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## January 9, 2019 (Wednesday)

### [Oral Sessions 1] IoT and CPS

13:30-15:30

Chair : Debasis Das (BITS Pilani, India)

- [0-1-1] **Secure and Fast Multiple Nodes Join Mechanism for IPv6-based Industrial Wireless Network**  
*Yuan Zhuang, Qiaoyue Pang and Min Wei (Chongqing University of Posts and Telecommunications, P.R. China)*
- [0-1-2] **Mobility Management for Healthcare Services in CoAP-based IoT Networks**  
*Joong-Hwa Jung and Dong-Kyu Choi (Kyungpook National University, Korea); Ji-in Kim (Research Institute, silla System, Korea); Seok-Joo Koh (Kyungpook National University & College of IT Engineering, Korea)*
- [0-1-3] **Experimental Evaluation of Mobile Core Networks on Simultaneous Access from M2M/IoT Terminals**  
*Masaki Ueno, Go Hasegawa and Masayuki Murata (Osaka University, Japan)*
- [0-1-4] **Accurate Position Estimation of a Drifting Wireless LAN Communication Device in a 200Mm-Diameter Small Sewer Pipe**  
*Yuki Takei and Zhi Liu (Shizuoka University, Japan); Hiroaki Sawano (Aichi Institute of Technology, Japan); Susumu Ishihara (Shizuoka University, Japan)*

### [Oral Session 2] Machine Learning and AI

13:30-15:30

Chair : Joongheon Kim (Chung-Ang University, Korea)

- [0-2-1] **Resource Centric Characterization and Classification of Applications Using KMeans for Multicores**  
*Preeti Jain (Mumbai University, India); Sunil Surve (FRCRCE, India)*
- [0-2-2] **Route Cache Based SVM Classifier for Intrusion Detection of Control Packet Attacks in Mobile Ad-hoc Networks**  
*Robert Basominger and Young-June Choi (Ajou University, Korea)*
- [0-2-3] **Imbalanced Internet Traffic Classification Using Ensemble Framework**  
*Phylai Oeung and Fuke Shen (East China Normal University, P.R. China)*
- [0-2-4] **Binarized Multi-factor Cognitive Detection of Bi-modality Spoofing in Fog Based Medical Cyber-Physical System**  
*Nishat Mowla, Inshil Doh and Kijoon Chae (Ewha Womans University, Korea)*
- [0-2-5] **Self-Driving Car Meets Multi-access Edge Computing for Deep Learning-Based Caching**  
*Anselme Ndikumana and Choong Seon Hong (Kyung Hee University, Korea)*

### [Oral Session 3] Network Security

16:00-18:00

Chair : Robert Basominger (Ajou University)

- [0-3-1] **Stochastic Heuristic Approach to Addition Chain Problem in PKC for Efficiency and Security Effectiveness**  
*Adamu Muhammad Noma (Bauchi State University Gadau, Nigeria); Abdullah Muhammed (Universiti Putra Malaysia, Malaysia)*
- [0-3-2] **Unified Cloud Access Control Model for Cloud Storage Broker**  
*Muhammad Ihsan Haikal Sukmana (Hasso Plattner Institut University Potsdam, Germany); Kennedy A Torkura and Hendrik Graupner (Hasso Plattner Institute, University of Potsdam, Germany); Feng Cheng (University of Potsdam, Germany); Christoph Meinel (Hasso Plattner Institute, University of Potsdam, Germany)*
- [0-3-3] **Trustless Two-Factor Authentication Using Smart Contracts in Blockchains**  
*Varun Amrutiya, Siddhant Jhamb and Pranjal Priyadarsh (BITS, Pilani, India); Ashutosh Bhatia (Birla Institute of Technology and Science, Pilani, India)*
- [0-3-4] **A Lightweight Authentication and Communication Protocol in Vehicular Cloud Computing**  
*Harsha Vasudev (BITS Pilani Goa Campus, Goa, India); Debasis Das (BITS Pilani Goa Campus, India)*
- [0-3-5] **Privacy in the Internet of Vehicles: Models, Algorithms, and Applications**  
*Madhur Poddar, Swathi Ganta, Swaraj K. R and Debasis Das (BITS Pilani Goa Campus, India)*

### [Oral Session 4] Vehicle Network

16:00-18:00

Chair : Abdullah Muhammed (UPM, Malaysia)

- [0-4-1] **Reservation-based Intersection Crossing Scheme for Autonomous Vehicles Traveling in a Speed Range**  
*Myungwhan Choi and Areeya Rubenecia (Sogang University, Korea); Hyo Hyun Choi (Inha Technical College, Korea)*
- [0-4-2] **In-Vehicle Infotainment Management System in Internet-of-Things Networks**  
*Dong-Kyu Choi and Joong-Hwa Jung (Kyungpook National University, Korea); Seok-Joo Koh (Kyungpook National University & College of IT Engineering, Korea); Ji-in Kim (Research Institute, silla System, Korea); Juyoung Park (ETRI, Korea)*
- [0-4-3] **Cell Association in Energy-Constrained Unmanned Aerial Vehicle Communications Under Altitude Consideration**  
*Nway Nway Ei, Choong Seon Hong, Chit Wutyee Zaw and Min Kyung Lee (Kyung Hee University, Korea)*

## Oral Sessions

- [0-4-4] **Performance Analysis of Uplink V2I Cooperative Transmission Scheme in Practical Road Environments**  
*Hayato Ishikawa and Eiji Okamoto (Nagoya Institute of Technology, Japan); Shouhei Okamoto and Hiraku Okada (Nagoya University, Japan); Satoshi Makido (Toyota Central R&D Labs., Inc., Japan)*
- [0-4-5] **Performance Analysis of a Terrestrial/UAV Integrated Mobile Communications System Using Code Division Multiplexing in Natural Disasters**  
*Ryo Hasegawa and Eiji Okamoto (Nagoya Institute of Technology, Japan); Hiroyuki Tsuji (National Institute of Information and Communications Technology, Japan); Amane Miura (Institute of Information and Communications Technology, Japan)*

### January 10, 2019 (Thursday)

#### [Oral Session 5] 5G Cellular Network

09:00-11:00

Chair : Hiroyuki Otsuka (Kogakuin University, Japan)

- [0-5-1] **A Chance Constrained Based Formulation for Multiplexing of URLLC and eMBB Traffics in 5G New Radio**  
*Madyan Alsenwi, Shashi Pandey, Yan Kyaw Tun, Ki Tae Kim and Choong Seon Hong (Kyung Hee University, Korea)*
- [0-5-2] **Joint Task Offloading and Flexible Functional Split in 5G Radio Access Network**  
*Zhipeng Cheng, Yuliang Tang and Haijie Wu (Xiamen University, P.R. China)*
- [0-5-3] **Throughput Performance of Relay Backhaul Enhancement Using 3D Beamforming**  
*Hiroki Utatsu and Kai Osawa (Kogakuin University, Japan); Jun Mashino and Satoshi Suyama (NTT DOCOMO, INC., Japan); Hiroyuki Otsuka (Kogakuin University, Japan)*
- [0-5-4] **Optimizing Power by Combining Small Cells with a Massive MIMO for Maximum Energy Efficiency Under Two Path Loss Models**  
*Teerapat Sanguankotchakorn (Asian Institute of Technology & School of Engineering and Technology, Thailand); Aravind kumar Chintala (Asian Institute of Technology, India)*
- [0-5-5] **A Mode Selection Algorithm for Mitigating Interference in D2D Enabled Next-Generation Heterogeneous Cellular Networks**  
*Md Kamruzzaman, Nurul I Sarkar and Jairo A Gutierrez (Auckland University of Technology, New Zealand); Sayan Kumar Ray (Manukau Institute of Technology, New Zealand)*
- [0-5-6] **An Uplink Non-Orthogonal Multiple Access Scheme Having Physical Layer Security Based on Chaos Modulation**  
*Yoshihiro Masuda and Eiji Okamoto (Nagoya Institute of Technology, Japan); Tetsuya Yamamoto (Panasonic Corporation, Japan); Ito Keita (Nagoya Institute of Technology, Japan)*

#### [Oral Session 6] Big Data and Cloud Computing

09:00-11:00

Chair : Muhammad Hanif (Hanyang University, Korea)

- [0-6-1] **A Heuristic Mixed Model for Viral Marketing Cost Minimization in Social Networks**  
*Ashis Talukder, DoHyeon Kim and Choong Seon Hong (Kyung Hee University, Korea)*
- [0-6-2] **Distributed Key-Value Storage for Edge Computing and Its Explicit Data Distribution Method**  
*Takehiro Nagato, Takumi Tsutano, Tomio Kamada and Yumi Takaki (Kobe University, Japan); Chikara Ohta (Kobe University & Graduate School of Science, Technology and Innovation, Japan)*
- [0-6-3] **Post-Mining of Generalized Association Rules from Data Cubes**  
*Hanen Brahmi (Faculty of Sciences, Tunisia)*
- [0-6-4] **Ontology Enhanced Mining of Multidimensional Association Rules from Data Cubes**  
*Hanen Brahmi (Faculty of Sciences, Tunisia)*
- [0-6-5] **Optimized Service Function Path Selection for IoT Devices Using Virtual Network Function Performance Data**  
*Shanaka Abeysiriwardhana (Keio University, Japan); Janaka Wijekoon (SLIIT Malabe Campus, Sri Lanka); Hiroaki Nishi (Keio University, Japan)*

#### [Oral Session 7] Multimedia and QoS

13:30-15:30

Chair : Jung Ryun Lee (Chung-Ang University, Korea)

- [0-7-1] **Video-Aware Multipath Network Coding over Multi-hop Wireless Networks**  
*Huali Cui (Xi'an Jiaotong University, P.R. China); Qindong Sun and Beibei Zhang (Xi'an University of Technology, P.R. China); Xingjun Zhang (Xi'an Jiaotong University, P.R. China); Weiguo Wu (Xi'an Jiaotong Univ, P.R. China)*
- [0-7-2] **Cooperative Server-Client HTTP Adaptive Streaming System for Live Video Streaming**  
*Sangwook Han, Yunmin Go and Hyunmin Noh (POSTECH, Korea); Hwangjun Song (POSTECH (Pohang University of Science and Technology), Korea)*
- [0-7-3] **WebRTC-based Multi-View Video and Audio Transmission and Its QoE**  
*Yuki Maehara and Toshiro Nunome (Nagoya Institute of Technology, Japan)*
- [0-7-4] **Collective Segment Request Policy of HTTP Adaptive Streaming in Multipath Environments**  
*Heekwang Kim and Kwangsue Chung (Kwangwoon University, Korea)*
- [0-7-5] **Energy-Efficient Sleep Mode Adjustment Considering GoP Structure**  
*Meihua Jin, Ji-Young Jung, Dara Ron, Sengly Muy, and Jung-Ryun Lee (Chung-Ang University, Korea)*

### [Oral Session 8] Network Performance Evaluation

13:30-15:30

Chair: Takeo Fujii (The University of Electro-Communications, Japan)

- [O-8-1] Distributed ID/Locator Resolution System for Inter Mesh Networks  
*Masaaki Ohnishi and Kazuyuki Shudo (Tokyo Institute of Technology, Japan)*
- [O-8-2] An Efficient Gateway Routing Scheme for Disaster Recovery Scenario  
*Nor Aida Mahiddin (University Sultan Zainal Abidin & Terengganu, Malaysia); Nurul I Sarkar (Auckland University of Technology, New Zealand)*
- [O-8-3] Network MIMO with Interference Cancellation for Cloud-Cooperated Wireless Sensor Networks  
*Toshiki Nonaka and Takeo Fujii (The University of Electro-Communications, Japan); Osamu Takyu (Shinshu University Japan); Mai Ohta (Fukuoka University, Japan)*
- [O-8-4] Gigabit Ethernet with Wireless Extension: OPNET Modelling and Performance Study  
*Nurul I Sarkar, Sonia Gul and Bowen Anderton (Auckland University of Technology, New Zealand)*
- [O-8-5] 3D-Deployment of Magnetic Induction Relays in Underwater Sensor Networks  
*Sai Wang and Yoan Shin (Soongsil University, Korea)*
- [O-8-6] BLE-enabled Medication Events Monitoring System (MEMS) for Community Dwelling Seniors  
*Avinash Subramaniam (University of Illinois At Urbana-Champaign, USA); Hwee-Xian Tan (Singapore Management University, Singapore); Hwee Pink Tan (Singapore Management University & TCS-SMU iCity Lab, Singapore)*

## January 11, 2019 (Friday)

### [Oral Session 9] SDN

09:00-11:00

Chair: Sangheon Park (Korea University, Korea)

- [O-9-1] TALON: Tenant Throughput Allocation Through Traffic Load-balancing in Virtualized Software-defined Networks  
*Heesang Jin, Gyeongsik Yang, Bong-yeol Yu and Chuck Yoo (Korea University, Korea)*
- [O-9-2] A Practical Model for Optimal Placement of Virtual Network Functions  
*Nguyen Tri-Hai, Jaejin Lee and Myungsik Yoo (Soongsil University, Korea)*
- [O-9-3] WhiteVisor: Support of White-box Switch in SDN-based Network Hypervisor  
*Bong-yeol Yu, Gyeongsik Yang, Heesang Jin and Chuck Yoo (Korea University, Korea)*

- [O-9-4] SDN-enabled Value-based Traffic Management Mechanism in Resource-Constrained Sensor Devices

*Melchizedek I Alipio, Alex Gyran Co, Melinda Faye Hilario and Christian Miguel Pama (Malayan Colleges Laguna, Philippines)*

- [O-9-5] Optimal and Secure Controller Placement in SDN Based Smart City Network

*Samir Kumar Tarai (International Institute of Information Technology, Bangalore & HP Inc., India); Samar Shailendra (Tata Consultancy Services, India)*

### [Oral Session 10] Wireless Communications and Networks

09:00-11:00

Chair: Eiji Okamoto (Nagoya Institute of Technology, Japan)

- [O-10-1] A Chaos MIMO-based Polar Concatenation Code for Secure Channel Coding

*Ito Keita, Yoshihiro Masuda and Eiji Okamoto (Nagoya Institute of Technology, Japan)*

- [O-10-2] Chance-Constrained Spectrum Allocation for Fair LTE-U/Wi-Fi Coexistence

*Aunas Manzoor, Seok-Won Kang and Choong Seon Hong (Kyung Hee University, Korea)*

- [O-10-3] Experimental Verification of Frequency-Correlation in Radio Propagation Characteristics for Radio Environment Recognition

*Keita Onose and Takeo Fujii (The University of Electro-Communications, Japan); Kei Inage (Tokyo Metropolitan College of Industrial Technology, Japan); Koya Sato (Tokyo University of Science, Japan)*

- [O-10-4] 3-D GM-MAC with Fixed Sensor Nodes for Stability Improvement

*Yoonkyung Jang, Ahreum Shin, Myeongseung Han and In Tae Ryou (Kyung Hee University, Korea)*

- [O-10-5] Weighted Proportional Allocation Based Power Allocation in Wireless Network Virtualization for Future Wireless Networks

*Yan Kyaw Tun, Shashi Pandey, Madyan Alsenwi, Chit Wutyee Zaw and Choong Seon Hong (Kyung Hee University, Korea)*

- [O-10-6] A Dynamic TDMA Scheme for UAV Based Relay in Combat Net Radio Networks

*Jinhyeok Park (AJOU, Korea); Hoki Baek and Jae Sung Lim (Ajou University, Korea)*

# Poster Sessions

January 10, 2019 (Thursday)

## [Poster Session 1]

11:30-12:30

Chair : Sungwook Kim (Sogang University, Korea)

- [P1-1] **Can Reinforcement Learning Address Security Issues? an Investigation into a Clustering Scheme in Distributed Cognitive Radio Networks**  
*Mee Hong Ling and Kok-Lim Alvin Yau (Sunway University, Malaysia)*
- [P1-2] **Distributed Ledger Technologies for M2M Communications**  
*Christoph Ruland, Natasa Zivic and Jochen Sassmannshausen (University of Siegen, Germany)*
- [P1-3] **An Adjustable Channel Hopping Algorithm Based on Channel Usage Ratio for Multi-Radio CRNs**  
*Chih-Min Chao, Chia-Tsun Chen and Shin Chung Huang (National Taiwan Ocean University, Taiwan)*
- [P1-4] **Risk Analysis in Fieldbus Networks Using the Example of KNX**  
*Johannes Goltz, Simeon Wiedenmann and Thomas Mundt (University of Rostock, Germany)*
- [P1-5] **Design of Power Saving Schemes for the IoT**  
*Shou-Chih Lo and Azusa Iikubo (National Dong Hwa University, Taiwan)*
- [P1-6] **Application of OFDM in Underwater Magnetic Induction Communication**  
*Wentao Zhou and Yoan Shin (Soongsil University, Korea)*
- [P1-7] **Enhancement of MAC Protocol for Power Reduction in LoRaWAN**  
*Keitaro Terada, Hiroaki Mukai and Tetsuya Yokotani (Kanazawa Institute of Technology, Japan)*
- [P1-8] **System Designing and Prototyping on IoT for a Factory**  
*Daiki Takemura, Tetsuya Yokotani, Atsusuke Murata and Kensei Miyakoshi (Kanazawa Institute of Technology, Japan); Yasunori Kobayashi and Yasuhiro Kobayashi (KOBAYASHI MANUFACTURE Ltd, Japan)*
- [P1-9] **The Urban-Area Mitigation System for Providing Information and Its Generalization**  
*Shota Uchiyama, Yutaro Yanagida, Masahiro Murakami and Osamu Mizuno (Kogakuin University, Japan)*
- [P1-10] **Data Transfer Methods for Information-Centric Networkingbased Wireless Sensor Network Platform**  
*Keigo Kimura, Kandai Mochizuki, Masafumi Koike and Osamu Mizuno (Kogakuin University, Japan)*
- [P1-11] **On A Posteriori Error Bounds of Trapezoidal Rule**  
*Bum Il Hong and In Tae Ryou (Kyung Hee University, Korea); Gon Khang (Kyunghee University, Korea)*
- [P1-12] **Deep Reinforcement Learning Based Sensor Data Management for Vehicles**  
*Jeongmin Moon (Sungkyunkwan University & Computer Network Lab, Korea); Mukoe Cheong and Ikjun Yeom (Sungkyunkwan University, Korea); Honguk Woo (Samsung Electronics, Korea)*
- [P1-13] **NodeMCU Choreography Automation by CoAP**  
*Krisada Sangsanit and Chian Techapanupreeda (Mahanakorn University, Thailand)*
- [P1-14] **MQTT over VLAN for Reduction of Overhead on Information Discovery**  
*Yuya Sasaki, Tetsuya Yokotani and Hiroaki Mukai (Kanazawa Institute of Technology, Japan)*
- [P1-15] **The Mobile Edge Computing (MEC)-based VANET Data Offloading Using the Staying-Time-oriented K-Hop Away Offloading Agent**  
*Chung-Ming Huang and Zhong-You Wu (National Cheng Kung University, Taiwan); Shih-Yang Lin (Shandong University of Technology, P.R. China)*
- [P1-16] **Evaluation of Multiplexing on the Characteristics of Surveillance Camera Data Traffic**  
*Yoshiki Kuwabara, Yudai Matsuno, Hiroaki Mukai, Tetsuya Yokotani and Kan Akutsu (Kanazawa Institute of Technology, Japan)*
- [P1-17] **ARP Poisoning Attack Detection Based on ARP Update State in Software-Defined Networks**  
*Minho Park (Soongsil University, Korea); SungWon Ahn (University of Soongsil, Korea); Thang Nguyen Canh (Soongsil University, Korea); YoungPin Kim (Soongsil university, Korea); Dongho Choi (Soongsil University, Korea)*
- [P1-18] **Optimal Trajectory Learning for UAV-BS Video Provisioning System: A Deep Reinforcement Learning Approach**  
*Dohyun Kwon and Joongheon Kim (Chung-Ang University, Korea)*

**[Poster Session 2]**

16:00-17:00

Chair : Young-June Choi (Ajou University, Korea)

- [P2-1] **Toward an Active Aging Society an IT Model to Engage the Aging Population**  
*Tuan V Ha and Doan B Hoang (University of Technology Sydney, Australia)*
- [P2-2] **Quantifying Activity Levels of Community-Dwelling Seniors Through Beacon Monitoring**  
*Jin Qiang Goh (Singapore Management University, Singapore); Hwee Pink Tan (Singapore Management University & TCS-SMU iCity Lab, Singapore); Hwee-Xian Tan (Singapore Management University, Singapore)*
- [P2-3] **Biochemical-inspired Autonomous Control of Virtualized Network Functions**  
*Ryota Kurokawa (University of Osaka, Japan); Go Hasegawa and Masayuki Murata (Osaka University, Japan)*
- [P2-4] **Benchmarking Tool for Modern Distributed Stream Processing Engines**  
*Muhammad Hanif, Hyungduk Yoon and Choonhwa Lee (Hanyang University, Korea)*
- [P2-5] **Performance Evaluation of the Geographic Routing Protocols Scalability**  
*Akashah Arshad, Zurina Mohd Hanapi and Shamala Subramaniam (Universiti Putra Malaysia, Malaysia); Rohaya Latip (University Putra Malaysia, Malaysia)*
- [P2-6] **An Experimental View on Fairness Between HTTP/1.1 and HTTP/2**  
*Jiwon Min (ChungNam National University, Korea); Youngseok Lee (Chungnam National University, Korea)*
- [P2-7] **Anchor-based Group Relay MAC**  
*Ahreum Shin, Myeongseung Han, Yoonyoung Jang and In Tae Ryoo (Kyung Hee University, Korea)*
- [P2-8] **Infection Dynamics of Self-Evolving Botnets with Deterministic Modeling**  
*Yuya Kumai and Koki Hongyo (Kansai University, Japan); Tomotaka Kimura (Doshisha University, Japan); Kouji Hirata (Kansai University, Japan)*
- [P2-9] **Popularity-based Content Cache Management for In-Network Caching**  
*Takeo Fukushima, Masamitsu Iio, Kouji Hirata and Miki Yamamoto (Kansai University, Japan)*
- [P2-10] **Aggressive Recovery Scheme for Multicast Communication in Intermittently Connected Mobile Ad-Hoc Networks**  
*Tomotaka Kimura (Doshisha University, Japan); Chinthaka Premachandra (Shibaura Institute of Technology, Japan)*
- [P2-11] **Performance Evaluation of Information-Sharing Scheme Among Multiple Destinations with Mirroring Null Steering in Single Antenna Networks**  
*Tetsuya Noguchi and Osamu Takyu (Shinshu University, Japan); Takeo Fujii (The University of Electro-Communications, Japan); Tomoaki Ohtsuki (Keio University, Japan)*
- [P2-12] **Data Separation Considering Smoothness of Sensing Data in Physical Wireless Parameter Conversion Sensor Networks**  
*Shuhei Yamasaki, Osamu Takyu and Keiichiro Shirai (Shinshu University, Japan); Takeo Fujii (The University of Electro-Communications, Japan); Mai Ohta (Fukuoka University, Japan); Fumihito Sasamori and Shiro Handa (Shinshu University, Japan)*
- [P2-13] **A Comparative Study on Anchorless Routing in 5G System**  
*Kenji Fukui and Koji Tsubouchi (NTT DOCOMO, INC., Japan); Shigeru Iwashina (NTT DOCOMO, INC, Japan)*
- [P2-14] **Protected Coordination of Service Mesh for Container-based 3-tier Service Traffic**  
*Moonjoong Kang; Jun-Sik Shin; JongWon Kim (GIST, Korea)*
- [P2-15] **A Dynamic Cache Size Assignment Method with Bandwidth Reservation for CCN**  
*Atsuko Yokotani (The University of Electro-Communications, Japan); Satoshi Ohzahata (The University of Electro-Communications & Graduate School of Information Systems, Japan); Ryo Yamamoto (The University of Electro-Communications, Japan); Toshihiko Kato (University of Electro-Communications, Japan)*
- [P2-16] **Design and Prototyping of Container-enabled Cluster for High Performance Data Analytics**  
*JinCheol Kwon, Namgon Lucas Kim, Moonjoong Kang and JongWon Kim (Gwangju Institute of Science and Technology, Korea)*
- [P2-17] **Low Cost Fine-grained Air Quality Monitoring System Using LoRaWAN**  
*Junhyun Park, Youngjune Oh, Hyungho Byun and Chongkwon Kim (Seoul National University, Korea)*
- [P2-18] **On Fair and Efficient Bandwidth Sharing in User Provided Networks**  
*Sinan Emre Tasci and Ömer Korçak (Marmara University, Turkey)*

# Poster Sessions

January 11, 2019 (Friday)

## [Poster Session 3]

11:30-12:30

Chair : Sanghwan Lee (Kookmin University, Korea)

- [P3-1] Prediction Based Sub-Task Offloading in Mobile Edge Computing**  
*Choong Seon Hong, Ki Tae Kim, Seok-Won Kang and Jared Lynskey (Kyung Hee University, Korea)*
- [P3-2] PMIP-based Distributed Session Mobility Management for 5G Mobile Network**  
*Kyoungjae Sun (Soongsil University & School of Electronic Engineering, Korea); younghan Kim (Soongsil University, Korea)*
- [P3-3] A Study on Fault Tolerance Technique for AGR-MAC Protocol Based Sensor Networks**  
*In Tae Ryou and Myeongseung Han (Kyung Hee University, Korea); Jun-hyuk Lee (Sahmyook Health University, Korea); Eun-Sung Cho (WETOONE Co., Ltd., Korea)*
- [P3-4] A Study on Communication Optimization in multi-SDN Controller**  
*Woojin Shim and Keecheon Kim (Konkuk University, Korea)*
- [P3-5] Blockchain-based Management of Video Surveillance Systems**  
*Ki-Hyung Kim (Ajou University, Korea); Yena Jeong (University of Ajou, Korea); DongYeop Hwang (Ajou University, Korea)*
- [P3-6] Improving TDoA Based Positioning Accuracy Using Machine Learning in a LoRaWAN Environment**  
*Ki-Hyung Kim and JaeSik Cho (Ajou University, Korea); Dong Yeop Hwang (Ajou Univ, Korea)*
- [P3-7] Adaptive Preventive and Remedial Measures in Resolving Cloud Quality of Service Violation**  
*Gaik-Yee Chan (MMU, Malaysia); Tong-Sheng Wong (Multimedia University, Cyberjaya, Malaysia); Fang-Fang Chua (Multimedia University, Malaysia)*
- [P3-8] Dynamic Adaptive Streaming over HTTP Using Scalable Video Coding with Multipath TCP in SDN**  
*Ali Gohar (Kookmin University, Korea); Ali Raza and Sanghwan Lee (Kookmin University, Korea)*
- [P3-9] Dynamic Service Function Chaining by Resource Usage Learning in SDN/NFV Environment**  
*Sang il Kim (KwangWoon University, Korea); Hwasung Kim (Kwangwoon University, Korea)*
- [P3-10] A Personal Information Management Using BlockChain**  
*Yongseon Ji, SuHwan Bae and Yongtae Shin (Soongsil University, Korea)*