



IEEE IEMCON2019

**The 10th IEEE Annual Information Technology, Electronics, and Mobile Communication Conference
University of British Columbia, Canada
17th -19th October 2019**

TECHNICAL SCHEDULE

CONTENTS

DAY	EVENT DETAILS	TIMING	ROOM NUMBER	PAGE NUMBER
DAY 1	KEYNOTE 1 ANATOMY OF A MODERN INDUSTRIAL IOT SOLUTION	9:20 A.M – 9:45 A.M	GREAT HALL NORTH	4
	KEYNOTE 2 DATA-DRIVEN ECONOMY: DATA AS AN ORGANIZATIONAL ASSET	10:10 A.M – 10:35 A.M	GREAT HALL NORTH	4
	KEYNOTE 3 GREENHOUSE GAS EMISSION (GHG) MONITORING SYSTEM, DATA TRANSMISSION, DATA COLLECTION AND DATA CONVERSION TO LARGE AREA FLUX EMISSION RATES.	10:35 A.M – 11:00 A.M	GREAT HALL NORTH	5
	KEYNOTE 4 AGGREGATE MULTIPLE IOT SILOS FOR ACTIONABLE INSIGHTS	11:20 A.M – 11:45 A.M	GREAT HALL NORTH	5
	KEYNOTE 5 USING IOT TO DEMOCRATIZE INDUSTRIAL AUTOMATION	11:45 A.M- 12:10 P.M	GREAT HALL NORTH	5
	KEYNOTE 6 PRECISION GNSS TO MASS-MARKET APPLICATIONS	12:10 P.M – 12:35 P.M	GREAT HALL NORTH	5
	KEYNOTE 7 INDUSTRIAL IOT SOLUTIONS WITH FIBER OPTIC SENSORS	12:35 P.M – 1:00 P.M	GREAT HALL NORTH	5
	SESSION 1 WIRELESS SENSOR NETWORKS AND ARTIFICIAL INTELLIGENCE	2:00 P.M - 3:30 P.M	2301	6
	SESSION 2 CLOUD COMPUTING, VIRTUAL NETWORK AND IOT	2:00 P.M - 3:30 P.M	2309	7
	SESSION 3 CONTROL THEORY, FPGA, BIG DATA AND OTHERS	2:00 P.M - 3:30 P.M	2311	8
	SESSION 4 ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING	2:00 P.M - 3:30 P.M	2314	9
	SESSION 5 BIG DATA, DATA MANAGEMENT AND ANALYTICS	2:00 P.M - 3:30 P.M	GREAT HALL NORTH	10
	EXHIBITION	2:00 P.M - 3:30 P.M	GREAT HALL FOYER	11
	SESSION 6 CLOUD COMPUTING, VIRTUAL NETWORK AND ADHOC NETWORKS	4:00 P.M – 5:30 P.M	2301	12
	SESSION 7 BLOCKCHAIN, ARTIFICIAL INTELLIGENCE AND IOT	4:00 P.M – 5:30 P.M	2309	13
	SESSION 8 TELECOMMUNICATION SYSTEMS AND ELECTRONIC INSTRUMENTATION	4:00 P.M – 5:30 P.M	2311	14
	SESSION 9 ARTIFICIAL INTELLIGENCE, NETWORK SECURITY AND ELECTRONIC INSTRUMENTATION	4:00 P.M – 5:30 P.M	2314	15
	SESSION 10 BLOCKCHAIN, IOT, EVOLUTIONARY COMPUTATION ALGORITHMS AND OTHERS	4:00 P.M – 5:30 P.M	GREAT HALL NORTH	16

DAY 2	KEYNOTE 8 PLASTIC DYNAMISM: FROM DISOBEDIENT OBJECTS TO POETIC WEARABLES	9:00 A.M – 9:45 A.M	GREAT HALL NORTH	16
	KEYNOTE 9 ELECTRONIC VISUAL MONITORING FOR THE SMART OCEAN	9:45 A.M – 10:30 A.M	GREAT HALL NORTH	16
	KEYNOTE 10 DO YOU KNOW HOW YOUR BRAIN IS DOING? WE DIDN'T SO WE UNDERTOOK TECHNOLOGICAL DEVELOPMENT OF THE WORLD'S FIRST BRAIN VITAL SIGN FRAMEWORK	10:30 A.M – 11:15 A.M	GREAT HALL NORTH	16
	KEYNOTE 11 THE “CLOUD” TO “THINGS” CONTINUUM	11:30 A.M – 12:15 P.M	GREAT HALL NORTH	16
	KEYNOTE 12 ECONOMICS AND COMPUTER SCIENCE OF A RADIO SPECTRUM REALLOCATION	12:15 P.M – 1:00 P.M	GREAT HALL NORTH	16
	SESSION 11 DISTRIBUTED SYSTEMS AND IOT	2:00 P.M – 3.30 P.M	2301	17
	SESSION 12 ELECTRONIC POWER CONVERTER, MOBILE COMPUTING AND OTHERS	2:00 P.M – 3.30 P.M	2309	18
	SESSION 13 BIG DATA ANALYTICS AND ARTIFICIAL INTELLIGENCE	2:00 P.M – 3.30 P.M	2311	19
	SESSION 14 EVOLUTIONARY COMPUTATION ALGORITHMS, DATA MINING AND BIG DATA ANALYTICS	2:00 P.M – 3.30 P.M	2314	20
	SESSION 15 WORKSHOP ON DATA ANALYTICS	2:00 P.M – 3.30 P.M	GREAT HALL NORTH	21
	SESSION 16 ARTIFICIAL INTELLIGENCE, CLOUD COMPUTING AND IOT	4:00 P.M – 5:30 P.M	2301	22
	SESSION 17 MOBILE COMPUTING, FPGA AND TELECOMMUNICATION SYSTEM	4:00 P.M – 5:30 P.M	2309	23
	SESSION 18 ROBOTICS AND AUTONOMOUS SYSTEM AND ADHOC NETWORK	4:00 P.M – 5:30 P.M	2311	24
	SESSION 19 BLOCKCHAIN, CYBERSECURITY AND IOT	4:00 P.M – 5:30 P.M	2314	25
SESSION 20 CONTROL THEORY, TELECOMMUNICATION SYSTEM AND IOT	4:00 P.M – 5:30 P.M	GREAT HALL NORTH	25	
POSTER SESSION	5:30 P.M – 6:00 P.M	GREAT HALL SOUTH	25	
SMART TALK SESSION	6:00 P.M – 9:00 P.M	GREAT HALL SOUTH	25	

DAY 3	KEYNOTE 13 TOWARD USER-ADAPTIVE VISUALIZATIONS	9:00 A.M – 9:45 A.M	GREAT HALL NORTH	26
	KEYNOTE 14 ENHANCING MULTIMEDIA PERFORMANCE WITH ALGORITHMIC TECHNIQUES	9:45 A.M – 10:30 A.M	GREAT HALL NORTH	26
	KEYNOTE 15 UNSUPERVISED LEARNING; WHAT CAN, WHAT CANNOT AND WHAT SHOULD NOT BE DONE	10:30 A.M – 11:15 A.M	GREAT HALL NORTH	26
	SESSION 21 SILICON PHOTONICS I	11:30 A.M – 1:00 P.M	2301	26
	SESSION 22 CYBERSECURITY SYSTEMS	11:30 A.M – 1:00 P.M	2309	27
	SESSION 23 WIRELESS SENSOR NETWORKS, CYBER SECURITY AND OTHERS	11:30 A.M – 1:00 P.M	2311	28
	SESSION 24 WIRELESS NETWORKS AND MOBILE COMPUTING	11:30 A.M – 1:00 P.M	2314	29
	SESSION 25 IOT, WIRELESS SENSOR NETWORK AND CYBER SECURITY SYSTEMS	11:30 A.M – 1:00 P.M	GREAT HALL NORTH	29
	SESSION 26 ARTIFICIAL INTELLIGENCE, SOFTWARE ENGINEERING AND BLOCKCHAIN	11:30 A.M – 1:00 P.M	2309	30
	SMART MAKER FAIR	11:30 A.M – 3:30 P.M	GREAT HALL SOUTH	31
SESSION 27 SILICON PHOTONICS II	2:00 P.M – 3:30 P.M	2301	32	

SESSION 28	IOT, BLOCKCHAIN AND ARTIFICIAL INTELLIGENCE	2:00 P.M – 3:30 P.M	2306	33
SESSION 29	SOFTWARE ENGINEERING, ARTIFICIAL INTELLIGENCE AND BLOCKCHAIN	2:00 P.M – 3:30 P.M	2311	34
SESSION 30	BIG DATA ANALYTICS, DATA MINING AND IOT	2:00 P.M – 3:30 P.M	2314	35
SESSION 31	WIRELESS SENSOR NETWORK AND ADHOC NETWORK	2:00 P.M – 3:30 P.M	GREAT HALL NORTH	36
SESSION 32	ARTIFICIAL INTELLIGENCE, WIRELESS COMPUTING AND NETWORK SECURITY	2:00 P.M – 3:30 P.M	2309	37
SESSION 33	BIG DATA, DATA MANAGEMENT AND OTHERS	4:00 P.M – 5:30 P.M	2314	38
SESSION 34	ARTIFICIAL INTELLIGENCE AND IOT	4:00 P.M – 5:30 P.M	2311	39
SESSION 35	WORKSHOP ON IOT - CONCEPTS TO IMPLEMENTATION	4:00 P.M – 6:00 P.M	GREAT HALL NORTH	39
SESSION 36	INTERNATIONAL CULTURAL FESTIVAL	6:00 P.M – 9:00 P.M	GREAT HALL SOUTH	39

DAY 1:	17th October, 2019
---------------	--------------------------------------

TIME	NAME OF THE EVENT	VENUE
8:00 A.M – 9:00 A.M	REGISTRATION	GREAT HALL N LOBBY
8:00 A.M – 9:00 A.M	BREAKFAST	GREAT HALL SOUTH
9:00 A.M – 9:15 A.M	INAUGURATION	GREAT HALL NORTH
9:15 A.M – 9:45 A.M	KEYNOTE ADDRESS BY TERRY MANDIN (IOT TECHNICAL SOLUTION PROFESSIONAL AT MICROSOFT, CANADA) TITLE OF TALK: ANATOMY OF A MODERN INDUSTRIAL IOT SOLUTION	GREAT HALL NORTH
9:45 A.M – 10:15 A.M	KEYNOTE ADDRESS BY WAYNE MADHLANGOBE (DIRECTOR, ARTIFICIAL INTELLIGENCE AT AIR CANADA) TITLE OF TALK: DATA-DRIVEN ECONOMY: DATA AS AN ORGANIZATIONAL ASSET	GREAT HALL NORTH
10:15 A.M – 10:45 A.M	KEYNOTE ADDRESS BY YONATHAN DATNER (CO-FOUNDER & CEO, LUXMUX TECHNOLOGY CORPORATION, CANADA)	GREAT HALL NORTH

	TITLE OF TALK: GREENHOUSE GAS EMISSION (GHG) MONITORING SYSTEM, DATA TRANSMISSION, DATA COLLECTION AND DATA CONVERSION TO LARGE AREA FLUX EMISSION RATES.	
10:45 A.M – 11:15 A.M	KEYNOTE ADDRESS BY STEVE LIANG (FOUNDER AND CTO, SENSORUP INC., CANADA) TITLE OF TALK: AGGREGATE MULTIPLE IOT SILOS FOR ACTIONABLE INSIGHTS	GREAT HALL NORTH
11:15 A.M – 11:30 A.M	COFFEE BREAK	GREAT HALL SOUTH
11:30 A.M – 12:00 P.M	KEYNOTE ADDRESS BY MARK SCANTLEBURY (PRESIDENT AND CEO, EXTREME TELEMATICS CORP., CANADA) TITLE OF TALK: USING IOT TO DEMOCRATIZE INDUSTRIAL AUTOMATION	GREAT HALL NORTH
12:00 P.M- 12:30 P.M	KEYNOTE ADDRESS BY YANG GAO (CO-FOUNDER AND CTO OF PROFOUND POSITIONING INC., CANADA) TITLE OF TALK: PRECISION GNSS TO MASS-MARKET APPLICATIONS	GREAT HALL NORTH
12:30 P.M – 1:00 P.M	KEYNOTE ADDRESS BY HAMID ALEMOHAMMAD (CO-FOUNDER & CEO AT AOMS TECHNOLOGIES INC., CANADA) TITLE OF TALK: INDUSTRIAL IOT SOLUTIONS WITH FIBER OPTIC SENSORS	GREAT HALL NORTH
1:00 P.M – 2:00 P.M	LUNCH AND BEST PAPER AWARD CEREMONY	GREAT HALL SOUTH

PARALLEL SESSIONS

SESSION 1: WIRELESS SENSOR NETWORKS AND ARTIFICIAL INTELLIGENCE

SESSION CHAIR: DETLEF STREITFERDT (ILMENAU UNIVERSITY OF TECHNOLOGY, GERMANY)

SESSION TIME: 2:00 P.M – 3:30 P.M

VENUE: ROOM 2301

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570580377	Mathematical Modeling Combined with Machine Learning for Social Networks to Match Children with Learning Disabilities and Specialists	Amira E. Youssef (The City of Scientific Research and Technological Applications, Egypt); Bassant Youssef (Virginia Tech, USA)
2:15 P.M – 2:30 P.M	1570576132	NewPneu: A Novel Cost Effective mHealth System for Diagnosing Childhood Pneumonia in Low-Resource Settings	Tarek El Salti (Sheridan College, Canada); Ed Sykes (Sheridan College, Canada); Warren Zajac (Sheridan College, Canada); Saad Abdullah and Shariq Khoja (Tech4Life Enterprises, Canada)
2:30 P.M – 2:45 P.M	1570587077	Internet of Things Platform for Transparency and Traceability of Food Supply Chain	Ahmed Haroon (Thompson Rivers University, Canada); Mehak Basharat (Ryerson University, Canada); Asad Masood Khattak (Zayed University, United Arab Emirates); Waleed Ejaz (Thompson Rivers University, Canada)
2:45 P.M – 3:00 P.M	1570581315	Intelligent Service Mesh Framework for API Security and Management	Fatima Hussain (Royal Bank of Canada, Canada); Salah Sharieh (Royal Bank of Canada, Canada); Alex Ferworn (Ryerson University, Canada); Brett Noye (RBC, Canada); Weiyue Li (RBC, Canada)
3:00 P.M – 3:15 P.M	1570537091	Spam Review Detection Using Deep Learning	G. M. Shahariar Shibli (Ahsanullah University of Science & Technology, Bangladesh); Swapnil Biswas (Ahsanullah University of Science & Technology, Bangladesh); Faiza Omar (Ahsanullah University of Science & Technology, Bangladesh); Faisal Shah (Ahsanullah University of Science and Technology, Dhaka Bangladesh, Bangladesh); Samiha Binte Hassan (Undergraduate, Canada)
3:15 P.M – 3:30 P.M	1570587380	A Smart Contract Grammar to Protect IoT Firmware Updates Using Hyperledger Fabric	Xinchi He (University of Tulsa, USA); Rose Gamble (University of Tulsa, USA); Mauricio Papa (The University of Tulsa, USA)

SESSION 2: CLOUD COMPUTING, VIRTUAL NETWORK AND IOT**SESSION CHAIR: SON VUONG (UNIVERSITY OF BRITISH COLUMBIA, CANADA)****SESSION TIME: 2:00 P.M – 3:30 P.M****VENUE: ROOM 2309**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570575724	Work-In-Progress: IoT Device Signature Validation	Jeffrey M Hemmes (Regis University, USA); Judson Dressler (United States Air Force, USA)
2:15 P.M – 2:30 P.M	1570580041	Smartpark: A Location-Independent Smart Park and Transfer System	Amal Hamada and Fatma Zahran (Alexandria University, Egypt); Noha Ismail (Electrical Engineering Department, Alexandria University, Egypt); Mohamed Azab (Advanced Computing and Information Systems Laboratory, ECE, University of Florida & Virginia Tech, USA); Mohamed Eltoweissy (Virginia Military Institute & Virginia Tech, USA); Denis Gracanin (Virginia Tech, USA)
2:30 P.M – 2:45 P.M	1570587115	Adaptive QoS-Based Real-Time Communication Framework for WSANs	Tom Springer and Erik Linstead (Chapman University, USA)
2:45 P.M – 3:00 P.M	1570593089	Inherited Vulnerabilities: Javascript Engine V4 Secure Coding Compared to Googles V8	Mandeep Pannu (Kwantlen Polytechnic University, Canada); Iain Kay (KPU, Canada); Bob Gill (British Columbia Institute of Technology, Canada)
3:00 P.M – 3:15 P.M	1570586957	IoT Embedded Computing Systems Performance Assessment: a Simple Method	Adriano Vale-Cardoso (UFSJ, Brazil); Mariana Moreira (Universidade Federal de São João Del Rei, Brazil); Michel Leles (Universidade Federal de São João Del-Rei, Brazil); Carlos Martins (ATDC - Georgia Institute of Technology & VeriSolutions, USA)
3:15 P.M – 3:30 P.M	1570587113	A Performance Evaluation of Raspberry Pi Zero W Based Gateway Running MQTT Broker for IoT	Rubens Matheus Brasil da Silva Lima (Federal University of Paraíba, Brazil); Douglas de F Medeiros (Federal University of Paraiba (UFPB), Brazil); Renata I. S. Pereira (Federal University of Paraíba, Brazil); Diana Correia Lima (Federal University of Paraíba, Brazil); Cleonilson Protasio de Souza (Federal University of Paraiba, Brazil); Orlando Baiocchi (University of Washington, USA)

SESSION 3: CONTROL THEORY, FPGA, BIG DATA AND OTHERS**SESSION CHAIR: SCOTT YAM (QUEEN'S UNIVERSITY, CANADA)****SESSION TIME: 2:00 P.M – 3:30 P.M****VENUE: ROOM 2311**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570560659	Implementation and Comparison of Different Tropospheric Models to Reduce Error Low-cost Real-time GPS Positioning	Mo Koohzadi (IUST, IRAN); Saeed Ebadollahi (IUST, Iran); John Dian (BCIT, Canada); Reza Vahidnia (British Columbia Institute of Technology, Canada)
2:15 P.M – 2:30 P.M	1570581832	Sliding Mode for an All-Digital Control and Readout of MEMS Gyroscopes	Sapna Srinivasan (The University of British Columbia, Canada); Jinhao Lu (University of British Columbia, Canada); Ruolan Ye (The University of British Columbia, Canada); Edmond Cretu (University of British Columbia, Canada)
2:30 P.M – 2:45 P.M	1570587992	Water and Ice Detection in Marine Icing by Capacitive Sensor Array and the Artificial Neural Network Model	Abdulrazak Elzaidi (Memorial University of Newfoundland, Canada); Vlastimil Masek (Memorial University, Canada); Stephen Bruneau (MUN, Canada)
2:45 P.M – 3:00 P.M	1570559929	An Indoor Environmental Visualization System (IEVS)	John Dian (BCIT, Canada)
3:00 P.M – 3:15 P.M	1570562263	Facebook MySQL Performance Vs MySQL Performance	Mursal Dawodi (University of The Ryukyus, Japan); Jawid Baktash (University of the Ryukyus, Japan); Abdul Latif Erfan (Kabul University, Afghanistan); Muhammad Hadi Hedayati (Kabul University, Afghanistan)
3:15 P.M – 3:30 P.M	1570580546	Survey of Memory, Timing, and Power Management Verification Methods for Multi-core Processors	Savita Patil (University of California, Davis, USA); Melody Tao (University of California, Davis, USA); Hussain Al-Asaad (University of California – Davis, USA); Sabrina Scholten (University of California, Davis, USA)

SESSION 4: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**SESSION CHAIR: HAKDURAN KOC (UNIVERSITY OF HOUSTON-CLEAR LAKE, USA)****SESSION TIME: 2:00 P.M – 3:30 P.M****VENUE: ROOM 2314**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570570667	KL-Divergence as a Proxy for Plant Growth	Masi Aslahi, Tuhin Paul, Ian Stavness and Steve Shirliffe (University of Saskatchewan, Canada); Sally Vali (Agriculture and Agri-Food Canada, Canada); Kevin G Stanley (University of Saskatchewan, Canada)
2:15 P.M – 2:30 P.M	1570587903	The Time Machine: Smart Operation-Resilience in Presence of Attacks and Failures	Muhammad M Sayed (Alexandria University, Egypt); Mohamed Azab (Virginia Military Institute, USA)
2:30 P.M – 2:45 P.M	1570580567	Probabilistic Modelling of Sleep Stage and Apneic Events in the University College of Dublin Database (UCDDB)	Dian Ross (University of British Columbia, Canada); Edmond Cretu (University of British Columbia, Canada)
2:45 P.M – 3:00 P.M	1570580591	Social Media and Sentiment Analysis: The Nigeria Presidential Election 2019	Oladapo Oyeboode (Dalhousie University, Canada); Rita Orji (Dalhousie University, Canada)
3:00 P.M – 3:15 P.M	1570580740	Post-exercise Electrocardiogram Identification System Using Normalized Tachycardia Based on P, T Wave	Sung Bum Pan (Chosun University, Korea); Gyu Ho Choi (Chosun University, Korea); Hoon Ko (Chosun University, Korea & GECAD/ISEP/IPP, Portugal); Witold Pedrycz (University of Alberta, Canada)
3:15 P.M – 3:30 P.M	1570582820	Comparison of Neural Network Architectures for Physics-Driven Deep Learning MRI Reconstruction	Burhaneddin Yaman (University of Minnesota, USA); Seyed Amir Hossein Hosseini (University of Minnesota, USA); Steen Moeller (Center for Magnetic Resonance Research, University of Minnesota, USA); Mehmet Akcakaya (University of Minnesota, USA)

SESSION 5: BIG DATA, DATA MANAGEMENT AND ANALYTICS**SESSION CHAIR: HAYSSAM EL-RAZOUK (CALIFORNIA STATE UNIVERSITY, USA)****SESSION TIME: 2:00 P.M – 3:30 P.M****VENUE: GREAT HALL NORTH**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570576103	Data Analytics to Predict the Survivability of a Lost Person with Dementia Using R	Dalia Hanna(Ryerson University, Canada); Alex Ferworn (Ryerson University, Canada); Riyadh Husein (Ryerson University, Canada); Robert Koester (University of Portsmouth, USA)
2:15 P.M – 2:30 P.M	1570593055	Threat Recognition from Gait Analysis	Shahram Latifi (University of Nevada, Las Vegas, USA); Bruce L Powell (University of Nevada - Las Vegas, USA); Eilat Avidan (University of Nevada, USA)
2:30 P.M – 2:45 P.M	1570581316	HMM Optimized Modeling of SSD Storage for I/O MapReduce Workloads	Fatimah Alsayoud (Ryerson University, Canada); Ali Miri (Ryerson University & University of Ottawa, Canada)
2:45 P.M – 3:00 P.M	1570581339	Automated Generation and Dynamic Rendering of Web-based Data Collection Systems	Ziyang Zhang(Royal Bank of Canada, Canada); Tsung Ting Chen(Royal Bank of Canada, Canada); Kapil Vigneswaren (Royal Bank of Canada, Canada); Fatima Hussain (Royal Bank of Canada, Canada); Salah Sharieh (Royal Bank of Canada, Canada); Alex Ferworn (Ryerson University, Canada)
3:00 P.M – 3:15 P.M	1570581545	Application of Blockchain to Patient-Centric Access Control in Medical Data Management Systems	Shadan Ghaffaripour (Ryerson University, Canada); Ali Miri (Ryerson University & University of Ottawa, Canada)
3:15 P.M – 3:30 P.M	1570575744	A Syrvey of Sound-based Biometrics for Species Recognition	Shahram Latifi (ITNG, USA)

TIME	EVENT	VENUE
2:00 P.M - 3:30 P.M	Exhibition	Great Hall Foyer

TIME	EVENT	VENUE
3:30 P.M – 4:00 P.M	Coffee Break	Great Hall South

SESSION 6: CLOUD COMPUTING, VIRTUAL NETWORK AND ADHOC NETWORKS

SESSION CHAIR: DETLEF STREITFERDT (ILMENAU UNIVERSITY OF TECHNOLOGY, GERMANY)

SESSION TIME: 4:00 P.M – 5:30 P.M

VENUE: ROOM 2301

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4:15 P.M	1570569888	Echo-State Networks for Network Traffic Prediction	Oluwamayowa Adeleke (University of Houston, USA)
4:15 P.M – 4:30 P.M	1570582854	Secure Textual Data Deduplication Scheme Based on Data Encoding and Compression	Fatema Rashid (Ryerson University, Canada); Ali Miri (Ryerson University & University of Ottawa, Canada)
4:30 P.M – 4:45 P.M	1570581383	Analysis and Prediction of Breast Cancer Using AzureML Platform	Khaldoon Al-shouiliy (University of Cincinnati, USA); Abhishek Shivanna (University of Cincinnati, USA); Sujan Ray (University of Cincinnati, USA); Ali AlGhamdi (University of Cincinnati, USA); Dharma P Agrawal (University of Cincinnati, USA)
4:45 P.M – 5:00 P.M	1570587063	Good Data? the EEG Quality Index for Automated Assessment of Signal Quality	Shaun Fickling (Simon Fraser University, Canada); Sujoy Ghosh Hajra (Simon Fraser University, Canada); Careesa Liu (Simon Fraser University, Canada); Xiaowei Song (Fraser Health Authority, Canada); Ryan D'Arcy (Simon Fraser University, Canada)
5:00 P.M – 5:15 P.M	1570581465	Incorporation of Node Mobility in Data Replication Schemes in Mobile Ad Hoc Networks	Marshall Asch (University of Guelph, Canada); Peter Frazer Seymour (Left Technologies, Canada); Jason Ernst (University of Guelph & Left of the Dot Media Inc, Canada); Daniel Gillis (University of Guelph, Canada)
5:15 P.M – 5:30 P.M	1570582746	Static Charging Scheduling of Electric Vehicles at Private Stations	Hakduran Koc (University of Houston - Clear Lake, USA); Archit Gajjar (University of Houston-Clear Lake, USA); Sean Graham (University of Houston-Clear Lake, USA)

SESSION 7: BLOCKCHAIN, ARTIFICIAL INTELLIGENCE AND IOT**SESSION CHAIR: EDMOND CRETU (UNIVERSITY OF BRITISH COLUMBIA, CANADA)****SESSION TIME: 4:00 P.M – 5:30 P.M****VENUE: ROOM 2309**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4:15 P.M	1570580976	Blockchain Guided Trustworthy Interactions for Distributed Disaster Management	Effat Samir (Old Dominion University, USA); Mohamed Azab (Advanced Computing and Information Systems Laboratory, ECE, University of Florida & Virginia Tech, USA); Youna Jung (Virginia Military Institute, USA)
4:15 P.M – 4:30 P.M	1570581309	PeayNotes: Content Management System-based Software for Managing Academic Electronic Health Records (AEHRs)	James C Church (Austin Peay State University, USA); Tabitha Lee (Vanderbilt University, USA); Bettina Shank (Austin Peay State University, USA); Kristen Butler (Austin Peay State University, USA)
4:30 P.M – 4:45 P.M	1570581414	An Effective Economical Hierarchical Control Scheme for Low-Voltage AC Microgrids	Mohammad Mahdavyfakhr (University of British Columbia, Canada); Seyyedmilad Ebrahimi (University of British Columbia, Canada); Hanqing Lin (University of British Columbia, Canada); Juri Jatskevich (University of British Columbia, Canada)
4:45 P.M – 5:00 P.M	1570579495	IoT and Blockchain for Smart Locks	Lucas de Camargo Silva (University of Saskatchewan, Canada); Mayra Samaniego (University of Saskatchewan, Canada); Ralph Deters (University of Saskatchewan, Canada)
5:00 P.M – 5:15 P.M	1570582541	An Observer-Based Fixed-Frequency Sliding-Mode Controller for Boost Converters	Hanqing Lin (University of British Columbia, Canada); Seyyedmilad Ebrahimi (University of British Columbia, Canada); Mohammad Mahdavyfakhr (University of British Columbia, Canada); Juri Jatskevich (University of British Columbia, Canada)
5:15 P.M – 5:30 P.M	1570587104	Conflict Detection in Rule Based IoT Systems	Trusit Shah (The University of Texas at Dallas, USA); Subbarayan Venkatesan (University of Texas at Dallas, USA); Tiffany Ngo and Fnu Pratima (The University of Texas at Dallas, USA); Karthikeyan Neelamegam (Florida Crystals Corporation, USA)

SESSION 8: TELECOMMUNICATION SYSTEMS AND ELECTRONIC INSTRUMENTATION**SESSION CHAIR: SON VUONG (UNIVERSITY OF BRITISH COLUMBIA, CANADA)****SESSION TIME: 4:00 P.M – 5:30 P.M****VENUE: ROOM 2311**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4:15 P.M	1570560635	Stopping Criterion for Belief Propagation Polar Code Decoders Based on Bits Difference Ratio	Siyu Zhang (University of Windsor, Canada); Behnam Shahrava (University of Windsor, Canada)
4:15 P.M – 4:30 P.M	1570587121	Optimization of a Rectangular QAM Constellation for Coded Systems	Brett Wiens (Simon Fraser University, Canada); Daniel Lee (Simon Fraser University, Canada)
4:30 P.M – 4:45 P.M	1570581326	Outdoor Active Water-Harvesting and Dehumidification System (Oceanus)	Ahmed Saif and Wessam Shehieb (Ajman University, United Arab Emirates); Mustahsan Mir (Ajman University of Science & Technology, United Arab Emirates)
4:45 P.M – 5:00 P.M	1570560655	Augmented State Approach for Simultaneous Estimation of Sensor Biases in Attitude Determination System	Mojtaba Fazelinia (Iran University of Science and Technology, Iran); Saeed Ebadollahi (IUST, Iran); John Dian (BCIT, Canada); Reza Vahidnia (British Columbia Institute of Technology, Canada)
5:00 P.M – 5:15 P.M	1570563621	Low-Power Circuit for Measuring and Compensating Phase Interpolator Non-Linearity	Ahmad Abdo (University of Ottawa, Canada); Sadok Aouini (Ciena Corporation, Canada); Naim Ben-Hamida (Ciena & Ciena, Canada); Claude D'Amours (University of Ottawa, Canada)
5:15 P.M – 5:30 P.M	1570557861	Image Reconstruction by Chebyshev-Fourier Moments	Haocheng Xu (University of Winnipeg, Canada); Simon X. Liao (University of Winnipeg, Canada)

SESSION 9: ARTIFICIAL INTELLIGENCE, NETWORK SECURITY AND ELECTRONIC INSTRUMENTATION**SESSION CHAIR: SCOTT YAM (QUEEN'S UNIVERSITY, CANADA)****SESSION TIME: 4:00 P.M – 5:30 P.M****VENUE: ROOM 2314**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4:15 P.M	1570582760	Latency Constrained Task Mapping to Improve Reliability of High Critical Tasks in Mixed Criticality Systems	Hakduran Koc (University of Houston - Clear Lake, USA); Vamsi Krishna Karanam (University of Houston-Clear Lake, USA); Martin Sonnier (University of Houston-Clear Lake, USA)
4:15 P.M – 4:30 P.M	1570580555	A Trust Management Framework for Software Defined Networks-based Internet of Things	Svetlana Burikova (Innopolis University, Russia); Jooyoung Lee (Australian National University, Australia); Rasheed Hussain (Innopolis University & Networks and Blockchain Lab, Russia); Iuliia Sharafitdinova and Roman Dzhieriev (Innopolis University, Russia); Fatima Hussain (Ryerson University, Canada); Salah Sharieh (Royal Bank of Canada, Canada); Alex Ferworn (Ryerson University, Canada)
4:30 P.M – 4:45 P.M	1570556762	Features Quality Impact on Cyber Physical Security Systems	Alaa Z Alhowaide (Memorial University of Newfoundland, Canada); Izzat Alsmadi (Texas A&M San Antonio, USA); Jian Tang (Memorial University of Newfoundland, Canada)
4:45 P.M – 5:00 P.M	1570580572	Capacity of EM Side Channel Created by Instruction Executions in a Processor	Baki B Yilmaz (Georgia Institute of Technology, USA); Milos Prvulovic (Georgia Institute of Technology, USA); Alenka Zajic (Georgia Institute of Technology, USA)
5:00 P.M – 5:15 P.M	1570585777	IoT Gas and Temperature Monitoring Interface of a Low Temperature Pyrolysis Reactor for the Production of Biochar	Nestor Luis Brito Naveda (Langara College, Canada); Julie Youjin Jung (Langara College, Canada); Artem Davydov (Langara College, Canada); Pavandeep S Dhillon (Langara College, Canada); Yun Hua Hung (Langara College, Canada); Mark Lee (Langara Collage, Canada); Jasmine Radu (Langara College, Canada); Oakley Bach-Raabe (Langara College, Norway); Connor Michael Thomas Hayden (Langara College, Canada)
5:15 P.M – 5:30 P.M	1570587027	Identification Key Based on Optical Variable Nanostructures	Devarshi Patel (Simon Fraser University, Canada); Hao Jiang (Simon Fraser University, Canada); Jasbir Patel (Simon Fraser University, Canada); Bozena Kaminska (Simon Fraser University, Canada)

SESSION 10: BLOCKCHAIN, IOT, EVOLUTIONARY COMPUTATION ALGORITHMS AND OTHERS**SESSION CHAIR: HAYSSAM EL-RAZOUK (CALIFORNIA STATE UNIVERSITY, USA)****SESSION TIME: 4:00 P.M – 5:30 P.M****VENUE: GREAT HALL NORTH**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4:15 P.M	1570586465	User Data Sharing Frameworks: A Blockchain-Based Incentive Solution	Ajay Shrestha (University of Saskatchewan, Canada); Julita Vassileva (University of Saskatchewan, Canada)
4:15 P.M – 4:30 P.M	1570576731	Internet of Things Device Capability Profiling Using Blockchain	Oluwashina Joseph Ajayi Ulster University, United Kingdom (Great Britain)); Joseph Rafferty Ulster University, United Kingdom (Great Britain)); Philip J. Morrow (Ulster University, United Kingdom (Great Britain)); Lin Zhiwei (University of Ulster, United Kingdom (Great Britain)); Géry Ducatel (British Telecommunications, United Kingdom (Great Britain))
4:30 P.M – 4:45 P.M	1570574783	Reward-based Markov Chain Analysis of Slicing Flows for Inter-Cloud Virtual Resources Allocation in 5G Cellular Network	Ben-Jye Chang (National Yunlin University of Science and Technology, Taiwan); Yueting Lin (National Yunlin University of Science and Technology, Taiwan); Weichin Hung (National Yunlin University of Science and Technology, Taiwan)
4:45 P.M – 5:00 P.M	1570580288	A SAR Image Enhancement Algorithm Using the Discrete Wavelet Transform	Mostafa Elsaadouny (Ruhr-Universität Bochum, Germany); Jan Barowski (Ruhr-Universität Bochum, Germany); Ilona Rolfes (Ruhr-Universität Bochum, Germany)
5:00 P.M – 5:15 P.M	1570580093	An Overview of Active Power Filters for Harmonics Mitigation of Renewable Energies Resources	Fawaz Alhaddad (Dalhousie University, Canada); Hamed Aly (Dalhousie University, Canada); Mohamed E. El-Hawary (Dalhousie University, Canada)
5:15 P.M – 5:30 P.M	1570580294	Humanitarian Microwave Imaging Enhancement and Classification of Shallowly Buried Objects	Mostafa Elsaadouny (Ruhr-Universität Bochum, Germany); Jan Barowski (Ruhr-Universität Bochum, Germany); Ilona Rolfes (Ruhr-Universität Bochum, Germany)

DAY: 2**18th October, 2019**

TIME	NAME OF THE EVENT	VENUE
8:00 A.M – 9:00 A.M	REGISTRATION	GREAT HALL N LOBBY
8:00 A.M – 9:00 A.M	BREAKFAST	GREAT HALL SOUTH
9:00 A.M – 9:45 A.M	KEYNOTE ADDRESS BY ERIC PAULOS (UNIVERSITY OF CALIFORNIA, BERKELEY) TITLE OF TALK: PLASTIC DYNAMISM: FROM DISOBEDIENT OBJECTS TO POETIC WEARABLES	GREAT HALL NORTH
9:45 A.M – 10:30 A.M	KEYNOTE ADDRESS BY JENQ-NENG HWANG (UNIVERSITY OF WASHINGTON, USA) TITLE OF TALK: ELECTRONIC VISUAL MONITORING FOR THE SMART OCEAN	GREAT HALL NORTH
10:30 A.M – 11:15 A.M	KEYNOTE ADDRESS BY RYAN C.N. D'ARCY (SIMON FRASER UNIVERSITY, CANADA) TITLE OF TALK: DO YOU KNOW HOW YOUR BRAIN IS DOING? WE DIDN'T SO WE UNDERTOOK TECHNOLOGICAL DEVELOPMENT OF THE WORLD'S FIRST BRAIN VITAL SIGN FRAMEWORK	GREAT HALL NORTH
11:15 A.M – 11:30 A.M	COFFEE BREAK	GREAT HALL NORTH
11:30 A.M – 12:15 P.M	KEYNOTE ADDRESS BY RAOUF BOUTABA (UNIVERSITY OF WATERLOO, CANADA) TITLE OF TALK: THE “CLOUD” TO “THINGS” CONTINUUM	GREAT HALL NORTH
12:15 P.M – 1:00 P.M	KEYNOTE ADDRESS BY KEVIN LEYTON-BROWN (UNIVERSITY OF BRITISH COLUMBIA, CANADA) TITLE OF TALK: ECONOMICS AND COMPUTER SCIENCE OF A RADIO SPECTRUM REALLOCATION	GREAT HALL NORTH
1:00 P.M – 2:00 P.M	LUNCH	GREAT HALL SOUTH

PARALLEL SESSIONS

SESSION 11: DISTRIBUTED SYSTEMS, IOT AND OTHERS

SESSION CHAIR: BOB GILL (BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY, CANADA)

SESSION TIME: 2:00 P.M – 3.30 P.M

VENUE: ROOM 2301

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570564109	A Market Place Solution for Energy Transaction on Ethereum Blockchain	Chol Hyun Park (University of Nevada Las Vegas, USA); Yoohwan Kim (University of Nevada, Las Vegas, USA); Ivanrey Barlongo (University of Nevada Las Vegas, USA)
2:15 P.M – 2:30 P.M	1570573611	Optimizing the Business Value of Digital Transformation by Aligning Technology with Strategy, Work Practices and Stakeholder Interests	Rutendo Mushore (University of Cape Town & Shoprite Group, South Africa); Michael Kyobe (University of Cape Town, South Africa)
2:30 P.M – 2:45 P.M	1570586390	Adaptation of an Embedded Architecture to Run Hyperledger Sawtooth Application	Roland Kromes (Universite Cote d'Azur - LEAT CNRS UMR 7248, France); Luc Gerrits (Universite Cote d'Azur - LEAT CNRS UMR 7248, France); François Verdier (Université Côte d'Azur, LEAT, France)
2:45 P.M – 3:00 P.M	1570580820	Strong Password Generation Based on User Inputs	Farhana Zaman Glory (University of Manitoba, Canada); Noman Mohammed (University of Manitoba, Canada); Atif Ul Aftab (University of Manitoba, Canada); Olivier Tremblay-Savard (University of Manitoba, Canada)
3:00 P.M – 3:15 P.M	1570568162	A Contribution to Publish-Subscribe Based Communication in Industrial Applications	Philipp Nenninger (University of Applied Sciences Karlsruhe, Germany); Mona Gierl (University of Applied Sciences Karlsruhe, Germany); Reiner Kriesten (University of Applied Sciences, Karlsruhe, Germany)
3:15 P.M – 3:30 P.M	1570580998	RPC Based Framework for Partitioning IoT Security Software for Trusted Execution Environments	Thomas Fischer (Graz University of Technology & Infineon Technologies AG, Austria); Christian Lesjak (Infineon Technologies Austria AG, Austria); Dominic Pirker (Infineon Technologies Austria AG, Austria); Christian Steger (Graz University of Technology, Austria)

SESSION 12: ELECTRONIC POWER CONVERTER, MOBILE COMPUTING AND OTHERS**SESSION CHAIR: MANDEEP PANNU (KWANTLEN POLYTECHNIC UNIVERSITY, CANADA)****SESSION TIME: 2:00 P.M – 3.30 P.M****VENUE: ROOM 2309**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570575536	3D Shape Reconstruction Based on Directional LED Lights	Ming Hei Chu (The University of Hong Kong, Hong Kong); Grantham Pang (The University of Hong Kong, Hong Kong)
2:15 P.M – 2:30 P.M	1570564837	Dynamic Power Allocation for Non-Orthogonal Multiple Access with User Mobility	Bhaskara Narottama (Kumoh National Institute of Technology, Korea); Soo Young Shin (Kumoh National Institute of Technology, Korea)
2:30 P.M – 2:45 P.M	1570579133	An Active-Forced-Commutated Thyristor-Based Multilevel Converter for HVDC Transmission	Levi Bieber (University of British Columbia, Okanagan, Canada); Liwei Wang (University of British Columbia, Canada)
2:45 P.M – 3:00 P.M	1570579112	An Average Value Model of Hybrid Cascaded Multilevel Voltage Source Converter for Accelerated EMT Simulation	Jintao Han (University of British Columbia, Okanagan, Canada); Levi Bieber (University of British Columbia, Okanagan, Canada); Xuekun Meng (University of British Columbia, Okanagan, Canada); Liwei Wang (University of British Columbia, Canada); Wei Li (OPAL-RT Technologies Inc., Canada)
3:00 P.M – 3:15 P.M	1570587271	Enhancing Mobile Strategy Consultancy Using a Conceptual Cognitive Model of Mobile Moments	Nico Foerster (IBM Corporation, Germany)
3:15 P.M – 3:30 P.M	1570584021	Design and Performance Analysis of an Industrial IoT-based Mobility for Smart Manufacturing	Jongpil Jeong (Sungkyunkwan University, Korea)

SESSION 13: BIG DATA ANALYTICS AND ARTIFICIAL INTELLIGENCE**SESSION CHAIR: DETLEF STREITFERDT (ILMENAU UNIVERSITY OF TECHNOLOGY, GERMANY)****SESSION TIME: 2:00 P.M – 3:30 P.M****VENUE: ROOM 2311**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570561936	Data-Mining Opportunities in E-Government: Agriculture Sector of Afghanistan	Mursal Dawodi (University of The Ryukyus, Japan); Jawid Baktash (University of the Ryukyus, Japan)
2:15 P.M – 2:30 P.M	1570580886	A New Fuzzy Belonging-based Multi-view K-means Clustering Algorithm	Junda Zhao (University of Toronto, Canada); Weiling Cai (Nanjing Normal University, P.R. China); Yizhen Ge (Nanjing University of Aeronautics and Astronautics, P.R. China); Lijuan Zhang (Nanjing University of Aeronautics and Astronautics, P.R. China)
2:30 P.M – 2:45 P.M	1570575088	A Deep Learning CNN and AI-Tuned SVM for Electricity Consumption Forecasting: Multivariate Time Series Data	Ika Oktavianti (Vit Tall); Steve Chan (Harvard University, USA); Verly Puspita (Vit Tall Energy Unit, Indonesia)
2:45 P.M – 3:00 P.M	1570588729	Automatic Detection of Parking Violation and Capture of License Plate	Chai Kiat Yeo (Nanyang Technological University, Singapore)
3:00 P.M – 3:15 P.M	1570580178	Multi-Interval Data Mining of At-A-Station Hydraulic Geometry to Quantify Temporal Stability	Leong Lee, Mark Lees and Gregory Ridenour (Austin Peay State University, USA)
3:15 P.M – 3:30 P.M	1570580373	Building Your Kingdom: Imitation Learning for a Custom Gameplay Using Unity ML-agents	Amira E. Youssef (The City of Scientific Research and Technological Applications, Egypt)

SESSION 14: EVOLUTIONARY COMPUTATION ALGORITHMS, DATA MINING AND BIG DATA ANALYTICS**SESSION CHAIR: ANDREW J. PARK (THOMPSON RIVERS UNIVERSITY, CANADA)****SESSION TIME: 2:00 P.M – 3:30 P.M****VENUE: ROOM 2314**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570581588	Extending a Generative Adversarial Network to Produce Medical Records with Demographic Characteristics and Health System Use	Piper J Jackson and Marco Lussetti (Thompson Rivers University, Canada)
2:15 P.M – 2:30 P.M	1570583353	HD-sEMG for Human Interfacing Devices	Nabeeh Kandalaft (Grand Valley State University, USA); Brendan P. Beauchamp (Grand Valley State University, USA)
2:30 P.M – 2:45 P.M	1570587134	Particle Swarm Optimization for Feature Selection: A Review of Filter-based Classification to Identify Challenges and Opportunities	Marianne Cherrington (University of Huddersfield, United Kingdom (Great Britain)); Joan Lu (Huddersfield University, United Kingdom (Great Britain)); David Airehrour (Unitec Instiute of Technology, New Zealand); Qiang Xu (University of Huddersfield, New Zealand); Samaneh Madanian (Auckland University of Technology, New Zealand)
2:45 P.M – 3:00 P.M	1570586842	Enhanced LMS for Online Frequency Estimation Under Wide Spectrum Disturbances	Mariana Moreira (Universidade Federal de São João Del Rei, Brazil); Adriano Vale-Cardoso (UFSJ, Brazil); Michel Leles (Universidade Federal de São João Del-Rei, Brazil); Carlos Martins (ATDC - Georgia Institute of Technology & VeriSolutions, USA)
3:00 P.M – 3:15 P.M	1570587909	Predict Lightning Location and Movement with Atmospherical Electrical Field Instrument	Chao Yan (China University of Geoscience, P.R. China)
3:15 P.M – 3:30 P.M	1570595039	Aster: An Adaptive Step Recognition Algorithm	Rishav Ghosh (IEM, India)

SESSION 15

TIME	EVENT	VENUE
2:00 P.M – 3:30 P.M	Workshop on Data Analytics	GREAT HALL NORTH

TIME	EVENT	VENUE
3:30 P.M – 4:00 P.M	Coffee Break	Great Hall South

SESSION 16: ARTIFICIAL INTELLIGENCE, CLOUD COMPUTING AND IOT

SESSION CHAIR: MANDEEP PANNU (KWANTLEN POLYTECHNIC UNIVERSITY, CANADA)

SESSION TIME: 4:00 P.M – 5:30 P.M

VENUE: ROOM 2301

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4:15 P.M	1570582199	Discovering Crime Trends and Patterns Using Three-Dimensional Visual Analytics	Andrew J. Park (Thompson Rivers University, Canada); Kyle Behiels (Thompson Rivers University, Canada); Valerie Spicer and Justin Song (Simon Fraser University, Canada); Herbert H. Tsang (Trinity Western University, Canada)
4:15 P.M – 4:30 P.M	1570582657	Balancing Consistency and Plot Structure in Computational Storytelling	Purvish Khalpada (Nirma University, India); Sanjay Garg (Nirma University, India)
4:30 P.M – 4:45 P.M	1570587204	Agent-Based Behavioral Model and Simulation of Fire Egress	Andrew J. Park (Thompson Rivers University, Canada)
4:45 P.M – 5:00 P.M	1570563738	Visualization of MRI Datasets for Anatomical Brain Segmentation by Pixel-level Analysis	Heranjithan Manoharan (The University of Hong Kong, Hong Kong); Grantham Pang (The University of Hong Kong, Hong Kong); Hao Wu (Shenzhen University, P.R. China)
5:00 P.M – 5:15 P.M	1570586221	A Dynamic Plane Partition Method for DPDK in Smart Dust Environment	KeeHyun Park (Keimyung University, Korea); Joonsuu Park (Keimyung University, Korea)
5:15 P.M – 5:30 P.M	1570587202	Detecting Possible Lone Wolf Terrorist's Locations	Andrew J. Park (Thompson Rivers University, Canada)

SESSION 17: MOBILE COMPUTING, FPGA AND TELECOMMUNICATION SYSTEM**SESSION CHAIR: SON VUONG (UNIVERSITY OF BRITISH COLUMBIA, CANADA)****SESSION TIME: 4:00 P.M – 5:30 P.M****VENUE: ROOM 2309**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4:15 P.M	1570586938	Block Diagonalization Based Interference Cancellation in Uplink Multi User Cooperative Communication System	Sarah Imam (German University in Cairo, Egypt); Mahmoud Aly Zaher (German University in Cairo, Egypt); Ahmed E. El-Mahdy (The German University in Cairo, Egypt)
4:15 P.M – 4:30 P.M	1570580921	Case Study on Design and Evaluation of a Multi-Soft-Core Processor	Michael Kirchoff (Technische Universität Ilmenau, Germany); Lothar Wagner and Bernd Däne (Tu Ilmenau, Germany); Detlef Streitferdt (Technische Universitaet Ilmenau, Germany); Wolfgang Fengler (Technische Universität Ilmenau, Germany)
4:30 P.M – 4:45 P.M	1570580056	Scenarios for the Evaluation of the Energy Efficiency of Mobile Applications	Artem Kruglov (Innopolis University, Russia); Vladimir Ivanov (Innopolis University, Switzerland); Andrey Sadovykh and Giancarlo Succi (Innopolis University, Russia)
4:45 P.M – 5:00 P.M	1570580827	A Framework for QoS-aware Class Mapping in Multi-domain SDN	Jehad Ali (Ajou University, Korea); Byeong-hee Roh (Ajou University, Korea)
5:00 P.M – 5:15 P.M	1570582894	A Spectrum Analyzer Based on a Low-Cost Hardware-Software Integration	Efrain Santos-Luna (Universidad Autónoma Metropolitana - Iztapalapa, Mexico); Alfonso Prieto (Universidad Autónoma Metropolitana - Iztapalapa, Mexico); Rafael Aguilar-Gonzalez (Universidad Autónoma Metropolitana - Iztapalapa, Mexico); Victor Ramos (Universidad Autónoma Metropolitana, Mexico); Miguel López-Benítez (University of Liverpool, United Kingdom (Great Britain)); Marco Cardenas Juarez (Universidad Autónoma de San Luis Potosí, Mexico)
5:15 P.M – 5:30 P.M	1570571124	A Low Power Concurrent Dual-Band Low Noise Amplifier for WLAN Applications	Nabeeh Kandalaft (Grand Valley State University, USA); Hossein Khosravi (University of Minho & University of Birjand, Portugal); Abolfazl Bijari (University of Birjand, Iran); Jorge Cabral (University of Minho & ALGORITMI Centre, Portugal)

SESSION 18: ROBOTICS, AUTONOMOUS SYSTEM AND ADHOC NETWORK**SESSION CHAIR: HUSSAIN AL- ASAAD (UNIVERSITY OF CALIFORNIA – DAVIS, USA)****SESSION TIME: 4:00 P.M – 5:30 P.M****VENUE: ROOM 2311**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4:15 P.M	1570566156	Smart Rehabilitation System for Facial Paralysis	Wessam Shehieb (Ajman University, United Arab Emirates); Ali Mohammed Ridha(Ajman University, United Arab Emirates); Kamran Arshad(Ajman University, United Arab Emirates); Peter Yacoub and Khalid Al-Balawneh (Ajman University, United Arab Emirates)
4:15 P.M – 4:30 P.M	1570581432	A Model of Computing and Communication for Public Safety Integrating FirstNet, Edge Computing and Internet of Things	Fatima Hussain (Royal Bank of Canada, Canada); Alex Ferworn (Ryerson University, Canada); Javaid Zahid (Ryerson University, Canada)
4:30 P.M – 4:45 P.M	1570587525	Use Case Extraction Through Knowledge Acquisition	D Vasques (Institute of Mathematical and Computer Sciences (USP), Brazil); Paulo S Martins (University of Campinas (UNICAMP), Brazil); Juan F Galindo Jaramillo (University of Campinas & FHO University, Brazil); G s Santos (UNICAMP, Brazil); Franciene. D. Gomes (UFMS, Brazil)
4:45 P.M – 5:00 P.M	1570578592	Advanced Spectrum Management for Next-Generation Vehicular Communication: An AI Approach	Sachin Sharma (Graphic Era University, India); Kamal Ghanshala (Graphic Era University, India); Seshadri Mohan (University of Arkansas at Little Rock, USA)
5:00 P.M – 5:15 P.M	1570580731	Design and Analysis of Modified Pythagorean Fractal Tree Patch Antenna for Multiband Applications	Ashish Kumar (Sant Longowal Institute of Engineering and Technology, Longowal, Sangrur, Punjab, India); Amar Partap Singh Pharwaha (Sant Longowal Institute of Engineering and Tectnology, Longowal, Sangrur, Punjab, India)
5:15 P.M – 5:30 P.M	1570573997	A Comprehensive Study of Performance Parameters Used for Adhoc Networks: MANET, VANET and FANET	Mohanjeet Singh (PMN, India)

SESSION 19: BLOCKCHAIN, CYBERSECURITY AND IOT**SESSION CHAIR: HAYSSAM EL-RAZOUK (CALIFORNIA STATE UNIVERSITY, USA)****SESSION TIME: 4:00 P.M – 5:30 P.M****VENUE: ROOM 2314**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4:15 P.M	1570586633	A Novel Multi-Angular LTP and MLDA Based Face Recognition Using Modified Feed Forward Neural Network	Kishore Kumar Kamarajugadda (Faculty of Science and Technology & IFHE University, Hyderabad, India); Movva Pavani (ICFAI Foundation of Higher Education, India)
4:15 P.M – 4:30 P.M	1570568333	A Real-time School Bus Tracking and Monitoring System	Khalid Ammar (Ajman University, United Arab Emirates); Mohammad Jalmoud (Etisalat, United Arab Emirates); Abdulrasull Boushehri (Kuwait Meteorological Center, Kuwait); Khalid Fakhro (Bahrain Central Bank, Bahrain)
4:30 P.M – 4:45 P.M	1570586767	Smart Concrete Transportation in Semi-Automated Construction Sites	Salwa M Hassan (University of Alexandria, Egypt); Mohamed Azab (Advanced Computing and Information Systems Laboratory, ECE, University of Florida & Virginia Tech, USA); Amr Mokhtar (Egypt, Egypt)
4:45 P.M – 5:00 P.M	1570589380	Improving Load Forecasting and Renewable Energy Management for Green Computing Using FIS, PSO and Catfish	Bob Gill (British Columbia Institute of Technology, Canada); Maninder Singh (Chitkara University Institute of Engineering and Technology, Punjab, India); Ajay Kakkar (Thapar University, India)
5:00 P.M – 5:15 P.M	1570564108	Secured Electronic Voting System Using the Concepts of Blockchain	Sudharsan B(PSG College of Technology, India); Rishi Tharun V(PSG College of Technology, India); Nidhish Krishna M. P. (PSG College of Technology, India); Boopathi Raj J (PSG College of Technology, India); Surya Arvinth M (PSG College of Technology, India)
5:15 P.M – 5:30 P.M	1570562575	A Robust Hybrid SVD-based Image Watermarking Scheme for Color Images	Sajjad Bagheri Baba Ahmadi (Nanjing University of Science and Technology, P.R. China); Gongxuan Zhang (Nanjing University of Science and Technology, P.R. China); Hamed Jelodar (NJUST, P.R. China)

SESSION 20: CONTROL THEORY, TELECOMMUNICATION SYSTEM AND IOT**SESSION CHAIR: PIPER J JACKSON (THOMPSON RIVERS UNIVERSITY, CANADA)****SESSION TIME: 4:00 P.M – 5:30 P.M****VENUE: GREAT HALL NORTH**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4:15 P.M	1570581338	Low Complexity Detection for an AF Relay Assisted MIMO QSM System	Joaquin Cortez (Instituto Tecnológico de Sonora, Mexico); Francisco R. Castillo-Soria (Universidad Autónoma de San Luis Potosi, Mexico); Ramón Palacio (Instituto Tecnológico de Sonora, Mexico); Viktor Abdala (Universidad Autónoma de Zacatecas, Mexico); Fermin Maciel-Barboza (University of Colima, Mexico)
4:15 P.M – 4:30 P.M	1570581480	A Methodology for Validation of a Distributed Cloud Reservation Model	Paulo Martins (UNICAMP - Universidade de Campinas, Brazil); Jose Conti (University of Campinas, Brazil); Edson Ursini (College of Technology, Brazil)
4:30 P.M – 4:45 P.M	1570581332	Gain Optimization of Novel Raman-Parametric Hybrid Amplifier for Narrow Channel Wavelength Division Multiplexed Systems	Gaganpreet Kaur (Thapar Institute of Engineering and Technology, India)
4:45 P.M – 5:00 P.M	1570579636	Design of PIDA Controller Employing Current Differencing Buffered Amplifiers	S. Inchan (King Mongkut's University of Technology North Bangkok, Thailand)
5:00 P.M – 5:15 P.M	1570585785	A Financial Evaluation Framework for Blockchain Implementations	Mehmet Demir (Ryerson University, Canada); Ozgur Turetken (Ryerson University, Canada); Alex Ferworn (Ryerson University, Canada)
5:15 P.M – 5:30 P.M	1570579126	Unknown Exogenous Input Estimation for Infinitely Observable Complex Biological Descriptor Systems	Mahrukh Sarwar (CEME NUST Islamabad Pakistan, Pakistan)

TIME	NAME OF THE EVENT	VENUE
5:30 P.M – 6:00 P.M	Poster and Networking Session	Great Hall South
6:00 P.M – 9:00 P.M	Dinner and Smart Power Talks	Great Hall South

DAY: 3**19th October, 2019**

TIME	NAME OF THE EVENT	VENUE
8:00 A.M – 9:00 A.M	REGISTRATION	GREAT HALL N LOBBY
8:00 A.M – 9:00 A.M	BREAKFAST	GREAT HALL SOUTH
9:00 A.M – 9:45 A.M	KEYNOTE ADDRESS BY CRISTINA CONATI (UNIVERSITY OF BRITISH COLUMBIA, CANADA) TITLE OF TALK: TOWARD USER-ADAPTIVE VISUALIZATIONS	GREAT HALL NORTH
9:45 A.M – 10:30 A.M	KEYNOTE ADDRESS BY JOSEPH G. PETERS (SIMON FRASER UNIVERSITY, CANADA) TITLE OF TALK: ENHANCING MULTIMEDIA PERFORMANCE WITH ALGORITHMIC TECHNIQUES	GREAT HALL NORTH
10:30 A.M – 11:15 A.M	KEYNOTE ADDRESS BY SHAI BEN-DAVID (UNIVERSITY OF WATERLOO, CANADA) TITLE OF TALK: UNSUPERVISED LEARNING; WHAT CAN, WHAT CANNOT AND WHAT SHOULD NOT BE DONE	GREAT HALL NORTH
11:15 A.M – 11:30 A.M	COFFEE BREAK	GREAT HALL SOUTH

PARALLEL SESSIONS

SESSION 21: SILICON PHOTONICS I

SESSION CHAIR: NICOLAS JAEGER (UNIVERSITY OF BRITISH COLUMBIA, CANADA)

SESSION TIME: 11:30 A.M – 1:00 P.M

VENUE: ROOM 2301

TIME ALLOTTED	INVITED TALKS
11:30 A.M – 12:00 P.M	INVITED TALK 1: ADDRESS BY LUKAS CHROSTOWSKI (UNIVERSITY OF BRITISH COLUMBIA, CANADA) TITLE OF TALK: SILICON PHOTONICS DESIGN FOR NEW COMPUTING PARADIGMS: NEUROMORPHIC AND QUANTUM COMPUTING
12:00 P.M – 12:30 P.M	INVITED TALK 2: ADDRESS BY ROSS ANTHONY (MCMASTER UNIVERSITY, CANADA) TITLE OF TALK: EXTENDED WAVELENGTH RESPONSIVITY OF A GERMANIUM PHOTODETECTOR INTEGRATED WITH A SILICON WAVEGUIDE EXPLOITING THE INDIRECT TRANSITION
12:30 P.M – 1:00 P.M	INVITED TALK 3: ADDRESS BY JEFF YOUNG (UNIVERSITY OF BRITISH COLUMBIA, CANADA) TITLE OF TALK: INTEGRATED SILICON PHOTONIC PLATFORM FOR QUANTUM INFORMATION PROCESSING

SESSION 22: CYBERSECURITY SYSTEMS**SESSION CHAIR: RUPPA K. THULASIRAM (UNIVERSITY OF MANITOBA, CANADA)****SESSION TIME: 11:30 A.M – 1:00 P.M****VENUE: ROOM 2306**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
11:30 A.M – 11:45 A.M	1570569117	PAC-GAN: Packet Generation of Network Traffic Using Generative Adversarial Networks	Adriel Cheng (Defence Science and Technology, Australia); A Cheng (Cyber and Electronic Warfare Division, Australia)
11:45 A.M – 12:00 P.M	1570591957	Simulating Attacks for RPL and Generating Multi-class Dataset for Supervised Machine Learning	Mridula Sharma (University of Victoria, Canada); Abhishek Verma (National Institute of Technology, Kurukshetra, India); Haytham Elmiligi and Fayez Gebali (University of Victoria, Canada)
12:00 P.M – 12:15 P.M	1570584060	Mobile Bully-victim Behaviour on Facebook: The Case of South African Students	Michael Kyobe (University of Cape Town, South Africa); Zizopho Ndyave (University of Cape Town, South Africa)
12:15 P.M – 12:30 P.M	1570575473	Research and Design on Group Itinerary Programming Recommendation System Based on Comprehensive Group Similarity Preference Aggregation Algorithm	Xubo Liu(Beijing University of Posts and Telecommunications, P.R. China); Yuankai Ma (Beijing University of Posts and Telecommunications, P.R. China); Yutian Feng (Beijing University of Posts and Telecommunications, P.R. China); Huaixi Tang (Beijing University of Posts and Telecommunications, P.R. China); Zhitao Dai (Beijing University of Posts and Telecommunications, P.R. China)
12:30 P.M – 12:45 P.M	1570580487	Mobile Ticket Purchase Model Construction and Customer Preference Analysis Based on Technology Acceptance Model	Zijing Zhang (Peking University, P.R. China); Yang Xu (Peking University, P.R. China)
12:45 P.M – 1:00 P.M	1570583665	Consumers' Role in the Survival of E-commerce in Sub Saharan Africa: Consequences of E-Service Quality on Engagement Formation	Isaac Owusu Asante (University of Electronic Science and Technology of China, P.R. China)

SESSION 23: WIRELESS SENSOR NETWORKS, CYBER SECURITY AND OTHERS**SESSION CHAIR: XING LIU (KWANTLEN POLYTECHNIC UNIVERSITY, CANADA)****SESSION TIME: 11:30 A.M – 1:00 P.M****VENUE: ROOM 2311**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
11:30 A.M – 11:45 A.M	1570587030	RSSI-based Localization in an Emulated Active RFID System	Roselia Dela Cruz (University of the Philippines & Bulacan State University, Philippines); Jhoanna Rhodette Pedrasa (University of the Philippines, Philippines)
11:45 A.M – 12:00 P.M	1570563617	Prototype Resilient Command and Control (C2) of C2 Architecture for Power Outage Mitigation	Steve Chan (Harvard University, USA)
12:00 P.M – 12:15 P.M	1570576157	Improving Response Time Prediction for Stack Overflow Questions	Di Wu (Thompson Rivers University, Canada); Simon Johnson (Thompson Rivers University, Canada); Chris Foster (Thompson Rivers University, Canada); Erwin Li (Thompson Rivers University, Canada); Haytham Elmiligi (Thompson Rivers University, Canada); Musfiq Rahman (Thompson Rivers University, Canada)
12:15 P.M – 12:30 P.M	1570574063	Comprehensive Review of Routing Protocols in Adhoc Network: MANET	Mohanjeet Singh (PMN, India)
12:30 P.M – 12:45 P.M	1570574146	Monitoring System Implement of Marine Electric-powered Driven	Bei Chen (Northwestern Polytechnical University, P.R. China); Wenlun Cao (Northwestern Polytechnical University, P.R. China); Yuyao He (Northwestern Polytechnical University, P.R. China); Zhenhong Jiao (Northwestern Polytechnical University, P.R. China); Hong Li (Northwestern Polytechnical University, P.R. China); Chongwu Wang (The Northwestern Polytechnical University, P.R. China)
12:45 P.M – 1:00 P.M	1570574784	HIDALS: A Hybrid IoT-based Decentralized Application for Logistics and Supply Chain Management	Marcel Müller (Technische Universität Berlin, Germany); Sandro Rodriguez Garzon (Technische Universität Berlin & Telekom Innovation Laboratories, Germany); Martin Westerkamp (Technical University of Berlin, Germany); Zoltan Lux (Technische Universität Berlin, Germany)

SESSION 24: WIRELESS NETWORKS AND MOBILE COMPUTING**SESSION CHAIR: ANDREW J. PARK (THOMPSON RIVERS UNIVERSITY, CANADA)****SESSION TIME: 11:30 A.M – 1:00 P.M****VENUE: ROOM 2314**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
11:30 A.M – 11:45 A.M	1570580690	An Improved Neighbor Discovery Process in BLE 5.0	Gaoyang Shan (Korean ajou University, Korea); Byeong-hee Roh and Geunkyung Choi (Ajou University, Korea)
11:45 A.M – 12:00 P.M	1570574772	Cost-Reward-based Carrier Aggregation with Differentiating Network Slicing for Optimizing Radio RB Allocation in 5G New Radio Network	Ben-Jye Chang (National Yunlin University of Science and Technology, Taiwan); Wei-Teng Chang (National Yunlin University of Science and Technology, Taiwan)
12:00 P.M – 12:15 P.M	1570585866	Mobile Health Monitoring Systems Model for Chronic Diseases Patients in Developing Countries	Billy Mathias Kalema (Tshwane University of Technology, South Africa); Dr and Rebone Musoma (Tshwane University of Technology, South Africa)
12:15 P.M – 12:30 P.M	1570587172	An Evaluation of LoRa Communication Range in Urban and Forest Areas: a Case Study in Brazil and Portugal	Cleonilson Protasio de Souza (Federal University of Paraiba, Brazil); Mariana R Villarim (Federal University of Paraiba, Brazil); João Vitor Holanda de Luna (Federal University of Paraiba, Brazil); Douglas de F Medeiros (Federal University of Paraiba (UFPB), Brazil); Orlando Baiocchi (University of Washington, USA); Francisco Martins (University of the Azores, Portugal); Renata I. S. Pereira (Federal University of Paraiba, Brazil)
12:30 P.M – 12:45 P.M	1570584022	Multicasting-based Mobility Management Scheme in Industrial Fast PMIPv6 Networks	Jongpil Jeong (Sungkyunkwan University, Korea)
12:45 P.M – 1:00 P.M	1570567085	Trade-Offs Between Efficiency and Output Voltage of a Single Boost DC-DC Converter for Photo-Voltaic Low Power Harvesting Applications	Maziar Rastmanesh (Dalhousie University, Canada); Ezz El-masry (Dalhousie, Canada); Kamal El-Sankary (Dalhousie University, Canada)

SESSION 25: IOT, WIRELESS SENSOR NETWORK AND CYBER SECURITY SYSTEMS**SESSION CHAIR: JOHN DIAN (BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY, CANADA)****SESSION TIME: 11:30 A.M – 1:00 P.M****VENUE: GREAT HALL NORTH**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
11:30 A.M – 11:45 A.M	1570581382	Multiservice Heavy Traffic Performance of Small Cells	Loreno Silveira (University of Campinas (UNICAMP) & School of Technology, Brazil); Paulo Martins (UNICAMP - Universidade de Campinas, Brazil); Edson Ursini (College of Technology, Brazil)
11:45 A.M – 12:00 P.M	1570587198	On the Design of Antenna Using Osgood Curve Fractal Geometry for Wireless Applications	Gurmeet Singh (Sant Longowal Institute of Engineering and Technology Longowal Punjab India, India)
12:00 P.M – 12:15 P.M	1570580809	Blind Mode Detection for AMR Speech Data	Eunju Oh (Sangmyung University, Korea); Eunsu Lee (Eulji University, Korea); Hyunji Cho(Sangmyung University, Korea); Joungeun Bae (Sangmyung University, Korea); Hoon Yoo (Sangmyung University, Korea)
12:15 P.M – 12:30 P.M	1570587140	A New Approach for EPLL-based Frequency Estimation Under Severe Disturbances	Carlos Martins (ATDC - Georgia Institute of Technology & VeriSolutions, USA); Mariana Moreira (Universidade Federal de São João Del Rei, Brazil); Adriano Vale-Cardoso (UFSJ, Brazil)
12:30 P.M – 12:45 P.M	1570580594	Mitigation of Thermal Stress Accelerants on Key Components of an Electric Grid	Steve Chan (Harvard University, USA); Banyat Leelachariyakult and Parnmook Noppawan (Vit Tall Energy Unit, Philippines); Ika Oktavianti (University of Sriwijaya, Indonesia)
12:45 P.M – 1:00 P.M	1570580310	The Subsurface Objects Classification Using a Convolutional Neural Network	Mostafa Elsaadouny (Ruhr-Universität Bochum, Germany); Jan Barowski (Ruhr-Universität Bochum, Germany); Ilona Rolfes (Ruhr-Universität Bochum, Germany)

SESSION 26: ARTIFICIAL INTELLIGENCE, SOFTWARE ENGINEERING AND BLOCKCHAIN**SESSION CHAIR: LINGLING JIN (THOMPSON RIVERS UNIVERSITY, CANADA)****SESSION TIME: 11:30 A.M – 1:00 P.M****VENUE: ROOM 2309**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
11:30 A.M – 11:45 A.M	1570575215	On Reducing Effect of Acoustic Feedback in Hearing Aids by Employing Lattice Prediction and Hybrid Adaptive Filtering	Muhammad Tahir Akhtar (Nazarbayev University, Kazakhstan)
11:45 A.M – 12:00 P.M	1570581347	A UML Profile for Software Requirements Prioritization	Tayyba Zahoor (NUST, Pakistan); Farooque Azam (CEME, National University of Sciences and Technology (NUST), Pakistan); Muhammad Waseem Anwar (National University of Sciences and Technology (NUST), Pakistan); Bilal Maqbool (College of Electrical & Mechanical Engineering, NUST Pakistan, Pakistan); Haider Ali Javaid (NUST, Pakistan)
12:00 P.M – 12:15 P.M	1570585987	Blockchain-based Threat Registry Platform	Jason Mansell (Fundación Tecnalia Research & Innovation, Spain); Oscar Lage (Fundacion Tecnalia Research & Innovation, Spain); Santiago de Diego de Diego (Tecnalia Research & Innovation, Spain); Carlos Gonçalves (Portuguese Mint House and Official Printing Office, Portugal); Serafeim Moustakidis (AIDEAS, Estonia); Michael Kontoulis (National Technical University of Athens, Greece); Barbara Guerra (Edgeneering, Spain); Angelos Liapis (Konnekt-able, Ireland)
12:15 P.M – 12:30 P.M	1570586759	Characterization of Term and Preterm Deliveries Using Electrohysterograms Signatures	Muhammad Umar Khan (UET Taxila, Pakistan); Sumair Aziz, Sara Ibraheem, Aqsa Butt and Hira Shahid (University of Engineering and Technology, Taxila, Pakistan)
12:30 P.M – 12:45 P.M	1570586780	ECG-based Biometric Authentication Using Empirical Mode Decomposition and Support Vector Machines	Sumair Aziz (University of Engineering and Technology, Taxila, Pakistan); Muhammad Umar Khan (UET Taxila, Pakistan); Zainoor Ahmad Choudhry, Afeefa Aymin and Adil Usman (University of Engineering and Technology, Taxila, Pakistan)
12:45 P.M – 1:00 P.M	1570586862	Incentive for Historical Block Data Sharing in Blockchain	Zhipeng Wang and Qianhong Wu (Beihang University, P.R. China)

TIME	NAME OF THE EVENT	VENUE
11:30 A.M – 3:30 P.M	Smart Maker Fair	Great Hall South

TIME	EVENT	VENUE
1:00 P.M – 2:00 P.M	Lunch	Great Hall South

SESSION 27: SILICON PHOTONICS II			
SESSION CHAIR: NICOLAS JAEGER (UNIVERSITY OF BRITISH COLUMBIA, CANADA)			
SESSION TIME: 2:00 P.M – 3:30 P.M			
VENUE: ROOM 2301			
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:30 P.M	INVITED TALK 4: ADDRESS BY WEI SHI (LAVAL UNIVERSITY, CANADA) TITLE OF TALK: SILICON PHOTONICS FOR 5G PASSIVE OPTICAL NETWORKS		
	1570587101	Silicon Photonics for 5G Passive Optical Networks	Xun Guan (Laval University, Canada); Mingyang Lyu (Laval University, Canada); Yelong Xu (Université Laval, Canada); Wei Shi (Université Laval, Canada); Leslie Rusch (Université Laval, Canada)
2:30 P.M – 3:00 P.M	INVITED TALK 5: ADDRESS BY SUDIP SHEKHAR (UNIVERSITY OF BRITISH COLUMBIA, CANADA) TITLE OF TALK: COHERENT SILICON PHOTONIC LINKS		
3:00 P.M – 3:15 P.M	1570573213	Optical Add-drop Filters Using Cladding-modulated Sub-wavelength Grating Contra-directional Couplers for Silicon-on-Insulator Platforms	Han Yun (University of British Columbia, Canada); Mustafa Hammood (The University of British Columbia, Canada); Lukas Chrostowski (University of British Columbia, Canada); Nick Jaeger (University of British Columbia, Canada)
3:15 P.M – 3:30 P.M	1570576006	Effect of Lithography on SOI, Grating-Based Devices for Sensor and Telecommunications Applications	Ajay Mistry (The University of British Columbia, Canada); Mustafa Hammood (The University of British Columbia, Canada); Stephen Lin (The University of British Columbia, Canada); Lukas Chrostowski (University of British Columbia, Canada); Nick Jaeger (University of British Columbia, Canada)

SESSION 28: IOT, BLOCKCHAIN AND ARTIFICIAL INTELLIGENCE**SESSION CHAIR: ANDREW J. PARK (THOMPSON RIVERS UNIVERSITY, CANADA)****SESSION TIME: 2:00 P.M – 3:30 P.M****VENUE: ROOM 2306**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570582568	A Minimalist Model of IoT Based Sensor System for Sewage Treatment Plant Monitoring	Sifat Rezwan(North South University, Bangladesh); Taoseef Ishtiak (North South University, Bangladesh); Rummana Rahman (North South University, Bangladesh); Hafiz Abdur Rahman(North South University, Bangladesh); Md Manjurul Akter (North South University, Bangladesh); Hasibul Ratul (North South University, Bangladesh); Shazzad Hosain (North South University, Bangladesh);Md. Jakariya (North South University, Bangladesh)
2:15 P.M – 2:30 P.M	1570576387	Sparse Data Proxy Actuation for the Electrical Grid	Steve Chan (Harvard University, USA); Parnmook Nopphawan and Patcharee Thonginta (Vit Tall Energy Unit, Philippines); Ika Oktavianti (University of Sriwijaya, Indonesia)
2:30 P.M – 2:45 P.M	1570587366	PACEX: PAtient-Centric EMR eXchange in Healthcare Systems Using Blockchain	Bhaveshtoshniwal (Indian Institute of Technology, Hyderabad, India); Prashanth Podili (Indian Institute of Technology, India); Ravula Jaysimha Reddy (IIT Hyderabad, India); Kotaro Kataoka (Indian Institute of Technology Hyderabad, India)
2:45 P.M – 3:00 P.M	1570580875	Analysis of CT Scan Images to Predict Lung Cancer Stages Using Image Processing Techniques	Mahmudul Islam (Ahsanullah University of Science and Technology, Bangladesh); Al Hasib Mahamud (Ahsanullah University of Science and Technology, Bangladesh); Raqeebir Rab (Ahsanullah University of Science and Technology, Bangladesh)
3:00 P.M – 3:15 P.M	1570586940	Periocular Region Based Biometric Identification Using SIFT and SURF Key Point Descriptors	Kishore Kumar Kamarajugadda (Faculty of Science and Technology & IFHE University, Hyderabad, India); Movva Pavani (ICFAI Foundation of Higher Education, India)
3:15 P.M – 3:30 P.M	1570586739	Image Pattern Classification for Plant Disease Identification Using Local Tri-directional Features	Sumair Aziz (University of Engineering and Technology, Taxila, Pakistan); Mudassar Bashir (University of Engineering and Technology, Taxila, Pakistan); Ovais Mughal (Sir Syed CASE Institute of Technology, Pakistan); Muhammad Umar Khan (JET Taxila, Pakistan); Arsalan Khan (International Islamic University, Islamabad, Pakistan)

SESSION 29: SOFTWARE ENGINEERING, ARTIFICIAL INTELLIGENCE AND BLOCKCHAIN**SESSION CHAIR: JOHN DIAN (BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY, CANADA)****SESSION TIME: 2:00 P.M – 3:30 P.M****VENUE: ROOM 2311**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570581350	A UML Profile for Prediction of Significant Software Requirements	Ayesha Tariq (NUST, Pakistan); Farooque Azam (CEME, National University of Sciences and Technology (NUST), Pakistan); Muhammad Waseem Anwar (National University of Sciences and Technology (NUST), Pakistan); Bilal Maqbool (College of Electrical & Mechanical Engineering, NUST Pakistan, Pakistan); Haider Ali Javaid (NUST, Pakistan)
2:15 P.M – 2:30 P.M	1570587401	Blockchain Decision Matrix for IoT Systems	Arpit Bajpai (Fortiss gmbh, Germany); Markus Duchon (Fortiss GmbH, Germany)
2:30 P.M – 2:45 P.M	1570587871	Towards Blockchain-based Multi-controller Managed Switching for Trustworthy SDN Operation	Mohamed Azab (Advanced Computing and Information Systems Laboratory, ECE, University of Florida & Virginia Tech, USA); Rana Ramadan Ergawy (Faculty of Engineering Alexandria University, Egypt); Esraa Ghourab (Electrical Engineering Alexandria University, Egypt); Amr Mokhtar (Faculty of Engineering Alexandria University, Egypt)
2:45 P.M – 3:00 P.M	1570580563	User Modeling via Anomaly Detection Techniques for User Authentication	Iman Abu Sulayman (Taif University, Saudi Arabia & Western University, Canada); Abdelkader Ouda (University of Western Ontario, Canada)
3:00 P.M – 3:15 P.M	1570587378	Model-Based Scaffolding Code Generation for Cross-Platform Applications	Mohammad Inayatullah (CEME NUST, Pakistan); Farooque Azam (CEME, National University of Sciences and Technology (NUST), Pakistan); Muhammad Waseem Anwar (National University of Sciences and Technology (NUST), Pakistan)
3:15 P.M – 3:30 P.M	1570579943	Weight and Cluster Based Test Case Prioritization Technique	Zumar Khalid and Usman Qamar (National University of Sciences and Technology, Pakistan)

SESSION 30: BIG DATA ANALYTICS, DATA MINING AND IOT**SESSION CHAIR: MUSFIQ RAHMAN (THOMPSON RIVERS UNIVERSITY, CANADA)****SESSION TIME: 2:00 P.M – 3:30 P.M****VENUE: ROOM 2314**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570581232	Design and Implementation of Financial Smart Contract Services on Blockchain	Ruppa K. Thulasiram (University of Manitoba, Canada); Muskan Vinayak (University of Manitoba, Canada); Saulo dos Santos (University of Manitoba, Canada); Parimala Thulasiraman (University of Manitoba, Canada); Srimantarao S. Appadoo (University of Manitoba, Canada)
2:15 P.M – 2:30 P.M	1570571156	An Improved Differential Privacy-Preserving Truth Discovery Approach in Healthcare	Adilakshmi Kameswari Vadavalli (Sathyabama Institute of Science and Technology, India); Subhashini R (Sathyabama Institute of Science and Technology, India)
2:30 P.M – 2:45 P.M	1570588767	Development and Application of a Software Tool/Package for Pan-Genomic Analysis	Richard Martyn (Thompson Rivers University, Canada); Lingling Jin (Thompson Rivers University, Canada); Clarence Todd (Thompson Rivers University, Canada)
2:45 P.M – 3:00 P.M	1570587170	Proposal for a Real-time On-Board Monitor to Evaluate the Comfort Level in Scholar Transportation	Lorena Del Cisne León Quiñonez (State University of Campinas, Brazil); Felipe Marques Pires (School of Electrical and Computer Engineering - State University of Campinas & Federal Institute of Education, Science and Technology of São Paulo, Brazil); Luiz Martini (University of Campinas, Brazil); Leonardo S Mendes (State University of Campinas - UNICAMP, Brazil)
3:00 P.M – 3:15 P.M	1570580251	Estimation of the 2020 US Presidential Election Competition	Arthur Kim (Paul Math School & Geosan, South Korea, Korea); Peter Kim (Paul Math School & Geosan, South Korea, Korea)
3:15 P.M – 3:30 P.M	1570587168	A Cloud-Based System Architecture for Advanced Metering in Smart Cities	Felipe Marques Pires (School of Electrical and Computer Engineering - State University of Campinas & Federal Institute of Education, Science and Technology of São Paulo, Brazil); Lorena Del Cisne León Quiñonez (State University of Campinas, Brazil); Leonardo S Mendes (State University of Campinas - UNICAMP, Brazil)

SESSION 31: WIRELESS SENSOR NETWORK AND ADHOC NETWORK**SESSION CHAIR: BOB GILL (BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY, CANADA)****SESSION TIME: 2:00 P.M – 3:30 P.M****VENUE: GREAT HALL NORTH**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570587834	Planning of AdHoc and IoT Networks Under Emergency Mode of Operation	Jose Leite (University of Campinas, Brazil); Edson Ursini (College of Technology, Brazil); Paulo S Martins (University of Campinas (UNICAMP), Brazil)
2:15 P.M – 2:30 P.M	1570588055	Performance and Complexity Analysis of MAC Protocol for VANETs	A. F. M. Shahan Shah(Yildiz Technical University, Turkey); Haci Ilhan (Yildiz Technical University, Turkey); Ufuk Tureli (Yildiz Technical University, Turkey)
2:30 P.M – 2:45 P.M	1570587112	Modeling and Analysis of CoMACAV Under Capture Effect, Channel Fading and Practical Traffic	Muhammet Ali Karabulut (Yildiz Technical University, Turkey); A. F. M. Shahan Shah (Yildiz Technical University, Turkey); Haci Ilhan (Yildiz Technical University, Turkey)
2:45 P.M – 3:00 P.M	1570565225	Operation Mechanism of Dual Routing Protocol in Aerial Sensor Network	Li Tan (Beijing Technology and Business University, P.R. China); Minji Wang (Beijing Technology and Business University, P.R. China); Haoyu Wang (Beijing Technology and Business University, P.R. China); Li Liu (Beijing Technology and Business University, P.R. China)
3:00 P.M – 3:15 P.M	1570587581	Analysis of Combination of Attacks on Prophet Routing Protocol in DTN	Swati Jindal (GIANI ZAIL SINGH COLLEGE PTU CAMPUS, India); Jagtar Singh (Punjabi University Patiala, India); Lavneet Bansal (Punjab Land Record Society Jalandhar, India)
3:15 P.M – 3:30 P.M	1570587095	Solving MAX-SAT Problem by Binary Biogeography-based Optimization Algorithm	Hafiz Munsub Ali (Simon Fraser University, Canada); Waleed Ejaz (Thompson Rivers University, Canada); May Al Taei (Zayed University, United Arab Emirates)

SESSION 32: ARTIFICIAL INTELLIGENCE, WIRELESS COMPUTING AND NETWORK SECURITY
SESSION CHAIR: MALAY GANGOPADHYAY (INSTITUTE OF ENGINEERING AND MANAGEMENT, INDIA)
SESSION TIME: 2:00 P.M – 3:30 P.M
VENUE: ROOM 2309

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 P.M – 2:15 P.M	1570558769	Natural Language Processing Technology for Semantic Mining and Retrieval Latent Topics of an Online Healthcare Forum	Hamed Jelodar (NJUST, P.R. China); Yongli Wang (Nanjing University of Science and Technology, P.R. China); Sajjad Bagheri Baba Ahmadi (Nanjing University of Science and Technology, P.R. China); Ruxin Zhao (Phd, Singapore); Mahdi Rabbani (Nanjing University of Science and Technology, P.R. China)
2:15 P.M – 2:30 P.M	1570580826	On Managing Controller Placement Problem for Grid-aware Software Defined Networking	Mohamed Samir (Arab Academy for Science, Technology and Maritime Transport (AAST-MT), Egypt); Effat Samir (Old Dominion University, USA); Mohamed Azab (Advanced Computing and Information Systems Laboratory, ECE, University of Florida & Virginia Tech, USA); Mohamed Rizk (Alexandria University, Egypt); Nayera M. Sadek (Alexandria University & Faculty of Engineering Alexandria University, Egypt)
2:30 P.M – 2:45 P.M	1570579338	Bird's Eye Navigation (BEN) - A Pixelwise Mapping System Used in Swarming of Vehicular Robots	Sandipan Chakraborty (Institute of Engineering & Management, India); Shouvik Mukherjee (Institute of Engineering & Management, India); Suvrojit Kumar Saha (Institute of Engineering & Management, India); Barnamoy Garang (Institute of Engineering & Management, India)
2:45 P.M – 3:00 P.M	1570581040	Voice Classification Using Particle Swarm Optimization Based Support Vector Machine	Ramandeep Kaur (UGC, India)
3:00 P.M – 3:15 P.M	1570596598	Intelligent Traffic Control System: Towards Smart City	Arjun Dutta (Institute of Engineering and Management Kolkata & Member of CSIR, India)

TIME	EVENT	VENUE
-------------	--------------	--------------

3:30 P.M – 4:00 P.M	Coffee	Great Hall South
---------------------	--------	------------------

SESSION 33: BIG DATA, DATA MANAGEMENT AND OTHERS

SESSION CHAIR: SANGHAMITRA PODDAR (INSTITUTE OF ENGINEERING AND MANAGEMENT, INDIA)

SESSION TIME: 4:00 P.M – 5:30 P.M

VENUE: ROOM 2314

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4: 15 P.M	1570564310	Device to Remotely Track and Locate the Position of a Child for Safety	Shamendra Egodawela (University of Peradeniya, Sri Lanka)
4:15 P.M – 4:30 P.M	1570575033	Autonomous Vehicle for Industrial Supervision Based on Google Assistant Services & IoT Analytics	Sandipan Chakraborty and Shouvik Mukherjee (Institute of Engineering & Management, India); Suvrojit Kumar Saha (IEM, India)
4:30 P.M – 4:45 P.M	1570581185	Analysis of Predictive Framework for Customer Churn Using Dynamic Features	Abhyarthana Bisoyi (College of Engineering & Technology, Bhubanwsvar, India); Dinesh Kumar Jena (College of Engineering & Technology, Bhubaneswar, India)
4:45 P.M – 5:00 P.M	1570575657	Human Recognition Based on Retinal Images: A Theoretical Assessment and Review	Morteza Modarresi Asem (Tehran Medical Sciences University, Iran); Vala Mehryar Alviri (Islamic Azad University, Iran); Mohammadjavad Ghorbani (Biomedical Engineering, Iran); Mahdi Alizadeh (Biomedical Engineering, Iran); Alireza Esfahani Omran (Clinical Biomedical Engineering, Iran)
5:00 P.M – 5:15 P.M	1570585435	Fault Diagnosis in Vehicular Networks Using Do-Calculus	Baisakhi Chatterjee (Institute of Engineering and Management, India); Swapnil Mitra (Institute Of Engineering & Management Kolkata, India); Rohan Laha (Institute of Engineering and Management, India); Dattatreya Roy (Institute of Engineering & Management, India); Himadri Saha (Institute of Engineering & Management, India); Phillip G. Bradford (University of Connecticut, Stamford, USA)
5:15 P.M – 5:30 P.M	1570580929	Fixed Time Convergent Control of DC-DC Buck Converter via Sliding Mode Technique	Sandeep Kaur (Punjab Engineering college, Deemed University, Chandigarh)

SESSION 34: ARTIFICIAL INTELLIGENCE AND IOT**SESSION CHAIR: AVIJIT BOSE (INSTITUTE OF ENGINEERING AND MANAGEMENT, INDIA)****SESSION TIME: 4:00 P.M – 5:30 P.M****VENUE: ROOM 2311**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 P.M – 4: 15 P.M	1570577695	Framework for Analysis and Detection of Fraud in Health Insurance Industry	Nirmal Rayan (Medi Assist Healthcare Services Pvt. Ltd., India)
4:15 P.M – 4:30 P.M	1570587394	Security for Internet of Things: Sybil Attack on RPL Protocol and Potential Solution Using Blockchain	Chaira Mahmoud (University of Laghouat, Algeria); Sofiane Aouag (University of Batna 2, Algeria)
4:30 P.M – 4:45 P.M	1570586064	Finding Optimized Machine Learning Model for Recognizing English Handwritten Digit	Nowfel Mashnoor (Rajshahi University of Engineering and Technology, Bangladesh)
4:45 P.M – 5:00 P.M	1570585107	Detection of Communities in Large Scale Networks	Baisakhi Chatterjee (Institute of Engineering and Management, India); Himadri Saha (Institute of Engineering & Management, India)
5:00 P.M – 5:15 P.M	1570597363	Countermeasure of Attack Vectors Using Signature-Based IDS in IoT Environments	Nazim Sheikh (Macquarie University, Australia); Tapan Kumar Hazra (Institute of Engineering & Management, India)
5:15 P.M – 5:30 P.M	1570597371	Partitioned Network with Adaptive Mobile Sinks	Tapan Kumar Hazra (Institute of Engineering & Management, India); Nazim Sheikh (Macquarie University, Australia); Hasina Rahman (Aliah University, India); Hamed Al-Qahtani (Macquarie University, India)

SESSION 35

TIME	EVENT	VENUE
4:00 P.M – 6:00 P.M	Workshop on IoT - Concepts to Implementation	GREAT HALL NORTH

SESSION 36		
TIME	EVENT	VENUE
6:00 P.M – 9:30 P.M	International Cultural Festival	GREAT HALL SOUTH