ICUFN 2019 Advance Program

[Program at a Glance]

July 1, 2019 (Monday)			
17:00 ~ 19:00	ICUFN Committee Meeting (IAC/SC/OC)		
July 2, 2019 (Tuesday)			
Room	A	B	C
09:40 ~ 18:00	Registration		
13:00 ~ 14:30	Workshop 1A Drone Communication and Applications (DCA 2019) – I	Workshop 1B Smart Radio for IoT Era (SRIoT 2019) – I	
14:30 ~ 14:40	Session Break		
14:40 ~ 16:10	Workshop 2A Covert Underwater Communication (CUC 2019)	Workshop 2B Smart Radio for IoT Era (SRIoT 2019) – II	Workshop 2C Intelligent Vehicles (IV 2019)
16:10 ~ 16:30	Coffee Break		
16:30 ~ 18:00	Workshop 3A Drone Communication and Applications (DCA 2019) – II	Workshop 3B Smart Radio for IoT Era (SRIoT 2019) – III	Workshop 3C Optical Wireless Communication Networks (OWCN 2019)
July 3, 2019 (Wednesday)			
09:00 ~ 10:30	Oral 4A Big Data, 5G and Future Internet/Network	Oral 4B 4B Intelligent Internet of Things (IoT)	Oral 4C Machine Learning and Computational Intelligence
10:30 ~ 10:40	Session Break		
10:40 ~ 11:40	Tutorial 1: Machine learning based data analysis (Venue)		
11:40 ~ 12:00	Opening:	OC Co-Chair	
	Welcome address:	President of KICS OC Co-Chair	
12:00 ~ 12:30	Keynote Speech: Empowering Data Technology to AI-based Affective Computing (Venue)		

Time			
12:30 ~ 14:00	Lunch Break		
14:00 ~ 15:30	Oral 5A Future Network Technologies and Applications	Oral 5B Virtual Reality and Intelligent Media	Oral 5C Wireless and Communication Networks – I
15:30 ~ 16:00	Coffee Break		
16:00 ~ 17:30	Oral 6A Vehicular Networks, SDN/Network Virtualization	Oral 6B Enhanced Media Technologies in Future Networks	Oral 6C Wireless and Communication Networks – II
18:00 ~ 20:00	Welcome Reception		
July 4, 2019 (Thursday)			
09:20 ~ 10:50	Oral 7A QoS, QoE, and Optimization	Oral 7B Ad Hoc & Sensor Networks – I	Special Session – A Emerging Trends and Technologies
10:50 ~ 11:10	Session Break		
11:10 ~ 12:40	Oral 8A Network Security and Management – I	Oral 8B Ad Hoc & Sensor Networks – II	Special Session – B Featured Communication Systems and Technologies
12:40 ~ 13:30	Lunch Break		
13:30 ~ 15:00	Oral 9A Network Security and Management – II	Oral 9B Cloud Computing and Frameworks	Oral 9C Advanced Network Applications
15:00 ~ 15:15	Coffee Break		
15:15 ~ 16:15	Tutorial 2: Smart Villages: When Connectivity meets Affordability (Venue)		Poster Session A (Venue)
16:15 ~ 17:15			Poster Session B (Venue)
17:15~18:15			Poster Session C (Venue)
18:30 ~ 20:30	Banquet (Venue)		
July 5, 2019 (Friday)			
9:00 ~ 10:00	Poster Sessions D (Venue)		

10:00 ~ 11:00	Poster Sessions E (Venue)
11:00 ~ 12:00	Poster Sessions F (Venue)

[ICUFN 2019 Technical Sessions]
Wednesday 3rd July 2019

Oral Session 4A Big Data, 5G and Future Internet/Network
Session Chair: Sangil Park (Seoul National University of Science and Technology, Korea)
Room: TBA Time: 09:00 ~ 10:30

4A.1. **Big Data Challenges in 5G Networks**
Salman Rashid and Shukor Abd Razak (Universiti Teknologi Malaysia, Malaysia)
4A.2. **Adaptive Rate Splitting for Uplink Non-Orthogonal Multiple Access Systems**
Hongwu Liu (Shandong Jiaotong University, China); Kyung Sup Kwak (Inha University, Korea)
4A.3. **Secure User Association in Ultra Dense Heterogeneous Cellular Networks with non-Uniformly Distributed Eavesdroppers**
Gongchao Su, Mingjun Dai, Xiaohui Lin, Bin Chen and Hui Wang (Shenzhen University, China)
4A.4. **Social-Aware Routing for Multi-hop D2D Communication in Relay Cellular Networks**
Sai Wang, Oh-Soon Shin and Yoan Shin (Soongsil University, Korea)
4A.5. **Koi Fish Warehousing Based on Mobile Cloud Computing**
Chao-Lieh Chen and Chia-Chun Chang (National Kaohsiung University of Science and Technology, Taiwan)

Oral Session 4B Intelligent Internet of Things (IoT)
Session Chair: Sungun Kim (Pukyong National University, Korea)
Room: TBA Time: 09:00 ~ 10:30

4B.1. **Soft-Event-Upset and Soft-Event-Transient Tolerant CMOS Circuit Design for Low-Voltage Low-Power Wireless IoT Applications**
I-Chyn Wey (Chang Gung University, Taiwan & Chang Gung Memorial Hospital, Taiwan), Chun-Han Chen, Si-Zhan Fang and Heng-Jui Chou (Chang Gung University, Taiwan)
4B.2. **Energy Efficiency Improvement Based on Optimal Buffer Thresholds Model for Wireless Sensor Devices**
Yoonkyung Jang, Ahreum Shin and Intae Ryoo (Kyung Hee University, Korea)
4B.3. **Formal Modeling of Greedy Behavior in Secure Internet of Things Networks**
Yassine Boufenneche, Nawel Gharbi (USTHB, Algeria); Rafik Zitouni (ECE Paris, France); and Laurent George (UPE/ESIEE Paris, France)
4B.4. **Hardware and Software Framework for Controlling and Monitoring IoT Appliances**
Ibrahima Wane, Minjeong Shin, Sungun Kim (Pukyong National University, Korea); Suk Jin Lee (Columbus State University, USA)
4B.5. **Identification of Bluetooth-Enabled IoT Devices Through Syntactic Similarity Techniques**
Argyro Mavrogiorgou, Athanasios Kiourtis, Marios Touloupou and Dimosthenis Kyriazis (University of Piraeus, Greece)

Oral Session 4C Machine Learning and Computational Intelligence
Session Chair: Rafal Zdunek (Wroclaw University of Science and Technology, Poland)
Room: TBA Time: 09:00 ~ 10:30

4C.1. **The Image Shape Recovery on Communication Data Lost Damage**
Shih-Chang Hsia and Ming-Hwa Sheu (National Yunlin University of Science & Technology, Taiwan); Cheng Hung Hsiao (GeoVision Inc, Taipei, Taiwan)

4C.2. **Sinkhole Detection by Deep Learning and Data Association**
Nam Vu Hoai (PTIT, Vietnam); Nguyen Manh Dung and Soonghwan Ro (Kongju University, Korea)

4C.3. **Development of an Open ISA GPGPU for Edge Device Machine Learning Applications**
Yu-Xiang Su, Jhi-Han Jheng, Dun-Jie Chen, and Chung-Ho Chen (National Cheng Kung University, Taiwan)

4C.4. **Nonnegatively Constrained Tensor Network for Classification Problems**
Rafal Zdunek and Krzysztof Fonał (Wroclaw University of Science and Technology, Poland)

4C.5. **Wide Range Dynamic Imaging Techniques with One Time Exposure**
Shih-Chang Hsia and Ting-Tseng Kuo (National Yunlin University of Science and Technology, Taiwan); Tzu-Hsiung Chen (Taipei City University of Science and Technology, Taiwan)

Oral Session 5A Future Network Technologies and Applications
Session Chair: Wen-Kang Jia (Fujian Normal University, P.R. China)
Room: TBA Time: 14:00 ~ 15:30

5A.1. **I2V Multi-Hop Broadcast Communication by TC-BF Method**
Ryousuke Katsumata and Yasushi Yamao (The University of Electro-Communications, Japan)

5A.2. **Deploying Lightweight Anycast Services Based-on Explicit Multicast Routing for Evolved Internet**
Wen-Kang Jia and XueFeng Dong (Fujian Normal University, China)

5A.3. **Autonomous Wireless System Optimization Method Based on Cross-layer Modeling Using Machine Learning**
Koji Oshima (Tokyo University of Science, Japan & Kozo Keikaku Engineering Inc., Japan); Jing Ma and Mikio Hasegawa (Tokyo University of Science, Japan)

5A.4. **Health State Modeling and Prediction Based on Hidden Markov Models**
Kokoy Siti Komariah and Bong-Kee Sin (Pukyong National University, Korea)

Oral Session 5B Virtual Reality and Intelligent Media
Session Chair: Rafal Zdunek (Wroclaw University of Science and Technology, Poland)
Room: TBA Time: 14:00 ~ 15:30

5B.1. **Enhanced Model-Free Deep-Q Network Based PTZ Camera Control Method**
Dongchil Kim and Sungjoo Park (Korea Electronics Technology Institute, Korea)

5B.2. **Feature Extraction of Rotating Apparatus Using Acoustic Sensing Technology**
Cihun-Siyong Alex Gong (Chang Gung University, Taiwan & Chang Gung Memorial Hospital, Taiwan); Chih-Hui Simon Su (Chang Gung University, Taiwan and AIGTG Group, Taiwan); Yu-Chieh Chuang and Kuei-Hung Tseng (Chang Gung University, Taiwan); Tien-Hua Li, Chih-Hsiung Chang, Lung-Hsien Huang (AIGTG Group, Taiwan)

5B.3. **Center-Emphasized Gradient-Feature Based Quality Assessment Method for Screen Content Images**

Md. Abu Layek, Ngo Thien Thu, SoYeon Yu, TaeChoong Chung and Eui-Nam Huh (Kyung Hee University, Korea)

5B.4. **On Pending Interest Table in Named Data Networking Based Edge Computing: The Case of Mobile Augmented Reality**
Rehmat Ullah, Muhammad Atif Ur Rehman, Byung-Seo Kim (Hongik University, Korea); Balázs Sonkoly and János Tapolcai (Budapest University of Technology and Economics, Hungary)

Oral Session 5C Wireless and Communication Networks – I
Session Chair: Kae Won Choi, Sungkyunkwan Univ., Korea
Room: TBA Time: 14:00 ~ 15:30

5C.1. **Beam Reassignment Method Mitigates the Blocking Probability of Multi-Service CDMA**
Hoang Long (Pukyong University, Korea); Suk-Hwan Lee (Tongmyong University, Korea); Ki-Ryong Kwon (Pukyong University, Korea); Kyung-Won Kang (Tongmyong University, Korea); Oh-Jun Kwon (Dongeui University, Korea); Kwang-Seok Moon (Pukyong University, Korea)

5C.2. **Energy Efficiency Transceiver Design in Multi-antenna Full-Duplex Cellular Systems**
Mong Jai Wang, Fan-Shuo Tseng (National Sun Yat-sen University, Taiwan); Chao-Yuan Hsu (Chunghwa Telecom Co. Ltd., Taiwan)

5C.3. **Hybrid Precoding with Power Allocation for NR MIMO-OFDM Systems**
Sangmi Moon and Intae Hwang (Chonnam National University, Korea)

5C.4. **Distributed Radio Listening Synchronization Using Rendezvous Chain Based on TSCH**
Byeong-Hwan Bae, Sang-Hwa Chung and Hee-Jun Lee (Pusan National University, Korea)

Oral Session 6A Vehicular Networks, SDN/Network Virtualization
Session Chair: Young-June Choi, Ajou Univ., Korea
Room: TBA Time: 16:00 ~ 17:30

6A.1. **Optimization of Multi-token Circulation with Master UAV Method in Multi-UAV Systems for Location Information Sharing**
Eyup Emre ULKU (Marmara University, Turkey); Ilayda ULKU (Istanbul Kultur University, Turkey)

6A.2. **Priority Determination Based on Fuzzy Logic for Charging Electric Vehicles**
Nandinkhuu Odkhuu (Chonbuk National University, Korea); Mohamed A. Ahmed (Universidad Tecnica Federico Santa Maria, Chile); Young-Chon Kim (Chonbuk National University, Korea)

6A.3. **Hash-based OpenFlow Packet Classification on Heterogeneous System Architecture**
Yeim-Kuan Chang and Tung-Yin Chi (National Cheng Kung University, Taiwan)

6A.4. **An SDN/NFV-Enabled Architecture for Detecting Personally Identifiable Information Leaks on Network Traffic**
Sharleen Joy Y. Go (University of the Philippines - Diliman, Philippines); Richard Guinto (Samsung Research, Philippines); Cedric Angelo M. Festin, Isabel Austria, Roel Ocampo, and Wilson M. Tan (University of the Philippines - Diliman, Philippines)

Oral Session 6B Enhanced Media Technologies in Future Networks
Session Chair: Byung-Seo Kim, Hongik Univ., Korea
Room: TBA Time: 16:00 ~ 17:30

6B.1. **DASH-based Streaming Client for View Switching in Free-viewpoint Video Systems**

Seulki Song, Yong-Suk Park, Jungwook Wee (Korea Electronics Technology Institute, Korea)

6B.2.   The Insights of Mobile Data Offloading: A Comparative Study
Rao Naveed Bin Rais (Ajman University, UAE); Osman Khalid (COMSATS University Islamabad, Abbottabad Campus, Pakistan)

6B.3.   Improving Spectrum Sensing and Reporting via Multi-Antenna in Cognitive Radio Network
Muhammad Sajjad Khan (International Islamic University Islamabad, Pakistan); Mi Ji Kim, Junsu Kim, Eung Hyuk Lee and Su Min Kim (Korea Polytechnic University, Korea)

6B.4.   Impact of Imperfect Spectrum Sensing on Hybrid Backscatter Assisted Cognitive Wireless Powered Radio Networks
Young Ki Choi, Su Min Kim and Junsu Kim (Korea Polytechnic University, Korea)

6B.5.   An Affect Computing based Attention Estimation
Amey Desai, Samarth Jain, Lohit Marodia and Sreejith V (Birla Institute of Technology and Science Pilani, India)

Oral Session 6C Wireless and Communication Network – II
Session Chair: Insoo Sohn, Dongguk Univ., Korea
Room: TBA Time: 16:00 ~ 17:30

6C.1.   Hidden Markov Model Based Analysis on the MCS Index of LTE Using PDCCH Measurement Data
Yunbae Kim, Jungsun Um, Igor Kim and Seungkeun Park (ETRI, Korea)

6C.2.   Modeling the Interference Caused to a LoRaWAN Gateway Due to Uplink Transmissions
Luis Irio and Rodolfo Oliveira (Universidade Nova de Lisboa, Portugal & Instituto de Telecomunicações, Portugal)

6C.3.   Infrared Indoor Positioning Using Invisible Beacon
Willy Anugrah Cahyadi (Telkom University Bandung, Indonesia); Yeon Ho Chung (Pukyong National University, Korea); Trio Adiono (Institut Teknologi Bandung, Indonesia)

6C.4.   RAPEL: Robust and Adaptive Method for PIT Entry Lifetime in Wireless Content-Centric Networks
Rehmat Ullah, Muhammad Atif Ur Rehman, Byung-Seo Kim and Seong Oun Hwang (Hongik University, Korea)

Thursday 4th July 2019

Oral Session 7A QoS, QoE, and Optimization
Session Chair: Gongchao Su (Shenzhen University, China)
Room: TBA Time: 09:20 ~ 10:50

7A.1.   An Attempt at Introducing Multipath in QUIC
Alessandro Celestino and Simon Pietro Romano (Universit`a degli Studi di Napoli Federico II, Italy)

7A.2.   Enhanced BBR Congestion Control Algorithm for Improving RTT Fairness
Geon-Hwan Kim, Yeong-Jun Song, Imtiaz Mahmud and You-Ze Cho (Kyungpook National University, Korea)

7A.3.   Improved VoLTE QoE Estimation Procedure Using Network Performance Metrics
Manuela Vaser (University of Rome "Tor Vergata", Italy); Giulio Maggiore (TIM Italy, Via Oriolo Romano, Italy)

7A.4.   Location Estimation Applying Machine Learning Using Multiple Items of Sensed Information in Indoor Environments
Eisuke KUDOH and Kosuke KARINO (Tohoku Institute of Technology, Japan)

Oral Session 7B Ad Hoc & Sensor Networks – I
Session Chair: Amiya Nayak (University of Ottawa, Canada)
Room: TBA Time: 09:20 ~ 10:50

7B.1.   Fault Monitoring in Passive Optical Networks Using Burst-Mode FBG Optical Sensor
Khac Binh Nguyen and Su-il Choi (Chonnam National University, Korea)

7B.2.   Talk Half Listen to Half: Energy-Efficient Neighbor Discovery in Wireless Sensor Networks
Raudel Ravelo Suarez and Amiya Nayak (University of Ottawa, Canada)

7B.3.   Component Mapping Method for Indoor Localization based on Mixed Reality
Taeyoung Shin and Byeong-hee Roh (Ajou University, Korea)

7B.4.   Soft Frequency Reuse-Based Resource Allocation for D2D Communications Using Both Licensed and Unlicensed Bands
Mingfu Li (Chang Gung University, Taiwan & Chang Gung Memorial Hospital, Taiwan)

Oral Session 8A Network Security and Management – I
Session Chair: Ki-Hyung Kim, Ajou Univ., Korea
Room: TBA Time: 11:10 ~ 12:40

8A.1.   FFD: A Fragmentation-based Full-Duplex MAC Protocol for Asymmetric IEEE 802.11 WLANs
Yen-Da Chen (Lunghwa University of Science and Technology, Taiwan); Jie-Min Cao and I-Ju Chen and Kuei-Ping Shih (Tamkang University, Taiwan)

8A.2.   Mitigating Data Integrity Attacks in Building Automation Systems Using Denoising Autoencoders
Caezarina Marie Calimbahin, Susan Pancho-Festin and Jhoanna Rhodette Pedrasa (University of the Philippines, Philippines)

8A.3.   Automated Discovery of CoAP-enabled IoT Devices
Francesco Caturano (University of Naples Federico II, Italy); Jaime Jiménez (Ericsson Research, Finland); Simon Pietro Romano (University of Napoli Federico II, Italy)

8A.4.	**An Adaptive Channel Hopping Scheme in IEEE 802.15.6-Based Wireless Body Area Networks**
Hsueh-Wen Tseng, Yu-Bin Wang and Yi Yang (National Chung-Hsing University, Taiwan); Ruei-Yu Wu (Hwa Hsia University of Technology, Taiwan)

8A.5.	**Lowered-Complexity Decoding Algorithms of LDPC Codes for Agricultural-WSNs**
Dong-Hee Noh, Sung-Hwan Jeong and Ju-Hwan Choi (Korea Electronics Technology Institute, Korea); Dong-Seong Kim (Kumoh National Institute of Technology, Korea)

Oral Session 8B Ad Hoc & Sensor Networks – II
Session Chair: Eisuke Kudoh (Tohoku Institute of Technology, Japan)
Room: TBA Time: 11:10 ~ 12:40

8B.1.	**Residual-energy Aware LEACH Approach for Wireless Sensor Networks**
Shuai Zhang, Jinglei Li, Qinghai Yang, Meng Qin (Xidian University, China); Kyung Sup Kwak (Inha University, Korea)

8B.2.	**Dead-Zones Limitation in Visible Light Positioning Systems for Unmanned Aerial Vehicles**
Yousef Almadani and Muhammad Ijaz (Manchester Metropolitan University, UK); Sujan Rajbhandari (University of Coventry, UK); Umar Raza and Bamidele Adebisi (Manchester Metropolitan University, UK)

8B.3.	**Performance Analysis of Multi-Tag Multi-Reader Ambient Backscatter Communication Systems**
Ki Hyeon Jang, Su Min Kim and Junsu Kim (Korea Polytechnic University, Korea)

8B.4.	**Performance Evaluation of a Tree-Based Routing Protocol over a 3D Grid for UWSNs**
Fatema Al-Bahanta and Khaled Day (Sultan Qaboos University, Oman); Hussein Al-Maqbali (International College of Eng. & Mgt., Oman); Nasser Alzeidi and Abderezak Touzene (Sultan Qaboos University, Oman)

Oral Session 9A Network Security and Management – II
Session Chair: Su Min Kim, Korea Polytechnic Univ., Korea
Room: TBA Time: 13:30 ~ 15:00

9A.1.	**Physical Layer Security Improvement Using Artificial Noise-Aided Tag Scheduling in Ambient Backscatter Communication Systems**
Ji Yoon Han, Junsu Kim and Su Min Kim (Korea Polytechnic University, Korea)

9A.2.	**A high-speed key management method for quantum key distribution network**
Ririka Takahashi, Yoshimichi Tanizawa and Alexander Dixon (Toshiba Corporation, Japan)

9A.3.	**Evaluating the Viability of Ciphertext-Policy Attribute-Based Encryption on Service-Oriented Health Information Exchange Systems**
Edgar Felizmenio Jr. and Susan Festin (University of the Philippines - Diliman, Philippines)

9A.4.	**Mutual Authentication Method in Public Wireless LAN by Using BLE Beacon**
Yoshihiro Niitsu, Shunsuke Sakai and Kouta Tezuka (Shibaura Institute of Technology, Japan)

Oral Session 9B Cloud Computing and Frameworks
Session Chair: Dong Seog Han, Kyungpook National Univ., Korea
Room: TBA Time: 13:30 ~ 15:00

9B.1.	**Analysis of Mood Tags for Multimedia Content Recommendation in Social Networks**

Chang Bae Moon, Jong Yeol Lee, Dong-Seong Kim and Byeong Man Kim (Kumoh National Institute of Technology, Korea)

9B.2. **Virtual Reality Mobile Application Testing in a 5G Testbed**
Soumya Kanti Datta (Digiotouch OU, Estonia)

9B.3. **An MST-based information flow model for security in Online Social Networks**
Nadav Voloch and Ehud Gudes (Ben Gurion University of the Negev, Israel)

9B.4. **Pricing-based shared energy storage optimization for residential users with photovoltaic generation system and demand-side load management**
Insook Kim and Dongwoo Kim (Hanyang University, Korea)

Oral Session 9C Advanced Network Applications
Session Chair: Seokjoo Shin, Chosun Univ., Korea
Room: TBA Time: 13:30 ~ 15:00

9C.1. **Simultaneous Orthogonal Transmission for Direct Modulation Chirp Spread Spectrum Systems**
Kwang-Yul Kim and Yoan Shin (Soongsil University, Korea)

9C.2. **Permission Abusing by Ad Libraries of Smartphone Apps**
Ming-Yang Su, Sheng-Sheng Chen, Tsung-Ren Wu, Hao-Sen Chang and You-Liang Liu (Ming Chuan University, Taiwan)

9C.3. **A New Technique for Detecting Android App Clones Using Implicit Intent and Method Information**
Byoungchul Kim, Soyeon Jeon, Jaemin Jung and Seong-je Cho (Dankook University, Korea); Sangchul Han (Konkuk University, Korea); Jongmoo Choi (Dankook University, Korea)

9C.4. **Fast and Seamless Handover in Software Defined Vehicular Networks**
Nadia Mouawad and Rola Naja (Lebanese University, Lebanon and University of Versailles, France); Samir Tohme (University of Versailles, France)

9C.5. **Effective Self-Interference Cancellation for IBFD (In-Band Full Duplex) Communication System**
Myunggi Kim, Changyoung An and Heung-Gyoon Ryu (Chungbuk National University, Korea)

Special Session A Emerging Trends and Technologies
Session Chair: TBA
Room: TBA Time: 09:20 ~ 10:50

SSA.1. **Orchestration of Cloud Genomic Services**
Gianluca Reali, Mauro Femminella, Luca Felicetti and Matteo Pergolesi (University of Perugia, Italy)

SSA.2. **Q-Learning Based Social Community-Aware Energy Efficient Cooperative Caching in 5G Networks**
Han Yeo Reum Im, Kyi Thar and Choong Seon Hong (Kyung Hee University, Korea)

SSA.3. **SDN/legacy Hybrid Network Control System**
Feliksas Kuliesius and Mindaugas Giedraitis (Vilnius University, Lithuania)

SSA.4. **Constructive Interference Optimization for Hybrid Beamforming with Data-aided Symbol-level Precoding in Multi-user MISO System**
Jae Won Lee and Chung G. Kang (Korea University, Korea)

SSA.5. **Controller Adaptive Load Balancing for SDN Networks**
Wael Hosny Fouad Aly (American University of the Middle East, Kuwait)

SSA.6. **Vocabulary Domain Prediction for Pathological Report Analysis Using ICD-O3**
Sunho Choi, Insoo Kim, Yoojoong Kim and Junhee Seok (Korea University, Korea)

Special Session B Featured Communication Systems and Technologies
Session Chair: TBA
Room: TBA Time: 11:10 ~ 12:40

SSB.1. **An Iterative Algorithm of Key Feature Selection for Multi-class Classification**
Daeun Jung and Hyunggon Park (Ewha Womans University, Korea)

SSB.2. **Performance Analysis of the Uplink of a Two User NOMA Network under QoS Delay Constraints**
Rihem Nasfi (Institut Polytechnique de Paris, France and Univ. Paris Seine, Univ. Cergy-Pontoise, ENSEA, France); Arsenia Chorti (Univ. Paris Seine, Univ. Cergy-Pontoise, ENSEA, France)

SSB.3. **Analysis of Forward Private Searchable Encryption and Its Application to Multi-Client Settings**
Hyeongseob Kim, Changhee Hahn and Junbeom Hur (Korea University, Korea)

SSB.4. **Hybrid PAPR Reduction Algorithm Using Low Complexity Dispersive Selective Mapping with Clipping and Filtering for FBMC/OQAM**
Xin Yi (Dalian University of Technology, China); Benwei Wang (Dalian Maritime University, China); Wenjing Zhao and Minglu Jin (Dalian University of Technology, China)

SSB.5. **Viewpoint Networking for Trusted Reality**
Tae Yeon Kim, Pyungkoo Park, Ho Sun Yoon, Sung Hyun Yoon, Jung Yeon Hwang and Sung Back Hong, (Electronics and Telecommunications Research Institute, Korea)

Thursday 4th July 2019

Poster Session – A
Session Chair: Dong Seong Kim, Kumoh National Institute of Technology, Korea
Room: TBA Time: 15:15 ~ 16:15

PA.1. **Priority-based Parallel Processing Scheme of Mass Data for Real-time DDS Monitoring System**
   Min-Young Son, Joong-Hyuck Cha and Dong Seong Kim (Kumoh National Institute of Technology, Korea)

PA.2. **A Study on the Obstacle Recognition for Autonomous Driving RC Car Using LiDAR and Thermal Infrared Camera**
   Myeon-gyun Cho (Semyung University, Korea)

PA.3. **Face Friend-Safe Adversarial Example on Face Recognition System**
   Hyun Kwon, Ohmin Kwon and Hyunsoo Yoon (KAIST, Korea); Ki-Woong Park (Sejong University, Korea)

PA.4. **Interactive Video Annotation Tool for Generating Ground Truth Information**
   Sungjoo Park and Chang Mo Yang (Korea Electronics Technology Institute, Korea)

PA.5. **Multipath Scheduling for Energy Balancing and Reliable Transmission over 6TiSCH WSN**
   Donghwa Yoo, Sanghwa Chung and Yuvin Ha (Pusan National University, Korea)

PA.6. **Face Recognition Method Based on Fixed and PTZ Camera Control for Moving Humans**
   Seong-Hoon Kim and Jin-Woo Choi (Gachon University, Korea)

PA.7. **Hand Component Decomposition for the Hand Gesture Recognition Based on FingerPaint Dataset**
   In Seop Na (Chosun University, Korea); Soo Hyung Kim and Chil Woo Lee (Chonnam National University, Korea); Nguyen Hai Duong (Concordia University, Canada)

PA.8. **CLeveldb: Coalesced Leveldb for Small Data**
   Khikmatillo Tulkinbekov, Mehdi Pirahandeh and Deok-Hwan Kim (Inha University, Korea)

PA.9. **Content Name Privacy in Tactical Named Data Networking**
   NIkolai Leshov, Muhammad Azfar Yaqub, Muhammad Toaha Raza Khan, Sungwon Lee and Dongkyun Kim (Kyungpook National University, Korea)

PA.10. **Modeling and Analysis of Distance-based Registration in Metropolitan Area**
   Hee-Seon Jang (Pyeongtaek University, Korea)

PA.11. **High Speed Parallel Transmission Visible Light Communication Method with Multiple LED Matrix Image Processing Technique**
   Doohee Han (Kyung Hee University, Korea); Kyujin Lee (Semyung University, Korea)

Poster Session – B
Session Chair: Won Cheol Lee, Soongsil Univ., Korea
Room: TBA Time: 16:15 ~ 17:15

PB.1. **Implement of 100-Gbps Optical Transceiver Firmware for Optical Communication Systems**
   Jae-Woo Kim, Seung-Hwan Kim and Dong Seong Kim (Kumoh National Institute of Technology, Korea)

PB.2. **Data Reliability Enhancement Method Through Data Validation in Crowdsensing System**
   Mihui Kim and Junehyeok Yun (Hankyong National University, Korea)

PB.3. **Study for Load Distribution Method in 3GPP Ultra Dense Network**
   Min-Suck Choi and Ilgyu Kim (ETRI, Korea)

PB.4. **Light Field Angular Super-Resolution Using Convolutional Neural Network with Residual Network**
Dong-Myung Kim, Hyun-Soo Kang, Jang-Eui Hong, and Jae-Won Suh (Chungbuk National University, Korea)

PB.5. **Sensing and Utilization of Spectrum with Cooperation Interference for Full-Duplex Cognitive Radio Networks**
Waqas Khalid and Heejung Yu (Yeungnam University, Korea)

PB.6. **Experiments of In-Vehicle Inductive High-voltage Power Line Communication**
Kyung-Rak Sohn, Seong-Ho Yang, Jae-Hwan Jeong (Korea Maritime and Ocean University, Korea); Kyung-Sik Han and Jin-Soo Moon (Automotive Parts Institute Center, Ulsan Technopark, Korea)

PB.7. **Handover Protocol in Ad-Hoc Diver Networks Using Visual Light Communication**
Nday Kabulo Sinai, Jeong-Il Namgung, Soo Young Shin and Soo-Hyun Park (Kookmin University, Korea)

PB.8. **Angle-of-Arrival Estimation in Antenna Arrays Based on Monopulse Signal**
Ha-Lim Song, Sung Sik Nam and Young-Chai Ko (Korea University, Korea)

PB.9. **Implementation of DPSK-based Obstacle Detection System Using Ultrasonic for Vehicles**
Donghee Yi, Jaehan Joo and Suk Chan Kim (Pusan National University, Korea)

PB.10. **An Image Gradient Based LED Bit Detection Algorithm in Vehicular Optical Camera Communication**
Trong-Hop Do and Myungsik Yoo (Soongsil University, Korea)

Poster Session – C
Session Chair: Sungchang Lee, Korea Aerospace Univ., Korea
Room: TBA Time: 17:15 ~ 18:15

PC.1. **Flexible Scene Composition Method for Companion Screen Service Based MMT-CI**
Minjeong Song, Sung-geun Yoo, Miri Park and Sangil Park (Seoul National University of Science and Technology, Korea)

PC.2. **Quickest Path Selection Towards the Destination in Urban Environment**
Eungyeong Jang, Karshiev Sanjar, Abdul Rehman and Jeonghong Kim (Kyungpook National University, Korea)

PC.3. **The Color-Music Relationship Direct Modeling Using Machine Learning**
Jong Yeol Lee, Chang Bae Moon and Byeong Man Kim (Kumoh National Institute of Technology, Korea)

PC.4. **Predicting the Yields of Field Vegetable Using the Multiple Functional Regression Model**
Wanhyun Cho, Myung-Hwan Na and Yuha Park (Chonnam National University, Korea)

PC.5. **A Novel Wildfire Digital-Twin Framework Using Interactive Wildfire Spread Simulator**
Hyeong-su Kim, Kwon Jin-Woo, Seongjin Yun and Won-Tae Kim (Koreatech University, Korea)

PC.6. **Tone Mapping High Dynamic Range Image Using Cone Response Function Based on CAM16**
Ho-Hyoung Choi, Eung-su Kim and Byoung-Ju Yun (Kyungpook National University, Korea)

PC.7. **Performance Analysis of Cooperative Schemes for Wireless Sensor Network of Aircraft**
Seung-Hwan Kim, Jae-Woo Kim and Dong Seong Kim (Kumoh National Institute of Technology, Korea)

PC.8. **Development Real Time Monitoring System of FTTH Using Fiber Bragg Grating Sensors**
So-Ki Jung (SKbroadband Seoul City, Korea)

PC.9. **A Review on Broadcasting Protocols for Duty-Cycle Wireless Sensor Networks**
Ayesha Akter Lata and Moonsoo Kang (Chosun University, Korea)

PC.10. **Optical Spatial Modulation with Polar Coordinate for Optical Wireless Communication System**

Junghyun Kim, Seongjae Moon, and Youngwoo Kim (Korea Photonics Technology Institute, Korea); Seonghun Hong (Chonnam National University, Korea)

PC.11. **Delayed Cell Relocation in 6TiSCH Networks**

Gihwan Kim, Sanghwa Chung and Minjae Kim (Pusan National University, Korea)

Friday 5th July 2019

Poster Session – D
Session Chair: Seong-Ho Jeong, HUFS, Korea
Room: TBA Time: 9:00 ~ 10:00

PD.1. **Dynamic Spectrum Assignment Algorithm Based on Fuzzy Logic to Reduce Fragmentation in EONs**

Ki-Beom Lee and Young-Chon Kim (Chonbuk National University, Korea)

PD.2. **The Study on Tunable-SFP for Optical Transport Network for 5G Service**

Jongsin Kim (Soongsil University, Korea); Jongyoung Lim (SK Telecom, Korea); Gwangyong Gim (Soongsil University, Korea)

PD.3. **Traffic Monitoring System for 5G Core Network**

Eung Ha Kim and Young-il Choi (ETRI, Korea)

PD.4. **Random Access Channel Design for New Radio**

Gwondo Jo and Young Ha Lee (ETRI, Korea)

PD.5. **Scalability of LoRaWAN in an Urban Environment: A Simulation Study**

Arshad Farhad, Dae-Ho Kim and Jae-Young Pyun (Chosun University, Korea)

PD.6. **Drone-Assisted Inspection for Automated Accident Damage Estimation: A Deep Learning Approach**

Mohamed Adel Serhani, Tony Ng, Meera Al Saedi, Fatima Al Nuaimi, Hamda Al Shamsi, Al Damani Al Shamsi (UAE University, United Arab Emirates); Asma Al Falasi (Al Ain City Municipality, United Arab Emirates)

PD.7. **A Study on Simplified Test Bench Evaluation Model of Application Layer Protocols for Pre-5G Service**

Sung-Hun Lee, Tae-Uk Park, Soo-Hyun Cho, Hyun-Kyu Cho (Gumi Electronics & Information Technology Research Institute, Korea); Kyu-Chul Cho (Kyungpook National University, Korea)

PD.8. **Waveform Design for UAV Payload Communication in C-band**

Hee Wook Kim, Gwonhan Mun, Kunseok Kang and Byoung-Sun Lee (ETRI, Korea)

Poster Session – E
Session Chair: Insoo Sohn, Dongguk Univ., Korea
Room: TBA Time: 10:00 ~ 11:00

PE.1. **Multi-layered I/O Virtualization Cache on KVM/QEMU**

Jaechun No (Sejong University, Korea); Sung-soon Park (Anyang University and Gluesys Co. LTD, Korea)

PE.2. **Stock Price Prediction Through the Sentimental Analysis of News Articles**

Jaeyoon Kim, Jangwon Seo, Minhyeok Lee and Junhee Seok (Korea University, Korea)

PE.3. **Decentralized Resource Allocation for Multicast D2D Communications Using Stochastic Geometry**
Devarani Devi Ningombam, Suk-seung Hwang and Seokjoo Shin (Chosun University, Korea)

PE.4. **Implementation of Private Base Station in Android Container Environment for Mobile Communication**
Jaehyeon Yoon, Jungsoo Park and Souhwan Jung (Soongsil University, Korea)

PE.5. **Hierarchical Trust Chain Framework for IoT Services**
Hoan-Suk Choi (Hanbat National University, Korea); Gyu Myoung Lee (Liverpool John Moores University, United Kingdom); Woo-Seop Rhee (Hanbat National University, Korea)

PE.6. **A Model for Detecting Cryptocurrency Transactions with Discernible Purpose**
Hyochang Baek, JunHyong Oh, Chang Yeon Kim and Kyungho Lee (Korea University, Korea)

PE.7. **Digital Watermarking Using Group Quantization for CityGML Objects**
Ruichen Jin and Jongweon Kim (Sangmyung University, Korea)

PE.8. **Method for Service Function Chaining Optimized in the NFV Environment**
Sang Il Kim and Hwa Sung Kim (KwangWoon University, Korea)

PE.9. **A Study on the Selection of Candidate Leaders for Flexible Platooning in Urban Road**
Sumin Choi, Jaehee Back and Yongtae Shin (Soongsil University, Korea)

Poster Session – F
Session Chair: Sunwoong Choi, Kookmin Univ., Korea
Room: TBA Time: 11:00 ~ 12:00

PF.1. **Hand Gesture Classification Using Non-Audible Sound**
Jinhyuck Kim, Jinwon Cheon and Sunwoong Choi (Kookmin University, Korea)

PF.2. **A Study on Verification System to Support Efficient Interface Test in Embedded System,**
Tai-Gil Kwon and Jin-Woong Cho (Korea Electronics Technology Institute, Korea)

PF.3. **Implementation of Research Data Platform: In the Perspective of Data Transfer**
Sungho Shin, Young Ho Shin, Jin Young Kim, Min Ki Kim and Min-Ho Lee (Korea Institute of Science and Technology Information, Korea)

PF.4. **IoT-based Safety Recognition Service for Construction Site**
Miri Park, Minjeong Song, Sangoh Park and Sangil Park (Seoul National University of Science and Technology, Korea)

PF.5. **A Study on the Correction of Azimuthal Angle by Fusion of Geomagnetic Sensor and Inertial Sensor**
JongTaek Oh (Hansung University, Korea)

PF.6. **Efficient Caching for Delivery of Multimedia Information with Low Latency in ICN**
Kamrul Hasan and Seong-Ho Jeong (Hankuk University of Foreign Studies, Korea)

PF.7. **Human Action Recognition Based on LSTM Model Using Smartphone Sensor**
Yull Kyu Han and Young-Bok Choi (Tongmyong University, Korea)

PF.8. **Mobility Management in the 5G Network Between Various Access Networks**
Young-il Choi, Jae Ho Kim and Chang Ki Kim (ETRI, Korea)

PF.9. **A Study on the Election of Suitable Leader Vehicle in Vehicle Platooning Using the Raft Algorithm**
Jaehee Back, Sumin Choi, and Yongtae Shin (Soongsil University, Korea)

[ICUFN 2019 Technical Workshops]

Tuesday 2nd July 2019

Workshop 1A Drone Communication and Applications (DCA 2019) – I
Session Chair: TBA
Room: TBA Time: 13:00 ~ 14:30

1A.1.   The Secure UAV Communication Link Based on OTP Encryption Technique
Sukhrob Atoev (Pukyong National University, Korea); Oh-Jun Kwon, Chee-Yong Kim (Dongeui University, Korea); Suk-Hwan Lee (Tongmyong University, Korea); Young-Rak Choi (A&C Company, Korea); Ki-Ryong Kwon (Pukyong National University, Korea)

1A.2.   UAV-Assisted Cooperative Downlink NOMA with Virtual Full-Duplex Operation
Jeong Seon Yeom, Bang Chul Jung (Chungnam National University, Korea); Young-bin Kim (KDDI Research, Inc., Japan)

1A.3.   Sequence Design Technique for UAV Communication over Cellular Networks with Down-tilted Antennas
Su Hyuk Moon (Chung-Ang University, Korea); Chang Hwan Park (LG Electronics, Korea); Yong Soo Cho (Chung-Ang University, Korea)

1A.4.   Interference Analysis of Directional UAV Networks: A Stochastic Geometry Approach
Eunmi Chu, Bang Chul Jung (Chungnam National University, Korea); Jongmin Kim (Korea Science Academy KAIST, Korea)

1A.5.   A Networking Framework for Multiple- Heterogeneous Unmanned Vehicles in FANETs
Sungchan Choi, Jong-Hong Park, Jaeho Kim (Korea Electronics Technology Institute, Korea)

Workshop 1B Smart Radio for IoT Era (SRIoT 2019) – I
Session Chair: Takeo Fujii (The University of Electro-Communications, Japan)
Room: TBA Time: 13:00 ~ 14:30

1B.1.   Influence of Interference Among LoRa Systems Under Indoor Enviroments
Shota Okuda, Kohei Ohno (Meiji University, Japan)

1B.2.   Revenue Model with Multi-Access Edge Computing for Cellular Network Architecture
Jin Nakazato, Yu Tao, Gia Khanh Tran, Kei Sakaguchi (Tokyo Institute of Technology, Japan)

1B.3.   Proactive Cache System Using Cellular-Radio Information on MEC
Miho Tanaka, Kenichi Nagasue, Jun Ogawa(Fujitsu Laboratories Ltd., Japan); Akira Yokomichi, Yoshihiro Ando (Fujitsu Limited., Japan); Takayuki Ojima, Toshiyuki Shizuoka, Koichi Adachi, Takeo Fujii (Advanced Wireless & Communication Research Center(AWCC), Japan)

1B.4.   Multihop Wireless Controlled Sensor and Actuator Network for Cable Installation System
Masahiro Watanabe (Oita National College of Technology, Japan)

Workshop 2A Covert Underwater Communication (CUC 2019)
Session Chair: TBA
Room: TBA Time: 14:40 ~ 16:10

2A.1. **Experimental Results of Long Range Underwater Communication Based on chirp-FH Signals**
Geunhyeok Lee, Joohyeong Lee, Taewoong Kang, Kiman Kim (Korea Maritime and Ocean University, Korea); Wan-Jin Kim (Agency for Defence Development, Korea)
2A.2. **Selection of CDMA and OFDM Using DNN in Underwater Acoustic Channels**
Yong Cheol Kim, Hojun Lee, Jongmin Ahn, Jaehak Chung (Inha University, Korea)
2A.3. **Underwater Communication with Spatio-temporal Diversity in a Deep-Water Environment**
Heejin Park, Donghyeon Kim, Jeasoo Kim (Korea Maritime and Ocean University, Korea); Joo Young Hahn, Joung-Soo Park (Agency for Defense Development, Korea)
2A.4. **MIMO Communication Based on Adaptive Passive Time Reversal in Deep Water**
Donghyeon Kim, Heejin Park, Jeasoo Kim (Korea Maritime and Ocean University, Korea); Joo Young Hahn, Joung-Soo Park (Agency for Defense Development, Korea)
2A.5. **Bidirectional Equalization for Long-Range Underwater Acoustic Communication in BLAC18**
Hyeonsu Kim, Kang-Hoon Choi, Jee Woong Choi (Hanyang University, Korea); Ho Seuk Bae (Agency for Defense Development, Korea)
2A.6. **Adaptive Modulation and Coding for Underwater Acoustic Communication**
Hui Su Lee, Ji Won Jung, Chang-uk Baek, A Hyun Lee (Korea Maritime and Ocean University, Korea); Wan-Jin Kim (Agency for Defence Development, Korea)

Workshop 2B Smart Radio for IoT Era (SRIoT 2019) – II
Session Chair: Kohei Ohno (Meiji University, Japan)
Room: TBA Time: 14:40 ~ 16:10

2B.1. **Evaluation of Channel Capacity of Millimeter-Wave WBAN Considering Human Body Blocking in User-Dense Condition**
Taichi Yokouchi, Kohei Akimoto, Mizuki Motoyoshi, Suguru Kameda, Noriharu Suematsu (Tohoku University, Japan)
2B.2. **Spectrum Sharing Exploiting Spectrum Database for LPWA**
Yudai Yamazaki, Takeo Fujii, Koichi Adachi (The University of Electro-Communications, Japan); Osamu Takyu (Shinshu University, Japan); Mai Ohta (Fukuoka University, Japan)
2B.3. **Machine Learning for Smart Energy Monitoring of Home Appliances Using IoT**
Rozeha A. Rashid, Leon Chin, Mohd Adib Sarijari, Rubita Sudirman (Universiti Teknologi Malaysia, Malaysia); Teruji Ide (National Institute of Technology, Kagoshima College, Japan)
2B.4. **Optimal Channel Selection Rate of Slave Terminal for Rendezvous Channel Scheme Based on Channel Occupancy Rate**
Yuki Nishio, Osamu Takyu(Shinshu University, Japan); Hayato Soya (Neko 9 Laboratory, Japan); Mai Ohta (Fukuoka University, Japan); Takeo Fujii (The University of Electro-Communications, Japan)
2B.5. **Batteryless Speed and Timestamp Recorder with Multi-channel FM Radio Featuring Bicycle Frame Antenna**
Shogo Umemoto, Norifumi Kashiyama, Hisashi Nishikawa, Ami Tanaka, Takakuni Douseki (Ritsumeikan University, Japan)

Workshop 2C Intelligent Vehicles (IV 2019)
Session Chair: TBA
Room: TBA Time: 14:40 ~ 16:10

2C.1. **The Analysis of Rehealing Delay for a Sparse VANET with Unequal Traffic**
Yu-Han Ciou, Jeng-Ji Huang (National Taiwan Normal University, Taiwan)

2C.2. **Localization Error Analysis of Indoor Positing System Based on UWB Measurements**
Alwin Poulose, Dong Seog Han (Kyungpook National University, Korea); Odongo Steven Eyobu(Makerere University, Uganda); Myeongjin Kim (Samsung Electronics Co., Ltd, Korea)

2C.3. **Extrinsic Calibration of a camera-LIDAR Multi Sensor System Using a Planar Chessboard**
Eung-su Kim, Soon-Yong Park (Kyungpook National University, Korea)

2C.4. **Correlation Characteristics of Radar Signals for the Object Identification to Urban Autonomous Driving**
Masahiro Watanabe (Oita National College of Technology, Japan)

2C.5. **Ambient Environment Recognition Algorithm Fusing Vision and LiDAR Sensors for Robust Multi-channel V2X System**
Gyu Ho Lee, Ki Hun Kwon, Min Young Kim (Kyungpook National University, Korea)

2C.6. **Vision and Odometry Based Autonomous Vehicle Lane Changing**
Gábor Péter, Balint Kiss and Viktor Tihanyi (Budapest University of Technology and Economics, Hungary)

Workshop 3A Drone Communication and Applications (DCA 2019) – II
Session Chair: TBA
Room: TBA Time: 16:30 ~ 18:00

3A.1. **Beamwidth of Base Stations for Maximizing Coverage of Aerial Users**
Honggu Kang, Joonhyuk Kang (KAIST, Korea); Jingon Joung (Chung-Ang University, Korea)

3A.2. **Arrhythmia Classification System Using Deep Neural Network**
EunKwang Jeon, HwaMin Lee, Minsu Chae, Sangwook Han (Soonchunhyang, Korea)

3A.3. **Multiple Access Schemes for Visible Light Communication**
Md. Shahjalal, Md Mainul Islam, Moh. Khalid Hasan, Mostafa Zaman Chowdhury, and Yeong Min Jang (Kookmin University, Korea)

3A.4. **Structure Design for Unmanned Aircraft Traffic Management System**
Jong-Hong Park, Sungchan Choi, Il-Yeop Ahn (Korea Electronics Technology Institute, Korea)

Workshop 3B Smart Radio for IoT Era (SRIoT 2019) – III
Session Chair: Suguru Kameda (Tohoku University, Japan)
Room: TBA Time: 16:30 ~ 18:00

3B.1. **Overloaded Wireless Mimo Switching for Secure Wireless Communication Exchange to Untrusted Relay**
Arata Takahashi, Osamu Takyu, Fumihito Sasamori, Shiro Handa (Shinshu University, Japan); Takeo Fujii (The University of Electro-Communications, Japan); Tomoaki Ohtsuki (Keio University, Japan)

3B.2. **Receiver Beacon Transmission Interval Design Using Machine Learning for Multi-Stage Wireless Sensor Networks**

Yu-ki Hatada, Takeo Fujii (The University of Electro-Communications, Japan)

3B.3.   Transmission Timing Control Method for IoT Devices Equipped with Poor Oscillator
Masaki Amano, Mai Ohta, Makoto Taromaru (Fukuoka University, Japan)

Workshop 3C Optical Wireless Communication Networks (OWCN 2019)
Session Chair: TBA
Room: TBA Time: 16:30 ~ 18:00

3C.1.   An Artificial Intelligence-based Error Correction for Optical Camera Communication
Tung Lam Pham, Trang Nguyen, Minh Duc Thieu, Huy Nguyen, Hoan Nguyen and Yeong Min Jang (Kookmin University, Korea)

3C.2.   Deep Learning Based Effective Surveillance System for Low-Illumination Environments
Insu Kim, Jae Seok Jang, Soon Ki Jung, Seock Ho Kim (Kyungpook National University, Korea); Yunju Jeong (Andong National University, Korea)

3C.3.   The Next Generation Architecture of Low Power Wide Area Network for Energy Platform
Huy Nguyen, Nam Tuan Le, Pham Tung Lam, Nguyen Cong Hoan, Thanh Luan Vu, Minh Duc Thieu and Yeong Min Jang (Kookmin University, Korea)

3C.4.   Trade-off Communication Distance and Data Rate of Rolling Shutter OCC
Hoan Nguyen, Tung Lam Pham, Huy Nguyen and Yeong Min Jang (Kookmin University, Korea)