

Program Guide

**The 2016 International Conference on
Advanced Technologies for Communications
ATC'16**

Ha Noi City, Vietnam
October 12nd - 14th, 2016

Patrons



Financial Sponsors



Contents

Items	Page
ATC 2016 Organizing Committee, International Liaisons	4
Local Information and Landmarks	5
Conference Venue	7
Program at a Glance	8
Keynote Speakers	10
Conference Schedule Details	16

ATC 2016 Organizing Committee

Honorary Co-chairs

José Roberto Boisson de Marca, 2014
President, IEEE
Nguyen Van Ngo, REV, VN
Nguyen Huu Duc, VNU, VN
Nguyen Ngoc Binh, REV, VN
Nguyen Viet Ha, VNU-UET, VN

Steering Co-chairs

Vijay Bhargava, 2012 - 2013 President,
IEEE ComSoc
Phan Anh, REV, VN
Nguyen Thanh Thuy, VNU-UET, VN
Truong Vu Bang Giang, REV, VN
Hoang Dang Hai, PTIT, VN

General Co-chairs

Hikmet Sari, 2014 - 2015 Vice-President,
IEEE ComSoc
Chu Duc Trinh, VNU-UET, VN
Tran Xuan Tu, VNU-UET, VN
Tran Xuan Nam, REV, VN
Nguyen Huu Thanh, HUST, VN

Technical Program Co-chairs

Stefano Bregni, Vice-President, IEEE ComSoc
Tran Duc Tan, VNU-UET, VN
Vu Van Yem, HUST, VN

Financial Co-Chairs

Nguyen Nam Hoang, VNU-UET, VN
Tran Thi Thuy Quynh, VNU-UET, VN
Vu Huy Quang, REV, VN

Publication Co-Chairs

Bui Thanh Tung, VNU-UET, VN
Phung Manh Duong, VNU-UET, VN

Publicity Co-Chairs

Hoang Hong Duc, REV, VN
Pham Minh Trien, VNU-UET, VN
Nguyen Hoang Xiem, VNU-UET, VN

Keynote Co-chairs

Huynh Huu Tue, VNUHCM-IU, VN
Nguyen Linh Trung, VNU-UET, VN

Local Information

⚡ BRIEF INFORMATION

Hanoi, the capital of Vietnam since the 11th century dazzles visitors its unique blend of oriental lifestyle, French colonial architecture, tree-lined boulevards and peaceful lakes. Still retaining a charming air from its colonial days, visitors are often impressed with the quietness and subtle beauty of Hanoi. Hanoi is an ancient city which had been established and developed for over 1,000 years since 1010. There are many relics of the past, well-known landscape in Hanoi such as Literature Temple Quoc Tu Giam, One Pillar Pagoda, Sword Lake, and West Lake. History Museum, Flag Pole, Ancient city...



⚡ CLIMATE

Hanoi features a warm humid subtropical climate with plentiful precipitation. The city experiences the typical climate of northern Vietnam, where summers are hot and humid, and winters are, by national standards, relatively cold and dry. Summers, lasting from May to September, are hot and humid, receiving the majority of the annual 1,680 millimetres (66.1 in) of rainfall. The winters, lasting from November to March, are relatively mild, dry (in the first half) or humid (in the second half), while spring (April) can bring light rains. It is important to note that particularly around the Halong Bay region in these months, it can get particularly cold. Autumn (October) is the best time of year in term of weather. The city is usually cloudy and foggy in the winter time with average monthly sunshine hours for February are only 1.5 h/day.

Extreme temperatures have ranged from 2.7 °C (36.9 °F) to 40.4 °C (105 °F).

⚡ FOOD AND DINING

Hanoi has rich culinary traditions. Many of Vietnam's most famous dishes, such as phở, chả cá, bánh cuốn and cốm are believed to have originated from Hanoi. Perhaps most widely known is Phở, a simple rice noodle soup often eaten as breakfast at home or street-side cafes, but also served in restaurants as a meal. Two varieties dominate the Hanoi scene: Phở Bò, containing beef, and Phở Gà, containing chicken.

Landmarks



Ho Chi Minh Mausoleum Modeled after the Mausoleum of Lenin in Russia, Ho Chi Minh Mausoleum is one-of-its kind in the world.



Hanoi Water Puppet Theatre Located at 57B, Dinh Tien Hoang street, nearby Hoan Kiem Lake, Thang Long Water Puppet Theater is a familiar address for both domestic tourists and foreign ones, who want to enjoy water puppet shows and discovery the beauty of this unique Vietnam traditional art.



Tran Quoc Pagoda Located on a small peninsula on the East side of West Lake, Tran Quoc Pagoda is regarded as the most ancient pagoda in Hanoi with its history line of more than 1,500 years.



Saint Joseph Cathedral Saint Joseph Cathedral, located at 40 Nha Chung street, Hanoi, is a Roman Catholic cathedral with neo- gothic style, which was built about 120 years ago.



Long Bien Bridge If Hoan Kiem Lake with special green water and the red bridge named The Huc is the symbol of an elegant and charming ancient city; Red river and Long Bien bridge may be seen as the symbol of courageous capital in wars.



Hanoi Flag Tower Hanoi Flag Tower at the age of nearly 200 years is renowned as one of the symbols of Hanoi. The construction began in 1805 and completed in 1812, the 11th year of Gia Long time, Nguyen dynasty, five years after construction time of Flag Tower in Hue.

Conference Venue Information

SOFITEL PLAZA HANOI

Five-Star Luxury Hotel at Ha Noi Center

1 Thanh Nien Road, Ba Dinh District, Ha Noi, Vietnam

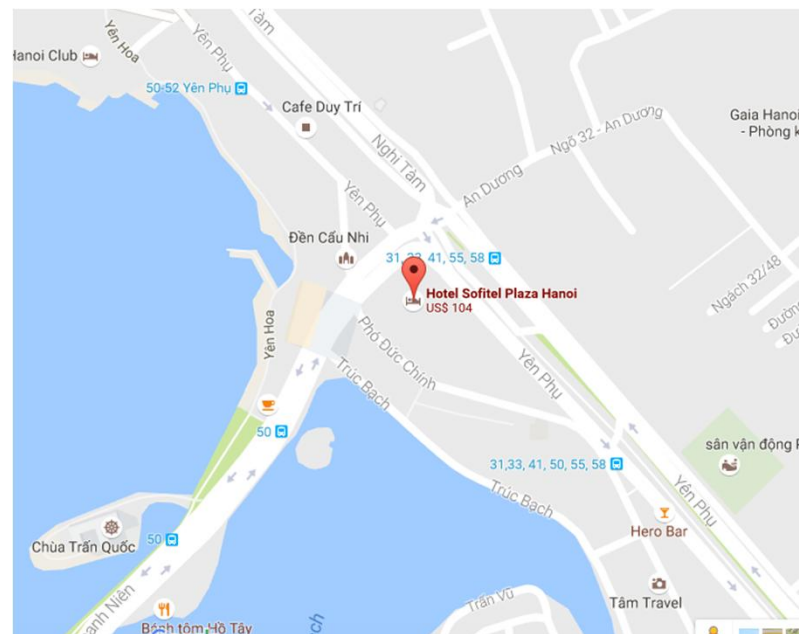
The 420 m² pillarless Plaza Ballroom is an ideal venue to host grand banquets and cocktails, which is equipped with the latest technology including built-in JBL audio systems, LCD projectors with motorised screens and wireless Internet access. Our Inspired Meeting™ Concierge team will be on-hand to assist with every element of the planning and execution of your wedding with the same spirit and precision that embodies Sofitel's 'Art de Recevoir'.

Extras of this hotel

A well-known landmark, Sofitel Plaza Hanoi is considered the most scenic city hotel on Hanoi's skyline. Guests can explore the vibrant Old Quarter or enjoy a lakeside walk while staying in luxury near the commercial centre and many cultural attractions.

Destination overview

The hotel is situated in Northern Central Hanoi, overlooking the picturesque lakes and close to many cultural attractions. A ten-minute walk towards the Southeast leads to the charming Old Quarter. Noi Bai International Airport is 30 minutes away.



Program at a Glance

Time	Conference Hall	Hanoi-Haiphong	Pacific 1	Pacific 2	Pacific 3
Wednesday, October 12					
08:00	R-1: Registration				
08:30			Opening Ceremony		
09:00			K1: Plenary talk 1		
09:50			K2: Plenary talk 2		
10:40	Coffee Break				
11:00			AP-- 1: Antennas and Pr opagation	C-1: Communications	N-1: Networks
12:20	Lunch Break				
14:00			C-2: Communications	SP-1: Signal Processing	WN-1: Special Section on Em erging Technologies in Wirele ss Network
15:20	Coffee Break				
15:40			C-3: Communication	CSCI-1: Special session on C omputational Science and Computational Intelligence	N-2: Networks

Program at a Glance (Cont.)

Time	Conference Hall	Hanoi-Haiphong	Pacific 1	Pacific 2	Pacific 3
Thursday, October 13					
08:00	R-2: Registration				
08:30			K3: Plenary talk 3		
09:20	Coffee break & Inter active Poster Session				
10:20		SP- 2: Signal Processing	CSCI-2: Special session on Compu tational Science and Com putational Intelligence: Invited and Regular Presentations	E-1: Electronics	
12:00	Lunch Break				
13:30		OWC-1: Special Section on Optical Wireless Communications	BE-1: Biomedical Engineering	IC-1: Integrated Circuits	
15:10	Coffee Break				
15:30		N-3: Networks	AP-2: Antennas and Propagation,	C-4: Communications	
16:50	IPS: Interactive Poster Session				
18:30		Conference Gala Dinner			
Friday, October 14					
08:00		Trang An Tour			

Keynote Speakers

Title: Power Efficiency in Wireless Communications – A Historical Review

Prof. Hikmet Sari, France

Chair: Prof. Tue H. Huynh (International University, VNU-HCM, Vietnam)



Abstract

In this talk, we focus on power efficiency and give a historical review of some major advances in transmission and multiple access, which shaped the development of the wireless communications standards developed over the past two decades. The review includes the development of OFDM and single-carrier transmission with frequency-domain equalization (SC-FDE) as well as the birth of OFDMA and of single-carrier FDMA (SC-FDMA), which were adopted by the Mobile WiMAX and the 3GPP LTE standards. Next, we address the nonlinear distortion problems caused by the high-power amplifier (HPA) at the transmitter in wireless communications systems and describe the various techniques devised to compensate for this phenomenon in single-carrier and multicarrier transmission. We emphasize the fact that the optimum operating point of the power amplifier cannot be always achieved in practice due to the stringent spectral masks imposed. We describe ideal signal predistortion that is applicable to both single-carrier and multicarrier systems and then we discuss peak-to-average power ratio (PAPR) reduction for multicarrier systems. We point out the fact that the gain achieved in terms of PAPR does not directly translate in terms of transmitted signal power for a given power amplifier. The issues highlighted in this talk are of significant interest to current 4G as well as future 5G systems.

Keynote Speakers

Bio

Hikmet Sari is a Professor and Head of the Telecommunications Department at SUPELEC, France, and Chief Scientist of Sequans Communications. Previously, he held research and management positions at Philips, SAT, Alcatel, Pacific Broadband Communications, and Juniper Networks. He received his Engineering Diploma and Ph.D. from the ENST, Paris, France, and the Habilitation degree from the University of Paris-Sud, Orsay.

Dr. Sari has served as an Editor of the IEEE Transactions on Communications, Guest Editor of the European Transactions on Telecommunications, Guest Editor of IEEE JSAC, Associate Editor of the IEEE Communications Letters, Chair of the Communication Theory Symposium of ICC 2002, Technical Program Chair of ICC 2004, Vice General Chair of ICC 2006, General Chair of PIMRC 2010, General Chair of WCNC 2012, Executive Chair of WCNC 2014, Executive Co-Chair of ICC 2016, Chair of the GITC in 2010 – 2011, Distinguished Lecturer of the IEEE Communications Society (2001 – 2006), Member of the IEEE Fellow Evaluation Committee (2002 – 2007), Member of the Awards Committee (2005 – 2007), and Vice-President – Conferences of the IEEE Communications Society for 2014 – 2015. He is currently serving as Executive Chair of ICC 2017 and General Co-Chair of PIMRC 2018.

His distinctions include the IEEE Fellow Grade and the Andre Blondel Medal in 1995, the Edwin H. Armstrong Award in 2003, the Harold Sobol Award in 2012, and election to the European Academy and to the Science Academy of Turkey in 2012.

Keynote Speakers

Title: Wireless-Powered Communication Networks: Architectures, Protocols, and Applications

Prof. Dong In Kim, Sungkyunkwan University

Chair: Prof. Tue H. Huynh (International University, VNU-HCM, Vietnam)



Abstract

This talk will provide a comprehensive review on the state-of-the-art research and technological developments on the architectures, protocols, and applications of the wireless powered communication networks. The talk will start with an introduction to the circuit design of wireless-powered communication devices. Then the talk will discuss about the architecture and protocol design issues for the wireless-powered communication networks. Different wireless network architectures including single-hop networks, multihop relay networks, centralized and decentralized networks, and multi-antenna systems for RF energy harvesting and wireless energy transfer will be covered. Then the talk will delve into different physical, radio link/MAC, and network layer protocol design issues to support and utilize wireless energy harvesting and transfer capability. Next the talk will discuss about applications of energy harvesting and transfer in different wireless networking scenarios, for example, those in cellular networks, sensor networks, cognitive radio networks, mobile ad hoc and delay tolerant networks. In addition to reviewing the existing approaches for architecture, protocol, and application design in wireless powered communication networks, the talk will outline some emerging research directions in this area.

Keynote Speakers

Bio

Dong In Kim received the Ph.D. degree in electrical engineering from the University of Southern California, Los Angeles, CA, USA, in 1990. He was a tenured Professor with the School of Engineering Science, Simon Fraser University, Burnaby, BC, Canada. Since 2007, he has been with Sungkyunkwan University (SKKU), Suwon, Korea, where he is currently a Professor with the College of Information and Communication Engineering. Dr. Kim has served as an Editor and a Founding Area Editor of Cross-Layer Design and Optimization for the IEEE Transactions on Wireless Communications from 2002 to 2011. From 2008 to 2011, he served as the Co-Editor-in-Chief for the Journal of Communications and Networks. He has served as the Founding Editor-in-Chief for the IEEE Wireless Communications Letters from 2012 to 2015. From 2001 to 2014, he served as an Editor of Spread Spectrum Transmission and Access for the IEEE Transactions on Communications, and then serving as an Editor-atLarge in Wireless Communication. He is a first recipient of the NRF of Korea Engineering Research Center (ERC) in Wireless Communications for Energy Harvesting Wireless Communications (2014-2021).

Keynote Speakers

Title: Quantifying and Extracting Visual Information from Mobile Devices

Prof. Minh N. Do, University of Illinois at Urbana-Champaign

Chair: Prof. Linh-Trung Nguyen (VNU University of Engineering and Technology, Vietnam)



Abstract

Due to advancement in minimization and mass-production, cameras are ubiquitously embedded in most of current mobile devices including phones, vehicles, robots, and augmented-reality displays. These mobile cameras are cheap and can gather in real-time large amounts of streaming data about the surrounding environment. Using an information-theoretic model of a streaming video captured by a mobile camera, we precisely characterize the information rates of this captured data. These results support a holistic approach that combines geometric reconstruction with semantic recognition for visual perception of dynamic environment. We then highlight several work in our group following this approach for extracting visual information from mobile devices including camera pose estimation, 3D environment mapping, and object localization and recognition.

Keynote Speakers

Bio

Minh N. Do is a Professor in the Department of Electrical and Computer Engineering at the University of Illinois at Urbana-Champaign (UIUC). He received the B.Eng. degree in Computer Engineering from the University of Canberra, Australia in 1997, and the Dr.Sci. degree in Communication Systems from the Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland in 2001. Since 2002, he has been on the faculty of the Department of Electrical and Computer Engineering at UIUC, and holds joint appointments with the Coordinated Science Laboratory, the Beckman Institute for Advanced Science and Technology, the Advanced Digital Sciences Center, and the Department of Bioengineering. He received a Silver Medal from the 32nd International Mathematical Olympiad in 1991, a University Medal from the University of Canberra in 1997, a Doctorate Award from the EPFL in 2001, a CAREER Award from the National Science Foundation in 2003, a Xerox Award for Faculty Research from the UIUC College of Engineering in 2007, and a Young Author Best Paper Award from IEEE in 2008. He was an Associate Editor of the IEEE Transactions on Image Processing, and a member of the IEEE Technical Committees on Signal Processing Theory and Methods, and on Image, Video, and Multidimensional Signal Processing. He was elected as an IEEE Fellow for his contributions to image representation and computational imaging. He was a co-founder and CTO of Personify Inc., a spin-off from UIUC to commercialize depth-based visual communication.

Conference Schedule Details

Room: Pacific 1 - Session: AP-1: Microwave and Antenna

Chair: Vu Van Yem (Hanoi University Of Science and Technology, Vietnam)

11:00 – 12:20 Wednesday, October 12, 2016

Time	Authors	Title
11:00	Ales Prokes , Josef Vychodil, Martin Pospisil, Jiri Blumenstein, Tomas Mikulasek and Aniruddha Chandra (Brno University of Technology, Czech Republic)	Time-Domain Nonstationary Intra-Car Channel Measurement in 60 GHz Band
11:20	Pham Trung Minh (Hanoi University of Science and Technology, Viet Nam; Vietnam Maritime University, Viet Nam); Nguyen Trong Duc (Vietnam Maritime University, Viet Nam); Vu Van Yem (Hanoi University of Science and Technology, Viet Nam)	A Novel Multiband Frequency Reconfigurable PIFA Antenna
11:40	Tsutomu Nagayama (Kagoshima University, Japan); Atsushi Sanada (Osaka University, Japan); Seiji Fukushima and Toshio Watanabe (Kagoshima University, Japan)	Flat Retroreflector Based on Transformation Electromagnetics
12:00	Tuan Anh Tran and Vu Van Yem (Hanoi University of Science and Technology, Vietnam)	Two Mode Division (De)multiplexer Based on an MZI Asymmetric Silicon Waveguide

Conference Schedule Details

Room: Pacific 2 - Session: C-1: Communications

Chair: Francis C.M. Lau (The Hong Kong Polytechnic University, Hong Kong), Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden)

11:00 – 12:20 Wednesday, October 12, 2016

Time	Authors	Title
11:00	Mussa Bshara and Gerd Vandersteen (Vrije Universiteit Brussel, Belgium); Leo Van Biesen (Free University of Brussels, Vrije Universiteit Brussel, Belgium)	A Simplified Approach to Concurrent Dual-Band Power Amplifiers Digital Predistortion
11:20	Francis C.M. Lau , Fanlu Mo, Qing Lu, Wai M. Tam and Chiu-Wing Sham (Hong Kong Polytechnic University, Hong Kong)	Novel Types of Cyclically-Coupled Quasi-Cyclic LDPC Block Codes
11:40	Thanh V. Pham , Truong C. Thang and Anh T. Pham (The University of Aizu, Japan)	On the Ergodic Capacity of MIMO Correlated Gamma-Gamma Fading Channels
12:00	Charles Kabiri and Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden); Hung Tran (Malardalen University, Sweden)	Outage Probability of a Cognitive Cooperative Relay Network with Multiple Primary Users Under Primary Outage Constraint

Conference Schedule Details

Room: Pacific 3 - Session: N-1: Networks

Chair: Sithamparanathan Kandeepan (RMIT University, Australia)

11:00 – 12:20 Wednesday, October 12, 2016

Time	Authors	Title
11:00	Ryo Yamamoto , Satoshi Ohzahata, and Toshihiko Kato (The University of Electro-Communications, Japan)	A Hierarchical Opportunistic Routing with Stability Information for Mobile Ad Hoc Networks
11:20	Sithamparanathan Kandeepan and Karina Gomez (RMIT University, Australia); Leonardo Gorratti and Tinku Rasheed (CREATE-NET Research Center, Italy); Gianmarco Baldini (Joint Research Centre - European Commission, Italy)	Power Controlling for Device to Device Transmissions in Aerial Access Networks
11:40	Lizeth Gomez and Sithamparanathan Kandeepan (RMIT University, Australia)	Energy Efficient Handovers and Performance Analysis in Macro-Femto Cells with Radio Resource Constraints
12:00	Le The Dung (Chungbuk National University, Korea); Hoang Thi Huyen Trang (Hongik University, Korea); Seong-Gon Choi (Chungbuk National University, Korea); Seongoun Hwang (Hongik University, Korea)	Impact of Soil Medium on the Path Connectivity of Sensors in Wireless Underground Sensor Networks

Conference Schedule Details

Room: Pacific 1 - Session: C-2: Communications

Chair: Hikmet Sari (École Supérieure d'Électricité (SUPELEC), France)

14:00 – 15:20 Wednesday, October 12, 2016

Time	Authors	Title
14:00	Aleksandr Gelgor, Anton Gorlov and Van Phe Nguyen (Peter the Great St. Petersburg Polytechnic University, Russia)	The Design and Performance of SEFDM with the Sinc-to-RRC Modification of Subcarriers Spectrums
14:20	Thang V. Nguyen , Tu V.M. Pham, Thu A. Pham, Hien T.T. Pham and Ngoc T. Dang (Posts and Telecommunications Institute of Technology, Vietnam); Anh T. Pham (The University of Aizu, Japan)	Performance Analysis of Network-Coded Two-Way Dual-Hop Mixed FSO/RF Systems
14:40	Hernán F Arraño (CentraleSupélec, France); Hikmet Sari (École Supérieure d'Électricité (SUPELEC), France); Chien-Chun Cheng (National Chiao Tung University, Taiwan)	Frequency-Domain Spatial Modulation
15:00	Chuyen T. Nguyen (Hanoi University of Science and Technology, Vietnam); Vuong V. Mai (University of Aizu, Japan); Anh T. Pham (The University of Aizu, Japan)	TCP over Free-space Optical Links with ARQ and AMC: A Cross-layer Performance Analysis

Conference Schedule Details

Room: Pacific 2 - Session: SP-1: Signal Processing

Chair: Mussa Bshara (Vrije Universiteit Brussel, Belgium)

14:00 – 15:20 Wednesday, October 12, 2016

Time	Authors	Title
14:00	Binh Quang Long Mai, Tue Huu Huynh and Anh Dong Doan (International University, Vietnam)	An Independent Character Recognizer for Distantly Acquired Mobile Phone Text Images
14:20	Tran Ngoc Tuan and Nguyen Quoc Trung (Hanoi University of Science and Technology, Vietnam); Tran Nguyen Khanh (Hanoi University, Vietnam)	Improving the Simulated Annealing Algorithm for Source Codeword Index Assignment by Using the Mechanism of Tabu Search Algorithm
14:40	Anh Dan Do and Quang Hieu Dang (Hanoi University of Science and Technology, Vietnam)	An optimal minutiae-based combining method for multiple fingerprint templates
15:00	Truong Minh-Chinh (Hue University of Education, Vietnam); Nguyen Linh-Trung (VNU University of Engineering and Technology (VNU-UET), Vietnam); Tran Duc-Tan (VNU University of Engineering and Technology (VNU-UET), Vietnam)	On the Implementation of Chaotic Compressed Sensing for MRI

Conference Schedule Details

Room: Pacific 3- Session: WN-1: Special session on Emerging Technologies in Wireless Networks

Chair: Vo Nguyen Quoc Bao (Posts and Telecommunications Institute of Technology, Vietnam)

14:00 – 15:20 Wednesday, October 12, 2016

Time	Authors	Title
14:00	Pham Minh Quang , Tran Trung Duy and Vo Nguyen Quoc Bao (Posts and Telecommunications Institute of Technology, Vietnam)	Performance Evaluation of Underlay Cognitive Radio Networks over Nakagami-m Fading Channels with Energy Harvesting
14:20	Chu Tien Dung (Telecommunications University, Vietnam); Vo Nguyen Quoc Bao and Nguyen Luong Nhat (Posts and Telecommunications Institute of Technology, Vietnam)	Effect of Imperfect CSI on Secrecy Performance of Cluster Based Relaying Networks
14:40	Nguyen Toan Van , Tran Trung Duy and Vo Nguyen Quoc Bao (Posts and Telecommunications Institute of Technology, Vietnam); Ha Minh Tan (Nguyen Tat Thanh University, Vietnam)	Exact Outage Probability of Energy Harvesting Incremental Relaying Networks with MRC Receiver
15:00	Quoc-Hung Pham, National Instrument	5G: From Research to Prototype

Conference Schedule Details

Room: Pacific 1 - Session: C3: Communications

Chair: Anh T. Pham (The University of Aizu, Japan)

15:40 – 17:20 Wednesday, October 12, 2016

Time	Authors	Title
15:40	Van Phu Tuan , Sang Quang Nguyen and Hyung Yun Kong (University of Ulsan, Korea)	Performance Analysis of Energy-Harvesting Relay Selection Systems with Multiple Antennas in presence of Transmit Hardware Impairments
16:00	Do Hung (Hanoi Open University, Vietnam); Quoc Khuong Nguyen (HUST, Vietnam); Do Viet Ha (Hanoi University of Science and Technology & University of Transport and Communications, Vietnam); Nguyen Van Duc (HUST, Vietnam)	A Time Synchronization Method for OFDM-Based Underwater Acoustic Communication Systems
16:20	Neil Irwin Bernardo (University of the Philippines Diliman, Philippines); Franz De Leon (University of the Philippines Diliman, Philippines)	On the Trade-off between Physical Layer Security and Energy Efficiency of Massive MIMO with Small Cells
16:40	Hoang Toan (Le Quy Don Technical University, Vietnam); Vo Nguyen Quoc Bao (Posts and Telecommunications Institute of Technology, Vietnam)	Opportunistic Relaying for Cognitive Two-Way Network with Multiple Primary Receivers over Nakagami-m Fading
17:00	Osman Sayli (Recep Tayyip Erdoğan University, Turkey); Hakan Dogan (Istanbul University, Turkey); Erdal Panayirci (Kadir Has University, Turkey)	On Channel Estimation in DC Biased optical OFDM systems over VLC ²² Channels

Conference Schedule Details

Room: Pacific 2- Session: CSCI-1: Special session on Computational Science and Computational Intelligence

Chair:

15:40 – 17:20 Wednesday, October 12, 2016

Time	Authors	Title
15:40	Hai Nguyen Thi Tuyen and Tan Hanh (Posts and Telecommunications Institute of Technology, Vietnam)	Maximal Frequent Sequences for Document Classification
16:00	Le Hoang Thi My and Khanh Phan Huy (Danang University of Technology , Vietnam)	Basing on the Ede syllabe models to check Ede syllable misspelling, applying to improve the quality of Ede vocabulary corpus
16:20	Tran Van Long (University of Transport and Communications, Vietnam)	An Optimal Class Visualization of Multidimensional Data Based on Differential Evolution
16:40	Viet Tuyen Nguyen and Manh Kha Hoang (Hanoi University of Industry, Vietnam); Kim Vo and Hai Duong Nguyen (Le Quy Don Technical University, Vietnam)	HMM Based Spectrum Sensing in the Presence of Censored Data
17:00	Pham Thi Dan Ngoc (Ho Chi Minh City University of Technology, Vietnam); Tran Trung Duy, Vo Nguyen Quoc Bao and Nguyen Luong Nhat (Posts and Telecommunications Institute of Technology, Vietnam)	Security-Reliability Analysis for Underlay Cognitive Radio Networks with Relay Selection Methods under Impact of Hardware Noises

Conference Schedule Details

Room: Pacific 3-Session: N-2: Networks

Chair: Minh T Nguyen (Thai Nguyen University of Technology, Vietnam)

15:40 – 17:20 Wednesday, October 12, 2016

Time	Authors	Title
15:40	Thang V. Nguyen, Hoang T. Nguyen, Hai-Chau Le , Nhan D. Nguyen and Ngoc T. Dang (Posts and Telecommunications Institute of Technology, Vietnam)	Performance Analysis of Gigabit-capable Mobile Backhaul Networks Exploiting TWDM-PON and FSO Technologies
16:00	Nguyen Ngoc Minh and Myung Kyun Kim (University of Ulsan, Korea)	Reducing Idle Listening Time in Pipeline-Forwarding MAC Protocols of Wireless Sensor Networks
16:20	Ngoc-Tan Nguyen , Quoc -Tuan Nguyen and Hoang-Nam Nguyen (VNU University of Engineering and Technology (VNU-UET), Vietnam)	The Index-based Optical Spatial Modulation Scheme in Optical MIMO
16:40	Huu Minh Nguyen , Tran Nam Xuan and The Nghiep Tran (Le Quy Don Technical University, Vietnam); Van Bien Pham (Vietnam People's Army Broadcast Center)	Channel Quantization Based Physical-layer Network Coding for MIMO Two-way Relay Networks
17:00	Dinh Nghia Nguyen (People Security Academy, Vietnam); Hoang Xuan Tran and Hoai Son Nguyen (VNU University of Engineering and Technology (VNU-UET), Vietnam)	A Cluster-based File Replication Scheme for DHT-based File Backup Systems

Conference Schedule Details

Conference Hall-CO-3: Coffee break & Interactive Poster Session

Chair: Bui Thanh Tung (Vietnam National University-Hanoi (VNUH), Vietnam)

09:20 - 10:20, Thursday, October 13, 2016

Quad-band bandpass filter using square ring crossed stub loaded resonators

Van Phuong Do and Minh Tan Doan (Le Quy Don Technical University, Vietnam) Van Phuong Do and Minh Tan Doan (Le Quy Don Technical University, Vietnam)

Testing time-dependent current absorption in various electrical insulation materials and high-speed method of measurement insulation resistance

Quoc Uy Nguyen, Cong Duan Luong and Ngoc Minh Nguyen (PTIT University, Vietnam)

Real Standalone MANETs Testbed: Performance Evaluation of OLSRd, OLSR-Quagga and AODVd

Quan Le-Trung (University of Information Technology - VNUHCM, Vietnam); Thuat Nguyen-Khanh (Pham Van Dong University, Vietnam)

Compact Planar Bagley Polygon Power Divider Based on CRLH-TL

Dang Nhu Dinh and Ta Quang Ngoc (Hanoi University of Science and Technology, Vietnam); Linh Ho Manh (Politecnico di Milano, Italy); Huynh Nguyen Bao Phuong (Quy Nhon University, Vietnam); Nguyen Khac Kiem and Chien Ngoc Dao (Hanoi University of Science and Technology, Vietnam)

An IPsec Cryptography IP Core Design Using AES-CBC and HMAC-SHA-512 Algorithms

Dat Phung (Danang Center of IC (CENTIC), Vietnam); Nguyen Van Cuong (Danang University of Technology, Vietnam); Tuan Nguyen (Danang Center of IC (CENTIC), Vietnam)

A Digitally Temperature Compensated Solution for CMOS Tunable On-chip IF Filter in SDR

Ha Le Vu (Institute of Electronics Hanoi, Vietnam); Lam Dinh Tran (Institute of Electronics, Hanoi, Vietnam); Hong Thu Thi Luu (Institute of Electronics, Vietnam)

Enhancement of ED based Spectrum Sensing by Accurate Noise Power Estimation

Tuyen Viet Nguyen and Kha Manh Hoang (Hanoi University of Industry, Vietnam); Kim Vo and Duong Nguyen (Le Quy Don Technical University, Vietnam)

Performance Evaluation of SSMA Protocol with Multiple Channels

Trang Tien Nguyen and Hoon Lawrence Oh (University of Ulsan, Korea)

Specific GaAs pHEMT VGA Chip Design for X-Band Phased-Array Radar Applications

Thong Vu Duy (VNU University of Engineering and Technology, Vietnam); Dai Pham (Le Quy Don Technical University, Vietnam)

A secure McEliece cryptosystem's variant based on interleaved concatenated BCH codes

Pham Khac Hoan (Le Quy Don University, Vietnam); Le Van Thai (Ha Noi University of Industry, Vietnam); Pham Duy Trung (Telecommunications University, Vietnam)

Conference Schedule Details

Room: Pacific 1 - Session: CSCI-2: Special session on Computational Science and Computational Intelligence

Chair: Nguyen Linh-Trung (VNU University of Engineering and Technology (VNU-UET), Hanoi, Vietnam)

10:20 – 12:00 Thursday, October 13, 2016

Time	Authors	Title	Note
10:20	Momin Jamil (Blekinge Institute of Technology, Sweden); Hans-Jürgen Zepernick (Blekinge Institute of Technology, Sweden).	Sequence Design for Radar Applications Using Particle Swarm Optimization	Invited Talk
10:40	Viet-Dung Nguyen (University of Orleans, France); Karim Abed-Meraim (University of Orleans, France); Nguyen Linh-Trung (VNU University of Engineering and Technology (VNU-UET), Vietnam)	Fast tensor decompositions for big data processing	Invited Talk
11:00	Van Tam Nguyen (Stanford University, USA & Telecom ParisTech, France); Nhan Nguyen-Thanh (Telecom ParisTech, France); Lita Yang (Stanford University, USA); Duy H. N. Nguyen (San Diego State University, USA); Chadi Jabbour (Telecom-ParisTech, France); Boris Murmann (Stanford University, USA)	Cognitive Computation and Communication: A Complement Solution to Cloud for IoT	Invited talk
11:20	Nhan Nguyen-Thanh (Telecom ParisTech, France); Han Le Duc (Telecom-ParisTech, France); Duc-Tuyen Ta (Telecom ParisTech, France & VNU University of Engineering and Technology (VNU-UET), Vietnam); Van-Tam Nguyen (Stanford University, USA)	Energy Efficient Techniques using FFT for Deep Convolutional Neural Networks	
11:40	Khac-Hoang Ngo , Sheng Yang, and Mari Kobayashi (CentraleSupélec, France); Kaibin Huang (Dept. of Electrical and Electronic Engineering, The University of Hong Kong, Hong Kong)	On the Complementary Roles of Massive MIMO and Coded Caching for Content Delivery	

Conference Schedule Details

Room: Pacific 2 - Session: E-1: Electronics

Chair: Chair: V K Jain (IIT Delhi, India)

10:20 – 12:00 Thursday, October 13, 2016

Time	Authors	Title
10:20	Phuoc Vo-Tan, L. Ton-That (Vietnam National University Ho Chi Minh city, Vietnam); F. M. Janerio (Universidade de Évora, Portugal)	Circadian Phase Control: Genetic Algorithm and Non-linear Control Approach
10:40	Thiem V. Pham, Lai K. Lai (Thai Nguyen University of Technology, Viet Nam); Quynh T. T. Nguyen (Université de Reims Champagne Ardenne, France) and Minh T. Nguyen (Thai Nguyen University of Technology, Viet Nam)	Disturbance Estimation Combined with New Adaptive RBF Neural Network for Uncertain System with Disturbance
11:00	Pham Duy Hung and Tran Quang Vinh (VNU University of Engineering and Technology (VNU-UET), Vietnam); Trung-Dung Ngo (University of Brunei Darussalam, Brunei Darussalam)	A Online Local Boundary Detection and Classification Algorithm for Networked Multi-Robot System
11:20	Giang Bach Hoang, Giap Nguyen Van , Linh Ta Phuong, Tuan Anh Vu and Duong Bach Gia (VNU University of Engineering and Technology (VNU-UET), Vietnam)	Research, Design and Fabrication of 2.45 GHz Microstrip Patch Antenna Arrays for Close-Range Wireless Power Transmission Systems
11:40	Volchek V., Dao Dinh Ha, Stempitsky V. (Department of Radio engineering and Electronics, BSUIR Minsk, Belarus); Tran Tuan Trung (Le Quy Don Technical University, Vietnam)	Suppression of the Self-Heating Effect in AlGaIn/GaN High Electron Mobility Transistor by Diamond Heat Sink Layers

Conference Schedule Details

Room: Hanoi-Haiphong - Session: SP-2: Signal Processing

Chair: Ales Prokes (Brno University of Technology & Sensor, Information and Communication Systems Research Centre, Czech Republic)

10:20 – 12:00 Thursday, October 13, 2016

Time	Authors	Title
10:20	Hung Ngoc Do , Minh-Thanh Vo, Bao Quoc Vuong, Huy Thanh Pham, An Hoang Nguyen, and Huy Quoc Luong (International University, Vietnam)	Automatic License Plate Recognition Using Mobile Device
10:40	Binh T. Tran and Nhan D. Nguyen (Posts and Telecommunications Institute of Technology, Vietnam)	Multichannel Nonlinearity Compensation Using Optical Phase Conjugation in High Nonlinearity Chalcogenide Planar Waveguides
11:00	Hoai Luu-Duc , Dung Trung Vo, Tuan Do-Hong (Ho Chi Minh City University of Technology, Vietnam)	Wildfire Smoke Detection Based on Co-occurrence Matrix and Dynamic Feature
11:20	Thuy Van Nguyen (Posts and Telecommunications Institute of Technology, Vietnam); Hieu T. Nguyen (The Arctic University of Norway, Norway)	The Design of Optimized Fast Decoding Protograph LDPC Codes
11:40	Xiem Hoang Van , D. T. Duong, and L. T. Ha (VNU University of Engineering and Technology (UET-VNU), Vietnam)	Spatial - Temporal Feature Extraction based Adaptive Search Range for Effective Frame Rate Up - Conversion

Conference Schedule Details

Room: Pacific 1 - Session: BE-1: Biomedical Engineering

Chair: Long TonThat (International University HCMC, Vietnam)

13:30 – 15:10 Thursday, October 13, 2016

Time	Authors	Title
13:30	Thanh-Trung Nguyen (Thainguyen University of ICTU, Vietnam); Dinh-Hoan Trinh (Universit�e de Lorraine, France); Nguyen Linh-Trung (VNU University of Engineering and Technology (VNU-UET), Vietnam)	An Efficient Example-based Method for CT Image Denoising based on Frequency Decomposition and Sparse Representation
13:50	Thuy Ha Tran Thi (Post and Telecommunication Institute of Technology, Vietnam); N. V. Nguyen, N. C. Nguyen , T. T. Bui and T. Chu Duc (VNU University of Engineering and Technology (VNU-UET), Vietnam)	Biological Microparticles Detection based on Differential Capacitive Sensing and Dielectrophoresis Manipulation
14:10	Hai Luong (Le Quy Don Technical University, Vietnam); Tran Duc-Tan and Nguyen Linh-Trung (VNU University of Engineering and Technology (VNU-UET), Vietnam); Huu Tue Huynh (International University, Vietnam)	Estimation of Elasticity and Viscosity in Heterogeneous Medium using FDTD Method and AHI Algorithm
14:30	H. G. Nguyen, A. D. Hoang , V. S. Nguyen (Hanoi Open University, Vietnam); V. D. Nguyen (Hanoi University of Science and Technology, Vietnam)	Fuzzy-based Treadmill Speed Control for Lower Extremity Rehabilitation of Patient after Stroke
14:50	Minh Le Dinh and Long Vuong Tung (VNU University of Engineering and Technology (UET-VNU), Vietnam); Xiem Hoang Van, Duong Dinh Trieu (VNU University of Engineering and Technology (UET-VNU), Vietnam); Tung Pham Thanh (The University of Fire Fighting and Prevention, Vietnam); Ha Le Thanh (VNU University of Engineering and Technology (UET-VNU), Vietnam)	Improving 3DTV View Synthesis Using Motion Compensated Temporal Interpolation

Conference Schedule Details

Room: Pacific 2 - Session: IC-1: Integrated Circuits

Chair: *Koichiro Ishibashi (The University of Electro-Communications, Japan)*

13:30 – 15:10 Thursday, October 13, 2016

Time	Authors	Title
13:30	Tsuyoshi Ishige (The University of Electro-Communications, Japan); Koichiro Ishibashi (The University of Electro-Communications, Japan)	Design of -30dBm Sensitivity and Sub 10nW Wake-up Receiver for Wireless Sensor Networks Using Body Boost on 65nm SOTB Technology
13:50	Nguyen Van Cuong , Nguyen Trong Bang, Le Dinh Tuyen, and Pham Ngoc Nam (Hanoi University of Science and Technology, Vietnam)	Dynamic Mapping of Quality Adjustable Applications on NoC-based Reconfigurable Platforms
14:10	Hung K. Nguyen and Xuan-Tu Tran (VNU University of Engineering and Technology (VNU-UET), Vietnam)	Design and Implementation of a Hybrid Switching Router for the Reconfigurable Network-on-Chip
14:30	Hai-Phong Phan and Xuan-Tu Tran (VNU University of Engineering and Technology (VNU-UET), Vietnam)	Fuzzy-Logic based Low Power Solution for Network-on-Chip Architectures
14:50	Nguyen Thi Huong Thao , Vu Huu Tien and Vu Van San (Posts and Telecommunications Institute of Technology, Vietnam); Hoang Van Xiem, Le Thanh Ha, Dinh Trieu Duong (VNU University of Engineering and Technology (UET-VNU), Vietnam)	Side information creation using adaptive block size for distributed video coding

Conference Schedule Details

Room: Hanoi-Haiphong - Session: OWC-1: Special Section on Optical Wireless Communications

Chair:Ngoc Dang (Posts and Telecommunications Institute of Technology, Vietnam), Der-Feng Tseng (National Taiwan University of Science and Technology, Taiwan)

13:30 – 15:10 Thursday, October 13, 2016

Time	Authors	Title
13:30	Shu-Ming Tseng (National Taipei University of Technology, Taiwan); Der-Feng Tseng, Tsung-Ruu Tsai and Yunghsiang Sam Han (National Taiwan University of Science and Technology, Taiwan)	Robust Turbo Decoding in Single-Carrier Systems over Memoryless Impulse Noise Channels
13:50	Minh Q. Vu, Hien T.T. Pham , Thu A. Pham and Ngoc T. Dang (Posts and Telecommunications Institute of Technology, Vietnam)	All-Optical Two-Way Relaying Dual-Hop FSO Systems Using Network Coding Over Atmospheric Turbulence Channel
14:10	Linh D. Truong, Sy T. Luong and Long P. Dinh (Hanoi University of Science and Technology, Vietnam); Hien T. T. Pham and Ngoc T. Dang (Posts and Telecommunications Institute of Technology, Vietnam)	Design and Optimization of FSO Mesh Networks over Atmospheric Turbulence and Misalignment Fading Channels
14:30	Ankit Garg and Manav R. Bhatnagar (Indian Institute of Technology-Delhi, India); Olivier Berder and Baptiste Vrigneau (University of Rennes 1 / IRISA, France)	Improved Beamforming for FSO MISO System over Gamma-Gamma Fading with Pointing Errors
14:50	Anshul Jaiswal, Manav R. Bhatnagar, and Virander K. Jain (Indian Institute of Technology Delhi, India)	BER Analysis of Optical Space Shift Keying with Gamma-Gamma Fading and Pointing Error

Conference Schedule Details

Room: Pacific 1- Session: AP-2: Antennas and Propagation

Chair: Yoshihide Yamada (Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, Malaysia)

15:30 – 17:10 Thursday, October 13, 2016

Time	Authors	Title
15:30	Nguyen Thanh Binh and Nguyen Quoc Dinh (Le Quy Don Technical University, Vietnam); Yoshihide Yamada (Malaysia-Japan International Institute of Technology UTM Kuala Lumpur, Malaysia); Naobumi Michishita (National Defense Academy, Japan)	Design of Density Tapered Array for Arbitral Density Distribution
15:50	Dang Tien Dung and Nguyen Quoc Dinh (Le Quy Don Technical University, Vietnam); Nguyen. T. Tuan (Universiti Teknologi Malaysia Kuala Lumpur, Malaysia); Yoshihide Yamada (Universiti Teknologi Malaysia Kuala Lumpur, Malaysia); Naobumi Michishita (National Defense Academy Yokosuka Japan)	Simulation Methods of a Normal-Mode Helical Antenna in a Human Body Condition
16:10	Hong Phuong Phan , Tan-Phu Vuong, Phillipe Benech and Pascal Xavier (University Grenoble Alpes, France); Pascal Borel, and Anastasia Delattre (Technical Center of Paper, France)	Printed Flexible Wideband Microstrip Antenna for Wireless Applications
16:30	Tang The Toan (University of Hai Duong, Vietnam); Nguyen Minh Tran (VNU University of Engineering and Technology (VNU-UET), Vietnam); Truong Vu Bang Giang (VNU University of Engineering and Technology (VNU-UET), Vietnam)	A Fan-Beam Array Antenna with Reflector Back for 5 GHz Outdoor Wi-Fi Applications
16:50	Hoang Nam Dao (Le Quy Don Technical University, Vietnam); Monai Krairiksh (King Mongkut's Institute of Technology Ladkrabang (KMITL), Thailand); Dinh Thanh Le (Le Quy Don Technical University, Vietnam)	A Design of Switched-Beam Yagi-Uda Antenna for Wireless Sensor Networks

Conference Schedule Details

Room: Pacific 2- Session: C-4: Communications

Chair: Tu V Nguyen (Broadcom Ltd (San Diego, CA), USA & Post and Telecommunication Institute of Technology, Viet Nam, Vietnam), Kien Truong (Posts & Telecommunications Institute of Technology, Vietnam)

15:30 – 16:50 Thursday, October 13, 2016

Time	Authors	Title
15:30	Toshiharu Kojima and Yuki Nagashima (The University of Electro-Communications, Japan)	An Initial Acquisition Scheme for Walsh-Hadamard Code Division Multiplexing
15:50	Aashish Mathur (Indian Institute of Technology - Delhi, India); Manav Bhatnagar (Indian Institute of Technology -Delhi, India); Bijaya K. Panigrahi (Indian Institute of Technology - Delhi, India)	Performance of a Dual-Hop Wireless-Powerline Mixed Cooperative System
16:10	Matej Kloc and Robert Weigel (University of Erlangen-Nuremberg, Germany); Alexander Koelpin (University of Erlangen-Nuremberg & Institute f. Electronics Engineering, Germany)	Making Real-Time Hardware-in-the-Loop Testing of Automotive Electronic Control Units Wireless
16:30	Vien Nguyen-Duy-Nhat, Tu Bui-Thi-Minh and Chien Tang-Tan (The University of Danang, University of Science and Technology, Vietnam); Vo Nguyen Quoc Bao (Posts and Telecommunications Institute of Technology, Vietnam); Hung Nguyen-Le (The University of Danang, Vietnam)	Joint Phase Noise and Doubly Selective Channel Estimation in Full-Duplex MIMO-OFDM Systems

Conference Schedule Details

Room: Hanoi-Haiphong- Session: N-3: Networks

Chair: Ken T. Murata (National Institute of Information and Communications Technology & NICT, Japan)

15:30 – 16:50 Thursday, October 13, 2016

Time	Authors	Title
15:30	Duc-Quan Nguyen (Humax Vietnam R&D Center, Vietnam); Ngoc-Tan Nguyen and Hoang-Nam Nguyen (VNU University of Engineering and Technology (VNU-UET), Vietnam); Keattisak Sripimanwat (LED-SmartCoN.Org, Thailand)	Light Beam Allocation Algorithm for Eliminating Interference in Visible Light Communications
15:50	Ken T. Murata , Praphan Pavarangkoon, Kenji Suzuki, Kazunori Yamamoto, Toshio Asai, Tomoshige Kan, Norihiko Katayama, (National Institute of Information and Communications Technology, Tokyo, Japan); Masatomo Yahata (NEC Corporation, Japan); Kazuya Muranaga (Systems Engineering Consultants Co., Ltd., Japan); Takamichi Mizuhara and Ayahiro Takaki (Clealink Technology Co., Ltd., Japan); Eizen Kimura (Ehime University, Japan)	A High-Speed Data Transfer Protocol for Geostationary Orbit Satellites
16:10	Hai Tran Hong, Quy Bien Xuan , Duong Doan Van, Nam Pham Ngoc and Thanh Nguyen Huu (Hanoi University of Science and Technology, Vietnam)	Hardware-Efficient Implementation of WFQ algorithm on NetFPGA-based OpenFlow Switch
16:30	Minh T Nguyen (Thai Nguyen University of Technology, Vietnam); Keith A Teague and Son Bui (Oklahoma State University, USA)	Compressive Wireless Mobile Sensing for Data Collection in Sensor Networks

Conference Schedule Details

Room: Conference Hall - Session: IPS: Interactive Poster Session

Chair: Xiem HoangVan (VNU University of Engineering and Technology (VNU-UET), Vietnam)

16:50 – 18:30 Thursday, October 13, 2016

Dielectric thin film characterization using MIM capacitor and application in antennas miniaturization

Hung Viet Nguyen (Post and Telecommunications Institute of Technology); Ratiba Benzerga (IETR - Université de Rennes 1, France)

Research, Design and Fabrication of a Data Transceiver Module for Vessel Monitoring Systems

Nguyen Dinh The Anh (Vietnam National Satellite Center & Vietnam Academy of Science and Technology, Vietnam); Le Xuan Huy (Vietnam National Satellite Center, Vietnam); Vu Tuan anh (University of Engineering and Technology, Vietnam); Duong Bach Gia (VNU University of Engineering and Technology, Vietnam)

Analyzing Throughput of IEEE 802.11 DCF Employed EIED Algorithm with Freezing of Back-off Counters

Trong-Minh Hoang and Thanh- Tra Nguyen (Posts and Telecommunications Institute of Technology, Vietnam); Thi Nguyen (Voice of Vietnam, Vietnam); Kien Bui (Panasonic R&D Center Viet Nam, Vietnam)

Unit-Cell Based on Cut-Ring Patch for X-band Transmitarray Applications

Nguyen Binh Duong (International University, Vietnam); Phuong Nhan Nguyen (International University, Vietnam)

A Study on Artificial Neural Network for Fingerprint Recognition

Nguyen Thanh (Danang University of Technology, Vietnam); Duy Le (University of Danang, Vietnam)

Integration of Compressed Sensing and Frequency Hopping Techniques for Ultrasound Tomography

Tran Quang-Huy (Ha Noi Pedagogical University No2, Vietnam); Tran Duc-Tan (VNU University of Engineering and Technology (VNU-UET), Vietnam)

Strict Frequency Reuse algorithm in Random Cellular Networks

Sinh Cong Lam and Kumbesan Sandrasegaran (University of Technology, Sydney, Australia); Tuan Nguyen Quoc (VNU University of Engineering and Technology (VNU-UET), Vietnam)

A simple diagram for data transmission using Manchester code

Trinh Anh Vu (VNU University of Engineering and Technology (UET-VNU), Vietnam); Pham Van Thanh (The University of Fire Fighting and Prevention, Vietnam)

Musicbot: Edutainment with A Reconfigurable Robotic System

Van Tung Le (University of Brunei Darussalam, Brunei Darussalam); Duy Hung Pham (VNU University of Engineering and Technology (VNU-UET), Vietnam); Trung Dung Ngo (The More-than-one Robotic Laboratory)

A variant of the cyclic pursuit scheme for consensus in multi-agent systems

Muhammad Iqbal (University of Brunei Darussalam, Brunei Darussalam); Pham Duy Hung (VNU University of Engineering and Technology (VNU-UET), Vietnam); John Leth (Aalborg University, Denmark); Trung-Dung Ngo³⁵ (University of Brunei Darussalam, Brunei Darussalam)

Notes
