software & Applications (S7T4)

Towards the Performance Analysis of Reconfigurable Hardwares in Grid Networks

Mahmood Ahmadi (Delft University of Technology, NL); M Faisal Nadeem (Technical University of Delft, NL)

Comparative Study of Heuristics for Reliability Optimization of Complex Systems

Graham Cheng (Ryerson University, CA); Kaamran Raahemifar (Ryerson University, CA); Olivia Das (Ryerson University, CA)

Track Five – Power Electronics & Energy Systems (S7T5)

An Overview of Offshore Wind Electric Energy Resources

Hamed Aly (Dalhousie University, CA); Mohamed E. El-Hawary (Dalhousie University, CA)

Small Signal Analysis of a Grid Connected Wind Turbine with DFIG

Sajjad Tohidi (Sharif University of Technology, IR); Mostafa Parniani (Sharif University of Technology, IR); Behnam Mohammadi-Ivatloo (Sharif University of Technology, IR); Abbas Rabiee (Sharif University of Technology, IR)

Track Six – Signal & Multimedia Processing (S7T6)

Efficient Implementation of FIR filters Based on a Novel Common Subexpression Elimination Algorithm

Mohsen Amiri Farahani (University of New Brunswick, CA); Eduardo Castillo Guerra (UNB, CA); Bruce G. Colpitts (University of New Brunswick, CA)

A Robust Set-membership Normalized Least Mean-Square Adaptive Filter

Md. Zulfiquar Bhotto (University of Victoria, CA); Andreas Antoniou (University of Victoria, CA)

Track Seven – Engineering in Medicine & Biology (S7T7)

Session Eight – 8:45 AM to 9:45 AM (S8)

Track One – Circuits, Devices & Systems (S8T1)

Tri-band CMOS Class-E Power Amplifier Design with Phase Compensations for Polar Systems

Chung-Min Lai (National Chiao Tung University, TW)

Using Autocorrelation Coefficients-based Cost Functions in ESOP-based Toffoli Gate Cascade Generation
Jacqueline E. Rice (University of Lethbridge, CA); Vivien Suen (University of Toronto, CA)

Track Two – Controls & Robotics (S8T2)

Track Three – Communications & Networking (S8T3)

Paging Area Partitioning in the Term of Most Probable Areas in Wireless Network
Farbod Teymouri (Iran University of Science & Technology, IR); Reza Berangi (Iran University of Science and Technology, IR); Ebrahim Safavi (Sharif University of Technology, IR)

Optimal Amplify-and-Forward Scheme based on Superposition Modulation over Relay Channels
Leonardo Jiménez Rodríguez (McGill University, CA); Nghi Tran (McGill University, CA); Tho Le-Ngoc (McGill University, CA)

Track Four – Computers, Software & Applications (S8T4)

A Low-Area and Low-Latency Network on Chip
Xiaofang Wang (Villanova University, US); Leeladhar Bandi (Villanova University, US)

Unconscious Mind: Authenticating with Something You Don't Know? Or Just an Infallible Liveness Test?
Miguel Vargas Martin (University of Ontario Institute of Technology, CA); Kamilla Johannsdottir (University of Akureyri, IS); Gerardo Reynaga (Carleton University, CA); Jayshiro Tashiro (University of Ontario Institute of Technology, CA); Miguel A. Garcia-Ruiz (University of Ontario Institute of Technology, CA)

Track Five – Power Electronics & Energy Systems (S8T5)

An Overview of the Operation of the Alberta Electricity Market
Arya Janjani (University of Calgary, CA)

An Enhanced Power Flow Solution Algorithm for Radial Distribution Feeder Systems
Fahad Abu-Mouti (Dalhousie University, CA); Mohamed E. El-Hawary (Dalhousie University, CA)

Track Six – Signal & Multimedia Processing (S8T6)

Super-resolution Video Reconstruction Based On Both Local And Global Information
I-Hsien Lee (Industrial Technology Research Institute, TW); Shau-Yin Tseng (Industrial Technology Research Institute, TW); Nirmal Bose (Pennsylvania State University, US)

Adaptive Interference Cancellation System for a WCDMA repeater
Saad Mahboob (Simon Fraser University, CA); Shawn Stapleton (Simon Fraser University, CA); Sami Muhaidat (Simon Fraser University, CA)

Track Seven – Engineering in Medicine & Biology (S8T7)

Break Three – 9:45 AM to 10:15 AM – Marriot Second Floor Foyer

Session Nine – 10:15 AM to 11:00 AM (S9)

Track One – Circuits, Devices & Systems (S9T1)

A Novel RFID Security Protocol based on Extended Tiny Encryption Technique

Jack Yu (Ryerson University, CA); Gul N. Khan (Ryerson University, CA); Fei Yuan (Ryerson University, CA)

FPGA Implementation of High Performance LDPC Decoder using Modified Min-Sum Algorithm

Vikram Arkalgud Chandrasetty (University of South Australia, AU)

Track Two – Communications & Networking (S9T2)

Dynamic Alarm Correlation based on Cellular Learning Automaton in Telecommunication Networks

Mahnaz Imanazari (Qazvin azad university, IR)

Track Three – Communications & Networking (S9T3)

Impact of the Number of Sensors on the Network Cost and Accuracy of the Radio Environment Map

Stephanie Faint (Communications Research Centre, CA); Oktay Ureten (Communications Research Centre Canada, CA); Tricia J. Willink (Communications Research Centre, CA)

Peak Power Control of MC-CDMA with Special Classes of Binary Sequences

Xin Gao (Lakehead University, CA); Nam Yul Yu (Lakehead University, CA); Zhiwei Mao (Fairleigh Dickinson University, US)

Track Four – Computers, Software & Applications (S9T4)

A Game-theoretical Model for Intrusion Detection in Wireless Sensor Networks

Mohsen Estiri (University of South Tehran Azad, IR)

Estimation of Missing Data Points From Remotely Sensed Datasets

James Rodway (University of Alberta, CA); Petr Musilek (University of Alberta, CA)

Track Five – Power Electronics & Energy Systems (S9T5)

A Priority-ordered Constrained Search Technique for Optimal Distributed Generation Allocation in Radial Distribution Feeder Systems

Fahad Abu-Mouti (Dalhousie University, CA); Mohamed E. El-Hawary (Dalhousie University, CA)

Improved Sequential Quadratic Programming Approach for Optimal Distribution Generation Sizing in Distribution Networks

Mohamad AlHajri (College of Technological Studies, Paaet, Kuwait, KW); Mohammed AlRashidi (College of Technological Studies, Paaet, Kuwait, KW); Mohamed E. El-Hawary (Dalhousie University, CA)

Track Six – Signal & Multimedia Processing (S9T6)

DCT-domain Watermark Detector using a normal inverse Gaussian Prior

Mohammed Bhuiyan (Assistant Professor, Bangladesh University of Engineering and Technology, BD); Rubaiya Rahman (Bangladesh University of Engineering and Technology, BD)

A Cellular Automata Based Semi-automatic algorithm for segmentation of choroidal blood vessels from ultrahigh resolution optical coherence images of rat retina

Akshaya Mishra (University of Waterloo, CA); Sepideh Hariri (University of Waterloo, CA); Moayed Alireza (University of Waterloo, CA); Kostadinka Bizheva (University of Waterloo, CA); Paul Fieguth (University of Waterloo, CA); David Clausi (University of Waterloo, CA)

Track Seven – Engineering in Medicine & Biology (S9T7)

Session Ten – 11:00 AM to 11:45 AM (S10)

Track One – Circuits, Devices & Systems (S10T1)

A High Resolution Serializer and DeSerializer Architecture for Mobile Image Sensor

Eung-Ju Kim (Korea University, KR)

CMOS Interleaved Distributed 2 x 3 Matrix Amplifier Employing Active Post Distortion and Optimum Gate Bias Linearization Technique

Ziad El-Khatib (Carleton University, CA); Leonard MacEachern (Carleton University, CA); Samy Mahmoud (Carleton University, Ottawa, Canada, CA)

Track Two – Power Electronics & Energy Systems (S10T2)

Influence of Distributed Generation Interface Transformer and DG configurations on Temporary Overvoltage (TOV)

Pouyan Saifi (Hydro One Networks Inc., CA); Akshaya Moharana (University of Western Ontario, CA); Rajiv Varma (University of Western Ontario, CA); Ravi Seethapathy (Hydro One Networks Inc., CA)

Impact of Wind Turbine Generators on Network Resonance and Harmonic Distortion

Dhaval D Patel (University of Western Ontario, CA); Rajiv Varma (University of Western Ontario, CA); Ravi Seethapathy (Hydro One Networks Inc., CA); Michael Dang (Hydro One Networks Inc., CA)

Track Three – Communications & Networking (S10T3)

SVD-Based Joint Transceiver Design for Uplink MIMO MC-CDMA Systems

Hossein Zamiri-Jafarian (University of Toronto, CA); Morteza Rajabzadeh (Ferdowsi University of Mashhad, IR)

DMT Analysis of Coherent Free-Space Optical Systems over Atmospheric Turbulence Channels
Sahar Molla Aghajanzadeh (University of Waterloo, CA); Murat Uysal (University of Waterloo, CA)

Track Four – Computers, Software & Applications (S10T4)

Condition-Based Reliability Modeling for Systems with Partial and Standby Redundancy
Halim Elamy (University of Alberta, CA); Behrouz Homayoun Far (University of Calgary, CA)

A Knowledge-Base Tool for Testing VoIP Gateway
Marzia Zaman (Cistel Technology Inc., CA)

Track Five – Power Electronics & Energy Systems (S10T5)

Control of Three Phase Hybrid Multilevel Inverter Using Vector Transformation
Saad Mekhilef (University of Malaya, MY)

Transformer-less five-level diode-clamped converter based active power filter
Sebastien Gauthier (Royal Military College of Canada, CA); Francis Aim Okou (Royal Military College of Canada, CA)

Track Six – Signal & Multimedia Processing (S10T6)

Subspace-Based LMS Algorithm for MIMO Channel SVD Estimation
Hossein Zamiri-Jafarian (University of Toronto, CA); Mohammad Moghaddari (University of Manitoba, CA)

Bandwidth Extension for Speech Enhancement
Frederic Mustiere (University of Ottawa, CA); Martin Bouchard (University of Ottawa, CA); Miodrag Bolic (University of Ottawa, CA)

Track Seven – Engineering in Medicine & Biology (S10T7)

Lunch Two – 11:45 AM to 1:15 PM - Calgary Telus Convention Centre – Rooms 201 to 203
McNaughton Gold Medal Winner Presentation

Session Eleven – 1:15 PM to 2:15 PM (S11)

Track One – Circuits, Devices & Systems (S11T1)

LTCC-Based Optically Tunable Microwave Filter
Langis Roy (Department of Electronics, Carleton University, CA); Jose Gonzalez (Universite de Limoges, FR);
Dominique Baillargeat (LIM UMR 6172, Université de Limoges/CNRS, FR)

Estimating Test Cost During Data Path and Controller Synthesis with Low Power Overhead
Haidar M. Harmanani (Lebanese American University, LB); Maya Kodeih (Lebanese American University, LB)

Track Two – Power Electronics & Energy Systems (S11T2)

Power Management with Energy Harvesting Devices

Demian Pimentel (University of Alberta, CA); Petr Musilek (University of Alberta, CA)

Micro-grid System Based on Renewable Power Generation Units

Ahshan (Memorial University, CA); Mohammad Iqbal (Memorial University of Newfoundland, CA); George Mann (Memorial University of Newfoundland, CA); John Quaicoe (Professor, CA)

Track Three – Communications & Networking (S11T3)

Gains by a Space-Time-Code Based Signaling Scheme for Multiple-Antenna RFID Tags

Chen He (University of British Columbia, CA); Z. Jane Wang (University of British Columbia, CA)

Combining Filtering and Traceback against False Data Injection in Sensor Networks

Feng Yang (University of Science and Technology of China, CN); Xuehai Zhou (University of Science and Technology of China, CN); Qiyuan Zhang (University of Science and Technology of China, CN)

Track Four – Computers, Software & Applications (S11T4)

Segmentation and Analysis of the Tissue Composition of Dermatological Ulcers

Ederson Dorileo (University of Sao Paulo, BR); Marco Frade (University of Sao Paulo, BR); Rangaraj M. Rangayyan (University of Calgary, Schulich School of Engineering, CA); Paulo M. Azevedo-Marques (University of Sao Paulo, BR)

Evaluating Thermal Aging Characteristics of Electric Power Transmission Lines

Md MI Bhuiyan (University of Alberta, CA); Petr Musilek (University of Alberta, CA); Jana Heckenbergerova (University of Alberta, CA); Don Koval (University of Alberta, CA)

Track Five – Power Electronics & Energy Systems (S11T5)

Application of SVC for Grid Integration of Wind Farm Using Fuzzy Controller

Mehdi Narimani (University of Western Ontario, CA); Rajiv Verma (Univ of Western Ontario, CA)

Fuzzy Logic (FL) Controlled HVDC System - Influence of Shape, Width & Distribution of Membership Functions (MFs)

Munish Multani (UOIT, CA); Jing Ren (UOIT, CA); Vijay K Sood (University of Ontario Institute of Technology, CA)

Track Six – Signal & Multimedia Processing (S11T6)

Novel image registration method using gradient based algorithm along with multi-resolution wavelet transform

Mehrnaz Fani (Electrical and Computer Engineering shiraz university, IR); Mehran Yazdi (Shiraz University, IR)

A Single Microphone Noise Canceller Based on an Adaptive Kalman Filter
Marcel Gabrea (Ecole de technologie superieure, CA)

Track Seven – Engineering in Medicine & Biology (S11T7)

Break Four – 2:15 PM to 2:45 PM – Marriot Second Floor Foyer

Session Twelve – 2:45 PM to 3:45 PM (S12)

Track One – Circuits, Devices & Systems (S12T1)

A High-Throughput, Low-Latency VLSI Realization of 4x4 Complex K-Best MIMO Detectors
Mojtaba Mahdavi (Sharif University of Technology, IR); Mahdi Shabany (University of Toronto, CA)

Static and Dynamic Analysis Of A 2D MEMS Micromirror
Hasan Imam (Dalhousie University, CA); Yuan Ma (Dalhousie University, CA)

Track Two – Power Electronics & Energy Systems (S12T2)

Design And Development of Dynamic Voltage Restorer Controller for Voltage Unbalance Compensation Using d-q-o Transformation Technique
Rosli Omar (Technical University Malaysia malacca, MY)

Analyzing effects of reliability improving methods on voltage sag based on PROBABILISTIC THEORY and case study in distribution network
Alireza Ghods (Moshanir company, Iran university of science and technology, IR)

Track Three – Communications & Networking (S12T3)

Performance of passive and semi-passive UHF RFID systems
Tzu Hao Li (University of Ottawa, CA); Miodrag Bolic (University of Ottawa, CA)

Implementing Trend Identification with Least Squares Method into CommTest on an Intelligent Satellite Services Network for Throughput Measurement
Wahab Almuhtadi (Algonquin College, CA); Devin R. Murphy (Algonquin College, CA); Mike Rosberg (Telesat, CA)

Track Four – Computers, Software & Applications (S12T4)

A Study of Optimal Topologies in Swarm Intelligence
Dario Schor (University of Manitoba, CA); Witold Kinsner (University of Manitoba, CA); John Anderson (University of Manitoba, CA)

A Large Scale Empirical Study on the Cognitive Complexity of Software
Vincent Chiew (University of Calgary, CA); Yingxu Wang (University of Calgary, CA)

Track Five – Power Electronics & Energy Systems (S12T5)

Design Studies on an External Rotor Permanent Magnet Synchronous Machine for a Position Sensorless Control ---
Comparison of Star- and Delta-connected Stator Winding

Erich Schmidt (Vienna University of Technology, AT)

A Permanent Magnet Synchronous Motor Drive Employing a Three-Level Very Spars Matrix Converter with Soft Switching and SVM Hysteresis Current Control

Mohamed F Aner (University of Calgary, CA); Ed Nowicki (University of Calgary, CA)

Track Six – Signal & Multimedia Processing (S12T6)

On Identification of Multivariate Hammerstein Systems

Jiaqing Lv (University of Manitoba, CA); Mirek Pawlak (University of Manitoba, CA)

Segmentation of cell nuclei in images of renal biopsy samples

Sansira Seminowich (University of Calgary, Schulich School of Engineering, CA); Aylin Sar (University of Calgary, CA); Serdar Yilmaz (University of Calgary, CA); Rangaraj M. Rangayyan (University of Calgary, Schulich School of Engineering, CA)

Track Seven – Engineering in Medicine & Biology (S12T7)

Exhibits Close – 4:30 PM

Wednesday, May 4th, 2010

Breakfast Three – 7:00 AM to 8:00 AM - Calgary Telus Convention Centre – Rooms 201 to 203

Exhibits Open – 8:00 AM – Marriot Second Floor Foyer

Session Thirteen – 7:45 AM to 8:45 AM (S13)

Track One – Circuits, Devices & Systems (S13T1)

A New Bulk Built-in Current Sensing Circuit for Single-event Transient Detection

Zhichao Zhang (University of Saskatchewan, CA)

Evaluation of packaging options for very low noise amplifiers

Donuwan Navaratne (University of Calgary, CA); Leonid Belostotski (University of Calgary, CA)

Track Two – Power Electronics & Energy Systems (S13T2)

OPTIMAL REACTIVE/VOLTAGE CONTROL by a improved harmony search

Amirhossein Khazali (Iust, IR); Ali Parizad (Iran University of Science and technology, IR); Mohsen Kalantar (Iran University of Science and Technology, IR)

Track Three – Communications & Networking (S13T3)

Fast Authentication for Mobile Clients in Wireless Mesh Networks

Celia Li (York University, CA)

A DTN Wireless Sensor Network for Wildlife Habitat Monitoring

Alejandro Tovar (University of Manitoba, CA); Travis Friesen (University of Manitoba, CA); Ken Ferens (University of Manitoba, CA); Bob McLeod (University of Manitoba, CA)

Track Four – Computers, Software & Applications (S13T4)

Computation-Efficient FPGA Implementation for Flexible Triangle Search Block-Based Motion Estimation Algorithm

Mohamed Mohamed Rehan (British University in Egypt, EG); Rasha El-Ashry (British University in Egypt, EG); Hassan El Kamchouchi (Alexandria University, EG)

Applications of Three Data Analysis Techniques for Modeling the Carbon Dioxide Capture Process

Qing Zhou (University of Regina, CA)

Track Five – Power Electronics & Energy Systems (S13T5)

Allocation of FACTS Controller For Voltage Stability Enhancement of Khouzestan Power Network in Iran

Farbod Larki (Khouzestan Regional Electrical Company, IR); Emad Hamadi (Shahid Chamran University, Ahwaz, IR); Mansour Mohseni (Curtin University, AU)

Impedance-based Ground Fault Location for Transmission Lines

Hongling Sun (Hydro One Network Inc., CA); Vijay K Sood (University of Ontario Institute of Technology, CA)

Track Six – Signal & Multimedia Processing (S13T6)

Enclosed Spectrogram Moments for the Measurement of Non-Stationary Signals

Ryan Janzen (University of Toronto, CA)

A Spatio-Temporal Stacking Approach for Estimating Two-Dimensional Direction-of-Arrival

Jian-Feng Gu (Concordia University, CA); Wei-Ping Zhu (Concordia University, CA); M. N. S. Swamy (Concordia University, CA)

Track Seven – Engineering in Medicine & Biology (S13T7)

Session Fourteen – 8:45 AM to 9:45 AM (S14)

Track One – Circuits, Devices & Systems (S14T1)

Active Queue Management for Multi-Node Network-“Quality of Service is Assessed by Type of Queue
Navneet Tiwari Tiwari (MITM Indore, IN)

Track Two – Controls & Robotics (S14T2)

Track Three – Communications & Networking (S14T3)

Reliability Of ZigBee Networks Under Broadband Electromagnetic Noise Interference
Lily Woo (University of Manitoba, CA); Ken Ferens (University of Manitoba, CA); Witold Kinsner (University of Manitoba, CA)

Soft Output Detector for MIMO-CDMA Systems with Parity Bit Selected and Permutation Spreading
Alireza Mirzaee (University of Ottawa, CA); Claude D'Amours (School of Information Technology and Engineering (SITE), University of Ottawa, CA)

Track Four – Computers, Software & Applications (S14T4)

Model-free Approach and Methodology for Data Anomaly Detection for Real Time Diagnostic Solution
Amar Kumar (University of Ottawa, CA); Amiya Nayak (SITE, University of Ottawa, CA); Alka Srivastava (Tecsis Corporation, CA)

A HW/SW Codesign of WZ Factorization to Improve Time to Solve Matrices
Hsiang-Yung Teng (University of Saskatchewan, CA)

Track Five – Power Electronics & Energy Systems (S14T5)

Stochastic Security-Constrained Unit Commitment for System with High Penetration of Wind Power
Alireza Zakariazadeh (Iran University of Science and Technology, IR)

Design and Analysis of High-inductance PMSG for Wind system
Meiqin Mao (Hefei University of Technology, CN); Jidong Lai (Hefei University of Technology, CN); Ronggeng Huang (Hefei University of Technology, CN); Liuchen Chang (University of New Brunswick, CA); Zhimao Zhang (Hefei University of Technology, CN); Chem Nayar (Curtin University of Technology, AU)

Track Six – Signal & Multimedia Processing (S14T6)

Instrumental Variable Algorithms for Two Microphones Speech Enhancement Systems
Marcel Gabrea (Ecole de technologie superieure, CA)

QIM Data Hiding for Tamper Detection and Correction in Digital Images Using Wavelet Transform
Amit Phadikar (MCKV Institute of Engineering, IN); Santi Prasad Maity (Bengal Engineering & Science University, Shibpur, IN); Mrinal Mandal (University of Alberta, CA)

Track Seven – Engineering in Medicine & Biology (S14T7)

Break Five – 9:45 AM to 10:15 AM – Marriot Second Floor Foyer

Session Fifteen – 10:15 AM to 11:00 AM (S15)

Track One – Circuits, Devices & Systems (S15T1)

Track Two – Controls & Robotics (S15T2)

Track Three – Communications & Networking (S15T3)

Practical Result of Wireless Indoor Position Estimation by using Hybrid TDOA/RSS Algorithm

Smita Tiwari (University of Calgary, CA); Ramzi Darraji (University of Calgary, CA); Seyed Aidin Bassam (University of Calgary, CA); Andrew Kwan (University of Calgary, CA); Karun Rawat (University of Calgary, CA); Meenakshi Rawat (University of Calgary, CA); Michel Fattouche (University of Calgary, CA); Fadhel Ghannouchi (University of Calgary, CA)

Blind Channel Estimation for MRC Systems with Maneuvering Transmit/Receive Terminals

Seyed Alireza Banani (Simon Fraser University, CA); Rodney Vaughan (Simon Fraser University, CA)

Track Four – Computers, Software & Applications (S15T4)

An Improved Method of Segmentation using Fuzzy - Neuro Logic

Selva Perumal Sathish Kumar (Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya University, IN); Manoharan Madhu (Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya University, IN); Madhavan Moorthi (Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya University, IN); Ramasamy Amutha (Professor & Head, ECE, Sri Venkateswara College of Engineering, Chennai, India, IN)

Track Five – Power Electronics & Energy Systems (S15T5)

Sitting and Sizing of Distributed Generation Through Harmony Search Algorithm For Improve Voltage Profile And Reduction of THD and Losses

Ali Parizad (Iran University of Science and technology, IR); Amirhossein Khazali (Iust, IR); Mohsen Kalantar (Iran University of Science and Technology, IR)

Optimal Placement of Distributed Generation with Sensitivity Factors Considering Voltage Stability and Losses Indices

Ali Parizad (Iran University of Science and technology, IR); Amirhossein Khazali (Iust, IR); Mohsen Kalantar (Iran University of Science and Technology, IR)

Track Six – Signal & Multimedia Processing (S15T6)

A video navigation model based on a genetic algorithm

Wei (Ryerson University, CA); Xiao-Ping Zhang (Ryerson University, CA); Junfeng Jiang (Ryerson University, CA)

Two dimensional analytic wavelet thresholding and its application to ultrasonic pulse-echo B-scan denoising
Mohammad Hoseini (University of Alberta, CA); Ming Jian Zuo (University of Alberta, CA); Xiaodong Wang (University of Alberta, CA)

Track Seven – Engineering in Medicine & Biology (S15T7)

Session Sixteen – 11:00 AM to 11:45 AM (S16)

Track One – Circuits, Devices & Systems (S16T1)

Track Two – Controls & Robotics (S16T2)

Track Three – Communications & Networking (S16T3)

Performance optimization of the initialization process of IEEE 802.16 mesh networks
Victor Rangel (National University of Mexico, MX); Yasmine Macedo (Nacional University of Mexico, MX); Javier Gomez (National University of Mexico, MX); Miguel Lopez-Guerrero (Universidad Autonoma Metropolitana, MX); Raul Santos (University of Colima, MX); Arthur Edwards (University of Colima, MX)

Near-Optimal and Efficient MIMO Detectors for 64-QAM Symbols
Bruce Cockburn (University of Alberta, CA); Arsene Pankeu Yomi (University of Alberta, CA)

Track Four – Computers, Software & Applications (S16T4)

Track Five – Power Electronics & Energy Systems (S16T5)

Comparative Study of Sliding Mode and ANFIS Based Observers for Speed & Position Sensor-less Control of Variable Speed PMSG
Mukhtiar Singh (Ecole de Technologie Superieure, Montreal, Quebec, Canada, CA); Ambrish Chandra (ÉTS, 1100, rue Notre-Dame Ouest, Montréal, Québec, CA)

Modeling of Planar Transformer Parasitics Using Design of Experiment Methodology
Samuel Cove (Memorial University of Newfoundland, CA); Martin Ordonez (Memorial University of Newfoundland, CA); John Quaiocoe (Professor, CA)

Track Six – Signal & Multimedia Processing (S16T6)

Global Design of Perfect-Reconstruction Orthogonal Cosine-Modulated Filter Banks
Jie Yan (University of Victoria, CA); Wu-Sheng Lu (University of Victoria, CA)

A Scalability Study of Fractional Motion Estimation for H.264 Encoding
Jasmina Vasiljevic (Ryerson University, CA); Andy Ye (Ryerson University, CA)

Track Seven – Engineering in Medicine & Biology (S16T7)

Lunch Three – 11:45 AM to 1:15 PM - Calgary Telus Convention Centre – Rooms 201 to 203

Session Seventeen – 1:15 PM to 2:15 PM (S17)

Track One – Circuits, Devices & Systems (S17T1)

Track Two – Controls & Robotics (S17T2)

Track Three – Communications & Networking (S17T3)

Spacecraft Communication System Performance Improvement With Combining Multiple Array Antennas
Shian Hwu (Barrios Technology, US)

A Fast Multi-objective Genetic Algorithm based Approach for Energy Efficient QoS-Routing in Two-tiered Wireless Sensor Networks

Gholamhossein Ekbatanifard (Ferdowsi University of Mashhad, IR); Reza Monsefi (Ferdowsi University of Mashhad (FUM), IR); Mohammad Hossein Yaghmaee (Ferdowsi university of mashad, IR); Mohammad-R. Akbarzadeh-T. (Ferdowsi University of Mashhad, IR)

Track Four – Computers, Software & Applications (S17T4)

Track Five – Power Electronics & Energy Systems (S17T5)

Tight Mixed Integer Linear Programming Formulations for Generator Self-Scheduling

James Ostrowski (University of Waterloo, CA); Miguel F Anjos (University of Waterloo, CA); Anthony Vannelli (University of Guelph, CA)

Towards DFIG Control for Power Generation and Harmonic Current Mitigation

Rene Wamkeue (Université du Québec en Abitibi-Témiscamingue, CA); Djilali Kairous (Université de Hasiba Ben-Bouali de Chlef (UHBC), Chlef, DZ); Bachir Belmadani (Université de Chlef, CA)

Track Six – Signal & Multimedia Processing (S17T6)

GLRT Signal Detection Performance of a Synthetic Array

Ali Broumandan (University of Calgary, CA); John Nielsen (University of Calgary, CA); Gerard Lachapelle (University of Calgary, CA)

A Robust Digital Audio Watermarking Algorithm Using Empirical Mode Decomposition

A N K Zaman (University of Northern BC, CA); Wahedul Islam (Graduate Student, CA)

Track Seven – Engineering in Medicine & Biology (S17T7)

Break Six – 2:15 PM to 2:45 PM – Marriot Second Floor Foyer

Session Eighteen – 2:45 PM to 3:45 PM (S18)

Track One – Circuits, Devices & Systems (S18T1)

Track Two – Controls & Robotics (S18T2)

Track Three – Communications & Networking (S18T3)

Zero-forcing Incremental Beamforming Transmission for Multiuser MIMO Systems
Jun Zhu (University of Victoria, CA); Hong-Chuan Yang (University of Victoria, CA)

Interference Mitigation Using Power Control in Cognitive Radio Networks
Mohamed Elalem (Ryerson University, CA)

Track Four – Computers, Software & Applications (S18T4)

Track Five – Power Electronics & Energy Systems (S18T5)

Wind Turbine Rotor Modelling Using Response Surface Methodology
Lucas Sinopoli (Memorial University of Newfoundland, CA); Martin Ordonez (Memorial University of Newfoundland, CA); John Quaicoe (Professor, CA)

Reconstruction of Effective Wind Speed for Fixed-Speed Wind Turbines Based on Frequency Data Fusion
Zhiqiang Xu (Texas A&M University, US); Mark Ehsani (Texas A&M, US)

Track Six – Signal & Multimedia Processing (S18T6)

New Robust echo canceller for hybrid and Acoustic Echo Cancellation with improved Convergence rate and Signal to Noise Ratio (SNR) integrated to LPC based Speech Coders
Suma Aswatha (U.V.C.E college of Eng., IN); Gurumurthy K.S. (Bangalore University, IN)

Analysis and Research of Control Strategy and Signal Detection Based on UPQC
Su-ping Pei (Zhong Yuan University of Technology, CN)

Track Seven – Engineering in Medicine & Biology (S18T7)

Exhibits Close – 4:30 PM