

TENTATIVE PROGRAM for BIGDAS2015/ICDIM2015

Date/ Location	Sapphire Hall (Basement 2)	Emerald Hall (Basement 2)	Rose Hall (Basement-1)	Camellia Hall (Basement-1)	Diamond Hall (Basement-1)
Oct.20 (Tue)	Registration (09:00 – 12:00)				
	Session A-1: <i>Big Data Models and Algorithms</i> (13:30 – 15:30)	Session B-1: <i>Big Data in Transportation</i> (13:30 – 15:30)			
	Session C-1: <i>Big Data Search and Mining</i> (15:40 – 17:40)	Session D-1: <i>Big Data Applications in Manufacturing</i> (15:40 – 17:40)			
Oct. 21 (Wed)	Workshop 1: <i>Smart Emergency Management Using Big Data</i> (10:00 – 12:00)	Session A-2: <i>Big Data Applications in Safety and Healthcare</i> (10:00 – 12:00)	ICDIM-1: (10:00 – 12:00)	ICDIM-2: (10:00 – 12:00)	Short Paper Session S-1 (10:00 – 12:00)
		Opening Ceremony and Invited Speakers Session (13:00 – 17:50) Banquet (18:00 – 21:00)			
Oct. 22 (Thu)	Workshop 2: <i>3D Data and Virtual Training System Standards</i> (10:00 – 12:00)	Session A-3: <i>Big Data Models and Algorithms</i> (10:00 – 12:00)	ICDIM-3: (10:00 – 12:00)	ICDIM-4: (10:00 – 12:00)	Short Paper Session S-2 (10:00 – 11:50)
	Workshop 3: <i>Smart Factory and Transportation</i> (13:30 – 17:00)	Session B-3: <i>Big Data Visualization</i> (13:30 – 15:30)	ICDIM-5: (13:30 – 15:30)	ICDIM-6: (13:30 – 15:30)	Short Paper Session ICDIM-1 (13:30 – 15:30)
	Workshop 4: <i>Industrial-Educational Cooperation Workshop on Business and Data Convergence</i> (17:00 – 19:00)	Session C-3: <i>Big Data in Business</i> (15:40 – 17:40)	ICDIM-7: (15:40 – 17:40)	ICDIM-8: (15:40 – 17:40)	Short Paper Session ICDIM-2 (15:40 – 17:40)
Oct. 23 (Fri)	Meeting of Conference Organizing Committee				

*Tentative program of ICDIM2015 will be released soon.

Tentative Program

Oral Presentation Sessions

October 20, 2015 (Tuesday)

Session A-1: Big Data Models and Algorithms

13:30 – 15:30 (Sapphire Hall)

Chair: Young-Ho Park (Sookmyung Women's University, South Korea)

- 1. A GPS Trajectory Map-Matching Mechanism with DTG Big Data on the HBase System**
Wonhee Cho (Kookmin University, South Korea) and Eunmi Choi (Kookmin University, South Korea)
- 2. Analyzing Subgraph Isomorphism on Graphs with Diverse Structural Properties**
Noorul Amin (Kyung Hee University, South Korea), Kifayat Ullah Khan (Kyung Hee University, South Korea) and Young-Koo Lee (Kyung Hee University, South Korea)
- 3. Generating New Ground Truth Data by Editing Previous Data from Integrated Video Annotation Database**
HyunSeok Ahn (Inha University, South Korea), DongHyun Kim (Inha University, South Korea) and Yoo-Sung Kim (Inha University, South Korea)
- 4. MapReduce Accounting System Integrated with High-Performance Computing Infrastructure**
Chia-Chuan Chuang (National Center for High-performance Computing, Taiwan)
- 5. Multimodal Data Fusion and Intention Recognition for Horse Riding Simulators**
Sangseung Kang (Electronics and Telecommunications Research Institute, South Korea), Kyekyung Kim (Electronics and Telecommunications Research Institute, South Korea), Suyoung Chi (Electronics and Telecommunications Research Institute, South Korea)

Session B-1: Big Data in Transportation

13:30 – 15:30 (Emerald Hall)

Chair: Sang-Hyun Choi (Chungbuk National University, South Korea)

- 1. Analysis on the Transportation Point in Cheongju-City Using Pagerank Algorithm**
Yong-Yeon Kim (Chungbuk National University, South Korea), Hyeon-A Kim (Chungbuk National University, South Korea), Chul-Ho Shin (Chungbuk National University, South Korea), Kyung-Hee Lee (Chungbuk National University, South Korea), Chi-Hwan Choi (Chungbuk National University, South Korea) and Wan-Sup Cho (Chungbuk National University, South Korea)
- 2. Mobility Pattern Analysis of Bus Passengers with LDA**
Ah Cho (Chungbuk National University, South Korea), Kyung-Hee Lee (Chungbuk National University, South Korea), Hyeon-Jin Song (Chungbuk National University, South Korea), Uram Jeong (Chungbuk National University, South Korea), Chihwan Choi (Chungbuk National University, South Korea) and

Wan-Sup Cho (Chungbuk National University, South Korea)

3. Dynamic Taxi Trip Information Management using G* System

Batjargal Dolgorsuren (Kyung Hee University, South Korea), Waqas Nawaz (Kyung Hee University, South Korea) and Young-Koo Lee (Kyung Hee University, South Korea)

4. Smart Car Use Case: Dynamic Reconfigurable IoT Convergence with BigData

Rustam Rakhimov Igorevich (Konkuk University, South Korea) and Dugki Min (Konkuk University, South Korea)

5. A Freeway Crash Involvement Analysis Model based on Real-Time and Historical Traffic Big Data

Xuhua Rui (Konkuk University, South Korea), Mino Ku (Konkuk University, South Korea), Nayun Cho (Konkuk University, South Korea), Kihong Han (Konkuk University, South Korea), Hwasoo Yeo (KAIST, South Korea) and Dugki Min (Konkuk University, South Korea)

Session C-1: Big Data Search and Mining

15:40 – 17:40 (Sapphire Hall)

Chair: Kwan-Hee Yoo (Chungbuk National University, South Korea)

1. A Novel Pattern Search Engine for Time Series Supporting Dynamic Expected Patterns within a Short Period of Time

Hai T. Mai (Hanbat National University, South Korea) and Young-chan Kim (Hanbat National University, South Korea)

2. High Recall-Low Cost Model for Patent Search

Justin JongSu Song (Inha University, South Korea) and Wookey Lee (Inha University, South Korea)

3. Hybrid Clustering Framework for Multi-dimensional Array Data

Hyeon Park (Electronics and Telecommunications Research Institute, South Korea), Dae-Heon Park (Electronics and Telecommunications Research Institute, South Korea), Eun-Ju Lee (Electronics and Telecommunications Research Institute, South Korea) and Se-Han Kim (Electronics and Telecommunications Research Institute, South Korea)

4. Graphical-Information Central of Composite Analysis on Big Sensor-Data of Engineering Inspection

Min-Hwan Ok (Informatics Center/KRRI, South Korea) and Hyun-seung Jung (Safety-technics Center/KRRI, South Korea)

5. Disguised Face Identification Using Face Graph and SVM Classifier

Kyegyung Kim (ETRI, South Korea), Sangseung Kang (ETRI, South Korea), Suyoung Chi (ETRI, South Korea), Jaehong Kim (ETRI, South Korea), Jinho Kim (ETRI, South Korea)

Session D-1: Big Data Applications in Manufacturing

15:40 – 17:40 (Emerald Hall)

Chair: Wan-Sup Cho (Chungbuk National University, South Korea)

1. A scheme and study of establishing FEMS through the virtual manufacturing environment

Lee Jongho (Ajou University, South Korea), Gu Jauk (Ajou University, South Korea) and Lee Jooyeoun (Ajou University, South Korea)

2. Applications of Machine Learning Algorithms to Predictive Manufacturing: Trends and Application of Tool Wear Compensation Parameter Recommendation

Ji-Hyeong Han (Electronics and Telecommunications Research Institute, South Korea), Su-Young Chi (Electronics and Telecommunications Research Institute, South Korea)

3. Design Strategy for Enhancing Adoption of Manufacturing Big Data System (MBDS) in Korean Small and Medium-Sized Manufacturing Firms (SMMFs)

Ji-Dae Kim (Chungbuk National University, South Korea), Su-Young Chi (Electronics and Telecommunications Research Institute, South Korea), Young-Wook Song (Chungbuk National University, South Korea), Wan-Sup Cho (Chungbuk National University, South Korea) and Kwan-Hee Yoo (Chungbuk National University, South Korea)

4. Schemes for Modeling Flexible Manufacturing Processes in Big Data Environment

Kyeongsik Kim (Chungbuk National University, South Korea), Byung-Muk Lim (Chungbuk National University, South Korea), Ji-Dae Kim (Chungbuk National University, South Korea), Su-Young Chi (Electronics and Telecommunications Research Institute, South Korea), Wan-Sup Cho (Chungbuk National University, South Korea) and Kwan-Hee Yoo (Chungbuk National University, South Korea)

5. The Method to Establish In-Memory Data Grid System for Real-Time Processing of Machine Sensor Data in a Smart Factory Environment

Han-Sol Park (Chungbuk National University, South Korea), Jin-Hyuk Kim (Chungbuk National University, South Korea), Chi-Hwan Choi (Chungbuk National University, South Korea), Bo-Ra Jung (Chungbuk National University, South Korea), Kyung-Hee Lee (Chungbuk National University, South Korea) and Wan-Sup Cho (Chungbuk National University, South Korea)

October 21, 2015 (Wednesday)

Session A-2: Big Data Applications in Safety and Healthcare

10:00 – 12:00 (Emerald Hall)

Chair: Jooseok Park (Kyung Hee University, South Korea)

1. Hybrid App Service for Managing Five Main Chronic Diseases based on Disease-Data Analysis

Gyu-Jung Lee (Chungbuk National University, South Korea), Byung-Muk Lim (Chungbuk National University, South Korea), Dong-Hee Lee (Chungbuk National University, South Korea), Hoon Kang (Chungbuk National University, South Korea), Hyun-jun Sohn (Chungbuk National University, South Korea) and Kwan-Hee Yoo (Chungbuk National University, South Korea)

2. Big Data Visual Analytics System for Disease Pattern Analysis

Seokyeon Kim (Sejong University, South Korea), Seongmin Jeong (Sejong University, South Korea), Sung Uk An (Sejong University, South Korea), Jae Seok Yoo (Sejong University, South Korea), Sang Min Han (Sejong University, South Korea), Hanbyul Yeon (Sejong University, South Korea), Sangbong Yoo (Sejong University, South Korea) and Yun Jang (Sejong University, South Korea)

3. Fast Fourier Transform and Tucker Decomposition for Feature Extraction in EEG signals

Thao Nguyen Thieu (Chonnam National University, South Korea), Hyung-Jeong Yang (Chonnam National University, South Korea), Sun-Hee Kim (Korea University, South Korea) and Aran Oh (Chonnam National University, South Korea)

4. Development of disaster damage estimation system based on inductive reasoning

Jung-Ho Um (Korea Institute of Science and Technology Information, South Korea), Tran Quang Khai (Korea Institute of Science and Technology Information/University of Science and Technology, South Korea) and Sa-Kwang Song (Korea Institute of Science and Technology Information, South Korea)

5. A Social Network Service-based Disaster-Detection Technique through Content-based Location Extraction

Choong-Nyoung Seon (Korea Institute of Science And Technology Information, South Korea), Minhee Cho (Korea Institute of Science And Technology Information, South Korea), Sungho Shin (Korea Institute of Science And Technology Information, South Korea), Jung-Ho Um (Korea Institute of Science And Technology Information, South Korea), Seungkyun Hong (Korea Institute of Science And Technology Information, South Korea), Sa-kwang Song (Korea Institute of Science And Technology Information, South Korea) and Hyung-Jun Yim (Korea Institute of Science And Technology Information, South Korea)

6. Performance Evaluation of Apache Spark According to the Number of Nodes using Principal Component Analysis

Sungjin Hong (Chungbuk National University, South Korea), Sangho Kim (Chungbuk National University, South Korea), Jongsun Jang (Chungbuk National University, South Korea), Chi-hwan Choi (Chungbuk National University, South Korea), In-sun Jung (Chungbuk National University, South Korea), Jonghwa Na (Chungbuk National University, South Korea) and Wan-Sup Cho (Chungbuk National University, South Korea)

Big Data Special Session

13:30 – 17:40 (Emerald Hall)

Chair: Aziz Nasridinov (Chungbuk National University, South Korea)

1. Technology Foresight through the collaboration with human expert and machine intelligence

Sun-Hwa Hahn (Korea Institute of Science and Technology Information, South Korea)

2. The Concept and Its Applications of Big Data

Ming Zhou (San Jose State University, USA), Menglin Cao (Wells Fargo Bank, USA), Taeho Park (San Jose State University, USA), Jae-Ho Pyeon (San Jose State University, USA)

3. Cloud Computing and Big Data Analytics: What is new from DB Perspective?

Mukesh Mohania (IBM Research, India)

4. Stress Prediction, Social Routing, and Privacy Protection for Pedestrians

Masatoshi Yoshikawa (Kyoto University, Japan)

5. Big data mining applications and services

Carson Leung (University of Manitoba, Canada)

6. Beyond Self-Reporting Polymeasures: from Behavioural Genetics, Biomarketing and Human-Computer Interaction to Neurophysiology and Neuroscience

Luiz Moutinho (University of Glasgow, Scotland)

7. Big Data Stream Mining: Opportunities and Challenge

Simon Fong (University of Macau, Macau)

Banquet

18:00 – 20:00

October 22, 2015 (Thursday)

Session A-3: Big Data Models and Algorithms

10:00 – 12:00 (Emerald Hall)

Chair: Eunmi Choi (Kookmin University, South Korea)

1. A graph based representative keywords extraction model from news articles

Kaen Kwon (Chungbuk National University, South Korea), Chi-Hwan Choi (Chungbuk National University, South Korea), Jihyeon Lee (Chungbuk National University, South Korea), Jisoo Jeong (Chungbuk National University, South Korea) and Wan-Sup Cho (Chungbuk National University, South Korea)

2. Flexible Multi-level Model for Prediction of Abnormal Behavior

Yu-Jin Jung (Sookmyung Women's University, South Korea) and Yong-Ik Yoon (Sookmyung Women's University, South Korea)

3. POI Estimation Method with Incremental Update based on Smartphones

Seungwoog Jung (Electronics and Telecommunications Research Institute, South Korea), Seung-Ik LEE (Electronics and Telecommunications Research Institute, South Korea), Su-Young Chi (Electronics and Telecommunications Research Institute, South Korea) and Hoon Choi (Chungnam National University, South Korea)

4. A Big Data Driven Prediction Model for Share Rating of Drama

Kim Doyeon (Chung Buk National University, South Korea) and Choi Sanghyun (Chung Buk National University, South Korea)

5. Structuring Mobile User Context Based on Spatio-Temporal Information

Seung-Ik Lee (Electronics and Telecommunications Research Institute South Korea), Seungwoog Jung (Electronics and Telecommunications Research Institute South Korea) and Su-Young Chi (Electronics and Telecommunications Research Institute South Korea)

Session B-3: Big Data Visualization

13:30 – 15:30 (Emerald Hall)

Chair: Yong-Ik Yoon (Sookmyung Women's University, South Korea)

1. User Preference Analysis and Visualization through the Browser History of Smart Devices

Yeong Hyeon Gu (Sejong University, South Korea), Seong Joon Yoo (Sejong University, South Korea), Zhegao Piao (Sejong University, South Korea), Yinhelin (Sejong University, South Korea), Jiangzhiyan (Sejong University, South Korea), Jung Hwan Park (Sejong University, South Korea)

2. An Analysis of Deployment Models of HBase-based Hadoop Platform in Virtualized Computing Environment

Nayun Cho (Konkuk University, South Korea), Mino Ku (Konkuk University, South Korea), Xuhua Rui (Konkuk University, South Korea) and Dugki Min (Konkuk University, South Korea)

3. Sensor Representation in 3D Virtual Environments

Changhyuk Im (The University of Suwon, South Korea) and Myeong Won Lee (The University of Suwon, South Korea)

4. An Integrated Visualization System for Spatial Database with Real-Time Text Queries

Min-Ho Song (Chungbuk National University, South Korea), Hong-Jik Moon (Chungbuk National University, South Korea), Nakhoon Baek (Kyungpook National, South Korea) and Kwan-Hee Yoo (Chungbuk National University, South Korea)

5. Domain Knowledge-based User-friendly Design for Leading Software Industry

Jooyeoun Lee (Ajou University, South Korea), Jiwon Son (Seoul Women's University, South Korea) and Taikyeong Jeong (Seoul Women's University, South Korea)

6. A Prototype Implementation of the Computer Graphics Metafile Decoding Front End

Nakhoon Baek (Kyungpook National University, South Korea)

Session C-3: Big Data in Business

15:40 – 17:40 (Emerald Hall)

Chair: Wookey Lee (Inha University, South Korea)

1. Big Data and Internet of Things: An Asset for Urban Planning

M. Mazhar Rathore (Kyungpook National University, South Korea), Awais Ahmad (Kyungpook National University, South Korea) and Anand Paul (Kyungpook National University, South Korea)

2. Local Festival Marketing and Application Plan for Agricultural Products by Utilizing Big Data from Online Shopping Mall

Ji-hye Kim (Chungbuk National University, South Korea), Sang-woo Cho (Chungbuk National University, South Korea), Da-jeong Park (Chungbuk National University, South Korea), Kyung-hee Lee (Chungbuk National University, South Korea), Chi-hwan Choi (Chungbuk National University, South Korea) and Wan-sup Cho (Chungbuk National University, South Korea)

3. Marketing Strategy Support System for Small Businesses

Minhee Cho (KISTI, South Korea), Sa-kwang Song (KISTI, South Korea)

4. A Requirement for Traceability of Production Logs in Large-scale Shop Floor Data

Jaehui Park (Electronics and Telecommunications Research Institute, South Korea) and Su-young Chi (Electronics and Telecommunications Research Institute, South Korea)

5. Data Acquisition for Control Level Automation for SMEs: Requirements and Architecture

Rockwon Kim (ETRI, South Korea), Ji-Hyeong Han (ETRI, South Korea) and Suyoung Chi (ETRI, South Korea)

6. Database Construction for Tunnel Management in Korea

Yong-Seok Seo (Chungbuk National University, South Korea), Hyun-Seok Yun (Chungbuk National University, South Korea), Seong-Woo Moon (Chungbuk National University, South Korea), Dong-Gyou Kim (Korea Institute of Construction Technology, South Korea) and Kwang-Yeom Kim (Korea Institute of Construction Technology, South Korea)

Short Paper Sessions

October 21, 2015 (Wednesday)

Session S-1: Big Data Models and Algorithms

10:00 – 12:00 (Diamond Hall)

Chair: Young-Koo Lee (Kyung Hee University, South Korea)

- 1. Research on Merging Three-way Decisions with Decision-theoretic Rough Sets**
MENG Chao (Yunnan University of Finance and Economics, China) and YU Jiankun (Yunnan University of Finance and Economics, China)
- 2. A Derivation and an Interpretation of the Cox Partial Likelihood Function**
Kai Fun Yu (BNU-HKBU United International College, China) and Youmei Liu (BNU-HKBU United International College, China)
- 3. Limitations of Skyline Algorithms**
Saydiolim Ganiev (Dongguk University, South Korea), Aziz Nasridinov (Chungbuk National University, South Korea) and Jeong-Yong Byun (Dongguk University, South Korea)
- 4. Computer-generated holograms using stereo disparity with block-matching algorithm**
Yan-Ling Piao (Chungbuk National University, South Korea), Ki-Chul Kwon (Chungbuk National University, South Korea), Nam Kim (Chungbuk National University, South Korea)
- 5. Flying KIWI: Design of Approximate Query Processing Engine for Interactive Data Analytics at Scale**
Sung-Soo Kim (Electronics and Telecommunications Research Institute, South Korea), Taewhi Lee (Electronics and Telecommunications Research Institute, South Korea), Moonyoung Chung (Electronics and Telecommunications Research Institute, South Korea) and Jongho Won (Electronics and Telecommunications Research Institute, South Korea)
- 6. Fast Global Alignment Technique Using Kmer-Distance and Parallelism**
Leang Bunrong and Tae-Kyung Kim
- 7. Hologram generation for a real object from depth camera using polygon-based method**
Yu Zhao (Chungbuk National University, South Korea), Ki-Chul Kwon (Chungbuk National University, South Korea), Yan-Ling Piao (Chungbuk National University, South Korea), Kwan-Hee Yoo (Chungbuk National University, South Korea) and Nam Kim (Chungbuk National University, South Korea)
- 8. Learning Listener's Preference for Music Recommender System**
Young Sung Cho (Chungbuk National University, South Korea), Song Chul Moon (Namseoul University, South Korea) and Seon-Phil Jeong (BNU-HKBU United International College, China)
- 9. An Ontology Navigation System for 3D Spinal Model**
Min-Ho Song (Chungbuk National University, South Korea), Ji-Sung Jung (Chungbuk National University, South Korea), Mihye Kim (Catholic University, South Korea), Sang-Ho Lee (Institute of Science and Technology Information, South Korea) and Kwan-Hee Yoo (Chungbuk National University, South Korea)

October 22, 2015 (Thursday)

Session S-2: Big Data Applications

10:00 – 12:00 (Diamond Hall)

Chair: Yoo-Sung Kim (Inha University, South Korea)

1. Institutions attractiveness: early warning system based on social media indicators

Vasily Kuznetsov (Westminster International University in Tashkent, Uzbekistan) and Olga Yugay (Westminster International University in Tashkent, Uzbekistan)

2. Recommendation Service Model in Copyright Management Portal System for National Research Reports

Hyoungkwan Cho (Inha University, South Korea), Kwangho Song (Inha University, South Korea), Yoo-Sung Kim (Inha University, South Korea)

3. Twitter-based Urban Area Characterization by Non-negative Matrix Factorization

Shoko Wakamiya (Kyoto Sangyo University, Japan), Ryong Lee (Korea Institute of Science and Technology Information, South Korea), Yukiko Kawai (Kyoto Sangyo University, Japan) and Kazutoshi Sumiya (Kwansei Gakuin University, Japan)

4. A Recommender System in u-Commerce based on Segmentation Method

YoungSung Cho (Chungbuk National University, South Korea) and Seon-Phil Jeong (BNU-HKBU United International College, China)

5. Sentiment Analysis of Consumer Opinion in Blogs

Kim Yoosin (Chungbuk National University, South Korea), Kim Taeyun (Chungbuk National University, South Korea), Park Miri (Chungbuk National University, South Korea), Kang Suna (Chungbuk National University, South Korea), Kang Suna (Chungbuk National University, South Korea) and Choi Sanghyun (Chungbuk National University, South Korea)

6. The Influence of IT Investment and IT Governance on Corporate Performance of Multibusiness Firms

Kyung Seok Ryu (Kyung Hee University, South Korea), Joo Seok Park (Kyung Hee University, South Korea) and Jae Hong Park (Kyung Hee University, South Korea)

7. The Research Trends and Comparing about the Big Data between Korea and China Using Text Mining

Zilong Zhao (Chungbuk National University, South Korea), Hogeun Yoo (Chungbuk National University, South Korea), Jounggi Jo (Chungbuk National University, South Korea), Seongryong Hong (Chungbuk National University, South Korea), Sunghyun Ryu (Chungbuk National University, South Korea) and Sanghyun Choi (Chungbuk National University, South Korea)

8. A Safe Return Home Service Based on Real-Time Big-Data Analytics

Jae-Won Lee (Chungbuk National University, South Korea), Ji-Seong Jeong (Chungbuk National University, South Korea), Mihye Kim (Catholic University, South Korea) and Kwan-Hee Yoo (Chungbuk National University, South Korea)

9. A Study on Tactile map design for blind people in Korea

ChungWeon Oh (Namseoul University, South Korea)

10. An Implementation of a Skyline Method over a Crime Dataset for Top-k Queries

Sun-Young Ihm, Jae-Hee Hur, Soo-Bin Ou, So-Hyun Park, Yu-Jeong Song, Wu-In Jang and Young-Ho Park (Sookmyung Women's University, South Korea)