



PACRIM 2017



Monday August 21, 2017

09:00 – 10:00	Registration and Nutrition Break (ECS Lobby)		
10:00 – 10:15	Opening Ceremony and Greetings		
10:15 – 11:00	Solar Eclipse Event		
11:00 – 12:00	Keynote 1 (ECS-125): Dr. Maïke Luiken "Make Our Planet Blue Again?"		
12:10 – 13:30	Lunch (ECS Lobby)		
TRACK	M11 (ECS-116)	M12 (ECS-108)	M13 (ECS-104)
	Comm S1 (4)	Comp S1 (4)	SP S1 (4)
Session Chair	Tomoki Yoshihisa	Kosuke Takano	Aaron Gulliver
13:30 – 13:55	Enhanced congestion control method for servers and network lines with DPI technology	Aristotle: A Flexible Open-Source Software Toolkit for Semi-Automated Marking of Programming Assignments	A New Electromagnetic Jamming System for the Unmanned Aerial Vehicles
Author(s)	Shinya KATO, Kenichiro HIDA, Shin-ichi KURIBAYASHI	Michael D. Adams	Huaifeng Zhang, Hao Zhang, Xing Liu, T. Aaron Gulliver
13:55 – 14:20	An Energy Efficient Real-time Vehicle Tracking System	An Efficient FPGA-Based Memory Architecture for Compute-Intensive Applications on Embedded Devices	An Impression Estimation and Visualization Method for TV Commercials
Author(s)	Salman Almishari, Nor Ababtein, Prajna Dash, Kshirasagar Naik	S. Navid Shahrouzi, Darshika G. Perera	Takafumi Nakanishi, Keisuke Tamaru
14:20 – 14:45	TDOA-FDOA Source Geolocation Using Moving Horizon Estimation With Satellite Location Errors	Initial Study of a Phase-Aware Scheduling for Hardware Transactional Memory	An Improved Incremental/Decremental Delaunay Mesh-Generation Strategy for Image Representation
Author(s)	Changxu Shan, Le Yang, Liu Yang, Xi Li, Wei Li	Tomoki TAJIMI, Anju HIROTA, Ryota SHIOYA, Masahiro GOSHIMA, Tomoaki TSUMURA	Badr Eddine El Marzouki, Michael D. Adams
14:45 – 15:10	An Improved Cooperative Jammer Strategy for PHY Security in Multi-hop Communication system	A Trace-Driven Analytical Model with Less Profiling Overhead for DRAM Access Latencies	A Novel Edge-Preserving Mesh-Based Method for Image Scaling
Author(s)	Conghui Cao, Hao Zhang, Tingting Lu, T. Aaron Gulliver	Fengying Sun, Kecheng Ji, Ming Ling, Longxing Shi	Seyedali Mostafavian, Michael D. Adams
15:10 – 15:40	Nutrition Break (ECS Lobby)		
TRACK	M21 (ECS-116)	M22 (ECS-108)	M23 (ECS-104)
	Comm S2 (4)	Comp S2 (4)	SP S2 (4)
Session Chair	Fayez Gebali	Ken Kent	Michael Adams
15:40 – 16:05	Data Piece Elimination Technique for Interruption Time Reduction on Hybrid Broadcasting Environments	A Mechanistic Model of Memory Level Parallelism Fed with Cache Miss Rates	Deep Learning for Hydrophone Big Data
Author(s)	Tomoki Yoshihisa	Qin Wang, Kecheng Ji, Ming Ling, Longxing Shi	Colter McQuay, Farook Sattar, Peter F. Driessen
16:05 – 16:30	A 60 GHz Impulse Radio Positioning Algorithm Based on a BP Neural Network	A Kernel-based Solution for Overload in Mixed Criticality Multicore Systems	Marine Mammal Sound Anomaly and Quality Detection Using Multitaper Spectrogram and Hydrophone Big Data
Author(s)	Shuai Xing, Hao Zhang, Xiaolin Liang, T. Aaron Gulliver	Mostafa A. Al-Dosuky, Mona Safar, M. Watheq El-Kharashi	Farook Sattar, Colter McQuay, Peter F. Driessen

16:30 – 16:55	Energy Considerations for Node Localization	Hierarchical scheduling method corresponding to multiple macros of task graph	Enhancement of Time Compression Overlap-Add Using Multirate Downsample Upsample Shift Add Algorithm
Author(s)	<i>ThiOanh Bui, Pingping Xu</i>	<i>Motoki Hasegawa, Munenori Kai</i>	<i>Ahmed Youssef, Peter F. Driessen, Fayez Gebali, Moa Belaid, Stephen Harrison</i>
16:55 – 17:20	Design of Beidou Satellite Radome for Deep Sea Buoy	A Highly Efficient I/O-based Out-of-Core Stencil Algorithm with Globally Optimized Temporal Blocking	Performance Evaluation of Time Compression Overlap-Add Radar Systems Based on Order-Statistics CFAR under Convolution Noise Jamming
Author(s)	<i>Xiaolin Xia, Hao Zhang, Tingting Lu, T. Aaron Gulliver</i>	<i>Hiroko Midorikawa, Hideyuki Tan</i>	<i>Ahmed Youssef, Peter F. Driessen, Fayez Gebali and Moa Belaid</i>
18:00 – 21:00	Reception (Village Greens, Cadboro Commons)		
Tuesday August 22, 2017			
9:00 - 9:30	Registration and Nutrition Break (ECS Lobby)		
9:30-10:30	Keynote 2 (ECS-125): Jerome Etwaroo, P.Eng, "Supporting Innovation through Partnerships"		
10:30-11:00	Nutrition Break (ECS Lobby)		
TRACK	T11 (ECS-116)	T12 (ECS-108)	T13 (ECS-104)
	Comm S3 (3)	Comp S3 (3)	SP S3 (3)
Session Chair	Yvonne Coady	Jacqueline Rice	Mihai Sima
11:00-11:25	User Controlled Object Sharing between Java VM Instances	Data-Flow Implementation of Concurrent Asynchronous Systems	Automatic Image Cropping based on Bottom-up Saliency and Top-down Semantics
Author(s)	<i>Azden Bierbrauer, Konstantin Nasartschuk, Adam Richard, Kenneth B. Kent, Peter Shipton</i>	<i>Fayez Gebali, Ali Alzahrani</i>	<i>Jiang Lin, Ivan V. Bajic</i>
11:25-11:50	Hardware-Friendly Method for Rate-Distortion Optimization of HEVC Intra Coding	Remote Control of Low Cost Devices Using SNMP Agents	Performance enhancement by combining visual clues to identify sign language motions
Author(s)	<i>Yanling Xu, Xiaohu Guo, Dayao Wei</i>	<i>William Tadeu Poloni, Ricardo Becker, Ricardo Balbinot</i>	<i>Yuna Okayasu, Maitai Dahlan, Hiroshi Tanaka, Tatsunori Ozawa, Hiromitsu Nishimura</i>
11:50-12:15	Securing Email For The Average Users Via A New Architecture	A Novel Evaluation Method for Superscalar Out-of-Order ARM Microprocessors Targeting at Android Applications	Metrics for Evaluation of Educational Experiences: Will Virtual Reality Have Impact?
Author(s)	<i>Mehrdad Nourai, Haim Levkowitz</i>	<i>Yang Zhang, Zhi Qi, Xiaoxi Wu, Wenjie Fu</i>	<i>Rachel Ralph, Derek Jacoby, Yvonne Coady, Deepak Balachandar, Emily Burt, Nathan Hnguyen, Jongjik Kim, Krisha Maclang, Steven Wong, Larry Bafia</i>
12:15-13:30	Lunch (ECS Lobby)		
TRACK	T21 (ECS-116)	T22 (ECS-108)	T23 (ECS-104)
	Comm S4 (4)	Comp S4 (4)	SP S4 (4)
Session Chair	Haytham El Miligi	Shusuke Okamoto	Mihai Sima
13:30 – 13:55	Performance of Software-Defined Networking Controllers for Different Network Topologies	Knowledge Extraction from Creators of Presentation Slides on a Slide Sharing Service	Handwritten Digits Recognition Using PCA of Histogram of Oriented Gradient
Author(s)	<i>Kamel Alrashedy, Ben Kimmet, T. Aaron Gulliver</i>	<i>Hayato Tsukiji, Kosuke Takano</i>	<i>Wu-Sheng Lu</i>
13:55 – 14:20	Robot Control and Decision Making through Real-Time Sensors Monitoring and Analysis for Industry 4.0 Implementation on Aerospace Component Manufacturing	Improving the Performance of JVM Startup using the Shared Class Cache	Measurements of Construction Materials Penetration Losses at Frequencies from 26.5 GHz to 40 GHz
Author(s)	<i>T.Wijaya, W. Caesarendra, B.K. Pappachan, T. Tjahjowidodo</i>	<i>Dev Bhattacharya, Kenneth B. Kent, Eric Aubanel, Daniel Heidinga, Peter Shipton, Aleksandar Micic</i>	<i>Carlos Eduardo Orihuela Vargas, Luiz da Silva Mello, Carlos Rodriguez R</i>

14:20 – 14:45	Energy Efficient Cubical layered Path Planning Algorithm (EECPA) for Acoustic UWSNs	A Reversible Majority Voter Circuit and Applications	Disordered Speech Quality Estimation Using Linear Prediction
Author(s)	<i>Muhammad Aslam, Fan Wang, Zefeng Lv, Muhammad Asad, Samra Zafar, Ehsan Ullah Munir, Xiaopeng Hu</i>	<i>Md. Asif Nashiry, Jacqueline E. Rice</i>	<i>Yousef S Ettomi Ali, Vijay Parsa, Phillip Doyle, Soulimane Berkane</i>
14:45 – 15:10	MAHEE: Multi-Hop Advance Heterogeneity-aware Energy Efficient Path Planning Algorithm for Wireless Sensor Networks	A Fast and Scalable FPGA-Based Parallel Processing Architecture for K-Means Clustering for Big Data Analysis	Deep Learning for Amazon Satellite Image Analysis
Author(s)	<i>Naeem Ayoub, Muhammad Asad, Muhammad Aslam, Zhenguo Gao, Ehsan Ullah Munir, Rachida Tobji</i>	<i>Ramprasad Raghavan, Darshika G. Perera</i>	<i>Lior Bragilevsky, Ivan V. Bajić</i>
15:10-15:40	Nutrition Break (ECS Lobby)		
TRACK	T31 (ECS-116)	T32 (ECS-108)	
	Comm S5 (3)	Comp S5 (3)	
Session Chair	Stephen Neville	Darshika Perera	
15:40 – 16:05	-	Design and Evaluation of Page-swap Protocols for a Remote Memory Paging System	
Author(s)	-	<i>Hikari Oura, Hiroko Midorikawa, Kenji Kitagawa, Munenori Kai</i>	
16:05 – 16:30	Multipath TCP Path Schedulers for Streaming Video	PySciDON: A Python Scientific Framework for Development of Ocean Network Applications	
Author(s)	<i>Ryota Matsufuji, Dirceu Cavendish, Kazumi Kumazoe, Daiki Nobayashi, Takeshi Ikenaga</i>	<i>Nathan Vandenberg, Maycira Costa, Yvonne Coady, Tolu Agbaje</i>	
16:30 – 16:55	Improved Coding Gain of Clipped OFDM Signal using Avalanche effect of AES Block Cipher	Running a MPI Program on Web Browsers	
Author(s)	<i>M. Youssef. El-Ganiny, Hussein M. ElAttar, Mohamed A.Aboul Dahab, Talaat A.Elgarf</i>	<i>Shusuke Okamoto, Masaki Kohana</i>	
18:30-22:00	Banquet (Terrace Ballroom, Inn at Laurel Point)		
Wednesday August 23, 2017			
9:00 - 9:30	Registration and Nutrition Break (ECS Lobby)		
TRACK	W11 (ECS-116)	W12 (ECS-108)	
	Comm S6 (3)	Comp S6 (3)	
Session Chair	Aaron Gulliver	Fayez Gebali	
9:30-9:55	Dumb Pipes for Smart Systems: How Tomorrow's Applications can Salvage Yesterday's Plumbing	Assessing QoS Consistency in Cloud-based Software-as-a-Service Deployments	
Author(s)	<i>Tianming Wei, Yvonne Coady, Josh MacDonald, Kellogg Booth, Jon Salter, Cynthia Girling</i>	<i>Robert O'Dwyer, Stephen W. Neville</i>	
9:55-10:20	Complex Event Processing Enrichment: Motivations and Challenges	No Such thing as a "Free Launch"? Systematic Benchmarking of Containers	
Author(s)	<i>Alaa Alakari, Kin Fun Li, Fayez Gebali</i>	<i>Tianming Wei, Madhav Malhotra, Bing Gao, Tomas Bednar, Derek Jacoby, Yvonne Coady</i>	
10:20-10:45	An RSSI Based DV-Hop Algorithm for Wireless Sensor Networks	DockerSim: Full-stack Simulation of Container-based Software-as-a-Service (SaaS) Cloud Deployments and Environments	
Author(s)	<i>Han Xiao, Hao Zhang, Zengfeng Wang, T. Aaron Gulliver</i>	<i>Zahra Nikdel, Bing Gao, Stephen W. Neville</i>	