

Final Program



**8th ACIS International Virtual Conference on
Applied Computing & Information Technology
(ACIT 2021)**



June 20-22, 2021, Kanazawa, Japan

<http://acisinternational.org/conferences/acit-2021/>

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Program at a Glance

Monday, June 21, 2021

Time	Activity
10:00 – 10:30	Opening Ceremony
10:30 – 11:30	Keynote Speech
11:30 – 13:00	Lunch on your own
13:00 – 15:00	Special Session 2A
15:00 – 17:00	Special Session 2B

Tuesday, June 22, 2021

Time	Activity
10:30 – 12:10	Special Session 1A
12:10 – 13:30	Lunch on your own
13:30 – 15:30	Special Session 1B
15:30 – 17:10	Regular Session

Keynote Speech

Intelligent Environment Management System for ICBM (IoT, Clouding, BigData and Mobile in 4th Industrial Revolution in Korea)

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Abstract

ICT will enable the systematic management and analysis of business, industry products, agricultural cultivation and farming data in order to enhance quality and productivity and will raise the marketable quality of the products by establishing a database for production and retail information that includes information on the product origin, marketing period, use of the products pesticides, and shipping date. IoT / Cloud / Big data / Mobile (ICBM) is a new technology paradigm that merges IoT, cloud, big data, and mobile technologies.

In this talk, we will discuss as designed and implemented a smart environment management system that can collect and monitor information on the products utilizing ICBM technology. The wireless system proposed in this talk not only collects environmental data from the inside of a vast controlled IoT and controls the Clouding facilities but also enhances Big Data through effective Mobile management. The ICBM system enhances convenience by remotely monitoring and controlling smart environmental information while establishing a database that enables big data analysis in the cloud to optimize the environment for the business data. In this talk, I will also discuss the designed and implemented the architecture for ICBM management that sensor node supports COAP protocol. Finally I will discuss the future trends in 4th Generation Industry revolution from Korea,

Biography

Dr. Haeng-Kon Kim was a vice President of Research and Information, a dean of engineering college and a professor in the School of IT, Dae Gu Catholic University in Korea. He has been a research staff member in Bell Lab., NASA center and Central Michigan University in U.S.A. He received two Ph.D from Chung Ang University, Korea and University of Bristol, England. He has taught in Central Michigan Univ. in U.S.A. during (Dec., 20, 2000 ~ Feb., 20, 2002). Prof. Kim advised 31 Ph.D students and 55 master Degree students in his Laboratory of Dae Gu Catholic Univ. in KOREA. His research interests include following fields: Software Engineering, Mobile Applications Design and Testing, SOA, Frameworks for U-Healthcare Services,IOT, and ICBMJ. He has published more than 250 papers in very distinguished journal for 30 years.

Prof. Kim was a president of ACIS-IEEE society from USA. He was a chief editor of KIPS SE-Sig journal and Korea Multimedia Society, an editorial board of KISS(Korea Information Science Society), a steering committee of KIPS (Korea Information Processing Society). He is also a senior member IAENG and WCECS from Hong Kong. He is a several Chief of Editor in SCOPUS and SCI(E) journals.

Program in Detail

Monday, June 21, 2021

10:00am - 10:30am – Opening Ceremony

10:30am - 11:30am – Keynote Speech

11:30am - 1:00pm – Lunch on your own

1:00pm - 3:00pm – Special Session 2A

Chair: Yuya Yokoyama (Kyoto Prefectural University)

Extraction of ncRNAs Associated with Liver Cancer Using Machine Learning
Koshiro Sekine, Teruhisa Hochin, and Hiroki Nomiya

Music Instrument Estimation and Multiple Sound Source Analysis from Monophonic inputs
Yasutaka Tsutsumi, Teruhisa Hochin, and Hiroki Nomiya

Generating of Plasma Discharge Video by Generative Adversarial Network
Tran Vo Khanh Ngan, Teruhisa Hochin, Hiroki Nomiya, Hideya Nakanishi, and Mamoru Shoji

Application of 2-gram to Obtain Factor Scores of Statements Posted at Q&A Sites
Yuya Yokoyama, Teruhisa Hochin, and Hiroki Nomiya

Lossless Image Set Compression Using Animated FLIF
Takuya Sakurai and Ushio Inoue

3:00pm - 5:00pm – Special Session 2B

Chair: Ushio Inoue (Tokyo Denki University)

A Voice Message Presenting System to Make Users Aware Their Nuisance Holding Style of Backpack or Suitcase
Shohei Koda and Yu Shibuya

MiniNihongo: Location Based Japanese Minorlearning Application
Tran Hoang Thao Nguyen and Yu Shibuya

Image Inpainting using Orthogonal Viewpoints and Structure Consistency in ManhattanWorld
Irawati Nurmala Sari, Yuto Urano, and Weiwei Du

Image inpainting using clustered planar structure guidance
Emiko Horikawa, Irawati Nurmala Sari, and Weiwei Du

Detection of wood features extraction region using convolutional neural network
Yumei Zhang, Keiko Nagashima, and Weiwei Du

Decomposition of DCE-MRI Data for the Classification of Benign and Malignant Prostates
Aijie Hou, Yahui Peng, Xinchun Li, and Weiwei Du

Tuesday, June 22, 2021

10:30am - 12:10pm – Special Session 1A

Chair: Atsushi Nunome (Kyoto Institute of Technology)

Performance evaluation and effectiveness estimation of DNS server firewall based on OpenFlow
Tomohide Inoue, Hideo Masuda, Takayuki Nagai, and Masayuki Mori

Implementation and evaluation of MPTCP to reduce interruption time considering real-time communication
Kohei Moriishi, Hideo Masuda, Takayuki Nagai, and Masayuki Mori

Redundancy of Routing Information on the Distributed Key-Value Store Based on Order Preserving Linear Hashing and Skip Graph with the Load Balancing Method
Ken Higuchi, Kenya Hasegawa, and Tatsuo Tsuji

An Adaptive Tiering Scheme for an Autonomous Distributed Storage System
Atsushi Nunome and Hiroaki Hirata

12:10pm - 1:30pm – Lunch on your own

1:30pm - 3:30pm – Special Session 1B

Chair: Hiroaki Hirata (Kyoto Institute of Technology)

Development of RISC-V Based Soft-core Processor with Scalable Vector Extension for Embedded System
Yoshiki Kimura, Tatsuya Tsuchiya, Kanemitsu Ootsu, and Takashi Yokota

Implementing VTA, a tensor accelerator on Flow-in-Cloud
Kazuei Hironaka, Kensuke Iizuka, and Hideharu Amano

GPU Parallelization of All-Pairs-Shortest-Path Algorithm in Low-Degree Unweighted Regular Graph
Ryuta Kawano, Hiroki Matsutani, Michihiro Koibuchi, and Hideharu Amano

Reducing the Repairing Penalty on Misspeculation in Thread-Level Speculation
Hiroaki Hirata and Atsushi Nunome

3:30pm - 5:10pm – Regular Session

Chair: Hiroki Nomiya (Kyoto Institute of Technology)

Estimation of Emotional Scenes from Lifelog Videos with Moving Average of Facial Expression Intensity
Tomoya Nishimura, Hiroki Nomiya, and Teruhisa Hochin

Facial Expression Intensity Estimation using Deep Convolutional Neural Network
Tomoki Kawashima, Hiroki Nomiya, and Teruhisa Hochin

Identification of Corresponding Numerical Attributes in Heterogeneous Databases Based on Instances
Kenji Nozaki, Teruhisa Hochin, and Hiroki Nomiya

Fuzzy Database and Interface to Analyze Management System Operations
Yasunori Shiono, Toshihiro Yoshizumi, Takaaki Goto, and Kensei Tsuchida

Materialized View Driven Architecture over Lattice of Cuboids in Data Warehouse
Partha Ghosh, Takaaki Goto, Jyotsna Kumar Mandal, and Soumya Sen