

The 3rd International Conference on Next Generation Computing 2017

TECHNICAL PROGRAM

December. 21–24, 2017

Thursday, December. 21th, 2017		
Time	program	Venue : SHU-TE University (Kaohsiung, Taiwan)
12.00 – 18.00	Registration	(Lobby)
14.00 – 17.00	Steering Committee Meeting	SHU-TE University (Kaohsiung, Taiwan)

Friday, December. 22th, 2017		Chair
Time	Program	Venue : SHU-TE University (Kaohsiung, Taiwan)
09:30~10:00	Registration (Lobby)	
10:00~10:20	Opeaning Speech from Chairman	Sung Wook Baik (Sejong University, Korea) Ching-Yaw Chen (Shu-Te University, Taiwan)
	Award	
Keynote Speech (10:20~11:50)		
10:20~10:50	<ul style="list-style-type: none"> Cost-effective Solution for Various Smart Applications using Conventional Machine Learning techniques and Deep Learning-based Embedded Vision on Raspberry Pi 	Prof. Muhammad Sajjad Islamia College Peshawar, Khyber Pakhtunkhwa, Pakistan
10:50~11:20	<ul style="list-style-type: none"> Mining high utility association rules from quantitative databases 	Prof. Bay Vo Ho Chi Minh City University of Technology, Vietnam
11:20~11:50	<ul style="list-style-type: none"> 태국 	

TECHNICAL SESSION 1 (13:00~14:15)		Chair
<ul style="list-style-type: none"> • BLE-based Localization of Smartphone for the Passive Entry and Passive Start System / Kyung-Hyun Koo, Lynn Choi / Korea University / Korea 		
<ul style="list-style-type: none"> • A Creative Computing Approach to Scaling Knowledge based on A 4D-Knowledge Coordinate System / Lin Zou, and Hongji Yang / Bath Spa University / England 		
<ul style="list-style-type: none"> • Usability of Docker-based Container System Health Monitoring by Memory Dump Visualization / Sang-Hoon Choi, Ki-Woong Park / Sejong University / Korea 		
<ul style="list-style-type: none"> • Improvement of NTRUEncrypt using Sliding Window Methods / Won-Il Pyo, Mun-Kyu Lee / Inha University / Korea 		
<ul style="list-style-type: none"> • Developing a language assistance system for smart glasses / Shi Fan Zhang, Kin Hong Wong / The Chinese University of Hong Kong / Hong Kong 		
14:15~14:30	Coffee break	
TECHNICAL SESSION 2 (14:30~15:45)		Chair
<ul style="list-style-type: none"> • N-Puzzle: A General Application of $3n+1$ Problem / Ijaz Ahmad, Yusun Chang, and Seokjoo Shin / Chosun University, Kennesaw State University / Korea, USA 		
<ul style="list-style-type: none"> • Android Application for Inventory and Stocktaking Using QR-Code / Jakkrit Premsmith, Jakkrapat Khamtes /King Mongkut's University of Technology North Bangkok / Thailand 		
<ul style="list-style-type: none"> • Data-Driven Education for Foreign Language Learning_A case study of the learning management system WebOCMnext / Pei-Ling Chien / Osaka University / Japan 		
<ul style="list-style-type: none"> • Performance Comparisons according to Hidden Layer Structure of Deep Neural Networks for Classification of MNIST Data / Junyeong Choi, Haejin Chung, Wonseok Choi, Sihyeong Jang, Yunmook Nah / Dankook University / Korea 		

- Visual Saliency based Automatic Trimap Generation
/ Chris Henry, Sang-Woong Lee / Gachon University / Korea

15:45~16:00

Coffee break

TECHNICAL SESSION 3 (16:00~17:15)

Chair

- Usability of Software Weakness Discovery based on the Binary File Visualization
/ Keon-Ho Park, Sang-Hoon Choi, Chul-Woo Kim, Ki-Woong Park / Sejong University / Korea
- A Transfer Learning approach for Image Classification on a Mobile Device
/ Manuel Eugenio Morocho Cayamcela, Wansu Lim, Donguk Kwon / Kumoh National Institute of Technology / Korea
- [Measurement of Body Movement via Motion Capturing System_A Case Study of Sport Training](#)
/ Tin-Kai Chen / Shu-Te University / Taiwan
- Integration of Curvelet transform and Probabilistic principal component analysis for detection of Alzheimer's disease and pathological brain image
/ Debesh Jha, Goo-Rak kwon / Chosun University / Korea
- [Interactive Dance Performance System Based on Wireless Wearable Gesture Sensing Device](#)
/ Guan-I Lin, Chien-Wen Cheng / National Taipei University of Technology / Taiwan

POSTER SESSION 1 (17:15~18:00)

Chair

- Scene Recognition for Indoor navigation by using CNN on Mobile
/ Wonsuk Kim, Junhee Seok / Korea University / Korea
- Implementation of AODV Protocol on Embedded Systems for MANET Testbeds
/ Cheol-woong Lee, Byeong-hee Roh / Ajou University / Korea

- Secure Power Demand Prediction Using Multi-Site Pattern Sequence-based Forecasting
/ Yejin Yoon, Mun-Kyu Lee Inha University / Korea
- Architecture-Model-to-Integrate-Heterogeneous-Cloud-Services
/ Joonseok Park, Donggyu Yun, Ungsoo Kim, Keunhyuk Yeom / Pusan National University / Korea
- View-Based-Architecture-to-Support-Microservitization
/ Joonseok Park, Donggyu Yun, Daeho Kim, Keunhyuk Yeom / Pusan National University / Korea
- Emotional Speech Identification using Convolutional Neural Network
/ Nasir Rahim, Mi Young Lee , Jun ryeol Park,Soon-il Kwon, Seogbong Jeon, Sung Wook Baik / Sejong University / Korea
- Face Detection using Selected Feature Maps from a Pre-trained CNN
/ Amin Ullah, Jamil Ahmad, Sung Wook Baik / Sejong University / Korea
- Performance Analysis of Device-to-Device Communications Underlying LTE-A Uplink Cellular Networks
/ Devarani Devi Ningombam, GyoungTae Ha, and Seokjoo Shin / Chosun University, ssacLandKorea, Inc / Korea
- Bio-signal based human emotion analysis using video viewing
/ Jinho Shin, Junho Maeng, Deok-Hwan Kim /Inha University / Korea
- A fast image encryption scheme for data dissemination in surveillance system
/ Ijal ul Haq, Muhammad Sajjad, Khan Muhammad, Sung Wook Baik /Sejong University,Islamia College, Peshawar / Korea, Pakistan
- Computer Aided Diagnosis System for Efficient Detection and Classification of Acute Lymphoblastic Leukemia in Blood Smear Images
/ Mansoor Nasir, Siraj, Muhammad Sajjad / Islamia College Peshawar / Pakistan
- Facial Expression Analysis of group photo
/ Faryal Tahir, Fath U Min Ullah, Mansoor Nasir, Muhammad Sajjad / Islamia College Peshawar / Pakistan

- Hybrid Features based Facial Expression Classification using SVM
/ Sana Zahir, Irfan Ullah, Mansoor Nasir, Muhammad Sajjad / Islamia College Peshawar / Pakistan
- A Study on Automotive Management and Orchestration System for Video Streaming over the Internet
/ Linh Van Ma, YoungYun Lee, Sung-Hoon Hong, Baeho Lee, Sung-June Baek, Jinsul Kim / Chonnam National University / Korea
- An Efficient Geomagnetic Indoor Positioning System Using Smartphones
/ Bhattarai Bimal, Suk-seung Hwang, Jae-Young Pyun / Chosun University / Korea
- A Study of Switching Delays in RoE Fronthaul Systems
/ Muhammad Waqar, Ajung Kim, Peter K. Cho / Sejong University / Korea
- Skin Color Detection Using GIE in Spatial Domain
/ Mustaqeem, Mansoor Nasir, Muhammad Sajjad / Islamia College Peshawar / Pakistan
- Image Stitching Based on Precomputed Homography
/ Osama Zia, Jong Weon Lee / Sejong University / Pakistan
- IoT-based Sensing Data Transmission for Cathodic Protection
/ Jiseong Jeong, Dongil Jeong, Moonsoo Kang, Chung Ghiu Lee, Gwang Cheol Song, Kwang Seok Song
/ Chosun University, 3LTOP Limited / Korea
- Semantic Model for Electronic Medical Record Systems
/ Muhammad Afzal, Maqbool, Hafiz Farooq Ahmad, Khalid Latif
/ Sejong University, King Faisal University, Comsats University / Korea, Saudi Arabia, Pakistan
- Gomoku game system base on Genetic Algorithm
/ Bon-woo Gu, Sang-mi Im, Hyung-gi Kim / Chung-Ang University / Korea

- The state-of-the-art machine learning methods for firm bankruptcy prediction
/ Tuong Le, Mi Young Lee, Jun Ryeol Park, Sung Ho Park, Tae Uk Ahn, Sung Wook Baik / Sejong University / Korea
- A survey of applications and methods for imbalanced data classification/
/ Tuong Le, Mi Young Lee, Jun Ryeol Park, Sung Ho Park, Tae Uk Ahn, Sung Wook Baik / Sejong University / Korea
- Cycle Immunization for Topological Signature of Web Robots
/ Wookey Lee / Inha University / Korea
- Vehicle IP Management Service Over Publish and Subscribe Pattern
/ Hyoung Kyoon Roh, Jaehyun Kim / Ajou University / Korea
- Reconfigurable circuit design for multi-standard applications with Ta-based ReRAMs
/ Hyun-Sik Choi / Chosun University / Korea
- Automated Detection of Cerebral Microbleeds in Brain MRI
/ Tayyab Ateeq, Irfan Mehmood, Sung Wook Baik / University of Engineering and Technology, Sejong University / Pakistan, Korea
- Machine Learning based Malware Detection from Android Applications
/ Zahoor Ur Rehman, Irfan Mehmood, Sung Wook Baik
/ COMSATS Institute of Information and Technology, Sejong University / Pakistan, Korea
- IP-based Mobility Management Protocol for Seamless Handover IN Wireless Mesh Network
/ Peer Azmat Shah, Irfan Mehmood2, Sung Wook Baik / University of Engineering and Technology, Sejong University / Pakistan, Korea
- Emergency Alert of Vehicles Accident detected on Road in Video Surveillance
/ Muhammad Irfan, Waqas Ahmad, Mansoor Nasir, Muhammad Sajjad / Islamia College Peshawar / Pakistan
- Video Codec Implementation Using Parallel Processing Scheme
/ Ikram Hussain, Tran Thi Hai Uyen, Madiha Sher / Sejong University, University of Engineering and Technology Peshawar/ Korea, Pakistan

- Comparative Study of ECO and CFNet Object Trackers in Noisy Environment
/ Mustansar Fiaz, Sajid Javed, Arif Mahmood, Soon Ki Jung / Kyungpook National University, Qatar University / Korea, Qatar
- Integration of Attraction Control Systems for Virtual Reality Contents
/ Jeong Joong Lee, Jiho Kim, Gueyong Shin, Jamil Ahmad, Mi Young Lee / LOTTE WORLD, Sejong University / Korea
- Cluster-based Content Retrieval in Mobile Ad-hoc Named Data Networks
/ Dabin Kim, Young-Bae Ko / Ajou University / Korea
- Data Management of Mechanic Characters Focusing on Robot Character
/ SeoYoung Kim / Honam University
- Drone Video Assisted Detection and Tracking on Cycling Track
/ Amin Ullah, Jun Ryeol Park, Ijaz UI Haq, Dongil Han, Sung Wook Baik / Sejong University / Korea
- Rellvance Of real time systems in quality assurance procedure
/ Sehrish Tabassam / ScienceKing Khalid University / Saudi Arabia
- Comparative annalysis on requirement engineerinmg modelling techniques case study of personal AL HAJ E_Guid
/ Sehrish Tabassam / King Khalid University / Saudi Arabia

Saturday, December. 23th, 2017

Time	Program
TECHNICAL SESSION 4 (10:00~11:30)	Chair
	<ul style="list-style-type: none"> • About Chan's Travel Mobile Application Using Android Operating System / Thitima Chuangchai, Nujaree Kongjinda / King Mongkut's University of Technology North Bangkok / Thailand

• Education Measurement and Academic Planning Case Study of Information and Production Technology Management Department
/ Hathairat Ketmaneechairat, Rathartip Jaijing, Anusorn Kalapakdee, Kannika Kaewthong / King Mongkut's University of Technology North Bangkok
/ Thailand

• Detecting Ransomware with File System-Awareness Scheme in Cloud Computing Environment
/ Woo-Jin Jeon, Sang-Hoon Choi, Ki-Woong Park / Sejong University / Korea

• Agricultural products marketing tool: mobile phone in Burkina Faso
/ Lih-Fu Chen /Shu-Te University / Taiwan

• Comparative annalysis on requirement engineering modelling techniques case study of personal AL HAJ E_Guid
/ Sehrish Tabassam / King Khalid University / Saudi Arabia

• Dermoscopy Images Classification based on Color, Texture and Shape Features Using SVM
/ Sana, Muhammad Shahid, Salman Khan / University of Agriculture Peshawar, Islamia College Peshawar/ Pakistan

TECHNICAL SESSION 5 (13:00~14:30)

Chair: Prof. Korea

• Energy Efficient Cluster Based Routing Algorithm for Wireless Sensors Networks
/ Khalid Mahmood Awan, Ahmad Ali, Kashif Naseer Qureshi / COMSATS institute, Bahria University / Pakistan

• Hashing Methods for Efficient Retrieval in Large Traffic Surveillance Datasets
/ KoreaJamil Ahmad, Mi Young Lee, Sung Wook Baik / Sejong University / Korea

• Vehicle IP Management Service Over Publish and Subscribe Pattern
/ Hyoung-Kyoon Roh, and Jae-Hyun Kim / Ajou University / Korea

• A new pattern forecasting model based on genetic algorithms and perceptually important point pattern identification method to forecast stock market.
/ Tai-Liang Chen / Wenzao Ursuline University of Languages / Taiwan

• Computer-Aided-Diagnosis-System-for-Efficient-Detection-and-Classification-of-Acute-Lymphoblastic-Leukemia-in-Blood-Smear-Images
/ Mansoor Nasir, Siraj, Muhammad Sajjad / Islamia College / Pakistan

- EEG(Electroencephalogram) based emotion analysis according to visual stimulus
/ Jinho Shin, Junho Maeng, Moo-Dong Park, Deok-Hwan Kim / Inha University / Korea

14:30~14:45

Coffee break

TECHNICAL SESSION 6 (14:45~16:00)

Chair: Prof. Korea

- A-Reversible-Data-Hiding-Approach-for-Image-Steganography
/ Khan Muhammad, Mi Young Lee, Sung Wook Baik / Sejong University / Korea

- [Ontology-based Health News Summarization](#)
/ Pannapa Nuanplord, Maleerat Sodanil / King Mongkut's University of Technology North Bangkok / Thailand

- Performance analysis of different Convolution layer configuration for the classification of Adenoma images
/ Hyun-Cheol Park, Sang-Woong Lee / Gachon University / Korea

- New Diversional Routing scheme to Preserve Source Location Privacy in Wireless Sensor Networks
/ Lilian C. Mutalemwa, Seokjoo Shin / Chosun University / Korea

- [An environmental education game-based learning design and evaluation](#)
/ Kuo-Kuang Fan, Po-Yuan Su, Chung-Ho Su / National Yunlin University of Science and Technology, Shu-Te University / Taiwan

16:00~16:15

Coffee break

POSTER SESSION 2 (16:15~17:30)

Chair

- A Case Study of STEAM-based Robot Programming Projects
/ Seok-Ju Chun / Seoul National University of Education / Korea
- Studying the Effects of Image Pre-Processing on Tesseract OCR Engine for Android Platform
/ Nasir Rahim, Sung Wook Baik, Deok-Hwan Kim / Sejong University, Inha University / Korea

- Summarization of Videos Captured by Unmanned Aerial Vehicles
/ Ijaz Ul Haq, Seong Ho Park, Dongil Han, Sung Wook Baik / Sejong University / Korea
- Self-adaptive Swarm Optimization Algorithm For Neural Network training for House Price Prediction
/ Ezat Ahmadzadeh, Seokjoo Shin, Inkyu Moon / Chosun University, Daegu Gyeongbuk Institute of Science&Technology(DGIST) / Korea
- Data File Management of a Web-based HVAC Simulator Using OpenFOAM
/ Heeseok Jeong, Sukkeun Yi, Daeyong Jung, Jinwook Lee / Korea Institute of Science & Technology Information(KISTI), COWAY / Korea
- A Survey of Bio-inspired Cognitive Radio Algorithm for Tactical Networks
/ Gyu-min Lee, Byeong-hee Roh / Ajou University / Korea
- A Measurement Analysis for 3D Prediction of Vibration Modes in a Laser Doppler
/ Ran Baik / Honam University / Korea
- Comparison of BLE 4.2 Basic and BLE 5.0 Advanced Neighbor Discovery Processes
/ Gaoyang Shan, Byeong-hee Roh / Ajou University / Korea
- A Research on Edge Computing and Blockchainbased IoT for Disaster Recovery and Prevention
/ Linh Van Ma, Jaehyung Park, Su-il Choi, Taeksoo Ji, Yonggwon Won, GeunChang Choi, Jinsul Kim / Chonnam National University / Korea
- A Study on Automotive Management and Orchestration System for Video Streaming over the Internet
/ Linh Van Ma, YoungYun Lee, Sung-Hoon Hong, Baeho Lee, Sung-June Baek, Jinsul Kim / Chonnam National University / Korea
- License Plate Detection for Surveillance Applications
/ Khan Muhammad / Sejong University / Korea
- A Study on Gait Pattern Recognition based on Swing Pattern measured using 3-Axis Accelerometer
/ Dongmug Kang, Seol-Jun Yoon, Kyoungpil Ra, Seokhyun Yoon / Dankook University / Korea

- Implementation of Data Mining Techniques on large set of medical data to predict Tuberculosis (TB)
/ Zia-ur-Rehman, Ziauddin, Muhammad Sajjad / Islamia College Peshawar / Pakistan
- Fingerprint matching and Anti-spoofing using hashing and CNN
/ Sadia, Sana, Muhammad Shahid, Tanveer Hussain / University of Agriculture Peshawar, Islamia College Peshawar / Pakistan
- A Survey of Reliable Broadcasts in VANETs
/ Irvanda Kurniadi Virdaus, Muhammad Anugrah Agung, Moonsoo Kang / Chosun University / Korea
- A Brief Survey on the Problem of Label Noise in Datasets
/ Muhammad Ammar Malik, Moonsoo Kang / Chosun University / Korea
- HL7 FHIR-Profiles for Cancer Clinical Staging
/ Maqbool Hussain, Muhammad Afzal, Nargis Khatoon / Sejong University, Islamabad / Korea, Pakistan
- Pipeline Pressure Prediction Model
/ Won Hee Chung, Yeong Hyeon Gu, Seong Joon Yoo, Seogbong Jeon / Sejong University / Korea
- A Novel Real Time Face Recognition System Based on Combining Collaborative Representation based Classification with Light Local Ternary Patterns
/ Duc My Vo, Sang Woong Lee / Gachon University / Korea
- A Tract-Based Spatial Statistics Study of White Matter Abnormalities in Alzheimer's Disease
/ Ramesh Kumar Lama, Sang-Woong Lee / Gachon University / Korea
- A Construction Algorithm of Preconditioners for Linear System with Symmetric Matrices
/ Ran Baik / Honam University / Korea
- A Study on the Methods for Automatic Movie Scene Tagging and Video Summarization using Artificial Intelligence
/ Yoonwo Lee, Chul Park, Jamil Ahmad, Jun Ryeol Park, Seung Ju Lee, Mi Young Lee / Sejong University / Korea

- Improving the Accuracy of Reverse Extrapolation of RF Threats Using Incremental Learning Techniques
/ Sanguk Noh / The Catholic University of Korea / Korea
- A Survey on Precision Agriculture: Technologies and Challenges
/ Amin Ullah, Jamil Ahmad, Khan Muhammad, Sung Wook Baik / Sejong University / Korea
- A Mobile Navigation System Using the Valuable Location Information for the Visually Impaired
/ Seong-Min Ahn, Chan Cheong, Hye-Jin Joo, Eun Lee, Kee-Won Kim, Seung-Hoon Kim / Dankook University / Korea
- Describing a School of Fish based on Reinforcement Learning and Deep Neural Network
/ Seon-yeop Kim, Taeg-keun Whangbo / Gachon University / Korea
- Deep Convolutional Neural Networks for Parkinson's Disease Diagnosis
/ Dong Yue Wang, Taeg Keun Whangbo / Gachon University / Korea
- Software Education Model to Enhance Creativity Design Thinking
/ Chan Cheong, KyungSun Oh, EungKyo Suh / Dankook University / Korea
- A combined method of skin- and depth-based hand gesture recognition
/ Tukhtaev Sokhib, Taeg Keun Whangbo / Gachon University / Korea
- A Study of Secure Protocol to using NFC tag for app.
/ HeeSeong Shin, Youngsang Song, Jinyoung Lee, Jinseok Moon / Dankook University / Korea
- A Study of Mobile GPUs and Performance Models
/ Juwon Yun, Woo-Chan Park, Youngsik Kim, Cheong Ghi Kim / Sejong University, Korea polytechnic University, Namseoul University / Korea
- The development of educational guidance plan and textbook scenario using hologram images and VR technology for elementary school students
/ Hyoyeon Ahn, Jihyun Kim, Hyesoo Yoon, Jiyeon Kim, Namje Park / Jeju National University / Korea

- Automatic Traffic Sign Recognition Method for Autonomous Vehicles using Optical Camera Communications and Graphic Data
/ SangWoon Lee, Minwoo Lee, Jaesang Cha / Namseoul University, Seoul National University of Science & Technology / Korea

Sunday, December. 24th, 2017

Time	program	Venue : Holiday Garden Hotel Kaohsiung City (Kaohsiung, Taiwan)
Workshop on the next generation computing technology for the 4th industrial revolution (11:00~14:30)		
11:00~11:30	<ul style="list-style-type: none"> • Intelligent Video Content Summary Technology: Current Challenges and Future Directions / Sung Wook Baik / Sejong University 	
11:30~12:00	<ul style="list-style-type: none"> • Wearable Mobile Healthcare Platform:Challenge and Opportunity / Deok-Hwan Kim / Inha University 	
12:00~13:00	Coffee break	
13:00~13:30	<ul style="list-style-type: none"> • Geomagnetic Field Based Indoor Localization using Artificial Neural Networks / Lynn Choi / Korea University 	
13:30~14:00	<ul style="list-style-type: none"> • Ajou University 	
14:00~14:30	<ul style="list-style-type: none"> • Inside NSA: Yes, we hack everyone everywhere! / Ki-Woong Park / Sejong University 	