



ACM IMCOM 2018, January 5 - 7
Langkawi, Malaysia
Advance Program

| Hosted by |

Sungkyunkwan University, Korea
Universiti Kuala Lumpur, Malaysia

Association for Computing Machinery In-Cooperation

Program at a Glance

| January 05, 2018 (Friday) |

	Bougainvillea Hall	VIP Meeting Room
08:30-	Registration	
09:00-10:20	Session 1: Ad-Hoc Networks	Session 2: 5G
10:20-11:00	Coffee Break & Poster Session 1: Networking/Telecommunications	
11:00-12:20	Session 3: Wired and Wireless	Session 4: Cloud Computing
12:20-13:40	Lunch Break	
13:40-13:50	Opening Remarks	
13:50-14:30	Keynote Speech 1: Prof. James Won-Ki Hong (Bougainvillea Hall)	
14:30-15:10	Keynote Speech 2: Prof. Angel P. del Pobil (Bougainvillea Hall)	
15:10-15:30	Coffee Break	
15:30-16:50	Session 5: Network Softwarization	Session 6: Security and Authentication
16:50-17:00	Short Break	
17:00-18:00	Short Presentation Session 1: Potpourri	Short Presentation Session 2: Human Aware Technologies
18:00-18:30	Free Time	
18:30-21:00	Welcome Reception (Nest Rooftop Restaurant, Pantai Cenang, by 15mins walk)	

| January 06, 2018 (Saturday) |

	Bougainvillea Hall	VIP Meeting Room
08:30-	Registration	
09:00-10:20	Session 7: Social Analytics	Session 8: Massive Data Management
10:20-11:00	Coffee Break & Poster Session 2: Data Mining and Learning	
11:00-12:20	Session 9: Information Computing	Session 10: 3D Imaging
12:20-13:40	Lunch Break	
13:40-14:20	Keynote Speech 3: Prof. Feng Xia (Bougainvillea Hall)	
14:20-15:00	Keynote Speech 4: Prof. Shahrul Azman Mohd Noah (Bougainvillea Hall)	
15:00-15:40	Coffee Break & Poster Session 3: Cloud and Applications	
15:40-17:00	Session 11: Machine Learning	Session 12: Data Acquisition & Optimization
17:00-17:10	Short Break	
17:10-18:30	Session 13: Next-Gen Memory	Committee Meeting on Conference Operation
18:30-19:00	Free Time	
19:00-21:30	Conference Banquet (Meritus Pelangi Beach Resort & Spa, Beachside)	

Session 1: Ad-Hoc Networks

09:00-10:20, Friday, January 05, 2018

Room: Bougainvillea Hall

Session Chairs: Dongsoo Kim and Husna Osman

- 1-1 Performance Evaluation on Multiple Ad-hoc Networks with Co-Existing Aggressive Contention Window Control and Legacy Control
- 1-2 Approximation on throughput evaluation on Relay Function in Cooperative Multiple Robots System
- 1-3 Efficient Approximations for Thinnest Path Problem in Grid Graph
- 1-4 Service-Aware Split Point Selection for User-Centric Mobility Enhancement in SDN

Session 2: 5G

09:00-10:20, Friday, January 05, 2018

Room: VIP Meeting Room

Session Chairs: Masato Oguchi and Saneyasu Yamaguchi

- 2-1 System Capacity Analysis of Millimeter Wave Band with Polarized Antenna Structure
- 2-2 Improving Energy Efficiency and Scalability for IoT Communications in 5G Networks
- 2-3 An OFDM System Design with Efficient ICI Cancellation over Embedded LTE-R Channels Based on the USRP Platform
- 2-4 Spectrum Efficient and Power Efficient Communication System for Satellite Applications

Poster Session 1: Networking/Telecommunications

10:20-11:00, Friday, January 05, 2018

Session Chairs: Shaima Qureshi and Dahlan Ghani

- P1-1 An Efficient Multicast Routing Algorithm for Wireless Mesh Networks
- P1-2 Duty Cycle Optimizing for WiFi-based IoT Networks with Energy Harvesting
- P1-3 An investigation of the spatial correlation influence on coded MIMO-OFDMA system performance
- P1-4 An Effective Data Processing and Data Dissemination in Vehicular Networks
- P1-5 Performance Evaluation with Considering Capture Effect in Ad-hoc Networks on User Cooperative Mobility for QoS Improvement
- P1-6 Lowering the Barriers to Applications of Cloud-Based Vehicular Networks
- P1-7 Energy Efficient Hypervisor Workload Modelling for VNF Deployment
- P1-8 SuperFlex: Network Slicing based Super Flexible 5G Architecture

Session 3: Wired and Wireless

11:00-12:20, Friday, January 05, 2018

Room: Bougainvillea Hall

Session Chairs: Van Duc Nguyen and Shaima Qureshi

- 3-1 TCP Fairness Evaluation with Modified Controlled Delay in the Practical Networks
- 3-2 Performance Improvement of TCP Communication based on Cooperative Congestion Control in Android Terminals
- 3-3 Performance of Wavelength Routed Optical Networks Employing GMPLS-based Control Plane
- 3-4 Traffic-Aware Optimal Spectrum Sensing Policy in Wireless-Powered Cognitive Radio Networks

Session 4: Cloud Computing

11:00-12:20, Friday, January 05, 2018

Room: VIP Meeting Room

Session Chairs: Eui-Nam Huh and Dahlan Ghani

- 4-1 Cache Management for 5G Cloud Radio Access Networks
- 4-2 VM Migration in Mobile Edge Computing for QoS Improvement with Wireless Multi-Hop Access Networks
- 4-3 Study on Distributed Cloud Computing Environment with Composition Model and Graph Model
- 4-4 A Virtual Machine Placement Policy via Biogeography-based Optimization in the Cloud

Session 5: Network Softwarization
15:30-16:50, Friday, January 05, 2018**Room: Bougainvillea Hall**

Session Chairs: Masato Oguchi and Cai Long Zheng

- 5-1 Toward Network-based DDoS Detection in Software-defined Networks
- 5-2 Proposal of gRPC as a new northbound API for application layer communication efficiency in SDN
- 5-3 Building a Tunnel through NAT Using OpenFlow
- 5-4 Cooperative Slice Allocation for Virtualized Wireless Network: A Matching Game Approach

Session 6: Security and Authentication
15:30-16:50, Friday, January 05, 2018**Room: VIP Meeting Room**

Session Chairs: Alexey Rodionov and Husna Osman

- 6-1 Improved Anonymous Biometric-based Authentication with Key-Agreement Scheme for Multi-Server Environments
- 6-2 A Framework for Managing User-defined Security Policies to Support Network Security Functions
- 6-3 Secure Framework and Key Agreement Mechanism for OPC-UA in Industrial IoT
- 6-4 A Group-Based Energy Harvesting MAC Protocol AP Scheduling in Machine-to-Machine Networks

Short Presentation Session 1: Potpourri
17:00-18:00, Friday, January 05, 2018**Room: Bougainvillea Hall**

Session Chairs: Dongsoo Kim and Van Duc Nguyen

- S1-1 Performance Analysis of Payload Header Suppression (PHS) for Transmission of VoIP over MPLS based IPv4/IPv6 Network
- S1-2 An Approximation Algorithm for Incrementally Deploying SDN Forwarding Devices
- S1-3 Performance Evaluation of Low-Power and Lossy Networks
- S1-4 An Energy-Efficient Cooperative Spectrum Sensing Scheme based on D-S Theory in Cognitive Radio Sensor Networks
- S1-5 Simulation Modelling of Fair Channel Allocation Scheme in Urban City
- S1-6 New model for multilevel service systems analysis
- S1-7 Discovering Community Structure in Complex Network Through Community Detection Approach
- S1-8 A Case-Based Meta-Learning and Reasoning Framework for Classifiers Selection
- S1-9 Formal Verification of Ad Hoc M-Commerce Trading Systems with SPIN
- S1-10 A Data Mining Approach For Prediction Of Students' Depression Using Logistic Regression And Artificial Neural Network
- S1-11 Integrated Modeling Methodologies and Languages
- S1-12 Application of Fuzzy Delphi method (FDM) to establish key evaluation factors index for Cloud Service Selection and Evaluation

Short Presentation Session 2: Human Aware Technologies
17:00-18:00, Friday, January 05, 2018**Room: VIP Meeting Room**

Session Chairs: Eui-Nam Huh and Saneyasu Yamaguchi

- S2-1 How do viewers react to drama? - Extraction of scene features of dramas from live commentary tweets
- S2-2 The Effect of Back-Channeling Cues on Motivation to Continue Human-Machine Textual Interaction
- S2-3 Semantic-based Social Medias Threats Detection
- S2-4 The Effects of Facebook Referrals and Mobile Devices on Online News Consumption
- S2-5 Using Uncertainty Technique of Bayesian Theorem to Predict Mortality of Tree in Forest Growth Simulation System
- S2-6 Personal identification using behavioral features in pinch in and pinch out
- S2-7 Prototyping of Mobile Application and Web Monitoring for Small Vessel Tracking System
- S2-8 Timber Harvesting Damage Prediction for Sustainable Forest Management
- S2-9 Flood Detection and Warning System (FLoWS)
- S2-10 Application Framework For Forest Fire And Haze Detection With Data Acquisition Using Unmanned Aerial Vehicle
- S2-11 Effects of Screen Size in Mobile Learning Over Time

Session 7: Social Analytics

09:00-10:20, Saturday, January 06, 2018

Room: Bougainvillea Hall

Session Chairs: Eunil Park and Taketoshi Ushima

- 7-1 Salient Beliefs about Sharing Rumor Denials on the Internet
- 7-2 IT students' sentiment of faculty evaluations and posting opinions on social media networks
- 7-3 Proposal of Network Generation Model based on Latent Preference Topic
- 7-4 Classification of Web site by Naive-Bayes and Convolutional Neural Network

Session 8: Massive Data Management

09:00-10:20, Saturday, January 06, 2018

Room: VIP Meeting Room

Session Chairs: Yeong-Tae Song and Shangguang Wang

- 8-1 Comparative Analysis of Ellipsoidal Methods for Distributed Data Fusion
- 8-2 Set-valued Data Anonymization Maintaining Data Utility and Data Property
- 8-3 Extending View Updatability of Relational Databases from Set Semantics to Bag Semantics and Its Implementation on PostgreSQL
- 8-4 A Closed Frag-Shells Cubing Algorithm on High Dimensional and Non-Hierarchical Data Sets

Poster Session 2: Data Mining and Learning

10:20-11:00, Saturday, January 06, 2018

Session Chairs: Eunil Park and Eiad Yafi

- P2-1 Student Acceptance Model of Educational Games in University Class
- P2-2 An Educational Video Scoring Scheme for Level and Topic-based Recommendation
- P2-3 Similar Comment Analysis Using Selector Rating Estimates in Relation to Comments
- P2-4 Application of Data Mining Techniques for Predicting Student Success in English Exit Exam
- P2-5 Acquisition of Open Source Software Project Maturity Based on Time Series Machine Learning
- P2-6 KEM-DT: A Knowledge Engineering Methodology to Produce an Integrated Rules Set using Decision Tree Classifiers
- P2-7 Real-Time Multi-Digit Recognition System Using Deep Learning on an Embedded System
- P2-8 Long-term Tracking Based on Deep Learning
- P2-9 Anomaly detection from diabetes similarity graphs using community detection and Bayesian techniques
- P2-10 Ensemble of Deep Object Detectors for Page Object Detection

Session 9: Information Computing

11:00-12:20, Saturday, January 06, 2018

Room: Bougainvillea Hall

Session Chairs: Yeong-Tae Song and Taketoshi Ushima

- 9-1 Proposal of Disaster Prevention-Oriented Method for Synthetic Rainfall Information
- 9-2 Optimizing Power Consumption in Cloud Computing based on Optimization and Predictive Analysis
- 9-3 Natural Language, Mixed-initiative Personal Assistant Agents
- 9-4 Sentiment Classification with Convolutional Neural Network using multiple word representations

Session 10: 3D Imaging

11:00-12:20, Saturday, January 06, 2018

Room: VIP Meeting Room

Session Chairs: Angel Del Pobil and Keechun Kim

- 10-1 Denser Trajectories of Anchor Points for Action Recognition
- 10-2 An automatic virtual makeup scheme based on personal color analysis
- 10-3 Implementation of a Single-Image Haze Removal Using the FPGA
- 10-4 Auto-Setting of Optimal Exposure for Structured Light 3D Cameras

Poster Session 3: Cloud and Applications

15:00-15:40, Saturday, January 06, 2018

Session Chairs: Khang Nguyen and Mohd Nizam Husen

- P3-1 Document Certificate Authentication System Using Digitally Signed QR Code Tag
- P3-2 Personal identification using the tilt of the terminal at the time of operating the browser of the smartphone
- P3-3 Texting while walking suppression system using vibration
- P3-4 LogMap-P: On matching ontologies in parallel
- P3-5 An Intelligent-based Cross-platform Communications in Multiple types of Service Oriented Architecture
- P3-6 Multi-objective Optimization Method for Resource Scaling in Cloud Computing
- P3-7 ASMIM: Augmented Reality Authoring System for Mobile Interactive Manuals
- P3-8 A Hybrid Approach for Facial Expression Recognition
- P3-9 Configurable Data Acquisition for Cloud-centric IoT
- P3-10 An Efficient Broadcast Method Based on Hexagonal Tessellation for Mobile Ad-hoc Networks

Session 11: Machine Learning

15:40-17:00, Saturday, January 06, 2018

Room: Bougainvillea Hall

Session Chairs: Shangguang Wang and Khang Nguyen

- 11-1 Frequent Sequence Mining with Weight Constraints in Uncertain Databases
- 11-2 Deep learning based object recognition for robot picking task
- 11-3 DualSentiNet: Dual Prediction of Word and Document Sentiments Using Shared Word Embedding
- 11-4 Dynamic Bus Travel Time Prediction Using Machine Learning Technique

Session 12: Data Acquisition and Optimization

15:40-17:00, Saturday, January 06, 2018

Room: VIP Meeting Room

Session Chairs: Eiad Yafi and Angel Del Pobil

- 12-1 Wish Wall: Helping Each Other in College
- 12-2 Health Decision Support System based on Patient provided data for both Patients and Physicians Use
- 12-3 Dynamic optimization for Web page based on user's estimated browsing intention
- 12-4 Continuous Skyline Queries for Moving Objects in Road Network based on MSO

Session 13: Next-Gen Memory

17:10-18:30, Saturday, January 06, 2018

Room: Bougainvillea Hall

Session Chairs: Keechon Kim and Mohd Nizam Husen

- 13-1 Optimizing Host-level Flash Translation Layer with Considering Storage Stack of Host Systems
- 13-2 I/O Performance Improvement of Secure Big Data Analyses with Application Support on SSD Cache
- 13-3 Fragmentation-Less FAT-compatible File System for Internet of Things
- 13-4 A Caching Filesystem for Increasing Locality in the Second Cache in a Virtualized Environment

Co-Hosted by

Sungkyunkwan University

- College of Software and College of Information and Communication Engineering
- (BK21Plus) ICT HRD Institute for New Value Creation
- Convergence Research Institute
- Intelligent ICT Convergence Research Center
- Core Technology for Autonomous Network Control and Management (IITP Research Project Team)
- Access Technology Agnostic Next-Generation Networking Technology for Wired-Wireless Converged Networks (IITP Research Project Team)

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