Final Technical Program

2014 Fifth IEEE International Conference on Communications and Electronics (ICCE)
CONFERENCE AT A GLANCE

-	Number of submitted papers	**228**
-	Number of full accepted papers	**96**
-	Number of poster papers	**29**
-	Full acceptance rate	**42,1%**
-	Number of countries	**24**

PROGRAM AT A GLANCE

Wednesday, July 30th, 2014

Time	
08:45 – 09:15	**Opening Ceremony:** − Speech of General Co-Chairs: Prof. Nguyen Xuan Quynh, The State Council for Professor Title, Vietnam − Conference introduction: Prof. Serge Fdida, Université Pierre et Marie Curie, France

Keynote Session
Time: 09:15 – 12:35
Room: **Lotus**
Session Chair: **Phuoc Tran-Gia**, University of Würzburg, Germany

Time	
09:15 – 10:00	**Keynote 1:** " The Origins of GENI: A Story of Sustained Research Community Engagement", by Prof. Peter A. Freeman, Georgia Tech. and formally NSF, USA
10:00 – 10:45	**Keynote 2:** "GENI – Global Environment for Network Innovations ", by Prof. Chip Elliott's, GENI Project Office and Raytheon BBN Technologies, USA
10:45 – 11:05	**Coffee Break**
11:05 – 11:50	**Keynote 3:** "Magnetic Resonance Imaging: It's just a Fourier Transform", by Prof. Gary Glover, Radiological Sciences Laboratory, University of Stanford, USA
11:50 – 12:35	**Keynote 4:** "5G: Era beyond Data Rate" , by Dr. Chih-Lin I, China Mobile Chief Scientist of Wireless Technologies, China
12:35 – 14:00	**Lunch at Restaurant Epice**

Time	Room: Lotus I	Room: Lotus II	Room: Lotus III	Room: Jasmine
14:00 – 15:30	**Tutorial 1:** "Quality of Mobile Multimedia Experience: Past, Present and Future" by *Hans-Jürgen Zepernick, Institute of Communication Systems of the Faculty of Computing of the Blekinge Institute of Technology (BTH), Karlskrona, Sweden*	**Tutorial 2:** "Immersive Visual Communication with Depth" by *Minh N. Do, University of Illinois at Urbana-Champaign, USA*	**Tutorial 3:** "Crowdsourcing–From Theory to Practice", by *Matthias Hirth[1], Nhatvi Nguyen[2], Phuoc Tran-Gia[1], [1]University of Würzburg, Germany and [2]Weblabcenter Inc., USA*	**Tutorial 4:** "Free Space Materials Characterization at 110GHz and beyond", by *Thang Yong Wee, Agilent Technologies*
15:30 – 16:00	**Coffee Break**			
16:00 – 18:00	**Tutorial 1 (cont.)**	**Tutorial 2 (cont.)**		**Tutorial 4 (cont.)**

Thursday, July 31st, 2014

	Room: Lotus I	Room: Lotus II	Room: Lotus III	Room: Jasmine	Room: Hibicus	Room: Magnolia
8:45 – 10:05	**CN-1:** Fiber-Optic Communications 1	**CN-7:** Future Internet		**ME-1:** Multi-band and Wide-band Antennas	**SPA-1:** Image and video processing I	**SS-1:** Crowdsourcing and Crowdsourcing Applications
10:05 – 10:45	**Coffee Break & Poster Session 1 – Communications**					
10:45 – 12:05	**CN-2:** Fiber-Optic Communications 2	**CN-8:** Software-Defined Networking	**ES-1:** DSP on FPGA	**ME-2:** Antennas and Propagation	**SPA-2:** Image and video processing II	**SS-2:** Information Hiding and Security in communications: Recent Developments
12:05 –13:45	**Lunch at Restaurant Epice**					
13:45 – 15:25	**CN-3**: Wireless Communications 1	**CN-9:** Energy-aware Networking	**ES-2:** Smart Sensor & Analog Devices 1	**ME-3:** Microwave Components, Subsystems and Applications	**SPA-3:** Signal detection and estimation	**SS-2 (cont.):** Information Hiding and Security in communications: Recent Developments
15:25– 16:05	**Coffee Break & Poster Session 2 - Electronics**					
16:05– 17:45	**CN-4**: Cognitive Radio	**CN-10:** Ad hoc and Sensor Networks	**ES-3:** Smart Sensor & Analog Devices 2			

GALA DINER
Time: 18:30 – 21:00
Venue: Beach side, Pullman Beach Resort Danang

Friday, August 1st, 2014

	Room: Lotus I	Room: Lotus II	Room: Lotus III	Room: Jasmine	Room: Hibicus	Room: Magnolia
8:45 – 10:05	**CN-5:** Wireless Communications 2	**CN-11**: Free Space Optical Communications	**ES-4:** ASIC Design and Verification			
10:05 – 10:45	**Coffee Break**					
10:45 – 12:05	**CN-6:** Wireless Communications 3	**CN-12**: Network Infrastructure and Services	**ES-5:** Computer and Memory Systems			

DETAILED TECHNICAL PROGRAM

NOTE:
- The speakers in oral sessions should prepare for 15 minutes presentation and 5 minutes discussion
- The presenters in poster sessions should prepare a poster in size A1

Time	Wednesday, July 30th, 2014
	ICCE 2014 Agenda
8:00 – 8:45	**Registration**

Opening
Time: 09:00 – 09:30
Room: Lotus

Time	
8:45 – 9:15	**Opening ceremony** − Speech of General Co-Chairs : Prof. Nguyen Xuan Quynh, The State Council for Professor Title, Vietnam − Conference introduction: Prof. Serge Fdida, Université Pierre et Marie Curie, France

Keynote Session
Time: 09:15 – 12:35
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Session Chair: **Phuoc Tran-Gia**, University of Würzburg, Germany

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15:30 – 16:00	**Coffee Break**			
16:00 – 18:00	**Tutorial 1 (cont.): "Quality of Mobile Multimedia Experience: Past, Present and Future**", by Prof. Hans-Jürgen Zepernick, Institute of Communication Systems of the Faculty of Computing of the Blekinge Institute of Technology	**Tutorial 2 (cont.):** "**Immersive Visual Communication with Depth**", Prof. Minh N. Do, University of Illinois at Urbana-Champaign, USA		**Tutorial 4 (cont.):** "**Free Space Materials Characterization at 110GHz and beyond**" by Mr. Thang Yong Wee, Agilent Technologies

	(BTH), Karlskrona, Sweden			

ORAL SESSIONS:

TRACK: COMMUNICATION NETWORKS AND SYSTEMS

Thursday, July 31st, 2014

CN-1: Fiber-Optic Communications 1
Time: 9:05 - 10:05
Room: Lotus I
Session chair: **Yoshinori Namihira** (University of Ryukyu, Japan)

Time	Title	Authors
9:05 - 9:25	*Invited paper*: Rigorous characterization of Nano-photonic Devices	B.M.A. Rahman (City University London, UK)
9:25 - 9:45	Generation of FCC-compliant ultra-wideband waveforms using directly modulated semiconductor distributed-feedback laser	Quang Trung Le, Dieter Briggmann, and Franko Kueppers (Technische Universit¨at Darmstadt, Germany)
9:45 – 10:05	A Study on Measuring Refractive Index by Using an Optoelectronic Oscillator	Toan Thang Pham, Isabelle Ledoux-Rak, and Bernard Journet; (Institut d'Alembert, ENS Cachan, France) Van Yem Vu (Hanoi University of Science and Technology, Vietnam)

CN-7: Future Internet
Time: 8:45 - 10:05
Room: Lotus II
Session chair: **Serge Fdida** (Université Pierre et Marie Curie, France)

Time	Title	Authors
8:45 - 9:05	GENI: Large-Scale Distributed Infrastructure for Networking and Distributed Systems Research	Mark Berman and Chip Elliott (GENI Project Office, Raytheon BBN Technologies Cambridge, MA, USA); Lawrence Landweber (GENI Project Office, University of Wisconsin, USA)
9:05 - 9:25	Adaptive Video Streaming with Smooth Advertisement Insertion	Hung T. Le, Anh T. Pham, and Truong Cong Thang (The University of Aizu, Aizu-Wakamatsu, Japan); Pham Ngoc Nam (Hanoi University of Science and Technology, Vietnam)
9:25 - 9:45	QoS-aware Multi-Cloud Brokering for NGN Services	Thomas Magedanz (Technische Universitat Berlin, Germany); Florian Schreiner (Fraunhofer FOKUS Institute, Germany)
9:45 – 10:05	Monitoring as a Service for Cloud Environments	Julius Mueller, Yahya Al-Hazmi, and Thomas Magedanz (Technical University, Berlin, Germany); David Palma (OneSource, Coimbra, Portugal); Giada Landi (Nextworks, Pisa, Italy); João Soares and Bruno Parreira (Portugal Telecom Inovação, Portugal); Thijs Metsch (Intel GmbH, Dublin, Ireland); Peter Gray and Alexander Georgiev (CloudSigma, Zurich, Switzerland); Paulo Simões (University of Coimbra, Portugal)

Coffee Break & Poster Session 1
Time: 10:05 - 10:45 (see below for detailed poster program)

CN-2: Fiber-Optic Communications 2
Time: 10:45 - 11:45
Room: Lotus I
Session chair: **Aziz Rahman** (City University London, UK)

Time	Title	Authors
10:45 - 11:05	Light Source Design Using Hollow Core Photonic Crystal Fibers	Md. Anwar Hossain, Yoshinori Namihira, and Takuro Yasui (University of the Ryukyus, Japan); Nguyen Hoang Hai (Hanoi University of Science and Technology, Vietnam)
11:05 - 11:25	A 622 Mbit/s Transmitter for POF-based Home Networks using Red LED	V. D. Trong and P. H. Binh (Vietnam Academy of Science and Technology Hanoi, Vietnam); T. C. Thang (University of Aizu)
11:25 - 11:45	New Proposal of Chromatic Dispersion Control in Honey Comb Photonic Crystal Fiber for Broadband Communication	Nghiem Xuan Tam, Nguyen Xuan Son, Pham Hong Thai, and Nguyen Hoang Hai (Hanoi University of Science and Technology, Vietnam)

CN-8: Software-Defined Networking
Time: 10:45 - 12:05
Room: Lotus II
Session chair: **Chip Elliott** (GENI Project Office and Raytheon BBN Technologies, USA)

Time	Title	Authors
10:45 - 11:05	*Invited talk*: "Software Defined Systems: From SDN to SDI"	Paul Mueller (University of Kaiserslautern, Germany)
11:05 - 11:25	OFCProbe: A Platform-Independent Tool for OpenFlow Controller Analysis	Michael Jarschel, Christopher Metter, Thomas Zinner; Steffen Gebert, and Phuoc Tran-Gia (University of

		W¨urzburg, Germany)
11:25 - 11:45	Model of Organization and Distribution of Applications for Software Defined Networks: SDNrepo	Rômulo S. Pinheiro, Billy A. Pinheiro, and Antonio Jorge Gomes Abelem (Federal University of Para, Brazil)
11:45 – 12:05	Running Lifecycle Experiments over SDN-enabled OF@TEIN Testbed	Aris Cahyadi Risdianto, Taeheum Na, and JongWon Kim (Gwangju Institute of Science and Technology, Korea)

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<tr><td colspan="3" align="center">Lunch at Restaurant Epice
Time: 12:05 - 13:45</td></tr>
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CN-3: Wireless Communications 1
Time: 14:05 - 15:25
Room: Lotus I
Session chair: **Vo Nguyen Quoc Bao** (Post and Telecommunications Institute of Technology, Vietnam)

Time	Title	Authors
14:05 – 14:25	Clustered Precoding for Coordinated Multi-Cell Systems Based on Signal-to-Leakage Ratios	Mehdi Sadeghzadeh, Hamid Reza Bahrami, and Nghi H. Tran (The University of Akron, USA)
14:25 – 14:45	Channel Estimation Method for SFBC MIMO-OFDM Based Wireless Two-Way Relay System in Time-Varying Fading Channel	Tanairat Mata, Kazuo Mori, and Hideo Kobayashi (Mie University, Japan); Pisit Boonsrimuang (King Mongkut's Institute of Technology Ladkrabang, Thailand)
14:45 – 15:05	Optimal Power Allocation Schemes for Single-Relay AF Wire-Tap Channels	Leonardo Jiménez Rodríguez and Tho Le-Ngoc (McGill University, Canada); Nghi H. Tran (The University of Akron, USA)
15:05 – 15:25	Coordinated Downlink Beamforming in Multicell Wireless Network	H. H. M. Tam, H. D. Tuan, and E. Che (University of Technology Sydney, Australia)

CN-9: Energy-aware Networking
Time: 14:25 - 15:25
Room: Lotus II
Session chair: **JongWon Kim** (Gwangju Institute of Science and Technology, Korea)

Time	Title	Authors
14:25 - 14:45	A Reliable Analyzer for Energy-Saving Approaches in Large Data Center Networks	Tran Manh Nam, Truong Thu Huong, Nguyen Huu Thanh, Pham Van Cong, Ngo Quynh Thu, Pham Ngoc Nam, Hoang Quoc Viet, and Luong Dinh Thoa (Hanoi University of Science and Technology, Vietnam)
14:45 – 15:05	GTP-based Load Model and Virtualization Gain for a Mobile Network's GGSN	Florian Metzger (University of Vienna, Austria); Christian Schwartz and Tobias Hoßfeld (University of Würzburg, Germany)
15:05 - 15:25	Including Energy Efficiency Aspects in Multi-Layer Optical Network Design	Steffen Gebert, David Hock, Matthias Hartmann, Joachim Spoerhase, Thomas Zinner, and Phuoc Tran-Gia (University of Würzburg, Germany)

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<tr><td colspan="3" align="center">Coffee Break & Poster Session 2
Time: 15:25 - 16:05 (see below for detailed poster program)</td></tr>
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CN-4: Cognitive Radio
Time: 16:05 – 17:45
Room: Lotus I
Session chair: **Nghi H. Tran** (The University of Akron, USA)

Time	Title	Authors
16:05 – 16:25	Receive Diversity in Cognitive Relay Transmission: Outage Analysis	Nguyen Hong Giang (Telecommunications University, Vietnam); Vo Nguyen Quoc Bao (Posts and Telecommunications Institute of Technology, Vietnam); Hung Nguyen-Le (University of Danang, Vietnam)
16:25 – 16:45	Cognitive AF Relay Assisting both Primary and Secondary Transmission with Beamforming	Thi My Chinh Chu, Hoc Phan, and Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden)
16:45 – 17:05	BER Analysis of Underlay Relay Cognitive Networks with Imperfect Nakagami-m Fading Channel Information	Khuong Ho-Van (HoChiMinh City University of Technology, Vietnam)
17:05 – 17:25	On the Performance of Underlay Cooperative Cognitive Networks with Relay Selection under Imperfect Channel Information	Khuong Ho-Van (HoChiMinh City University of Technology, Vietnam)
17:25 – 17:45	A game-theoretic framework for opportunistic transmission in wireless networks	Ca Van Phan (University of Technical Education Ho Chi Minh City, Vietnam)

CN-10: Ad hoc and Sensor Networks
Time: 16:05 - 17:45
Room: Lotus II
Session chair: **Matthias Hirth** (University of Würzburg, Germany)

Time	Title	Authors
16:05 - 16:25	An Efficient Method for Gathering Data Considering Energy and Delay Time on WSNs	Phat Nguyen Huu and Vinh Tran-Quang (Hanoi University of Science and Technology, Vietnam)
16:25 - 16:45	A Simple Method for Localization in Wireless Sensor Networks	Chuyen T. Nguyen and Van Yem Vu (Hanoi University of Science and Technology, Vietnam); Yao-Win Peter Hong (National Tsing-Hua University, Taiwan)

16:45 - 17:05	Toward Commodity Wireless Multihop Access Networks	Quang Tran Minh, Kien Nguyen, and Shigeki Yamada (National Institute of Informatics, Japan)
17:05 - 17:25	A Low Duty-Cycle XT-MAC Protocol for Target Tracking in Wireless Sensor Networks	Quan Nguyen-Trung, Thu Ngo-Quynh, and Vinh Tran-Quang (Hanoi University of Science and Technology, Hanoi, Vietnam)
17:25 - 17:45	Group Steiner Tree Model for Energy Efficient Multicast in Duty-Cycle Wireless Sensor Networks	Nguyen Thai Duong, Son Hong Ngo, and Huynh T. Thanh Binh (Hanoi University of Science and Technology, Vietnam)

GALA DINER
From 18:30 – 21:00
Venue: Beach side, Pullman Beach Resort Danang

Friday, August 1st, 2014

CN-11: Free Space Optical Communications
Time: 8:45 - 10:05
Room: Lotus II
Session chair: **Nguyen Van Tuan** (Da Nang University of Science and Technology, Vietnam)

Time	Title	Authors
08:45 – 09:05	Performance of Free-Space Optical Communications Using SC-QAM Signals Over Strong Atmospheric Turbulence and Pointing Errors	Ha Duyen Trung and Tuan Do Trong (Hanoi University of Science and Technology, Vietnam)
09:05 –09:25	APD-based Amplify-and-Forward Serial Relaying FSO Systems over Gamma-Gamma Channels	Thanh V. Pham, Ngoc T. Dang, and Anh T. Pham (University of Aizu, Japan)
09:25 – 09:45	Design and Performance Evaluation of VLC Indoor Positioning System using Optical Orthogonal Codes	Sari Yamaguchi, Vuong V. Mai, Truong C. Thang, and Anh T. Pham (University of Aizu, Japan)
09:45 – 10:05	Performance Analysis of Indoor MIMO Visible Light Communication Systems	Ngoc-Anh Tran, Duy A. Luong, Truong C. Thang, and Anh T. Pham (University of Aizu, Japan)

CN-5: Wireless Communications 2
Time: 9:05 - 10:05
Room: Lotus I
Session chair: **Ha Duyen Trung** (Hanoi University of Science and Technology, Vietnam)

Time	Title	Authors
9:05 - 9:25	A Proposed Iterative Decoder for ATSC Standard	Pham Hai Dang and Nguyen Tien Dung (Hanoi University of Science and Technology, Vietnam); Tran Minh Hai (University of the Ryukyus, Japan)
9:25 - 9:45	Symbol-Based Parallel Message-Passing Decoding on Partial-Response Channels	Wicharn Singhaudom and Pornchai Supnithi (King Mongkut's Institute of Technology Ladkrabang, Thailand)
9:45 – 10:05	A Nonlinear Method of Multipath Mitigation for new GNSS signals	Hung Pham Viet, Chien Dao Ngoc, and Khang Nguyen Van (Hanoi University of Science and Technology, Vietnam)

Coffee Break
Time: 10:05 - 10:45

CN-6: Wireless Communications 3
Time: 10:45 - 11:45
Room: Lotus I
Session chair: **Pornchai Supnithi** (KMITL, Thailand)

Time	Title	Authors
10:45 - 11:05	An OFDM-based Chaotic DSSS Communication System with M-PSK Modulation	Nguyen Xuan Quyen, Le Van Cong, Nguyen Huu Long, and Vu Van Yem (Hanoi University of Science and Technology, Vietnam)
11:05 - 11:25	A Geometry-Based Channel Model for Shallow Underwater Acoustic Channels Under Rough Surface and Bottom Scattering Conditions	Meisam Naderi, Matthias Pätzold (University of Agder, Norway); Alenka G. Zajic (Georgia Institute of Technology, USA)
11:25 - 11:45	Experimental Testing of Asymmetric Underwater Acoustic Networks	Usa Vilaipornsawai, Ant´onio Silva, and S´ergio M. Jesus (University of Algarve, Portugal)

CN-12: Network Infrastructure and Services
Time: 10:45 - 12:05
Room: Lotus II
Session chair: **Paul Mueller** (University of Kaiserslautern, Germany)

Time	Title	Authors
10:45 - 11:05	Chaotic Ad-hoc Data Network -- A Bike Based System for City Networks	Bernhard Isemann, Markus Gruber, Janki Grünberger, Christian Schanes, and Thomas Grechenig (Vienna University of Technology, Austria)
11:05 - 11:25	A Tracking Area List Configuration Method to Mitigate Burst Location Updates	Satoshi Ikeda, Nobuharu Kami, and (NEC Corporation, Japan)
11:25 - 11:45	Hybrid Priority Schemes for the Message Scheduling for CAN-Based Networked Control Systems	NGUYEN Trong Cac and NGUYEN Van Khang (Hanoi University of Science and Technology, Vietnam); NGUYEN Xuan Hung (UINT Company, France)
11:45 –	A New Technique to Enhance Accuracy of WLAN	Long Vu-Hoang, Hung Nguyen-Manh, Chinh Phan-Duy, Dung

| 12:05 | Fingerprinting Based Indoor Positioning System | Le-Quang, Thanh Do-Van, and Vinh Tran-Quang (Hanoi University of Science and Technology, Vietnam) |

TRACK: ELECTRONICS SYSTEMS

Thursday, July 31st, 2014

ES-1: DSP on FPGA
Time: 10:45 - 12:05
Room: Lotus III
Session chair: **Francis M. Bui** (University of Saskatchewan, Canada)

Time	Title	Authors
10:45 - 11:05	FPGA Implementation of the Synchronization for IEEE 802.11n WLAN systems	Minh-Duc Nguyen, Viet-Tan Nguyen, Tien-Dat Nguyen, Vu-Thang Nguyen, and Vu-Duc Ngo (Hanoi University of Science and Technology, Vietnam); Xuan-Nghia Nguyen (Vietnam Mobile Telecom Services Company, Vietnam)
11:05 - 11:25	Enhancement and FPGA Implementation of ANFIS Algorithm in Digital Image Processing	Truong Hoai Duy and Nguyen Van Cuong (Danang University of Technology, Vietnam)
11:25 - 11:45	Design space exploration for a single-FPGA handwritten digit recognition system	Thang Viet Huynh (The University of Danang, Vietnam)
11:45 – 12:05	High Throughput FPGA Architecture for Corner Detection in Traffic Images	Tung H. Dinh, Dao Q. Vu, Vu-Duc Ngo, Nam Pham Ngoc, and Vu T. Truong (Hanoi University of Science and Technology, Vietnam)

Lunch at Restaurant Epice
Time: 12:05 - 13:45

ES-2: Smart Sensor & Analog Devices 1
Time: 14:25 - 15:25
Room: Lotus III
Session chair: **Nguyen Vu Thang** (Hanoi University of Science and Technology, Vietnam)

Time	Title	Authors
14:25 - 14:45	Sub-threshold CMOS Voltage-Multipliers using Hybrid RF-Piezoelectric Energy Scavenging	Thanh Trung Nguyen and Shantanu Chakrabartty (University of Oslo, Norway); Tao Feng and Philipp Häfliger (Michigan State University,USA)
14:45 – 15:05	Optimization of Piezoelectric Energy Harvesting Systems by Using a MPPT Method	Xuan-Dien DO, Seok-Kyun Han, and Sang-Gug Lee (Korea Advanced Institute of Science and Technology, Korea)
15:05 - 15:25	A High Power Conversion Efficiency Rectifier with New Internal VTh Cancellation Topology for RFID Applications	Dat Nguyen, Toan Nguyen, Long Nguyen, and Loan Pham-Nguyen (Hanoi University of Science and Technology, Hanoi); Guillaume Thenaisie and Sang-Gug Lee (Korea Advanced Institute of Science and Technology, Korea)

Coffee Break & Poster Session 2
Time: 15:25 - 16:05 (see below for detailed poster program)

ES-3: Smart Sensor & Analog Devices 2
Time: 16:05 - 17:05
Room: Lotus III
Session chair: **Loan Pham-Nguyen** (Hanoi University of Science and Technology, Vietnam)

Time	Title	Authors
16:05 – 16:25	A Zero Current Detector With Low Negative Inductor Current Using Forced Freewheel Switch Operation In Synchronous DC-DC Converter	Ngan K. Hoang and Sang-Gug Lee (Korea Advanced Institute of Science and Technology, Korea); Young-Jin Woo (Silicon Works Co. Ltd., Korea)
16:25 – 16:45	The Voltage-mode with Triple-input Single-output Universal Biquad Filter Using DURCs and CCCIIs	Sorapong Wachirarattanapornkul, Boonchana Purahong, and Vanvisa Chutchavong (King Mongkut's Institute of Technology Ladkrabang, Thailand)
16:45 – 17:05	Design of folded CCDs for Ultra High Speed Imaging	Nguyen, H. D (Hanoi University of Science and Technology, Vietnam); Dao, V. T. S and Etoh, T. G (Ritsumeikan University, Japan)

GALA DINER
From 18:30 – 21:00
Venue: Beach side, Pullman Beach Resort Danang

Friday, August 1st, 2014

ES-4: ASIC Design and Verification
Time: 8:45 - 10:05
Room: Lotus III
Session chair: **Pham Ngoc Nam** (Hanoi University of Science and Technology, Vietnam)

Time	Title	Authors
8:45 - 9:05	MultiStage ASIC Implementation of the Mersenne Twister Pseudorandom Number Generator	Thuy T Le (San José State University, USA); Sricharan Narayanan (Intel Corporation, USA)
9:05 - 9:25	Design of a Parallel CAM-based Multi-Match Search System Using 0.18-μm CMOS Process	Duc-Hung Le (Vietnam National University Ho Chi Minh City); Katsumi Inoue (Advanced Original Technologies, Japan); Cong-Kha Pham (The University of Electro-Communications, Japan)

Time	Title	Authors
9:25 - 9:45	AHB-Master Controller Formal Compliance Verification	Nguyen Son Lam and Nguyen Duc Minh (Hanoi University of Science and Technology, Vietnam)
9:45 – 10:05	An open source Verilog front-end for digital design analysis at word level	Minh D. Nguyen, Quan V. Dang, and Lam Son Nguyen (Hanoi University of Science and Technology, Vietnam)

<table>
<tr><td colspan="3" align="center">Coffee Break
Time: 10:05 - 10:45</td></tr>
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ES-5: Computer and Memory Systems
Time: 10:45 - 12:05
Room: Lotus III
Session chair: **Thuy T Le** (San José State University, USA)

Time	Title	Authors
10:45 - 11:05	Hardware Modelling of Frequency Recovery in an Upstream Demodulator for DOCSIS 3.0	Suresh Kalle and Francis M. Bui (University of Saskatchewan, Canada)
11:05 - 11:25	Memory-efficient signature matching for ClamAV on FPGA	Tran Ngoc Thinh and Tran Trung Hieu (HCMC University of Technology, Vietnam); Hiroshi Ishii and Shigenori Tomiyama (Tokai University, Japan)
11:25 - 11:45	Parallel Random Access Memory in a Shared Memory Architecture	Tran Duc Linh and Tony de Souza-Daw (RMIT University, Ho Chi Minh, Vietnam); Thang Manh Hoang and Nguyen Tien Dzung (Hanoi University of Science and Technology, Vietnam)
11:45 – 12:05	Magnetic Camera for visualizing Magnetic Fields of Home Appliances	Bui Anh Tuan and Anthony de Souza-Daw (RMIT University, Ho Chi Minh, Vietnam); Hoang Minh Phuong, Thang Manh Hoang, and Nguyen Tien Dzung (Hanoi University of Science and Technology, Vietnam)

TRACK: MICROWAVE ENGINEERING

Thursday, July 31st, 2014

ME-1: Multi-band and Wide-band Antennas
Time: 8:45 - 10:05
Room: Jasmine
Session chair: **Makoto Ando** (Tokyo Institute of Technology, Japan)

Time	Title	Authors
8:45 - 9:05	Compact Multi-band Antenna and Matching Circuit for LTE Low Frequency Bands	Thanh-Nga Mai, Anne-Claire Lepage, and Bernard Huyart (Telecom ParisTech, France)
9:05 - 9:25	Dual band hexagonal microstrip antenna loaded with hexagonal and cylindrical EBG	Karthikeya G. S and Dr.Hariprasad S. A (BMSIT, India); Shravan Kaundinya (APSCE, India)
9:25 - 9:45	Analysis and Design of Antipodal Vivaldi Antenna for UWB Applications	Hien Chu Ba and Hiroshi Shirai (Chuo University, Japan); Chien Ngoc Dao (Hanoi University of Science and Technology, Vietnam)
9:45 – 10:05	A Small Planar Inverted-F Antenna for GSM Applications	Ngo Hoai Nguyen, Kieu Trung Liem, Nguyen Dinh Uyen, and Doan Phuong Duy (International University - Ho Chi Minh City National University, Vietnam)

Coffee Break & Poster Session 1
Time: 10:05 - 10:45 (see below for detailed poster program)

ME-2: Antennas and Propagation
Time: 10:45 - 11:45
Room: Jasmine
Session chair: **Dao Ngoc Chien** (Ministry of Science and Technology, Vietnam)

Time	Title	Authors
10:45 - 11:05	Design of a Parallel Plate Slot Array Antenna Fed by a Rectangular Coaxial Line	Jiro Hirokawa, Hajime Nakamichi, Makoto Sano, and Makoto Ando (Tokyo Institute of Technology, Japan); Katsumori Sasaki and Ichiro Oshima (Denki Kogyo Co., Ltd., Japan)
11:05 - 11:25	Evolutionary Algorithm for Bandstop Frequency Selective Surface	Linh Ho Manh, Marco Mussetta, and Riccardo Enrico Zich (Politecnico di Milano, Italy)
11:25 - 11:45	Diversity Property of Millimeter Wave Wireless Networks against Localized Rain	Hung V. Le, Takuichi Hirano, Jiro Hirokawa, and Makoto Ando (Tokyo Institute of Technology, Japan)

Lunch at Restaurant Epice
Time: 12:05 - 13:45

ME-3: Microwave Components, Subsystems and Applications
Time: 14:05 - 15:25
Room: Jasmine
Session chair: **Vu Van Yem** (Hanoi University Of Science and Technology, Viet Nam)

Time	Title	Authors
14:05 - 14:25	Implementation of a Mobile Instrument for Complex Permittivity Measurement of Liquids Based on Microwave Resonant Method	Anupan Phungasem, Kittipong Nuanyai, Nutdechatorn Puangngernmak, and Suramate Chalermwisutkul (King Mongkut's University of Technology North Bangkok, Thailand)
14:25 - 14:45	Material Choices of Honeycomb Structures and their Effects in mm-Wave RLSAs	Tung Nguyen, Jiro Hirokawa, and Makoto Ando (Tokyo Institute of Technology, Japan); Osamu Amano, Shuichi Koreeda, and Takaomi Matsuzaki (NEC Toshiba Space Systems, Japan)
14:45 – 15:05	Design of A 10-MHz Low Phase-Noise Oscillator Using Second-Mode Face Shear Square Micromechanical Resonator	Tan-Loc Nguyen, Mingzheng Pan, Yuan Ling, Zhipeng Li, and Jingfu Bao (University of Electronic Science and Technology of China, China)
15:05 - 15:25	A Butterfly MMI Waveguides Based Polarization Beam Splitter Etched on SOI platform	Cao Dung Truong and Duc Han Tran (Hanoi University of Science and Technology, Vietnam); Vu Chung Hoang (Vietnam Academy Institute of Science and Technology, Vietnam); Trung Thanh Le (Hanoi University of Natural Resource and Environment, Vietnam)

Coffee Break & Poster Session 2
Time: 15:25 - 16:05 (see below for detailed poster program)

GALA DINER
From 18:30 – 21:00
Venue: Beach side, Pullman Beach Resort Danang

TRACK: SIGNAL PROCESSING AND APPLICATIONS

Thursday, July 31st, 2014		
SPA-1: Image and video processing I Time: 9:05 - 10:05 Room: Hibicus Session chair: **Thi-Lan Le** (HUST, Vietnam)		
Time	**Title**	**Authors**
9:05 - 9:25	Asymmetric Diamond Search Pattern for Motion Estimation in HEVC	Phong Nguyen, Hieu Tran, Hai Nguyen, Cuong Vo; Binh Nguyen, Vu-Duc Ngo, and Vu-Thang Nguyen (Hanoi University of Science and Technology, Vietnam, Vietnam); Xuan-Nghia Nguyen (Vietnam Mobile Telecom Services Company, Vietnam)
9:25 - 9:45	Fast FPGA implementation of YUV based fractal image compression	Thai Nam Son (Vietnam National Television, Vietnam); Thang Manh Hoang and Nguyen Tien Dzung (Hanoi University of Science and Technology Vietnam); Nguyen Hoang Giang (Hanoi Open University, Vietnam)
9:45 – 10:05	Mapping Services in Indoor Enviroments based on Image Sequences	Nguyen Quoc Hung, Hai Vu, and Thi-Thanh-Hai Tran (Hanoi University of Science and Technology, Vietnam); Quang-Hoan Nguyen (Hung Yen University of Technology and Education, Vietnam)
Coffee Break & Poster Session 1 Time: 10:05 - 10:45 (see below for detailed poster program)		
SPA-2: Image and video processing II Time: 10:45 - 11:45 Room: Hibicus Session chair: **Nguyen Tien Dzung** (HUST, Vietnam)		
Time	**Title**	**Authors**
10:45 - 11:05	Sparsely Sampled functional Magnetic Resonance Imaging Using Low-rank and Sparsity Constraints	Hien M. Nguyen (Hanoi University of Science and Technology, Vietnam); Gary H. Glover (Stanford University, Vietnam)
11:05 - 11:25	A Proposed Adaptive Image Segmentation Method Based on Local Excitatory Global Inhibitory Region Growing	Trong-Thuc Hoang, Quang-Trung Tran, and Trong-Tu Bui (The University of Science, Ho Chi Minh City, Vietnam)
11:25 - 11:45	Triangulation of an elevation surface structured by a sparse 3D grid	Van Sinh NGUYEN (International University of HCMC, Vietnam); Alexandra BAC and Marc DANIEL (Aix-Marseille University, France)
Lunch at Restaurant Epice Time: 12:05 - 13:45		
SPA-3: Signal detection and estimation Time: 14:05 - 15:25 Room: Hibicus Session chair: **Nguyen Minh Hien** (HUST, Vietnam)		
Time	**Title**	**Authors**
14:05 - 14:25	An improved noise reduction algorithm for speech signals using a microphone array	Van Binh Truong, Duc Minh Nguyen, and Quang Hieu Dang (Hanoi University of Science and Technology, Vietnam)
14:25 - 14:45	Dual PTZ Cameras Approach for Security Face Detection	Duc X Tran, Tien D Nguyen, Hieu M Bui, Son T Nguyen, Hong X Hoang, Thanh C Pham, and Tony de Souza-Daw (RMIT Vietnam University, Ho Chi Minh City, Vietnam)
14:45 – 15:05	An analysis on human fall detection using skeleton from Microsoft Kinect	Thi-Thanh-Hai Tran and Thi-Lan Le (Hanoi University of Science and Technology, Vietnam); Jeremy Morel (Bordeaux Institute of Technology, France)
15:05 - 15:25	Abnormal event detection using multimedia information for monitoring system	Do-Dat Tran, Thi-Lan Le, and Thi-Thanh-Hai Tran (Hanoi University of Science and Technology, Vietnam)
Coffee Break & Poster Session 2 Time: 15:25 - 16:05 (see below for detailed poster program)		
GALA DINER **From 18:30 – 21:00** **Venue: Beach side, Pullman Beach Resort Danang**		

SPECIAL SESSION ON CrowdSourcing and Crowdsourcing Applications

Thursday, July 31st, 2014		
SS-1: CrowdSourcing and Crowdsourcing Applications Time: 8:45 - 10:05 Room: Magnolia Session chair: **Nhatvi Nguyen** (Microworkers, USA)		
Time	**Title**	**Authors**
8:45 - 9:05	A Context-Aware Approach to Microtasking in a Public Transport Environment	Shinichi Konomi, Wataru Ohno, Tomoyo Sasao, and Kenta Shoji (The University of Tokyo, Japan)
9:05 - 9:25	Cost Models of Quality Assurance in Crowdsourcing	Deniz Iren and Semih Bilgen (Middle East Technical University, Turkey)
9:25 - 9:45	Predicting Result Quality in Crowdsourcing Using Application Layer Monitoring	Matthias Hirth, Sven Scheuring, Tobias Hoßfeld, Christian Schwartz, and Phuoc Tran-Gia (University of Wuerzburg, Germany)
9:45 – 10:05	Is affective crowdsourcing reliable?	Isabelle Hupont (Aragon Institute of Technology, Spain); Pierre Lebreton (Berlin University of Technology, Germany); Toni Mäki (VTT Technical Research Centre of Finland, Finland); Evangelos Skodras (University of Patras, Greece); Matthias Hirth (University of W¨urzburg, Germany)
Coffee Break & Poster Session 1 Time: 10:05 - 10:45 (see below for detailed poster program)		
Lunch at Restaurant Epice Time: 12:05 - 13:45		
GALA DINER **From 18:30 – 21:00** **Venue: Beach side, Pullman Beach Resort Danang**		

SPECIAL SESSION ON Information Hiding and Security in Communications: Recent Developments

Thursday, July 31st, 2014		
SS-2: Information Hiding and Security in Communications: Recent Developments Time: 10:45 - 12:05 Room: Magnolia Session chairs: **Santo Banerjee** (University Putra Malaysia, Malaysia)		
Time	**Title**	**Authors**
10:45 - 11:05	Achieving Secure Chaotic Communication Using EKF-Based Embedded-Keys System	Jia-Hong Lin and Wei-Song Lin (National Taiwan University, Taiwan)
11:05 - 11:25	A Novel Fuzzy Approach for Phishing Detection	To Ba Lam (Duy Tan University, Vietnam); Luong Anh Tuan Nguyen and Huu Khuong Nguyen (Ho Chi Minh City University of Transport, Vietnam); Hoang Minh Nguyen (University of Economics and Law, Vietnam)
11:25 - 11:45	A Discounted Stochastic Game Approach to Intrusion Detection in Wireless Ad Hoc Networks	Hussein Moosavi and Francis Minhthang Bui (University of Saskatchewan, Canada)
11:45 – 12:05	On the resistance of Serpent-type 4 bit S-boxes against differential power attacks	Cuong Nguyen, Lai Tran, and Khoa Nguyen (Academy of cryptography techniques, Vietnam)
Lunch at Restaurant Epice Time: 12:05 - 13:45		
SS-2 (cont.): Information Hiding and Security in Communications: Recent Developments Time: 13:45 - 15:25 Room: Magnolia Session chairs: Prof. Francis Bui (University of Saskatchewan, Canada)		
Time	**Title**	**Authors**
13:45 - 14:05	Secret key management and dynamic security coding system	Thi Huyen Trang Nguyen and Jean-Pierre Barbot (ENS Cachan, France)
14:05 - 14:25	Secret Information Transmission Scheme Using MIMO System	Takuma Takimura, Hideichi Sasaoka, and Hisato Iwai (Doshisha University, Japan)
14:25 - 14:45	Wireless Steganography using MIMO system	Keisuke Hokai, Hideichi Sasaoka, and Hisato Iwai (Doshisha University, Japan)
14:45 – 15:05	Implementation and Evaluation of an Hyperchaos-based PRNG	Abdelkader Senouci and A. Boukabou (Jijel University, Algeria); I. Benkhaddra (Ecole Militaire Polytechnique, Algeria); K. Busawon (Newcastle upon Tyne, UK)
15:05 - 15:25	Chaos-based S-box for Lightweight Block Cipher	Ta Thi Kim Hue and Thang Manh Hoang (Hanoi University of Science and Technology, Vietnam); Dat Tran (University of Canberra, Vietnam)
Coffee Break & Poster Session 2 Time: 15:25 - 16:05 (see below for detailed poster program)		
GALA DINER **From 18:30 – 21:00** **Venue: Beach side, Pullman Beach Resort Danang**		

POSTER SESSIONS:

Thursday, July 31st, 2014

Poster Session 1

Time	Title	Authors
10:05 – 10:45	A Novel Quad Band Slot Antenna for GSM, LTE and WLAN applications	Shravan Kaundinya (APSCE, India); Karthikeya G.S, and Dr. Hariprasad S.A. (BMSIT, India)
	Secret Key Capacity of Secret Key Agreement Scheme Using Multiple Antennas	Naoki Iwamoto, Hideichi Sasaoka, and Hisato Iwai (Doshisha University, Japan)
	Dynamic Almost Blank Subframe Scheme for Enhanced Intercell Interference Coordination in LTE-A Heterogeneous Networks	A. Daeinabi and K. Sandrasegaran (University of Technology Sydney, Australia)
	An Improvement of the Lp-Norm Method to Model Acoustic Shallow Water Channels	Xuan Thang Nguyen, Xuan Bach Tran, and Van Duc Nguyen (Hanoi University of Science and Technology, Vietnam)
	A Novel Channel Estimation Method for IEEE 802.11p	Chunfan Wei and David W. Lin (National Chiao Tung University, Taiwan)
	Numerical Calculation of Achievable Rates for Cognitive Radio with Dynamic Frequency Hopping Under Imperfect Spectrum Sensing	Duc-Anh Le, Hung V. Vu, and Nghi H. Tran (University of Akron, USA); Trung Q. Duong (Queen's University of Belfast, UK); Duy Ngo (The University of Newcastle, Australia)
	Multicell Transmission over Multiple Access Channel: Precoding and Postcoding	Vien Nguyen-Duy-Nhat, Chien Tang-Tan, and Quang Le (Danang University of Science and Technology, Vietnam); Hung Nguyen-Le (The University of Danang, Vietnam)
	Performance of IEEE 802.15.8 Peer Aware Communications	Hyungsik Han, Woowan Wang, Jinwoo Kim, and Hyuncheol Park (Korea Advanced Institute of Science and Technolog, Korea); Hyungjin Kim and Sung Cheol Chang (Electronics and Telecommunications Research Institute, Korea)
	A Modified Multiple Modulus Algorithm for Blind Channel Equalization of High Order QAM Signals	Huy-Dung Han (Hanoi University of Science and Technology, Vietnam)
	A Low Cost GPS Tracking System for Marine Monitoring, Search and Rescue (MSnR) Using Dual Tone Multi-Frequency (DTMF) for Analog Radio	Kieu Trung Liem, Nguyen Dinh Uyen, Doan Phuong Duy, and Ngo Hoai Nguyen (International University – Ho Chi Minh National University, Vietnam)
	Peer list sharing by router collaboration for P2PTV traffic localization	Hiep Hoang-Van and Takumi Miyoshi (Shibaura Institute of Technology, Japan); Olivier Fourmaux (UPMC Sorbonne Universites, France)
	Virtual Application Layer for Policy Management in Programmable Networks using NFV	Van-Giang Nguyen and Younghan Kim (Soongsil University, Korea)
	Security Analysis of Software Defined Networking Protocols—OpenFlow, OF-Config and OVSDB	Markus Brandt (TU Darmstadt, Germany); Rahamatullah Khondoker, Ronald Marx, and Kpatcha Bayarou (Fraunhofer Institute for Secure Information Technology, Germany)
	Performance Evaluation of Local Fast Failover on OpenFlow Switch	Kien Nguyen (National Institute of Information and Communication Technology, Japan); Hoang Tran-Viet and Toan Nguyen-Duc (Hanoi University of Science and Technology, Vietnam); Quang Tran Minh and Shigeki Yamada (National Institute of Informatics, Japan)

Poster Session 2

Time	Title	Authors
15:25-16:05	Wide Bandwdith Vialess Composite Right/Left Hand Antennas in the UHF Band	Binh Pham, Jia-Chi Samuel Chieh, and Anh-Vu Pham (University of California Davis, USA)
	Non-Geostationary Satellite Tracking Antenna by means of Fuzzy Logic High Precision Control	Minh Quan Duong, Francesco Grimaccia, Marco Mussetta, and Riccardo Zich (Politecnico di Milano, Italy); Kim Hung Le (University of Science and Technology, Vietnam)
	Radiation Characteristics of a Wearable Antenna with Woven Fiber Structure	Tien Manh Nguyen and Jae-Young Chung (Seoul National University of Science and Technology, Korea)
	Design of Video Equalizer for Chrominance Delay Distortions by using Hurwitz Polynomials and Linear Phase Approximation Technique	V.Chutchavong, S.Poungpayom, and O. Sangaroon (King Mongkut's Institute of Technology Ladkrabang, Thailand); K. Janchitrapongvej (Southeast Bangkok College, Thailand)
	Reconstruction of parametric surfaces using inverse Doo-Sabin subdivision scheme	Le Thi Thu Nga, Nguyen Tan Khoi (University of Science and Technology, Vietnam); Nguyen Thanh Thuy (HaNoi National University)
	A Method for Efficient Environment Modeling in Pervasive Applications	Dinh-Van Nguyen, Trung-Kien Dao, Eric Castelli, and Hung-Long Nguyen (Hanoi University of Science and Technology, Vietnam)
	Recognition of Vietnamese Warning Traffic Signs Using Scale Invariant Feature Transform	Binh Quang Long Mai, Phuong Thi Dao, Huu Tue Huynh, and Dong Anh Doan (International University, Vietnam National University, Vietnam)
	Direction of Arrival estimation using the Total Forward -	HAN Trong Thanh, VU Van Yem, Nguyen Duy Minh, and

	Backward Matrix Pencil Method	Hoang Duc Thang (Hanoi University of Science and Technology, Vietnam)
	A signal processing method to remove environmental effects for damage detection in bridge structures	Nguyen V.H., Mahowald J., and Maas S. (University of Luxembourg, Luxembourg); Golinval J.-C. (University of Liege, Belgium)
	Three-electrode capacitive sensor for air-bubble inside fluidic flow detection	Nguyen Dac Hai and Tran Thi Thuy Ha (Posts and Telecommunications Institute of Technology, Hanoi, Vietnam); Vu Quoc Tuan, Pham Quoc Thinh, and Chu Duc Trinh (University of Engineering and Technology-National University, Hanoi, Vietnam)
	Analysis of Stakeholder Concerns for Vehicle Navigation System Architecture Solution	Xiaoying Kong, Li Liu, and Kumbesan Sandrasegaran (University of Technology, Australia); Tich Phuoc Tran (Victoria University, Sydney, Australia)
	A Circuit Structure for MOS Only R-2R Ladder DAC Having Higher Linearity	Takumu Yomogita, Koichiro Ishibashi, and Cong-Kha Pham (The University of Electro-Communications, Japan); Nobuyuki Sugii and Shiro Kamohara (Low-power Electronics Association & Project (LEAP), Tsukuba, Japan, Japan);
	Current Mode All-pass Filter using CDTA and Uniform Distributed RC	Attiya Khwanphrai, Supachai Klungtong, Virote Pirajnanchai, and Paitoon Rakluea (Faculty of Engineering, Rajamangala University of Technology Thanyaburi, Thailand)
	A Digital Fast Soft-Start Control Method In DC-DC Converter For Smart Sensor Applications	Ngan K. Hoang and Sang-Gug Lee (KAIST, Korea); Young-Jin Woo (Silicon Works Co. Ltd., Korea)
	Home Energy Management System using IPv6 IEEE1888 Networking	Duong Hoang Le, Pongpot Chaiboonruang, and Wanchalerm Pora (Chulalongkorn University, Thailand)

EXHIBITIONS:

An exhibtions will be available during 3 days of the conference.

Agilent
Free-space techniques using a network analyzer for measuring dielectric and magnetic properties of materials in the microwave to mm-wave frequency range will be discussed. These measurements are often used for design and test of radome, low observables, and absorbing materials, but this non-contacting technique is useful for other materials as well. A featured topic will be Gated Reflect Line calibration, an innovative calibration technique developed by Agilent.