

Final Technical Program

2018 IEEE Seventh International Conference on Communications and Electronics (IEEE ICCE 2018)

SUBMISSION and ACCEPTANCE at A GLANCE

| | |
|----------------------------------|--------|
| – Number of submitted papers | 187 |
| – Number of full accepted papers | 62 |
| – Number of poster papers | 24 |
| – Acceptance rate of full papers | 32.62% |
| – Number of submitting countries | 29 |

PROGRAM AT A GLANCE

| Wednesday, 18 July, 2018 | | | |
|---|--|--|---|
| 08:45 – 09:15 | Opening Ceremony: <ul style="list-style-type: none"> – Welcome speeches of General Co-Chairs: Prof. Nguyen Xuan Quynh, Senior Expert of NCSTP, Chairman of the State Council for Professor Title on Electricity–Electronics and Automation, Vietnam Prof. Hoang Minh Son, Rector of Hanoi University of Science and Technology, Vietnam – Conference introduction: Prof. Phuoc Tran-Gia, Vice-president, University of Wuerzburg, Germany | | |
| Keynote Session Time: 09:15 – 12:00 Room: Le Cinéma Session Chair: Serge Fdida (Sorbonne University, France) | | | |
| 09:15 – 10:00 | Keynote 1: “Progress in Quantum Dots: From Science to Engineering” by Yasuhiko Arakawa, Institute for Nano-Quantum Information Electronics, The University of Tokyo | | |
| 10:00 – 10:45 | Keynote 2: “Scalable Solutions for Telecommunications Network Design and Optimization” by Moshe Zukerman, City University of Hong Kong, China | | |
| 10:45 – 11:15 | Coffee Break | | |
| 11:15 – 12:00 | Keynote 3: “A Closed-loop Brain-Machine Interface: The Next Frontier” by Jan Van der Spiegel, University of Pennsylvania, USA | | |
| 12:00 – 13:30 | Lunch at Restaurant Jules Ferry | | |
| | Room: Le Cinéma A | Room: Le Cinéma B | Room: Le Royal |
| 13:30 – 15:00 | Tutorial 1: “Quantum Computing” by Joanna Ptasinski, Space and Naval Warfare Systems Center Pacific (SSC PAC), USA. | Tutorial 2: “Software Defined Networking, Network Function Virtualization and the Future Internet”, by Doan B. Hoang, University of Technology Sydney (UTS), Australia | Tutorial 3: “Closed-form Design of Optimal FIR Filters” by Pavel Zahradnik, Czech Technical University in Prague, Czech. |
| 15:00 – 15:30 | Coffee Break | | |

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|---------------------|--------------------|--------------------|--------------------|
| 15:30 – 17:00 | Tutorial 1 (cont.) | Tutorial 2 (cont.) | Tutorial 3 (cont.) |
|---------------------|--------------------|--------------------|--------------------|

Thursday, 19 July, 2018

| Time | Room: Le Cinéma A | Room: Le Cinéma B | Room: Le Royal | Room: Banquet |
|---------------------|--|---|------------------------------|-----------------------------|
| 8:45 – 10:05 | IoT Workshop | Samsung's Special Session on LTE Evolution/5G Technologies and Services | ES-1: Electronics 1 | SPA- 1: Image processing |
| 10:05 – 10:35 | Coffee Break & Poster Session 1 | | | |
| 10:35 – 11:55 | IoT Workshop (cont.) | Samsung's Special Session on LTE Evolution/5G Technologies and Services (cont.) | ES-1: Electronics 2 | SPA-2: Signal processing |
| 11:55 – 13:30 | Lunch at Restaurant Jules Ferry | | | |
| 13:30 – 15:10 | CNS – 1: Network Applications | Samsung's Special Session on LTE Evolution/5G Technologies and Services (cont.) | ME– 1: Microwave Engineering | CNS – 2: Cognitive Radio |
| 15:10 – 15:40 | Coffee Break & Poster Session 2 | | | |
| 15:40 – 17:20 | CNS-3: WSN and IoT | Samsung's Special Session on LTE Evolution/5G Technologies and Services (cont.) | ME– 2: Antennas | SPA-3: Information analysis |

GALA DINER

Time: 18:30 – 21:00

Venue: TBD

Friday, 20 July, 2018

| Time | Room: Le Cinéma A | Room: Le Cinéma B | Room: Le Royal | Room: Banquet |
|---------------------|---|-----------------------|---------------------------------------|-------------------------------------|
| 8:45 – 10:05 | CNS –4: Software-Defined Networks/Network Function Virtualization | CNS – 5: MIMO Systems | CNS –6: Channel Modeling and Coding 1 | SPA-4: Image privacy and protection |
| 10:05 – 10:35 | Coffee Break | | | |

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|-----------------------------------|--|--|--|--|
| 10:35 – 11:55 | Special Session on Network Softwarization | | CNS –7: Channel Modeling and Coding 2 | |
| 11:55 – 13:30 | Lunch at Restaurant Jules Ferry | | | |

FINAL 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 of A0 or A1
- The time for all social activities (coffee breaks, lunches, and Gala dinner) is shown PROGRAM AT A GLANCE

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| 11:15 – 12:00 | Keynote 3: "A Closed-loop Brain-Machine Interface: The Next Frontier" by Jan Van der Spiegel, University of Pennsylvania, USA | | |
| 12:00 – 13:30 | Lunch at Restaurant Jules Ferry | | |
| Tutorial Session Time: 13:30 – 17:00 Room: Le Cinéma A | | | |
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| 15:00 – 15:30 | Coffee Break | | |
| 15:30 – 17:00 | Tutorial 1 (cont.) | Tutorial 2 (cont.) | Tutorial 3 (cont.) |

ORAL SESSIONS:

TRACK: COMMUNICATION NETWORKS AND SYSTEMS

| Thursday, 19 July, 2018 | | |
|--|--|---|
| 11:55 – 13:30 | Lunch at Restaurant Jules Ferry | |
| CNS-1: Network Applications Time: : 13:30 – 15:00 Room: Le Cinéma A Session chair: Nguyen Thanh Chuyen (Hanoi University of Science and Technology, Vietnam) | | |
| Time | Title | Presenter |
| 13:30 – 14:00 | Invited Talk: Mobility-assisted data transmission systems for offloading and extending conventional communication networks | Promethee Spathis (Sorbonne University) |
| 14:00 – 14:20 | Nested One-Class Support Vector Machines for Network Intrusion Detection | Huong Thu Truong(Hanoi University of Science and Technology, Vietnam) |
| 14:20 – 14:40 | On the Current State of Interoperable Content Protection for Internet Video Streaming | Stefan Pham (Fraunhofer FOKUS, Germany) |
| 14:40 – 15:00 | Reliable Software-Defined Optical Camera Communication over Screen | Trang Nguyen (Kookmin University, Korea) |
| CNS-2: Cognitive Radio Time: 13:30 – 14:50 Room: Banquet Session chair: Long Le (INRS, University of Quebec, Canada) | | |
| Time | Title | Presenter |
| 13:30 – 13:50 | Downlink Outage Analysis for Cognitive Cooperative Radio Networks Employing Non-Orthogonal Multiple Access | Thi My Chinh Chu (Blekinge Institute of Technology, Sweden) |
| 13:50 – 14:10 | Symbol Error Rate and Achievable Rate of Cognitive Cooperative Radio Networks Utilizing Non-Orthogonal Multiple Access | Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden) |
| 14:10 – 14:30 | Multiuser MISO Beamforming Design for Balancing the Received Powers in Secure Cognitive Radio Networks | Pham Viet Tuan (University of Ulsan, Korea)s |
| 14:30 – 14:50 | Multi-Objective Optimal Resource Allocation Using Particle Swarm Optimization in Cognitive Radio | Sang-jo Yoo (Inha University, Korea) |
| 15:10 – 15:40 | Coffee Break & Poster Session 2 | |
| CNS-3: WSN and IoT Time: 15:40– 17:20 Room: : Le Cinéma A Session chair: Erdal Cayirci (University of Stavanger, Norway) | | |
| Time | Title | Presenter |
| 15:40 – 16:00 | Water and Energy-Efficient Irrigation Based on Markov Decision Model for Precision Agriculture | Nguyen Thi Van (Hanoi University of Science and Technology, Vietnam) |
| 16:00 – 16:20 | An Empirical Study on Approaches of Internet of Things Reconfiguration | Dang Huynh-Van (University of Information Technology - VNUHCM, Vietnam) |

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|---------------------|--|---|
| 16:20 – 16:40 | Towards a Large-Scale IoT Emulation Testbed Based on Container Technology | Nhan Ly-Trong (University of Information Technology - VNUHCM, Vietnam) |
| 16:40 – 17:00 | A Novel Time- And Energy-Efficient Tag Identification Protocol in Dense RFID Systems | Linh Hoang (Hanoi University of Science and Technology, Vietnam) |
| 17:00 – 17:20 | Integrating Trickle Timing in Software Defined WSNs for Energy Efficiency | Nguyen Quang Hieu (Hanoi University of Science and Technology, Vietnam) |

GALA DINER
Time: 18:30 – 21:00
Venue: TBD

Friday, 20 July, 2018

CNS-4: Software-Defined Networks/Network Function Virtualization

Time: 8:45 – 10:25

Room: Le Cinéma A

Session chair: Promethee Spathis (Sorbonne University)

| Time | Presenter | Presenter |
|---------------------|---|---|
| 8:45 – 9:05 | Flexible Multi-step Resource Relocation for Virtual Network Functions | Nguyen Tuan Khai (Technische Universität Chemnitz, Germany) |
| 9:05 – 9:25 | Shortening the Response Time in Software-Defined Networking: A Sensitivity Analysis Approach | Amirhossein Moravejsharieh (Auckland Institute of Studies, New Zealand) |
| 9:25 – 9:45 | Evaluation of the Detection Capabilities of the ONOS SDN Controller | Florian Wamser (University of Wuerzburg, Germany) |
| 9:45 – 10:05 | Latency-aware Placement for State Management Functions in Service-based 5G Mobile Core Network | Truong-Xuan Do (Soongsil University, Korea) |
| 10:05 – 10:25 | Optimization Model and Algorithm for Dynamic Service-Aware Traffic Steering in Network Functions Virtualization | Thi-Thuy-Lien Nguyen (Hanoi National University of Education, Vietnam) |

CNS-5: MIMO Systems

Time: 8:45 – 10:25

Room: : Le Cinéma B

Session chair: Thi My Chinh Chu (Blekinge Institute of Technology, Sweden)

| Time | Title | Presenter |
|---------------------|--|---|
| 8:45 – 9:05 | Transmit Power Imbalance Reduction Method and Nonlinear Companding Transform for Beamforming OFDM Systems | Chang-Jun Ahn (Chiba University, Japan) |
| 9:05 – 9:25 | On Optimal Input and Capacity of Non-Coherent Correlated MISO Channels Under Per-Antenna Power Constraints | Minh N Vu (University of Akron, USA) |
| 9:25 – 9:45 | Performance of Assigning Pilot Sequences in Cell Free Massive MIMO Under SINR Constraints | Nguyen Tien Hoa (Hanoi University of Science and Technology, Vietnam) |
| 9:45 – 10:05 | Pilot Decontamination Using Time-shifted Pilot and Data-aided Channel Estimation for Massive MIMO | Dang-An Nguyen (Hanoi University of Science and Technology, Vietnam) |
| 10:05 – 10:25 | Outage Analysis for Downlink Single-cell Massive MIMO System Under Per-user Power Control | Anh-Tuan Nguyen (Hanoi University of Science and Technology, Vietnam) |

CNS-6: Channel Modeling and Coding 1

Time: : 8:45 – 9:55

Room: Le Royal

| Session chair: Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden) | | |
|---|--|--|
| Time | Title | Presenter |
| 8:45 – 9:15 | Invited Talk: Modelling and Analysis of Non-Stationary Radio Channels with Applications in Human Activity Recognition | Matthias Pätzold (University of Agder, Norway) |
| 9:15 – 9:35 | Modelling of Non-WSSUS Channels with Time-Variant Doppler and Delay Characteristics | Matthias Pätzold (University of Agder, Norway) |
| 9:35 – 9:55 | Efficient Channel Column Sorting Method Based on Householder Transformation for QRM-MLD | Chang-Jun Ahn (Chiba University, Japan) |
| 10:05 – 10:35 | Coffee Break | |
| CNS-7: Channel Modeling and Coding 2 Time: : 10:35 – 11:35 Room: Le Royal Session chair: Han Huy Dzung (Hanoi University of Science and Technology, Vietnam) | | |
| Time | Title | Presenter |
| 10:35 – 10:55 | On the Optimal Beam Selection with Partial Subcarriers on Wideband mmWave Systems | Juho Park (ETRI, Korea) |
| 10:55 – 11:15 | IEEE 802.11ax On Performance of Multi-Antenna Technologies with LDPC Codes | Roger Pierre Fabris Hoefel (Federal University of Rio Grande do Sul, Brazil) |
| 11:15 – 11:35 | The Design of Low-Iteration Protograph Codes for Rayleigh Fading Channels with Spatial Diversity | Thuy V. Nguyen (Posts and Telecommunications Institute of Technology, Vietnam) |
| Special Session on Network Softwarization Time: : 10:35 – 12:15 Room: Le Royal Session chair: Florian Wamser (University of Wuerzburg, Germany) | | |
| Time | Title | Presenter |
| 10:35 – 10:55 | Maximizing Cache Value for Distributing Content via Small Cells in 5G | John N. Daigle (University of Mississippi, USA) |
| 10:55 – 11:15 | Evaluation of a Distributed Control Plane for Managing Heterogeneous SDN-enabled and Legacy Networks | Nicholas Gray (University of Wuerzburg, Germany) |
| 11:15 – 11:35 | Benchmarking the ONOS Controller with OFCProbe | Anh Nguyen-Ngoc (University of Würzburg, Germany) |
| 11:35 – 11:55 | Joint Resource Allocation, Computation Offloading, and Path Planning for UAV Based Hierarchical Fog-Cloud Mobile Systems | Long Bao Le (INRS, University of Quebec, Canada) |
| 11:55 – 12:15 | Blocknetwork for Big Information Fusion and NoSQL Knowledgebase Management | Erdal Cayirci (University of Stavanger, Norway) |
| 11:55 – 13:30 | Lunch at Restaurant Jules Ferry | |

TRACK: ELECTRONICS SYSTEMS

Thursday, 19 July, 2018

ES- 1: Electronic 1

Time: 8:45 – 9:45

Room: Le Royal

Session chair: Minh D. Nguyen (Hanoi University of Science and Technology, Vietnam)

| Time | Title | Presenter |
|-------------------|---|--|
| 8:45 – 9:05 | Hardware Design and Optimization of Multimode Pipeline Based FFT for IEEE 802.11ax WLAN Devices | Linh Dinh (Hanoi University of Science and Technology, Vietnam) |
| 9:05 – 9:25 | Training On-chip Hardware with Two Series Memristor Based Backpropagation Algorithm | Huan Minh Vo (Ho Chi Minh University of Technology and Education, Vietnam) |
| 9:25 – 9:45 | Development of an Impedance Spectroscopy Measurement Circuit Board for Protein Detection | Tuan Vu Quoc (Institute of Applied Physics and Scientific Instrument, Vietnam) |

10:05

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10:35

Coffee Break & Poster Session 1

ES- 2: Electronic 2

Time: 10:35 – 11:55

Room: Le Royal

Session chair: Pham Ngoc Nam (Hanoi University of Science and Technology, Vietnam)

| Time | Title | Presenter |
|---------------------|---|--|
| 10:35 – 10:55 | A 3D Printed Two-axis Tilt Angle Capacitive Sensor | Tung Thanh Bui (VNU University of Engineering and Technology, Vietnam) |
| 10:55 – 11:15 | Application of PSO and Bacterial Foraging Optimizations to Speed Control PMSM Servo Systems | Hieu Le Dinh (National University of Science and Technology MISiS, Russia) |
| 11:15 – 11:35 | LQG Regulator for Control Moment Gyroscope Based Balancing System | Hien Vu (Hanoi University of Science and Technology, Vietnam) |
| 11:35 – 11:55 | A 600 Kpixels Image Sensor Operates at 100Mfps for Multi-Framing Camera | Anh Quang Nguyen (Hanoi University of Science and Technology, Vietnam) |

11:55

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13:30

Lunch at Restaurant Jules Ferry

GALA DINER

Time: 18:30 – 21:00

Venue: TBD

TRACK: MICROWAVE ENGINEERING

Thursday, 19 July, 2018

ME- 1: Microwave Engineering

Time: 13:30 – 14:50

Room: Le Royal

Session chair: Thanh Huong Nguyen (Hanoi University of Science and Technology & MICA, Vietnam)

| Time | Title | Presenter |
|---------------------|--|---|
| 13:30 – 13:50 | Development of a LC Passive Wireless Sensor Utilizing Capacitively Coupled Contactless Detection Structure | Loc Quang Do (VNU University of Science, Hanoi, Vietnam) |
| 13:50 – 14:10 | Design and Optimization of Optical Mode Exchange Based on Cascaded Multimode Interferences | Ho Duc Tam Linh (Danang University of Science and Technology & Hue University of Sciences, Vietnam) |
| 14:10 – 14:30 | Circular Polarization Dual-Feed Array Antenna for X-Band Satellite Communication | Phong Nguyen Duy (Hanoi University of Science and Technology, Vietnam) |
| 14:30 – 14:50 | A Controllable Triple-band Filter for Wireless Communication Applications | Tran Duong (School of Information Science and Engineering, P.R. China) |
| 15:10 – 15:40 | Coffee Break & Poster Session 2 | |

ME- 1: Antennas

Time: 15:40 – 17:20

Room: Le Royal

Session chair: Hiroshi Shirai (Chuo University, Japan)

| Time | Title | Presenter |
|---------------------|---|---|
| 15:40 – 16:00 | Multibeam Transmitarrays for 5G Antenna Systems | Andrea Massaccesi (Politecnico di Torino, Italy) |
| 16:00 – 16:20 | A Low-Profile Base-Station Antenna | Son Xuat Ta (Hanoi University of Science and Technology, Vietnam) |
| 16:20 – 16:40 | Beamsteering Phased Array Antenna Using a Full 360° and Programmable Continuous Phase Shifter for Indoor Localization | Thanh Huong Nguyen (Hanoi University of Science and Technology & MICA, Vietnam) |
| 16:40 – 17:00 | A Low-Cost, Light-Weight, High-Efficiency Fabry-Perot Antenna | Son Xuat Ta (Hanoi University of Science and Technology, Vietnam) |
| 17:00 – 17:20 | Minimization of Circularly Polarized Patch Antenna Using Metasurface | Nguyen Khac Kiem (Hanoi University of Science and Technology, Vietnam) |

GALA DINER
Time: 18:30 – 21:00
Venue: TBD

TRACK: SIGNAL PROCESSING AND APPLICATIONS

Thursday, 19 July, 2018

SPA- 1: Image processing

Time: 8:45 – 10:05

Room: Banquet

Session chair: Nguyen Tien Dzung (Hanoi University of Science and Technology)

| Time | Title | Presenter |
|---------------------|--|---|
| 8:45 – 9:05 | An Adaptive Method for Low-Delay 360 VR Video Streaming over HTTP/2 | Dang Nguyen (Hanoi University of Science and Technology, Vietnam) |
| 9:05 – 9:25 | On Selecting the Appropriate Scale in Image Selective Smoothing by Nonlinear Diffusion | Ngoc Hoang Thanh Dang (Hue College of Industry, Vietnam) |
| 9:25 – 9:45 | An Analysis of HEVC Compression for Light Field Image Refocusing Applications | Daniel D Giusto (University of Cagliari & CNIT, Italy) |
| 9:45 – 10:05 | Regularization Parameter Selection in Image Restoration with Inverse Gradient: Single Scale or Multiscale? | Ngoc Hoang Thanh Dang (Hue College of Industry, Vietnam) |
| 10:05 – 10:35 | Coffee Break & Poster Session 1 | |

SPA- 2: Signal processing

Time: 10:35 – 11:55

Room: Banquet

Session chair: Dong Seog Han (Kyungpook National University)

| Time | Title | Presenter |
|---------------------|--|---|
| 10:35 – 10:55 | Approximation of Equiripple Low-pass FIR Filters | Pavel Zahradnik (University of Technology Prague, Czech Republic) |
| 10:55 – 11:15 | Gaussian Process Modeling of UWB Multipath Components | Anh Nguyen (Hanoi University of Science and Technology, Vietnam) |
| 11:15 – 11:35 | Feedback Active Noise Control Based on Variable Step-size FXLMS Algorithm | Nguyen Le Thai (HCMC University of Food Industry, Vietnam) |
| 11:35 – 11:55 | Modified Model Based on the Impedance Spectrum of Meat in the Frequency Range 50Hz to 1Mhz | Trung Thanh (Hanoi University of Science and Technology, Vietnam) |
| 11:55 – 13:30 | Lunch at Restaurant Jules Ferry | |
| 15:10 – 15:40 | Coffee Break & Poster Session 2 | |

SPA- 3: Information analysis

Time: 15:40 – 17:00

Room: Banquet

Session chair: Pavel Zahradnik (University of Technology Prague, Czech Republic)

| Time | Title | Presenter |
|---------------------|--|---|
| 15:40 – 16:00 | Estimating Skeleton-Based Gait Abnormality Index by Sparse Deep Auto-Encoder | Huu Hung Huynh (Danang University of Science and Technology, Vietnam) |
| 16:00 – 16:20 | Classification Different Types of Fall for Reducing False Alarm Using Single Accelerometer | Ngoc P Pham (Hanoi University of Sciences and Technology, Vietnam) |

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| 16:20 – 16:40 | Comparison of Feature Extraction for Accent Dependent Thai Speech Recognition System | Montri Phothisonothai (King Mongkut's Institute of Technology Ladkrabang, Thailand) |
| 16:40 – 17:00 | An Approach for Image Analysis Using Complex Network | Nguyen Van Giang (Hanoi University of Science and Technology, Vietnam) |
| GALA DINER Time: 18:30 – 21:00 Venue: TBD | | |
| Friday, 20 July, 2018 | | |
| SPA – 4: Image privacy and protection Time: 8:45 – 9:45 Room: Banquet Session chair: Daniel D Giusto (University of Cagliari & CNIT, Italy) | | |
| Time | Title | Presenter |
| 8:45 – 9:05 | Reversible Data Hiding for Medical Images Using Boundary Expandable Schemes | Chung-Yen Su (National Taiwan Normal University, Taiwan) |
| 9:05 – 9:25 | Frangi Filter-Based Finger Vein Pattern Extraction for Personal Authentication | Viet Dung Nguyen (Hanoi University of Science and Technology, Vietnam) |
| 9:25 – 9:45 | Bit Plane Decomposing Image Encryption Based on Discrete Cat-Hadamard Map | Ta Kim Hue (Hanoi University of Science and Technology, Vietnam) |
| 10:05 – 10:35 | Coffee Break | |
| 11:55 – 13:30 | Lunch at Restaurant Jules Ferry | |

Samsung's Special Session on LTE Evolution/5G Technologies and Services

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| Thursday, 19 July, 2018 | | |
| Room: Le Cinéma B | | |
| 8:35 – 8:45 | Opening Remarks: – Welcome remark from organizer: Prof. Nguyen Tien Dzung, chair of KICS Vietnam Section – Welcome remark from KICS: Prof. Chung Gu Kang, President of KICS – Welcome remark from Mr. Dongsu Shin, Vice-President of Samsung Electronics | |
| 8:45 – 9:05 | Opening Address: – “VKIST - the bridge to connect Korea and Vietnam - Technology Solution Provider for Market winner” by Kum Dongwha, Director of Vietnam-Korea Institute of Science and Technology, Ministry of Science and Technology, Vietnam | |
| Series of Invited Talks: LTE Evolution /5G Trials - 5G Policies Time: 9:05 – 10:05 Session Chair: Nguyen Huu Thanh, Hanoi University of Science and Technology, Vietnam | | |
| 9:05 – 9:25 | “5G Vision to Reality” by HanSeok Kim, Master, System Design Lab, Samsung | |
| 9:25 – 9:45 | “5G Deployment in Vietnam, Policy and Regulation Aspects” by Nguyen Phong Nha, Vice-Director of Telecommunication Department, Ministry of Information and Communications, Vietnam | |
| 9:45 – 10:05 | “Spectrum and Policy for 5G” by Nguyen Anh Tuan, Deputy Director, The Authority of Frequency Management, Ministry of Information and Communications, Vietnam | |
| 10:05 – | Coffee Break | |

| 10:35 | | |
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| SS-1: 5G Technologies | | |
| Time: 10:35 – 11:50 | | |
| Session chair: Dong Ku Kim (Yonsei University, Korea) | | |
| Time | Title | Presenter |
| 10:35 – 11:00 | 5G Technologies and FWA | HanSeok Kim (Master, System Design Lab, Samsung, Korea) |
| 11:00 – 11:25 | Pilot Contamination in Massive MIMO | Han Huy Dung (Hanoi University of Science and Technology, Vietnam) |
| 11:25 – 11:50 | Millimeter-Wave Communications in 5G Cellular Networks | Truong Trung Kien (Post and Telecommunications Institute of Technology, Vietnam) |
| 11:50 – 13:30 | Lunch at Restaurant Jules Ferry | |
| SS-2: LTE/5G Deployment and Service Provisioning | | |
| Time: 13:30 – 15:10 | | |
| Session Chair: Hong-Yeop Song (Vice-President of KICS, Korea) | | |
| Time | Title | Presenter |
| 13:30 – 13:55 | Towards Network Automation | Yong Seok Park (Principal Engineer, System Design Lab, Samsung, Korea) |
| 13:55 – 14:20 | 5G Approaches by Mobile Carrier and a Brief Study on Massive MIMO - Precoder and Detector | Ngo Vu Duc (Vice-Director, Mobifone R&D Center, Vietnam) |
| 14:20 – 14:45 | 5G Toward Verticals | HyeonWoo Lee (DanKook University, Chair of Global Strategy Committee of 5G FORUM, Korea) |
| 14:45 – 15:10 | 5G: The Network Vision | Ngo Hoang Anh (Head of 5G R&D Department, Viettel Network Technologies – Viettel Group, Vietnam) |
| 15:10 – 15:40 | Coffee Break | |
| SS-3: Requirements and Expectations of Verticals and Eco-Industries | | |
| Time: 15:40 – 16:55 | | |
| Session Chair: Prof. Sang-Jo Yoo, Inha University | | |
| 15:40 – 16:05 | Introduction of KT Public Safety Network | Jun-Ho Jo (Korea Telecom, Korea) |
| 16:05 – 16:30 | 5G V2X and Autonomous Car | Young Lak Kim (Leader of V2X Lab, SK Telecom, Korea) |
| 16:30 – 16:55 | Introducing H2020 EU-KR 5G Project, Virtual Presence in Moving Objects through 5G (PriMO-5G) | Seong-Lyun Kim, Yonsei University |
| Closing Remark by Prof. Sang-Jo Yoo (Inha University) | | |
| Time: 16:55 – 17:00 | | |
| GALA DINER Time: 18:30 – 21:00 Venue: TBD | | |

Thursday, 19 July, 2018

IoT Workshop: Workshop in Emerging Technologies in the Era of Internet of Things

Time: : 8:45 – 12:05

Room: Le Cinéma A

| Time | Title | Presenter |
|---------------------|---|--|
| 8:45 – 09:00 | Registration | All participants |
| 9:00 – 9:05 | Opening | Prof. Alan Marshall (University of Liverpool, UK) |
| 9:05 – 9:25 | Detection in WIFI network | Alan Marshall (University of Liverpool, UK) |
| 9:25 – 9:45 | Smart lighting for Internet of Things and Smart Homes | Nguyen Tan Hung (Da Nang University of Science and Technology, Vietnam) |
| 9:45 – 10:05 | Application-Oriented Scheduling on the CPU/Coprocessor-based SuperNode-XP Cluster | Thoai Nam (Ho Chi Minh University of Technology, Vietnam) |
| 10:05 – 10:35 | Coffee Break & Poster Session 2 | |
| 10:40 – 11:00 | Security in Physical Layer for IoT | Zhang Junqing (University of Liverpool, UK) |
| 11:00 – 11:20 | Information Security in the Age of IoT and Industry 4.0 | Nguyen Trong Duong (Director, VNCERT, Ministry of Information and Communications, Vietnam) |
| 11:20 – 11:40 | QoS Provisioning Capable Cost-Effective SDN-based Switch for IoT Communication | Le Hai Chau (Post and Telecommunication Institute of Technology, Vietnam) |
| 11:40 – 12:00 | IoT-based Smart Irrigation for Precision Agriculture | Truong Thu Huong (Hanoi University Science and Technology, Vietnam) |
| 12:00 – 12:05 | Closing | Prof. Alan Marshall (University of Liverpool, UK) |
| 11:55 – 13:30 | Lunch at Restaurant Jules Ferry | |

POSTER SESSIONS:

Thursday, 19 July, 2018
(During coffee breaks)

Poster Session 1

Tracks: Communication Networks and System; Microwave Engineering

| Time | Title | Presenter |
|--|--|--|
| 10:05 – 10:35 | H-polarized Plane Wave Diffraction by Thick Conducting Slits | Khanh Nguyen (Chuo University & Graduate School of Science and Engineering, Japan) |
| | An IoTs Reconfiguration Framework with Intelligent Context Management | Tuan Nguyen-Anh (University of Information Technology - VNUHCM, Vietnam) |
| | A New Transmit Antenna Selection Algorithm for Precoding in Massive MIMO System | Van-Khoi Dinh (Le Quy Don Technical University, Vietnam) |
| | An Open Implement of Industrial Communication and Internet of Things (IoT) Using Embedded Linux | Lan Anh Dinh Thi (Hanoi University of Science and Technology, Vietnam) |
| | Simultaneous Generation of Two Lowest Optical Modes Using Silicon MMI and Y-Junction Couplers | Duong Duy (Posts and Telecommunications Institute of Technology, Vietnam) |
| | Construction of Nonlinear Q-Ary M-Sequences with Interleaved Structure by d-Transform | Dang Truong (Vietnam Government Information Security Committee & Institute of Science and Technology of Cryptography, Vietnam) |
| | A Flexible Split Ring Resonator-based Dual Band Antenna for Wearable Remote Monitoring Device | Thanh Huong Nguyen (Hanoi University of Science and Technology & MICA, Vietnam) |
| | Sensitivity Gain of Coherent Millimeter-Wave Subcarrier Multiplexed Radio-over-Fiber System | Hung Nguyen-Tan (Danang University of Science and Technology (DUT), Vietnam) |
| | Dual Polarized Antenna Array for New Generation Communication System | Linh Ho Manh (Hanoi University of Science and Technology, Vietnam) |
| | Evaluation of Atmospheric Water Vapor by Measuring Attenuation of K+ Satellite Television Waves in Vietnam | Vinh Nguyen (Hanoi University of Science and Technology, Vietnam) |
| | Fingerprinting-based Indoor Positioning with Variable Power Maps | Thoi Hoang (Hanoi University of Science and Technology, Vietnam) |
| | Fingerprinting-based Indoor Positioning with Variable Power Maps | Thoi Hoang (Hanoi University of Science and Technology, Vietnam) |
| Coding Structure for Ultra Multi-channel Audio Signals | Kwangki Kim (Korea Nazarene University, Korea) | |

Poster Session 2

Tracks: Electronics System; Signal Processing and Applications

| Time | Title | Presenter |
|---------------------|---|--|
| 15:10 – 15:40 | Smartphone Based Indoor Heading Estimation | Alwin Poulouse (Kyungpook National University, Korea) |
| | Short-term South Korean Electricity Load Forecasting with Generalized Additive Models | Jaehee Kim (Duksung Women's University, Korea) |
| | Color Matching Model Between Different Devices Based on Fully Connected Neural Network | Jongsu Yoon (Yonsei University, Korea) |
| | Single LED Based Indoor Visible Light Positioning Using Out-of-Focus Blur Based LED Extraction | Joon-Woo Lee (Yonsei University, Korea) |
| | Cross-Layer Design Approach for High-Reliable, Low-Latency, and Energy-Efficient Industrial Wireless LAN System | Hiroshi Ochi (Kyushu Institute of Technology, Japan) |
| | The Soft-Decision Decoding Algorithm for Hamming Code Using Zeros Codeword of Dual Code | Nhung Nguyen (University of Economic and Technical Industries & Military Technical Academy, Vietnam) |

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|---|---|
| A Comparative Study on Shape Analysis Methods for Rice Seed Accessions | Nga Thi-Kim Tran (Ho Chi Minh City University of Technology, Vietnam) |
| Low-Complexity Image Processing Algorithm for Estimating Distance and Actual Size of Subject | Hoang Lai (School of Electronics and Telecommunications, Vietnam) |
| A Review of Techniques to Remove the Respiratory Noise for Cardiac Output Measurement Using Impedance Cardiography | Phan Dang Hung (Hanoi University of Science and Technology, Vietnam) |
| English Alphabetic Characters Recognition Through P300 EEG Signal | Ngoc P Pham (Hanoi University of Sciences and Technology, Vietnam) |
| Car Re-identification: GoogleNet Vs VGG-16 | Cuong Vo-Le (Hanoi University of Science and Technology & School of Electronics and Telecommunications, Vietnam) |