

## ICNGC2020 Program

Thursday, December. 17th, 2020	
Time	Program
14:00~18:00	Registration (Lobby)
15:00~17:00	Steering Committee Meeting
17:00~18:00	Presenter Meeting
Friday, December. 18th, 2020 <span style="float: right;">Venue : Shilla Stay Haeundae + Zoom Webinar</span>	
09:30~10:00	Registration
10:00~10:10	<b>Opening ceremony</b> <b>Chair : Ph.D Chung Ghiu Lee</b>
	<b>Opening Speech from Chairman</b> - Prof. Lynn Choi(Korea University, Korea)
10:10~10:45	<b>Keynote Speech I</b> Seoul National University, Korea
10:45~11:20	<b>Keynote Speech II</b> Korea Advanced Institute of Science and Technology, Korea
11:20~12:05	<b>Keynote Speech III</b> Dr. Muhammad Sajjad, Islamia College Peshawar, Pakistan

13:30~14:30	<b>Session I : Big data &amp; cloud</b>	<b>Session II: AI</b>
	<ul style="list-style-type: none"> <li>• News Information Verification System (NIVS) / Seungwan Jin, Hye Jin Jeon, Kyungsik Han / Ajou University, Korea</li> <li>• Multi-modal based fashion item preference recommender system using session data / Jaeho Han, Hyokmin Kwon, Hyokmin Kwon, Eunhang Lee, Kyungsik Han / Ajou University, Korea</li> <li>• Topic modeling of Google Patent data using Latent Dirichlet Allocation / Xianghua Piao, Jeong Da-Woon, Seong Joon Yoo, Dong Jin, Yeong Hyeon Gu / Sejong University, Korea</li> <li>• A novel approach of trajectory reconstruction based on text data / Ruihan Sun / Chongqing University of Posts and Telecommunications, China</li> </ul>	<ul style="list-style-type: none"> <li>• Deep Spiking Neural Networks using Surrogate Gradient Descent / Tehreem Syed, Vijay Kakani, Xuenan Cui, Hakil Kim / Inha University, Korea</li> <li>• Review photo validation scheme based on Faster R-CNN and triplet loss / Seongkuk Cho, Bumyeon Ko, Hyungjoon Kim, Eunjung Hwang / Korea University, Korea</li> <li>• AMDNet: Attention-based Multi-scale Dilated Convolutional Neural Network for Crowd Counting / Xu Zhang, Lijiao Song, Min Liao, Yuxiang Cheng / Chongqing University of Posts and Telecommunications, China</li> <li>• Weather Prediction Using Deep Machine Learning / Adan Khan Niazi, Imran Ahmad, Muhammad Adnan Khan / Riphah International University, Pakistan</li> </ul>
14:30~14:40	<b>Coffee break</b>	

14:40~15:40	<b>Session III : ICT Convergence</b>	<b>Session IV : IoT</b>
	<ul style="list-style-type: none"> <li>• Multi-image sensor based Fusarium wilt detection framework using deep learning and Explainable Artificial Intelligence / Minjun Kim, Kyungbok Min, Junyoung Nam, Dong Lien Minh, Hyeonjoon Moon / Sejong University, Korea</li> <li>• Performance Analysis on ICA against Enemy Jamming Attacks in Communication-like Jamming / Kwan-Soo Kim, Byung-Sung Kim, Yoan Shin / Soongsil University, Korea</li> <li>• Expulsing UAV's Core-System in Emergency Circumstances / Jaeseung Lee, Seongjoon Park, Hwangnam Kim / Korea University, Korea</li> <li>• Smart Identification of Cognitive Passwords Empowered with Support Vector Machine / Shahan Yamin Siddiqui, Ayesha Tariq, Gulnaz Safdar, Muhammad Numan / Minhaj University Lahore, Pakistan</li> </ul>	<ul style="list-style-type: none"> <li>• Fingerprint data map construction using Pedestrian Dead Reckoning for smartphone-based indoor Localization / Young Woong Ko, Lynn Choi / Korea University, Korea</li> <li>• Interactive COVID-19 Data Visualization based on Mixed Reality and IoT platform / Seungwoon Lee, Byeong-hee Roh / Ajou University, Korea</li> <li>• Energy Optimization in Smart Homes by using Fuzzy Inference System / Sagheer Abbas, Areej Fatima, Muhammad Asif, Muhammad Saleem / National College of Business Administration and Economics, Pakistan</li> <li>• A Study on Commercial and Open-sourced Drone Application Platforms to integrate into IoT standard / SJ Kim, Seungwoon Lee, Byeong-hee Roh / University of Nevada, Ajou University, USA, Korea</li> </ul>
15:40~15:50	<b>Coffee break</b>	
15:50~16:35	<b>Session V : Emerging Topics</b>	<b>Session VI : Emerging Topics</b>
	<ul style="list-style-type: none"> <li>• Pivot Tracing: Dynamic Causal Monitoring for Distributed Systems / Jonathan Mace Ryan Roelke Rodrigo Fonseca / Brown University, USA</li> <li>• A Robust sEMG Feature Selection based on Recursive Feature Elimination for Gait Recognition / Miran Lee, Joo-Ho Lee, Deok-Hwan Kim / Ritsumeikan University, Inha University, Japan, Korea</li> <li>• MCFNet: Multi-scale Cascade Fusion Network for Human Pose Estimation / Kailiang Zhang / Chongqing University of Posts and Telecommunications, China</li> </ul>	<ul style="list-style-type: none"> <li>• Emotion Recognition using Bi-directional GRU Models based on EEG Biometric Signals / Dong-Hyun Kang, Deok-Hwan Kim / Inha University, Korea</li> <li>• The numerical validation of the Adomian decomposition method for solving Volterra integral equation with discontinuous kernel using the CESTAC method / Samad Noeiaghdam, Denis Sidorov / Irkutsk National Research, Russia</li> <li>• Security Analysis of Q-learning based Geographic Routing Protocols for FANETs / Keun-Woo Lim, Young-Bae Ko / RMS Telecom Paris Palaiseau, Ajou University, France, Korea</li> </ul>
16:35~16:50	<b>break</b>	
16:50~17:20	<b>Closing Oral Session awards</b>	<b>Chair : Ph.D Youngbae Hwang</b>

10:00~12:30	<b>Poster Session</b>
	<ul style="list-style-type: none"> <li>• Automated ciphertext classification using convolutional neural networks / Ezat Ahmadzadeh, Ongee Jeong, Seungwoo Son, Inkyu Moon / DGIST, Korea</li> <li>• Improved unsupervised GAN-based cryptanalysis of classical ciphers / Hyunil Kim, Seonghwan Park, Ongee Jeong, Eunji Kim, Inkyu Moon / DGIST, Korea</li> <li>• SmokeNet: A Deep Learning-based Smoke Detection and Segmentation Method / Khan Muhammad, Mi Young Lee, Sung Wook Baik / Sejong University, Korea</li> <li>• Object Tracking using Similarity Measurement Algorithm in Multi-View Surveillance Videos / Min Je Kim, Ju Chan Park, Samee Ullah Khan, Noman Khan, Seung Min Rho, Sung Wook Baik / Sejong University, Korea</li> <li>• Network Estimation with a Generative Adversarial Network / Insoo Kim, Jangwon Seo, YooJoong Kim, Junhee Seok / Korea University, Korea</li> <li>• A Study on the Development of Decision-Making System to Quantify the Analysis of Fashion Style Trends / Jang Ji Seok, Youngseung Jeon, Kyungsik Han / Ajou University, Korea</li> <li>• AI Reasoning on Emotion-Needs Relationship for Autism Spectrum Disorder: Combine Image-text Matching and Interactive Learning on Text Classification / Jin-Seoung Oh, Seok-Won Lee / Ajou University, Korea</li> <li>• Comparison of Resource Utilization of Container Orchestration Tool / Seunghwan Lee, Sunghwan Jeon, Haejin Chung, Yunmook Nah / Dankook University, Korea</li> <li>• Distant supervision using side information / Young-Ju Sim, Tae-Sun Jung / Ajou University, Korea</li> <li>• Comparative study of feature selection for the detection of alzheimer's disease / Ramesh Kumar Lama, Goo-Rak Kwon / Chosun University, Korea</li> <li>• An Attention Mechanism-Based GRU Architecture for Multistep-Ahead Electrical Load Forecasting / Seungmin Jung, Jihoon Moon, Sungwoo Park, Eenjun Hwang / Korea University, Korea</li> <li>• Impact of Image Pre-processing on Super-resolution-based Fax Image Enhancement / Min Je Cho, Wook Su Shin, Kyung-Ah Sohn / Ajou University, Korea</li> <li>• On the road object detection using EfficientDet for preventing child / Sung Hwan Park, Sung Yoon Ahn, Sang-Woong Lee / Gachon University, Korea</li> <li>• Metrics for Quantifying Uncertainty of Probabilistic Models: A Survey / Heewoong Ahn, Wonsuk Kim, Junhee Seok / Korea University, Korea</li> <li>• A Video Monitoring and Visualization System for Live Surveillance / Hye Won Lee, Su Min Lee, Chan Min Kwon, Umair Haroon, Zulfiqar Ahmad Khan, Mi Young Lee, Sung Wook Baik / Sejong University, Korea</li> <li>• A Study on the Text-Based Characteristics of Individuals with Autism Spectrum Disorder through Social Media Data Analysis / Jungwoo Han, Bogoan Kim, Kyungsik Han / Ajou University, Korea</li> <li>• Urdu Handwritten Glyphs Recognition Using Ensemble of SVMs / Muhammad Sohail Irshad, Muhammad Adnan Khan / Minhaj University Lahore, Parkistan</li> <li>• Modeling Student Learning in Mobile App with Machine Learning / Hassan Jillani Farooqi, Adan Khan Niazi, Imran Ahmad / Riphah International University, Parkistan</li> <li>• K-means and Fuzzy c-means Algorithms Comparison using KNIME / Syed Mujtaba Hassan, Syeda Tahira Batool / Riphah International University, Parkistan</li> <li>• Classifying Particles Implement using Python tool / Muhammad Waqas Chughtai, Imran Ahmad / Riphah International University, Parkistan</li> <li>• An Effective Slave Controller Allocation in Software-Defined Networks / Jihad Ali, Byeong-hee Roh, Byungkyu Lee, Jimyung Oh, Khalil Khan / Ajou University, Korea</li> </ul>

- Q-learning based Light-weight Routing Protocol / jinkyung jang, dooho keum, young-bae ko / Ajou University, Korea
- Bandwidth Usage Utilization of Network Slicing Framework for 5G Key Technology / Ratih Hikmah Puspita, Gyu-min Lee, Byeong-hee Roh, Byungkyu Lee, Jimyung Oh / Ajou University, Korea
- Human Interaction Recognition through Skeleton Key-Points Estimation / Haroon Umair, Waseem Ullah, Amin Ullah, Miyoung Lee, Sung Wook Baik / Sejong University, Korea
- Real-Time Network Contents Using Mobile Augmented Reality / Gongkyu Byeon, Sunjin Yu / Changwon National University, Korea
- Grad-CAM based Region Proposal Network and weakly supervised object localization / Jeong-Ryeon Park, Wonjun Hwang / Ajou University, Korea
- Roughness Model to Haptically Render Object's Surface / Sang-Youn Kim, Dong-Soo Choi, Seong-Man Cho, Seok-Han Lee, Youn-Hee Han, Byeong-seok Shin / Semyung University, Korea
- Fake Petroleum Prevention System Modeling for The Gas Station / Seungwon Lee, Chang Choi / Gachon University, Korea
- De-Obfuscating Android Apps Obfuscated by ProGuard and Obfuscapk / Geunha You, Seong-je Cho, Hyoil Han, Kyoungwon Suh / Dankook University, Korea
- Software Modeling in SystemC for Fast System Exploration / Hyunwoo Chung, Joonhwan Yi / Kwangwoon University, Korea
- Proposal a Reference Model for Compatibility among Self-Sovereign Identity platforms / DaeGeun Yoon, KiSung Park, HyunJin Lee / Electronics and Telecommunications Research Institute, Korea
- Timeline Based Container Restore via a Computationally Efficient Snapshot / Sang-Hoon Choi, Ki-Woong Park / Sejong University, Korea
- Low-Memory Embedded Hardware Design for Indoor Positioning System That Can Replace Smart Devices / Han Jun Bae, Lynn Choi / Korea University, Korea
- 3D Indoor Navigation and Monitoring System Using Geomagnetic Field Based Indoor Localization / Wonjoon Son, Lynn Choi / Korea University, Korea
- Explainable Influenza Forecasting Scheme using Feature Selection and SHAP / Sungwoo Park, Jaeuk Moon, Seungwon Jung, Eenjun Hwang / Korea University, Korea
- Effective Scene Projection for 3D Graphics Engines / Eun-seok Lee, Koojoo Kwon, Byeong-Joon Lee, Byeong-Seok Shin / Baewha Women's University, Korea
- LPC and MFCC Speaker Recognition System Empowered with VQ / Iqra Naveed, Muhammad Nadeem Ali, Muhammad Adnan Khan / University of Management and Technology, Parkistan
- A Comparative Study on Histopathology Cancer Detection / Irfan Abbas, Shahan Yamin Siddiqui, Muhammad Numan, Ghanwa Batool / Minhaj University Lahore, Parkistan
- Early Diagnosis of Dengue Symptoms Using Neuro / Wasim Ahmad Khan, Muhammad Iqbal, Khushboo Sajid, Muhammad Imran Ali / National College of Business Administration and Economics, Parkistan
- Modeling Smart Pollen Carry to Honey Bee using Machine Learning / Muhammad Saleem khan, Munir Ahmad, Majid Mubarik, Iqra Rustam / National College of Business Administration and Economics, Parkistan
- PERFORMANCE EVALUATION OF MFCC AND LPC RECOGNITION USING HMM / Iqra Naveed, Muhammad Nadeem Ali, Rafaye Arif / University of Management and Technology, Parkistan
- Neutralizing Side-Channel Attacks through Hardware Uniqueness Derivation / Hye-Lim Jung, Sung-Kyu Ahn, Ki-Cheol Choi, Jae-Kyung Ju, Ki-Woong Park / Sejong University, Korea
- Operational Fuzzy Control and Crisp Rules for a Creative 3D Assembly / Sanguk Noh / The Catholic University of Korea, Korea
- A New Indoor Monitoring System Using Geomagnetic Field Based Indoor Localization / Seungkyu Hwang, Lynn Choi / Korea University, Korea
- Enabling Scalable Swarm-Intelligence based on Gas Detection / Sangmin Lee, Seongjoon Park, Hwangnam Kim / Korea University, Korea

	<ul style="list-style-type: none"> <li>• A Novel Dual Attention Mechanism based Single Image Super-resolution Method / Xu Zhang, Tao He / Chongqing University of Posts and Telecommunications, China</li> <li>• Video Super-resolution Based on Deformable Convolution and Recurrent Structure / Ziyi Jin / Chongqing University of Posts and Telecommunications, China</li> <li>• Developing Navigation System for Using Indoor localization / Hankyeol Kyung, Lynn Choi / Korea University, Korea</li> <li>• Performance Comparison between R8 Compiler and ReDex in Code Optimization of Android Apps / Geunha You, Seong-je Cho, Hyoil Han, Kyoungwon Suh / Dankook University, Illinois State University, Korea, USA</li> <li>• Study on predicting the unit production volume of onions / Yoojin Ha, Helin Yin, Yeong Hyeon Gu, Seong Joon Yoo / Sejong University, Korea</li> <li>• A Deep Learning Studio for Developing Stock Trading Models / Ri Zheng, HELIN YIN, Yeong Hyeon Gu, Seong Joon Yoo / Sejong University, Korea</li> </ul>
12:30~13:00	<b>Closing_Poster Session awards</b>