wimax
Time: 10:00 - 17:00
HIC: Humanitarian Initiatives Committee Workshop
Session Chair: Sawsan Abdul-Majid (PTlab at the University of Ottawa ,Ottawa, Canada)
Room: ENG LG06
10: 00: Welcome remarks, by HIC track chair
10:20: HIC.1 The Evident Use of Evidence Theory in Big Data Analytics using Cloud Computing
H. Mcheick and A. Mohamad
10:40: HIC.2 Prediction Of Exhaust Gas Temperature In GTE By Multivariate Regression Analysis and Anomaly Detection
A. Kumar, A. Banerjee, A. Srivastava and N. Goel
11: 00 SIGHT presentation
11:30 – 12:00 Coffee break
12: 00: HIC.3 Abnormal GAIT Classification
M. Pushpa Rani
12:20: HIC.4 Hand Gesture Recognition Framework for Recognizing Sign Gestures and Handling Movement Epenthesis Using Level Building Nested Dynamic Programming Approach
E. R and S. Kadirvelu
12:40: HIC.5 Reactive Face Geocast in Spatially Separated Wireless Sensor Actor Network
S. Ravindran
1:00- 2:00 Lunch break
2:00: HIC.6 An Intelligent Agent Based Privacy Perserving Model for Web Service Security

C. S
2:15: HIC.7 IntelliChair: Assistive Technology for Powered Wheelchair Users
R. Atienza
2:30: HIC.8 Reliability Centered Maintenance: The Key to Successful Operation of Power Distribution Systems
P. Dehghanian
2:45: HIC.9 Smart Garbage Bin
L. Al Ani
3:00 Coffee break
3:30: HIC.10 Vision based keyboard system using webcam and laser pointer
A. Prabhu
15:45: HIC.11 Improving the touch screen accessibility for visually challenged people
G. K. Shanmugam
16:00 HIC / IHTC , Presentation by HIC/ IEEE Canada chair
16:50: Student winner announcement
Time: 10:00 - 13:00
WS1 - Workshop on Networking and Cloud Computing Test-Beds
Chairs: Peng Hu, Darshika G. Perera
Room: ENG105

Opening Remarks: Dr. Ian McWalter and Dr. Darshika Perera (CMC Microsystems)
WS1.1: The SAVI Testbed for Software-Defined Infrastructure
T. Lin and A. Leon-Garcia (University of Toronto)
WS1.2: A Pragmatic Approach to SDN for Large Carrier Networks
A. Akhavain (Huawei Technologies Canada)
WS1.3: IBM Research Cloud Computing
B. Adamache (IBM Canada Research & Development Centre)
WS1.4: Cloud Computing for Research
B. Appelbe (ORION)
Discussion
Closing remarks: D. Perera and P. Hu (CMC Microsystems)
Time: 14:00 to 17:00
T4: Architectures, Models and Networks for Electric Vehicles in the Smart Grid
Presenter: H. Mouftah and M. Erol-Kantarci (University of Ottawa)
Room: ENG 101
Outline of the Tutorial:
□ Introduction to Electric Vehicles and the Smart Grid □ Challenges and Opportunities Emerging from Electric Vehicles and Smart Grid Interaction □ Communication Technologies and Networks for the Electric Vehicle Infrastructure □ Architectures and Models for Grid to Vehicle Applications Charging Control

- Architectures and Models for Grid-to-Vehicle Applications: Charging Control
- Architectures and Models for Vehicle-to-Grid Applications
- Electric Vehicle and Smart Grid Advanced Application Testbeds
- Wrap-up
- Q&A

Monday, May 5, 2014

Time: 09:50 - 12:00

SM-1: Image Processing Algorithms - 1

Session Chair: Azadeh Safari (Macquarie University, Australia)

Room: ENG 101

SM-1.1 Depth Map Compression Based on Platelet Coding and Quadratic Curve Fitting

Yu Zhang, H. Wang and J. Zhao

SM-1.2 Weighted Ratio-based Adaptive Lossless Image Coding

A. Kabani and M. El-Sakka

SM-1.3 Scale Invariant Feature Transform using Oriented Pattern

M. Baghery Daneshvar, M. Babaie-Zadeh and S. Ghorshi

SM-1.4 Operational Capability and Suitability of Image Compression Methods for Different Applications

A. Safari, Y. Kong and F. Bentley

SM-1.5 Contourlet Domain Image Denoising Using Normal Inverse Gaussian Distribution

H. Sadreazami, M. O. Ahmad and M. N. S. Swamy

SM-1.6 Enhanced Linear Block Algorithm with Improved Similarity Measure

E. Bhullar, P. Saigal and A. Pal

CS-1: RF Techniques - 1

Session Chair: Smarjeet Sharma (École de Technologie Supérieure, Canada)

Room: ENG 102

CS-1.1 Digital Predistortion of Concurrent Dual-Band Power Amplifier based on Two-dimensional Multi-Branch DPD

M. Younes, A. Kwan and F. Ghannouchi

CS-1.2 Distortion Analysis of Nano-scale CMOS RF Amplifier Using Volterra Series

H. Yu, K. El-Sankary and E. El-masry

CS-1.3 Performance Enhancement of First Order Three-Level Envelope Delta Sigma Modulator Based Transmitter

F. Elsayed, M. M. Ebrahimi, M. Helaoui and F. Ghannouchi

CS-1.4 GaN Polar Transmitter Design for Base-station Applications

M. Jouzdani, M. M. Ebrahimi and F. Ghannouchi

CS-1.5 An algorithm for IMD Computation in Automated Tests of RFIC Power Amplifiers

S. Sharma and N. Constantin

CN-1: Cognitive Radio Networks - 1

Session Chair: Yousef R. Shayan (Concordia University, Canada)

Room: ENG 105

CN-1.1 An Empirical Measurement of Jamming Attacks in CSS Cognitive Radio Networks

V. Balogun and A. Krings

CN-1.2 A Channel Assignment Scheme for Reliable Routing in Cognitive Radio Networks

H. Zhao and J. Zhang

CN-1.3 Cooperative Spectrum Sensing in LTE Networks

G. Kokabian and A. Esmailpour

CN-1.4 A Spatial Reuse Media Access Protocol for Cooperative Spectrum Sensing

X. Shao and H. Leib

CN-1.5 On the Connectivity of Multi-Band Cognitive Radio Ad Hoc Networks

M. Gad, A. Farid and H. Mouftah

CN-1.6 Multiobjective memetic optimization for spectrum sensing and power allocation in cognitive wireless networks

H. Dang and W. Kinsner

Soft-1: Software Engineering -1

Session Chair: Gautam Siwach (University of New Haven, United States)

Room: ENG 106

Soft-1.1 Prediction of Changeability for Object Oriented Classes and Packages by Mining Change History

J. Chhabra and A. Parashar

Soft-1.2 Cooperative Based Software Clustering on Dependency Graphs

A. Ibrahim, D. Rayside and R. Kashef

Soft-1.3 Semi-Automation for Ambiguity Resolution in Open Source Software Requirements

K. Gill, A. Raza, A. Zaidi and M. M. Kiani

Soft-1.4 Capturing Non-functional Properties through Model Interlinking

M. Noorian and E. Bagheri

SG-1: Renewable Energy Generation - 1

Session Chair: Irtaza Syed (Ryerson University, Canada)

Room: ENG LG05

SG-1.1 Simulation and dSPACE Hardware Implementation of the MPPT Techniques Using Buck Boost Converter

A. Noman

SG-1.2 An Intelligent FLC Method for Tracking the Maximum Power of Photovoltaic Systems

A. Noman

SG-1.3 Simple Mathematical Model of Photovoltaic Module for Simulation in Matlab/Simulink

I. Syed and A. Yazdani

G-1.4 Fuzzy-based Load Frequency Controller For Interconnected Power System With Wind Power Integration

H. Zhou

SG-1.5 Smart Control of Reactive Power from PV Plants for Mitigating Voltage Fluctuation

V. T. Dao and H. Nguyen (click here for the video https://www.youtube.com/watch?v=B0LqmgGQHI8

PE-3: Power Electronic Converters & Controls - 3

Session Chair: Syed Qaseem Ali (McGill University, Canada)

Room: ENG LG06

PE-3.1 Research on Multi-objective Coordinated Control Strategy of UPFC

M. Zhang, C. Zhang, Q. Jiang and X. Xie

PE-3.2 Efficiency Comparison of 2- and 3-level Inverter Based Power Conditioning System for Grid-Connected SOFC Application

Md Arifujjaman, M. S. Hossain and M. T. Iqbal

PE-3.3 An Interleaved High Step-Up DC-DC Converter with Reduced Voltage Stress Across Semiconductors

S. H. Hosseini, E. Babaei and T. Nouri

PE-3.4 A New Configuration of Modular Isolated Bidirectional DC-DC Converter

S. H. Hosseini, F. Sedaghati, M. Sabahi and G. Gharehpetian

PE-3.5 Zero Voltage Switching Analysis of Modular Isolated Bidirectional DC-DC Converter

S. H. Hosseini, F. Sedaghati, M. Sabahi and G. Gharehpetian

PE-3.6 Integrated Battery Charger for Delta Connected Machines in Plug-in Hybrid Electric Vehicles

S. Q. Ali, D. Mascarella and G. Joos

CR-1: Controls and Robotics Session - 1

Session Chair: Karim Khayati (Royal Military College of Canada, Canada)

Room: ENG LG12

CR-1.1 LMI-Based Computation of the Instability Measure of Continuous-Time Linear Systems with a Scalar Parameter

G. Chesi

CR-1.2 Multivariable Adaptive Sliding Mode Structure for an Observer-based Control of a Perturbed Mechanical System

K. Khayati

CR-1.3 Formation Stabilization of Nonholonomic Robots Using Nonlinear Model Predictive Control

M. W. Mehrez, G. Mann and R. Gosine

CR-1.4 Adaptive Sliding Mode Control with Smooth Switching Gain
J. Zhu and K. Khayati
CR-1.5 Obstacle Avoidance in Real Time with Nonlinear Model Predictive Control of Autonomous Vehicles
M. Abbas, R. Milman and M. Eklund
Time: 13:00 - 15:00
SM-2: Speech, Audio and Language Processing - 2
Session Chair: Rangaraj M. Rangayyan (University of Calgary, Canada)
Room: ENG 101
SM-2.1 Implementation of Bayesian Recursive State-Space Kalman Filter for Noise Reduction of Speech Signal
A. Sarafnia and S. Ghorshi
SM-2.2 Pitch Estimation of Noisy Speech using Ensemble Empirical Mode Decomposition and Dominant Harmonic Modification
S. Roy and W. P. Zhu
SM-2.3 Multimodal Emotion Recognition (MER) System
K. Tang, Y. Tie, C. Yang and L. Guan
CS-5: Mixed-Signal Circuits and Systems - 5
Session Chair: Glenn Cowan (Concordia University, Canada)
Room: ENG 102
Invited Talk: CMOS Biochips for DNA and Cell Analysis
Peter Levine, U of Waterloo
CS-5.1 Extreme Wide-Temperature Range 8-bit Digital to Analog Converter in Bulk CMOS Process

K. Greig and V. Chodavarapu

CS-5.2 Multistage Electrostatic Energy Harvester Without Startup Battery

Y. Li, M. Misra and S. Gregori

CS-5.3 Circuit Design Techniques for Increasing The Output Power of Switched Capacitor Charge Pumps

A. Eltaliawy, H. Mostafa and Y. Ismail

CS-5.4 A Design Oriented Model for the Jitter/Skew of the Voltage-to-Time Converter (VTC) Circuits

H. Mostafa and Y. Ismail

CN-2: Sensor Networks - 1

Session Chair: Haleh Khojasteh (Ryerson University, Canada)

Room: ENG 105

CN-2.1 SESRT: Score based Event to Sink Reliable Transport In Wireless Sensor Networks

S. Abroshan and M. H. Yaghmaee

CN-2.2 City Traffic Management Model using Wireless Sensor Networks

M. Rahman, N. Ahmed and H. Mouftah

CN-2.3 Coverage Maximization in Mobile Wireless Sensor Networks Utilizing Immune Node Deployment Algorithm

N. Sabor, M. Abo-Zahhad, S. Ahmed and S. Sasaki

CN-2.4 Semi-Persistent CSMA/CA for Efficient and Reliable Communication in Wireless Sensor Networks

M. Guennoun and H. Mouftah

Soft-2: Big Data and Web Mining

Session Chair: Gautam Siwach (University of New Haven, United States)

Room: ENG 106

Soft-2.1 Sentiment Miner: A Prototype for Sentiment Analysis of Unstructured Data and Text

M. Shahbaz

Soft-2.2 A Sentiment Analysis Prototype System for Social Network Data

P. Santidhanyaroj, T. Khan, C. Gelowitz and L. Benedicenti

Soft-2.3 A Framework for the Service Provisioning of Community-Contributed Web APIs

D. Vijayakumar and Q. Mahmoud

Soft-2.4 Bitcoin mining acceleration and performance quantification

J. A. Dev

Soft-2.5 Multiscale Navigation in Large Trace Data

N. Ezzati Jivan and M. Dagenais

Soft-2.6 Intelligent Sampling for Big Data Using Bootstrap Sampling and Chebyshev Inequality

Ashwin Satyanarayana

SG-2: Renewable Energy Generation - 2

Session Chair: Bala Venkatesh (Ryerson University, Canada)

Room: ENG LG05

SG-2.1 Wind Energy Forecast Error Estimation Using Black & Scholes Mathematical Model

R. Ghaffari and B. Venkatesh

SG-2.2 Predictive Speed Controller for Laboratory Size Wind Turbine Experiment System

A. Merabet, M. A. Islam and R. Beguenane

SG-2.3 H-∞ Loopshaping Controller Design of Micro-Source Inverters

A. E. M. Bouzid, P. Sicard, A. Cheriti and M. Bouhamida

SG-2.4 Performance Evaluation of a small scale variable speed marine current energy conversion system

N. Khan

PE-2: Utility Power Control & Modeling

Session Chair: Kaamran Raahemifar (Ryerson University, Canada)

Room: ENG LG06

PE-2.1 Wavelet-based Adaptive Nonlinear Power System Excitation Control

H. Yousef and H. Soliman

PE-2.2 A Fuzzy Logic System for Demand-Side Load Management in Residential Buildings

A. Keshtkar

PE-2.3 Optimal Placement and Sizing of Multi Distributed Generations with Renewable Bus Available limits using Shuffled Bat Algorithm

C. Yammani, S. Maheswarapu and M. Sailaja Kumari (Video youtube link for presentation- http://youtu.be/Nz12-pnUFXA)

PE-2.4 Optimization of Home Automation Systems Based on Human Motion and Behaviour

K. Raahemifar

PE-2.5 Performance Study of Electric Vehicles in Macau

T. W. Ching

CR-2: Controls and Robotics Session -2

Session Chair: Alan Lynch (University of Alberta, Canada)

Room: ENG LG12

CR-2.1 Extended and Unscented Kalman Filtering for Attitude Estimation Application to the Active Control System for Microsatellite -A Comparative Study

S. M. Arezki Video link of the presentation https://www.youtube.com/watch?v=C6OQFxgD18c

CR-2.2 Simulation of Aided AUV Navigation and Adaptive Plume Tracking

A. Jayasiri, R. Gosine, G. Mann and P. McGuire

CR-2.3 A Jacobian Free Approach for Multi-robot Relative Localization

T. Wanasinghe Arachchige, G. Mann and R. Gosine

CR-2.4 Relative Localization with Symmetry Preserving Observers

O. De Silva, G. Mann and R. Gosine

Time: 15:20 - 17:20

SM-3: Image Processing Applications

Session Chair: Yun Tie (Ryerson University, Canada)

Room: ENG 101

SM-3.1 Automatic Ontario license plate recognition using local normalization and intelligent character classification

Y. Tie, N. Yazdian, L. Guan and A. Venetsanopoulos

SM-3.2 3-D Real-Time Image Matching Based on Kinect Skeleton

J. Chen (See video at https://www.youtube.com/watch?v=d2IanEuWDWs)

SM-3.3 Real-Time Automatic Chroma-Key Matting using Perceptual Analysis and Prediction

L. Yin and J. Zhao

SM-3.4 Fine Granularity Spatially Adaptive Regularization for TVL1 Based Image Deblurring

M. O. Ahmad, M. Z. Bhotto and M. N. S. Swamy

SM-3.5 One-Shot Facial Feature Extraction Based on Gauss-Laguerre Filter

K. Lai, A. Poursaberi and S. Yanushkevich

SM-3.6 Understanding the Significance of Radiometric Calibration for Synthetic Aperture Radar Imagery

K. El-Darymli, P. McGuire, E. Gill, D. Power and C. Moloney

CS-6: Wireline Communication and Clocking

Session Chair: Glenn Cowan (Concordia University, Canada)

Room: ENG 102

Invited Speaker: Tony Chan Carusone, Optical Transmission: Backbone Backplane and beyond

CS-6.1 Test Considerations for Jitter Tolerance of Wireline Receivers

R. DiCecco, R. Pahuta, C. Holdenried and S. Sadr

CS-6.2 Optimization of LC-VCO Tuning Range under Different Inductor/Varactor Losses Limitations

O. Abdelfattah, I. Shih, G. Roberts and Y. C. Shih

CS-6.3 Sub-Gate-Delay Edge-Control of a Clock Signal Using DLLs and Sigma-Delta Modulation Techniques

S. Bielby and G. Roberts

CS-6.4 Behavioral and Transistor Modeling of Multi-Phase Injection Ring Oscillator

S. Ardalan, S. Panwalkar and M. Ali

CN-3: Sensor Networks - 2

Session Chair: Ramiro Liscano (UOIT, Canada)

Room: ENG 105

CN-3.1 Complex Networks: Study and Performance Evaluation with Hybrid Model for Wireless Sensor Networks

V. Curia, M. Tropea, P. Fazio and S. Marano

CN-3.2 Design of Energy-aware QoS Routing Protocol in Wireless Sensor Networks Using Reinforcement Learning

S. Zafar Jafarzadeh and M. H. Yaghmaee

CN-3.3 Effective Data Aggregation using a Hierarchical Multi-layered Scheme for Large-scale Sensor Networks

M. Afsar

CN-3.4 Maximizing the Reliability of Clustered Sensor Networks by a Fault-Tolerant Service

M. M. Afsar

CN-3.5 Cellular Automata and Mobile Wireless Sensor Networks

S. Choudhury, K. Salomaa and S. Akl

Soft-3: Innovative Computer Applications

Session Chair: Lawrence Leung (University of Toronto, Canada)

Room: ENG 106

Soft-3.1 Mobile Circular Keyboards

P. Aarabi and L. Leung

Soft-3.2 Design of Intelligent Database Program for an Interactive Auto-responsive SMS-based Opinion Poll System using Triggers and Stored Procedure

K. Adetiloye (Wath video at https://www.youtube.com/watch?v=znlioeWxfws)

Soft-3.3 Evaluation of an Online Shopping System under Preferences and Constraints

B. Mohammed and M. Mouhoub

Soft-3.4 Consistent 3D Models from Unorganized RGB-D Images

J. Tascón and H. Loaiza

Soft-3.5 Enhanced Cobweb Clustering for Identifying Analog Galaxies in Astrophysics

A. Satyanarayana and V. Acquaviva

Soft-3.6 Use of Kinect in a Multicamera setup for action recognition applications

O. Kayal and J. Samarabandu

SG-3: Power System Operation and Planning

Session Chair: Moein Manbachi (Simon Fraser University, Canada)

Room: ENG LG05

SG-3.1 A Decentralised Electricity Market Model: An Electric Vehicle Charging Example

S. Sikdar and K. Rudie

SG-3.2 Predictive Algorithm for Volt/VAR Optimization of Distribution Networks Using Neural Networks

M. Manbachi, H. Farhangi, A. Palizban and S. Arzanpoor

SG-3.3 Two-Stage Stochastic Power Generation Scheduling in Microgrids

A. Eajal, Y. Elrayani, E. El-Saadany and K. Ponnambalam

SG-3.4 Probabilistic Analysis of Wind Turbine Planning in Distribution Systems

M. Sadeghi and M. Kalantar

PE-4: Alternate Energy Converters and Systems

Session Chair: Loic Boulon (UQTR, Canada)

Room: ENG LG06

PE-4.1 Analytical Model of A Wind Energy AC-DC-AC Scheme

R. Vieira and A. Sharaf

PE-4.2 Simulation of Adaptive Duty Cycling in Solar Powered Environmental Monitoring Systems

M. Prauzek, A. Watts, P. Musilek, L. Wyard-Scott and J. Koziorek

PE-4.3 Maximum Efficiency Point Tracking for Hydrogen Fuel Cells

D. Herrera Vega, N. Marx, L. Boulon and A. Hernandez

PE-4.4 Grid Connected Energy Storage System to Profit from Net-Metering and Variable Rate Electricity

M. S. Hossain and M. T. Iqbal

PE-4.5 Performance Comparison of Standalone SCIG and PMSG-Based Wind Energy Conversion Systems

Z. Alnasir and M. Kazerani

PE-4.6 Standalone SCIG-Based Wind Energy Conversion System Using Z-Source Inverter with Energy Storage Integration

Z. Alnasir and M. Kazerani

CR-3: Controls and Robotics Session -3

Session Chair: Farrokh Janabi-Sharifi (Ryerson University, Canada)

Room: ENG LG12

CR-3.1 Data-driven modeling of thermal energy storage tank

A. Afram, G. Giorgio and F. Janabi-Sharifi

CR-3.2 Two DOF Controller for Decoupled Image-Based Visual Servoing

A. Assa and F. Janabi-Sharifi

CR-3.3 An Efficient Static Model for Steerable Catheters

S. Hasanzadeh and F. Janabi-Sharifi

CR-3.4 Visual Servoing of a Robotic Manipulator Using an Optimized Trajectory Planning Technique

W. Xie and M. Keshimiri

CR-3.5 IBVS of a rotary wing UAV using Line Features

H. Xie, A. Lynch and M. Jagersand

CR-3.6 Nonlinear Moving Horizon State Estimation for Multi-Robot Relative Localization

M. W. Mehrez, G. Mann and R. Gosine

Tuesday, May 6, 2014

Time: 09:50 - 12:00

SM-4: Biometric and Biomedical Signal Processing

Session Chair: Bassma Ghali (University of Toronto, Canada)

Room: ENG 101

SM-4.1 Uncovering Similarities in Biomedical Signals. A Time-Frequency and Information Theoretic Approach

D. Rotondo, M. Wachowiak, D. Hay and M. Johnson

SM-4.2 PCG Biometric Identification System Based on Feature Level Fusion Using Canonical Correlation Analysis

S. Abbas, M. Abo-Zahhad and S. Ahmed - Video link http://youtu.be/X0iHoWVb1LI

SM-4.3 Variation of grip force profile during signature writing

B. Ghali, K. Mamun and T. Chau

SM-4.4 Robust Identity Verification Based on Human Acoustic Signature with BioHashing

Y. Liu and D. Hatzinakos

SM-4.5 Classification of Knee Joint Vibroarthrographic Signals Using k-Nearest Neighbor Algorithm

K. Liu, X. Luo, F. Zheng, S. Yang, S. Cai and Y. Wu

SM-4.6 Tracking the Major Temporal Arcade in Retinal Fundus Images

F. Oloumi, R. Rangayyan and A. Ells

CS-4: Digital Circuits and Systems

Session Chair: Hassan Mostafa (University of Toronto, Canada)

Room: ENG 102

CS-4.1 Hardware Implementation of a Real-time Genetic Algorithm for Adaptive Filtering Applications

H. Merabti and D. Massicotte

CS-4.2 LFSR Based Low Complexity Montgomery Multiplier in GF(2m) for A Class of Fields

W. Mahmoud, B. Liu, R. Asif and H. Wu

CS-4.3 QaMC - QoS Aware Multicast Router for NoC fabric

S. G. Nambiar, S. Kathirvel, G Narayanan and S. B. Ko

CS-4.4 A Novel Hybrid Topology for Network on Chip

S. Kathirvel, R. Jangre, S. G. Nambiar, S. B. Ko and G Narayanan

CS-4.5 A Novel Approach for Improving Error Detection and Correction in WSN
D. Kheirandish Taleshmekaeil, A. Safari and Y. Kong
CS-4.6 Programmable Counter Based Approach To Intellectual Property Protection In Sequential Circuits And Comparison With Existing Approach
S. Malik
CN-4: Modulation, Equalization and Coding
Session Chair: Kaamran Raahemifar (Ryerson University, Canada)
Room: ENG 105
CN-4.1 Precise Error Rate Analysis of MIMO System with Interference and Imperfect Channel State Information
M. Smadi and Q. A. Al-Haija
CN-4.2 Adaptive Multidimensional Modulation over Faded Shadowing Channels
A. Hamed, S. Primak and R. Rao
CN-4.3 PAPR Reduction in OFDM Systems using Differentially Encoded Subcarriers
M. A. Khan and R. Rao
CN-4.4 A New Optimised Interleaver Structure for Turbo Coding
L. Hadj Abderrahmane (Video link https://www.youtube.com/watch?v=OJI5LDuwsrE&feature=youtu.be)
CN-4.5 Wavelet based OFDM for Power line Communication
S. Kar, S. Hussain and X. Fernando
CN-4.6 Performance Evaluation of Time and Frequency Domain Equalizers
A. Souari, M. L. Ammari, A. Gawanmeh and S. Tahar

Soft-4: Cloud Computing

Session Chair: Khaled Alhazmi (University of Western Ontario, Canada)

Room: ENG 106

Soft-4.1 Virtual Machines CPU Monitoring with Kernel Tracing

M. Gebai and M. Dagenais

Soft-4.2 Analyzing The Impact of Provisioning Overhead Time in Cloud Computing Centers

H. Khojasteh, J. Mišić and V. Mišić

Soft-4.3 Real Time Verification of Firewalls with Dynamic Rulebase Update

A. Gawanmeh and S. Tahar

Soft-4.4 "Be Safe" smart system

D. Almatter, M. Al Omar and M. ElAbd

Soft-4.5 Predicting Effect of Workload Change on System Resources

M. Vora

Soft-4.6 Frequency-based Constraint Relaxation for Private Query Processing in Cloud Databases

J. Kawamoto and P. Gillett

SG-4: Power System Communication

Session Chair: Azim Keshtkar (Simon Fraser University, Canada)

Room: ENG LG05

SG-4.1 Authentication Mechanism for Mobile RFID based Smart Grid Network

B. Vaidya, D. Makrakis and H. Mouftah

SG-4.2 Design and Implementation of a Rule-based Learning Algorithm Using Zigbee Wireless Sensors for Energy Management

A. Keshtkar and S. Arzanpoor

SG-4.3 Performance Investigation of Mobile WiMAX Protocol for Aggregator and Electrical Vehicle Communication in Vehicle-to-Grid(V2G)

S. Kumar (Watch video at https://www.youtube.com/watch?v=mWeNOt8Jxi0&feature=youtu.be)

SG-4.4 Optimization of Distributed Communication Architectures in Advanced Metering Infrastructure of Smart Grid

K. Raahemifar, A. Fung and G. Barai

SG-4.5 Application of Advanced Metering Infrastructure in Smart Grid: A Survey

K. Raahemifar

SG-4.6 Proposing an Improved Optimal LQR Controller for Frequency Regulation of a Smart Microgrid in Case of Cyber Intrusions

H. Keshtkar, F. Doost Mohammadi, J. Ghorbani, J. Solanki and A. Feliachi

PE-5: Power Quality and Systems

Session Chair: Mohammad Nasir Uddin (Lakehead University, Canada)

Room: ENG LG06

PE-5.1 Enhancement of IEC 61850 AS Using Vendor-Natural System Tool

M. Mekkanen

PE-5.2 Prioritization of Underground Transmission Cable Renewal Projects in Power Electric Utility Companies

K. Wong

PE-5.3 Simultaneous Recording of CN Tower Lightning Current and Channel Luminosity

S. Kazazi and A. Hussein

PE-5.4 Mitigation of Power Quality Tribulations with LS-UPQC under Non-Sinusoidal Supply Condition

S Srinath

PE-5.5 Electromigration testing of wire bonds

M. Hook, Di Xu and M. Mayer

PE-5.6 Comparison of DTFC and Vector Control Techniques for PMSM Drive with Loss Minimization Approach

M. Uddin and H. Zou

CR-4: Controls and Robotics Session -4

Session Chair: Saba Sedghizadeh (Ryerson University, Canada)

Room: ENG LG12

CR-4.1 Distributed Collaborative Localization for a Heterogeneous Multi-Robot System

T. Wanasinghe Arachchige, G. Mann and R. Gosine

CR-4.2 Application of Parallel Redundancy in a Wi-Fi-based WNCS using OPNET

M. Hendawy, R. Daoud, M. ElMansoury, H. Halawa, H. Amer, M. Rentschler, H. El-Sayed, K. Tawfik, M. ElShenawy, A. ElSayed and A. Nagui

CR-4.3 Optimizing Particle Swarm Optimization Algorithm

I. Koohi and V. Groza

CR-4.4 Robust Monocular SLAM using one 3D point

W. Zhao, J. Yang, M. Li and G. Wang

WS-2: CUE ORF-RE Workshop

Session Chair: Bala Venkatesh (Ryerson University, Canada)
Room: ENG LG13
WS-2.1 A New Optimization Method for Distribution System Reconfiguration
B. Venkatesh and K. Masteri Farahani
WS-2.2 NPC Based Dual Active Bridge Topology for Integrating Battery Energy Storage to Utility Gird
S. Karanki and D. Xu
WS-2.3 Overview of Connection Topologies for Grid-Connected PV Systems
H. AbdEl-Gawad and V. Sood
WS-2.4 A Probabilistic Approach to Assess Wind Generation Penetration and Market Prices
M. Ahmed and A. Awad
WS-2.5 Literature Survey and Comparison of Consumer Interruption Costs in North America and Europe
D. Cheng and B. Venkatesh
WS-2.6 Optimal Real-Time Coordinated Voltage and Reactive Power Control in Smart Grids
M. Ahmed and M. Elkhatib
Time: 13:00 - 15:00
SM-5: Multimedia & Human Computer Interactions
Session Chair: Khalil Rehman Laghari (INRS-EMT, Canada)
Room: ENG 101
SM-5.1 Real-Time HDR Video Imaging on FPGA with Compressed Comparametric Lookup Tables
T. Ai, M. A. Ali, K. Ovtcharov, J. Steffan, S. Zulfiqar and S. Mann
SM-5.2 Information Theoretic Design of Space-Constrained Touch-Based User Interfaces

P. Aarabi

SM-5.3 Interactive User Oriented Visual Attention Based Video Summarization and Exploration Framework

Y. Qian and M. Kyan

SM-5.4 Camouflaged target detection using real-time video fusion algorithm based on multi-scale transforms

S. Somasekharan Pillai and M. N. S. Swamy

SM-5.5 Video Processing Design for Wireless ADAS Applications

M. Stankus and M. Prauzek

CS-2: MEMS, Microwaves and Photonics

Session Chair: Ali Attaran (University of Windsor, Canada)

Room: ENG 102

CS-2.1 High Performance Silicon Based Rotman Lens for Automotive Radar Aplications

A. Attaran and S. Chowdhury

CS-2.2 A full distributed parameter model of a Blumlein-line laser circuit including the effect of time varying spark-gap inductance and resistance

M. Twati

CS-2.3 Dual-Band Split-Ring Resonator Using Composite Right-/Left-Handed Coplanar Waveguide Transmission Line-Based Elements

O. Abu Safia, L. Talbi and K. Hettak

CN-5: Security, Privacy and Positioning

Session Chair: Jelena Jovanovic (University of Belgrade, Serbia)

Room: ENG 105

CN-5.1 LTE Security Potential Vulnerability and Algorithm Enhancements

G. Siwach and A. Esmailpour

CN-5.2 Comparative Mobile Platforms Security Solutions

S. Adibi

CN-5.3 Preserving Privacy in Data-Publishing based on Attribute Weight and Sensitivity Rates

B. Heidarpour and S. Vakilinia

CN-5.4 Novel Consultation Algorithm for Detecting Spam Email

K. Raahemifar

CN-5.5 Measurement-Based RSS-Multipath Neural Network Indoor Positioning Technique

G. Chen, Y. Zhang, L. Xiao, J. Li, L. Zhou and S. Zhou

Soft-5: Performance & Optimization

Session Chair: Kaamran Raahemifar (Ryerson University, Canada)

Room: ENG 106

Soft-5.1 Automated Exploration of Datapath in High Level Synthesis using Temperature Dependent Bacterial Foraging Optimization Algorithm

A. Sengupta and S. Bhadauria

Soft-5.2 Simulated Raindrop Algorithm for Global Optimization

A. Ibrahim, S. Rahnamayan and M. Vargas Martin

Soft-5.3 Performance and Energy Consumption Analysis of Java Code utilizing Embedded GPU

I. P. Joseph, J. Parri, Yu Wang, M. Bolic, A. Rajabzadeh and V. Groza

Soft-5.4 Automated Parallel Exploration of Datapath and Unrolling Factor in High Level Synthesis using Hyper-Dimensional Particle Swarm Encoding

A. Sengupta and V. Mishra

Soft-5.5 Implementing a Population-based Harmony Search Algorithm on Graphic Processing Units

M. ElAbd and K. Al-Ajmi

SG-5: Power System Monitoring

Session Chair: Vijay K Sood (University of Ontario Institute of Technology, Canada)

Room: ENG LG05

SG-5.1 An innovative electromagnetics sensor for partial discharge detection in cable joints and terminations

H. Zhiwei and Z. Zheng

SG-5.2 Practical Aspects of Testing Phasor Data Concentrators for Wide Area Monitoring Systems

M. Kanabar, G. Rehal and V. Muthukrishnan

SG-5.3 An Approach to Online Asynchronous Mode Prevention in Two-area Power Systems

H. Nguyen and V. T. Dao - Video link https://www.youtube.com/watch?v=gOnx4joGclU

SG-5.4 Laboratory for Teaching Synchrophasor Measurements and Applications

A. Rajapakse and E. Almiron

BME-1: Biomedical Image Processing and Analysis

Session Chair: James Lacefield (The University of Western Ontario, Canada)

Room: ENG LG06

BME-1.1 Investigations on ROI selection for liver classification

M. Singh, S. Singh and S. Gupta

BME-1.2 Brain Network Extraction From Probabilistic ICA Using Functional Magnetic Resonance Images and Advanced Template Matching Techniques

S. Sarraf, C. Saverino, H. Ghaderi and J. Anderson

BME-1.3 New Intensity Based Features for Classification of Mammograms

M. Singh and P. Arora

BME-1.4 Image Co-registration by Minimizing Cumulative Distortion

E. Lum and O. Michailovich

BME-1.5 Localization and Parameter Estimation of Tumor by Thermography

M. S. Hossain and F. Mohammadi

CR-5: Controls and Robotics Session -5

Session Chair: Essa Jafer (University of Manitoba, Canada)

Room: ENG LG12

CR-5.1 Modelling and control of hybrid systems---a forward look

J. Deng and A. Ordys

CR-5.2 Comparative Analysis on Performances of Adjustable-gain Single-neuron PID Controllers Based on General Fuzzy Logic and Normal Cloud Model

L. Xia, H. Wei and J. Gu

CR-5.3 PI/Backstepping Control of Snake Robot Optimazed by Genetic Algorithm

M. Jafari and A. Shahmansoorian
CR-5.4 Automatic code generation from Matlab/Simulink for critical applications
L. Ertl and J. Krizan
CR-5.5 HOBOT: A Customizable HOme Management System with a Surveillance RoBOT
M. El-Shafei, A. Al Shalati, M. Rehayel and I. Damaj
CR-5.6 A comparison between fuzzy, fractional-, and integer-order controllers for small satellites attitude control
M. Nasri and W. Kinsner
CN-8: Ad-hoc and Mesh Networks
Session Chair: Fuad Shamieh (University of Western Ontario, Canada)
Room: ENG LG13
CN-8.1 Effect of HELLO Interval Duration on Stable Routing for Mobile Ad Hoc Networks
A. Zadin and T. Fevens
CN-8.2 Fairness and Throughput Improvement in Multihop Wireless Adhoc Networks
F. Ullah
CN-8.3 An Overhead-Aware Centralized Scheduling Algorithm for 802.16 Based Wireless Mesh Networks
R. Jalali and Z. Joudaki
CN-8.4 Detection of Side-Channel Communication in Ad Hoc Networks using Request to Send (RTS) Messages
N. Madtha, M. Vargas Martin, R. Liscano, M. Salmanian and P. Mason
CN-8.5 An Adaptive Compression Technique Based on Real-Time RTT Feedback
F. Shamieh, A. Refaey and X. Wang

Time: 15:20 - 17:20

SM-6: Multimedia Signal Processing

Session Chair: Mahdi Shahbaba (Ryerson University, Canada)

Room: ENG 101

SM-6.1 Reference Empirical Mode Decomposition

J. Gao, S. Javaher Haghighi and D. Hatzinakos

SM-6.2 Hybrid Localization of an Emitter by Combining Angle-of-Arrival and Received Signal Strength Measurements

Y. t. Chan, F. Chan, W. Read, B. Jackson and B. Lee

SM-6.3 A New Partial-Update NLMS Adaptive-Filtering Algorithm

M. Z. Bhotto and A. Antoniou

SM-6.4 An Analysis of the Backscattered Electric Field from an Iceberg for a Pulsed High Frequency Radar

B. Ryan and E. Gill

SM-6.5 Model Verification of GMM Clustering Based on Signature Testing

M. Shahbaba and S. Beheshti

CS-3: Devices and Digital Circuits

Session Chair: Hassan Mostafa (University of Toronto, Canada)

Room: ENG 102

CS-3.1 10 GHz Throughput FinFET Dual-Edge Triggered Flip-Flops

S. E. Esmaeili and A. Al-Khalili

CS-3.2 Testing Current Mode Two-Input Logic Gates
H. Amer, A. Madian, M. Abdelhalim, M. Fouad, S. Amer, A. Emara, R. Mohie El-Din and H. Draz
CS-3.3 Negative Capacitance Circuits for Process Variations Compensation and Timing Yield Improvement
H. Mostafa, M. Anis and M. Elmasry
CS-3.4 A Novel Non-Destructive Readout Circuit for Memristor-Based Memory Arrays
M. Elshamy, H. Mostafa and M. Sameh Said
CS-3.5 Comparative Review of the TiO2 and the Spintronic Memristor Devices
M. Elshamy, H. Mostafa and M. Sameh Said
CS-3.6 Developing Compact Thermal Model for Electronic Package
A. Hadeed and F. Mohammadi
CN-6: Enabling Communication Technologies
Session Chair: Yair Linn (TRIUMF - Canada)
Room: ENG 105
CN-6.1 Efficient M-PSK Lock Detectors and SNR Estimators
Y. Linn
CN-6.2 New Structures for Modulation Classification and SNR Estimation with Applications to Cognitive Radio and Software Defined Radio
Y. Linn
CN-6.3 optimized Subsampling Frequency Selection for Nonlinear systems
M. A. Messaoud, R. Barrak and F. Ghannouchi

CN-6.4 High Performance Homodyne Six Port Receiver using Memory Polynomial Calibration

A. Olopade and M. Helaoui

CN-6.5 Modeling the Leaky Feeder as a Multi Antenna Array

H. Farahneh and X. Fernando

Soft-6: Mobile Computing

Session Chair: Jason Ernst (University of Guelph, Canada)

Room: ENG 106

Soft-6.1 Mobile Agent approach based on mobile strategic environmental Scanning using Android and JADE-LEAP

H. Mcheick

Soft-6.2 Digital Signatures for Mobile Users

C. Adams and G. V. Jourdan

Soft-6.3 Cooperative Data Manipulation in a Low-Connectivity Environment

R. Graves

Soft-6.4 Collaborative Work in Class Rooms with Handheld Devices using Bluetooth and WLAN

S. Tanveer, W. Zafar, M. Khalil, N. Aslam, A. Shafqat, A. Muhammad, M. Ana Maria and P. Hernández Rodríguez

Soft-6.5 Identification of Risks in Pakistani IT Companies: A Survey Paper

M. Khan, M. Abbas and M. Khan

SG-6: Distribution Automation and Energy Management

Session Chair: Raman Paranjape (University of Regina, Canada)

Room: ENG LG05

SG-6.1 Agent-Based Simulation of Home Energy Management System in Residential Demand

Z. Wang and R. Paranjape

SG-6.2 Distributed Multi-Agent Based Load Shedding in Power Distribution Systems

M. J. Ghorbani, M. Choudhry and F. Ali

SG-6.3 Impacts of Modern Residential Loads on Power Grids

M. Coenen, T. Marshall, P. Sztur and N. Al-Mutawaly

SG-6.4 Distributed Generation Planning in Smart Distribution Grids via a Meta-Heuristic Approach

A. Eajal, E. El-Saadany and M. AlHajri

SG-6.5 Feeder Automation in Advanced Distribution Systems

A. Waye, A. Gilani, S. Flemming and N. Al-Mutawaly

BME-2: Biomedical Signal Processing and Modeling

Session Chair: Mike Eklund (University of Ontario Institute of Technology, Canada)

Room: ENG LG06

BME-2.1 Pulse Wave Analysis for Cardiovascular Disease Studies Using Subendocardial Viability Ratio

J. Xia and S. Liao

BME-2.2 Adaptive Block SSA based ANC implementation for high performances ECG removal from sEMG signals

M. E. F. Djellatou, D. Massicotte and M. Boukadoum

BME-2.3 A Hybrid Device for Electrical Impedance Tomography and Bioelectrical Impedance Spectroscopy Measurement

M. Michalikova and M. Prauzek

BME-2.4 Structural Analysis of Petri Nets for Modeling and Analyzing Signaling Pathways

B. Behinaein Hamgini, K. Rudie and W. Sangrar

BME-2.5 Mathematical Modeling for Predicting Betamethasone Profile and Burst Release From In Situ Forming Systems Based On PLGA

S. Sarraf, E. Marzbanrad and H. Mobedi

CN-9: Network Virtualization, Cloud Computing and New Environments

Session Chair: Khalil Rehman Laghari (INRS-EMT, Canada)

Room: ENG LG13

CN-9: Network Virtualization, Cloud Computing and New Environments

M. Alam

CN-9.2 A Map of the Clouds: Virtual Network Mapping in Cloud Computing Data Centers

K. Alhazmi, M. Abusharkh, D. Ban and A. Shami

CN-9.3 Bacterial Foraging Search in Unstructured P2P Networks

F. Sharifkhani and M. R. Pakravan (See video at https://www.youtube.com/watch?v=irN9BJXaVVQ&feature=youtu.be)

CN-9.4 Transparent Real time Service on Connected Trains

S. Bouallegue, N. Cherif and K. Sethom

CN-9.5 CPM: A Congestion Control Method for Interplanetary Network

M. Ghotbi Ravandi, M. Mortazavi and S. Ghorshi

Wednesday, May 7, 2014

Time: 09:50 - 12:00

GI-1: General Interest

Session Chair: Anna T. Lawniczak (University of Guelph, Canada)

Room: ENG 102

GI-1.1 An Information-Bearing Extramissive Formulation of Sensing, to Measure Surveillance and Sousveillance

R. Janzen and S. Mann

GI-1.2 Personal Efficiency in Highway Driving: An Agent-Based Model of Driving Behaviour from a System Design Viewpoint

S. Nguyen, M. Cojocaru and E. Thommes

GI-1.3 Toposculpting

S. Mann, R. Janzen, T. Ai, N. Yasrebi, J. Kawwa and M. A. Ali

GI-1.4 Biomimicri Based Cognitive Agent and its Simulator

A. Lawniczak, J. Ernst and B. Di Stefano

GI-1.5 Improved Performance of Naive Creature Learning to Cross a Highway

A. Lawniczak, J. Ernst and B. Di Stefano

GI-1.6 Near-miss Software Clones in Open Source Games: An Empirical Study

Y. Chen, I. Keivanloo and C. Roy

CN-7: Cellular Networks

Session Chair: Ahmed Iyanda Sulyman (King Saud University, Saudi Arabia)

Room: ENG 105

CN-7.1 Mobility Prediction in Wireless Cellular Networks for the Optimization of Call Admission Control Schemes

P. Fazio, M. Tropea, C. Sottile, S. Marano, M. Voznak and F. Strangis

CN-7.2 An Efficient Hybrid Scheduling Algorithm for High Speed Cellular Networks

E. Altubaishi

CN-7.3 Using Memetic Algorithm to Optimize Location Estimate of Mobile Station in Non-Line-of-Sight Environment

C. S. Chen, J. F. Huang, C. C. Liu and N. c. Huang

CN-7.4 Fair and Delay Adaptive Scheduler for UC and NGN Networks

A. Elnaka, Q. Mahmoud and X. Li

CN-7.5 Percentage of Gaussianly Distributed Users With Adequate Quality of Service in a Circular Cell

S. Baroudi and Y. Shayan

CN-7.6 Achievable RF Coverage and System Capacity using Millimeter Wave Cellular Technologies in 5G Networks

A. Nassar, A. I. Sulyman and A. Alsanie

PE-1: Magnetics, Machines & Modeling

Session Chair: Asaad Elmoudi (Red River College, Canada)

Room: ENG LG05

PE-1.1 Eddy Current Losses in Permanent Magnets of Permanent Magnet Synchronous Machines - Analytical Calculation Methods and High Order Finite Element Analyses

E. Schmidt

PE-1.2 Transformer Windings Hot Spot Temperature Modeling and Simulation

A. Elmoudi

PE-1.3 Equivalent Circuit Modeling of an Interior Permanent Magnet Hysteresis Motor
S. Rabbi and A. Rahman
PE-1.4 Steady-State Analysis of Self-Excited Induction Generator Using Real and Reactive Power Balances
S. Alghuwainem
PE-1.5 Comparative Study Between Decoupled Control with Sliding Mode & Feedback Linearization Control Applied to STATCOM
A. E. M. Bouzid, M. L. Doumbia, M. Bouhamida, A. Cheriti and M. Benghanem
BME-3: Health Informatics
Session Chair: Carolyn McGregor (UOIT, Canada)
Room: ENG LG06
BME-3.1 Using a Three-Axis Accelerometer and GPS Module in a Smart Phone to Measure Walking Steps and Distance
Y. Bai, C. H. Yu and S. C. Wu
BME-3.2 Characterization of Human Emotions and Preferences for Text-to-Speech Systems Using Multimodal Neuroimaging Methods
K. Laghari, R. Gupta, S. Arndt, J. N. Antons, S. Möller and T. Falk
BME-3.3 Characterization of Human Emotions and Preferences for Text-to-Speech Systems Using Multimodal Neuroimaging Methods
BME-3.4 A Simulation Model for A Continuous Review Inventory Policy for Healthcare Systems
R. Kashef, N. Attanayake and T. Andrea
BME-3.5 A Model for Delivering Smart Healthcare using Patient-Facing Dashboards, Clinical DSS and Electronic Health Records

O Arinze

CN-10: Wireless Networks

Session Chair: Joswill Victor Pajaro Rodriguez (University of New Haven, US)

Room: ENG LG13

CN-10.1 Hybrid threshold-based distributed discovery service for the EPCglobal network

M. Khair, B. Kantarci and H. Mouftah

CN-10.2 WiMAX Architecture Priority Scheduling for Multimedia Applications

R. Wong, E. Jean-Pierre, W. Almuhtadi and A. Srinivasan

CN-10.3 Reduced Packet Loss Vertical Handover Between 3GPP IMS And Mobile IP

A. Arafat, M. m. Khan and M. Gregory

CN-10.4 Experimental Study of Direction-of-Arrival Estimation Using Reconfigurable Antennas

V. Vakilian, H. Nguyen, S. Abielmona, S. Roy and J. F. Frigon

CN-10.5 Unified provisioning solution for heterogeneous wireless networks

J. V. Pajaro Rodriguez and A. Esmailpour