

7th International Congress on  
Advanced Applied Informatics

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CONGRESS PROGRAM

IIAI AAI 2018

7th International Congress on Advanced Applied Informatics

YONAGO  
JAPAN

JULY 8-12 & 13, 2018

YONAGO CONVENTION  
CENTER "BIG SHIP"



## Program at a Glance

**7th IIAI International Congress on Advanced Applied Informatics (IIAI AAI 2018)**

**ACIS CSII 2018 & BCD 2018**

July 8-13, 2018, Yonago Convention Center, Yonago, Japan

July 8 (Sun)									
Floor	5F	2F	3F #1	3F #2	3F #3	5F #5	6F #7	6F #8	
Rooms	Foyer	A	B	C	D	E	F	G	
2:00PM-6:00PM	Registration (2:00PM - 6:00PM) & Welcome Coffee & Beverage (2:00PM-3:00PM)								
3:00PM-5:05PM		-	ESKM-1	SCAI-1	LTLE-1	SCAI-SS1-1	-	LTLE-SS1-1	
4:30PM-6:00PM	Welcome Cocktail at Foyer							LTLE-SS1-2	
July 9 (Mon)									
Rooms	Foyer	A	B	C	D	E	F	G	
8:00AM-5:00PM	Registration (8:00AM - 5:00PM)								
8:50AM-10:30AM		-	ESKM-2	LTLE-WS-1	IDDC-1	DSIR-SS1-1	-	CSII-SS1	
10:30AM-10:45AM	Coffee Break								
10:45AM-12:00PM		-	SCAI-2	LTLE-WS-2	LTLE-2	DSIR-SS1-2	-	CSII-SS2-1	
12:00PM-1:00PM	Lunch on your own & Coffee (12:00PM - 1:00PM)								
1:00PM-1:30PM	IIAI AAI 2018 Opening Ceremony at Auditorium								
1:30PM-2:20PM	Keynote 1								
2:20PM-3:10PM	Keynote 2								
3:10PM-3:30PM	Coffee Break								
3:30PM-5:35PM		-	EAIS-1	LTLE-WS-3	LTLE-3	DSIR-SS2	-	CSII-SS2-2	
6:30PM-8:30PM	IIAI AAI 2018 Banquet at Restaurant Do-Do-Do								
July 10 (Tue)									
Rooms	Foyer	A	B	C	D	E	F	G	
9:00AM-5:00PM	Registration (9:00AM - 5:00PM) & Morning Coffee						ACIS Plenary Ceremony		
9:30AM-12:00PM		-	SCAI-SS2	BMOT-1	LTLE-4	DSIR-SS3	CSII-SS2-3	BCD-1	
12:00PM-1:15PM	Lunch on your own & Poster setting								
1:15PM-2:55PM		-	ESKM-3	BMOT-2	SCAI-3	DSIR-SS4-1	-	BCD-2	
2:55PM-3:15PM	Coffee Break & Poster setting								
3:15PM-5:20PM		-	ESKM-4	BMOT-SS1	EAIS-SS1	DSIR-SS4-2	-	BCD-3	
5:30PM-7:30PM	IIAI AAI 2018 Poster Session & IIAI/ACIS Conference Reception at Foyer at the top								
July 11 (Wed)									
Rooms	Foyer	A	B	C	D	E	F	G	
9:00AM-5:00PM	Registration (9:00AM - 5:00PM) & Morning Coffee								
9:30AM-12:00PM		-	ESKM-SS1-1	BMOT-SS2	IDDC-SS1	LTLE-5	CSII-1	BCD-4	
12:00PM-1:15PM	Lunch on your own						ACIS Luncheon Banquet		
1:15PM-2:55PM		-	SCAI-SS1-2	LTLE-SS3	IDDC-2	DSIR	CSII-2	BCD-5	
2:55PM-3:15PM	Coffee break								
3:15PM-5:20PM		-	ESKM-SS1-2	EAIS-2	IDDC-SS2	SCAI-4	CSII-3	BCD-SS	
5:00PM-5:45PM	IIAI/ACIS Evening Beverage Break								
July 12 (Thu)									
9:30AM-11:00AM	Registration (9:30AM - 11:30AM) & Morning Beverage								
9:30AM-11:00AM	Forum Discussion (invitation only) at Room S				BCD-6 in Room E				
July 13 (Fri)									
9:00AM-10:00AM	Forum Discussion (invitation only) at Room S								

- Note:
- IIAI Registration Desk is locating at 5th floor of the conference facility.
  - IIAI oral presentation: 25 mins including presentation and Q&A
  - Poster size: Prepare your poster with A0(34inch(hirizontal) x 47inch(vertical)) or A1
  - ACIS Registration Desk is locating at 6th floor of the conference facility.
  - ACIS oral presentation: 20 mins including presentation and Q&A

Are you thirsty?

# WELCOME COCKTAIL



**SUNDAY  
JULY 8<sup>TH</sup>  
4:30 – 6:00PM**

Foyer at 5<sup>th</sup> Floor  
(Looking back, 5 seconds!)

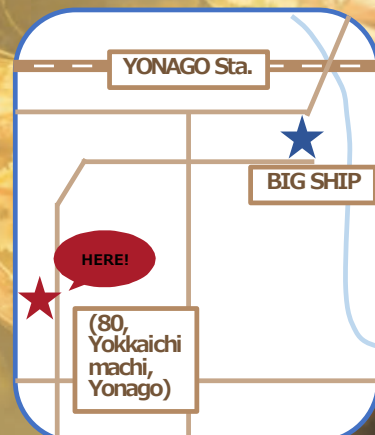
# BANQUET

**AAI 2018 BUFFET DINNER**

Café\*Rest\*Bar\*Do-Do-Do  
6:30pm – 8:30pm  
Monday, July 9<sup>th</sup>, 2018

AAI 2018 BANQUET, where you will be able to choose from fabulous foods, vegetable, meat, local fish, various sorts of beer and cocktails, non-alcoholic beverages, and much, much more...!

**BRING YOUR OWN BANQUET TIKET!!**



Go to the  Bar!



## The Reception at the Top

Foyer at 6th Floor

5:30PM-7:30PM

July 10, 2018

IIAI Reception serves over 100 sorts of cocktails, beer, premium wine, beverages, foods on buffet.

**BRING YOUR OWN RECEPTION TICKET!!**

NEED BREAK?



Come at Foyer at 5<sup>th</sup> Floor

# IIAI AAI 2018 Congress Program

## ACIS BCD & CSII Conferences Program

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**July 8 (Sun), 2018**

**3:00PM-5:05PM**

### **ESKM-1**

**Room B**

Session Chair: Sachio Hirokawa (Kyushu University, Japan)

- Online Recommendation based on Collaborative Topic Modeling and Item Diversity
  - Duen-Ren Liu, Yun-Cheng Chou and Ciao-Ting Jian
- Creating Character Networks from Comics using Frames and Words in Balloons
  - Harumi Murakami, Yusuke Nagaoka and Ryota Kyogoku
- An IoT System with Remote Re-configurable Wireless Sensor Network Nodes and Its Application to Measure Activity of a Class
  - Takashi Yamanoue, Daichi Yokoyama, Ryoya Umeda, Shota Morita, Takashi Ozeki and Noboru Nakamichi

### **SCAI-1**

**Room C**

Session Chair: Katsuhide Fujita (Tokyo University of Agriculture and Technology, Japan)

- Minimizing the Total Weighted Completion Time for Three Cooperating Agents
  - Wen-Chiung Lee and Jen-Ya Wang
- Stamp Rally Application Development for Building an Information Collecting Platform to Promote the Use of Local Resources
  - Hirotsugu Minowa and Ryo Samemoto
- Fast identification of topic burst patterns based on temporal clustering
  - Zhuoyang Xu and Mizuho Iwaihara
- Prediction of Pressure Flexure Impact Strength on the Mixing of Pozzolan Cemant with Fuzzy Logic
  - Suppachai Howimanporn, Warin Sootkaneung, Chakkaphan Sangsuwan and Singkaew Pokterng
- ThaiFBDeep: A Sentimental Analysis using Deep Learning combined with Bag-of-Words features on Thai Facebook Data
  - Phasit Charoenkwan

### **LTLE-1**

**Room D**

Session Chair: Hideo Hirose (Hiroshima Institute of Technology, Japan)

- How Students Understand the Visual Grade Report
  - Yoshihiko Shoji and Yoshihiro Kokubo
- Success/Failure Prediction for Final Examination using the Trend of Weekly Online Testing
  - Hideo Hirose
- Attendance to Lectures is Crucial in Order Not to Drop Out
  - Hideo Hirose
- Traceability Editing and Checking Functions for Requirement Management Education Support Tool REMEST
  - Naoki Maeda and Tetsuro Kakeshita
- English Writing Support for Japanese EFL Visually-Impaired Learners: A Preliminary Study
  - Shiori Sunakawa and Yuichi Ono

### **SCAI-SS1-1**

**Room E**

Session Chair: Naoki Fukuta (Shizuoka University, Japan)

- Towards Handling Spatio-Temporal Contexts on Linked Open Data for Points of Interest
  - Nurul Firdaus, Takuya Adachi and Naoki Fukuta
- A QS-Learning-based Patrol Behavior Learning for Avoiding Illegal Disposals
  - Keita Sugiyama and Naoki Fukuta
- Action Strategy in Sevens
  - Ryoto Ishikawa and Katsuhide Fujita

### **LTLE-SS1-1**

**Room G**

Session Chair: Noriko Uosaki (Osaka University, Japan)

- A Pairing Method Based on Characteristics of Learners' Artifacts in Conceptual Modeling Exercises

- Daisuke Ike, Tanaka Takafumi, Kousuke Mouri and Keiichi Kaneko
- Practicing the Scholarship of Teaching and Learning with Classroom Learning Analytics
  - Mehrasa Alizadeh
- A Learning Analytics Platform Approach to Seamless Learning
  - Brendan Flanagan and Hiroaki Ogata
- Seamless Support for International Students' Job Hunting in Japan Using Learning Log System and eBook
  - Noriko Uosaki, Kousuke Mouri, Chengjiu Yin and Hiroaki Ogata
- Automated Evaluation of Students Comments regarding Right Concepts and Misconceptions of Convex Lenses
  - Masaru Taga, Toshihiro Onishi and Sachio Hirokawa

**5:05PM-5:55PM**

**LTLE-SS1-2**

**Room G**

Session Chair: Noriko Uosaki (Osaka University, Japan)

- Analysis of Student Activity and Its Effect Utilizing Programming Education Support Tool pgracer
  - Miyuki Murata, Naoko Kato and Tetsuro Kakeshita
- Design and Development of a Subtitle Summarization System for Vocabulary Learning
  - Kawashima Hiroharu, Tanaka Takafumi, Kousuke Mouri and Keiichi Kaneko

## July 9 (Mon), 2018

**8:50AM-10:30AM**

**ESKM-2**

**Room B**

Session Chair: Sachio Hirokawa (Kyushu University, Japan)

- Comment generation system for program procedure learning
  - Akiyoshi Takahashi, Hiromitsu Shiina, Ryunosuke Ito and Nobuyuki Kobayashi
- Finding Concepts of Music Objects with Unexpected Multi-Labels Based on Shared Subspace Method
  - Hongjie Zhai, Makoto Haraguchi, Yoshiaki Okubo and Heyu Liu
- Finding high quality documents through link and click graphs
  - Linfeng Yu and Mizuho Iwaihara
- Selecting article segment titles based on keyphrase features and semantic relatedness
  - Yuming Guo and Mizuho Iwaihara

**LTLE-WS-1**

**Room C**

Session Chair: Hui-Chun Chu (Soochow University, Taiwan)

- Using brainwave characteristics for exploring the effect of integrating Graduated-Prompting strategy into interactive e-books on students' learning attention
  - Ya-Jing Yu, Hsiu-Jou Chen and Po-Han Wu
- Effects of Cognitive Styles on Learning Performance and Gaming Behavior in a Programming Board Game
  - Jung-Chuan Yen and Wei-Chi Liao
- Effect of the Interactive Concept Map Instant-Feedback Approach in a Visual Reality Learning environment in Astronomy Courses
  - Yi-Chiao Hsieh, Hui-Chun Chu and Kai-Hsiang Yang
- Effects of a Two-stage Concept Mapping-based Collaborative Gaming approach on the English Learning Achievement and Behavioral Patterns of Students with Different Learning Anxiety Levels
  - Lin Wang, Hui-Chun Chu and Chun-Chieh Wang

**IDDC-1**

**Room D**

Session Chair: Ziran Fan (Toyo University, Japan)

- Collaborative Messaging Protocol with Multiple Intermediate Nodes
  - Hiroyoshi Ichikawa and Aki Kobayashi
- A Lightweight Augmented Reality System to See-through Cars
  - Bing-Jie Yuan, Yan-Ann Chen and Shao-Zhen Ye
- Evaluation Framework of Digital Signage Contents
  - Chenyan Zou, Nobuyuki Kobayashi and Shinji Wakiyama
- Intelligent Maze Generation based on Topological Constraints

- Paul Kim and Roger Crawfis

#### **DSIR-SS1-1**

**Room E**

Session Chair: Miho Funamori (National Institute of Informatics, Japan)

- Exploring factors in the success of academic crowdfunding in Japan
  - Yuko Ikkatai and Eiri Ono
- Requirement Analysis of a System for Research Data Management for Preventing Scientific Misconducts
  - Miho Funamori, Masaharu Hayashi, Yusuke Komiyama, Masatoshi Tsuchiya and Kazutsuna Yamaji
- Promoting Open Access by the Kyoto University Library
  - Chifumi Nishioka
- Multifaceted workshops to envision the future of open science with society
  - Yasuhisa Kondo, Kazuhiro Hayashi and Asanobu Kitamoto

#### **CSII-SS1**

**Room G**

Session Chair: Takahiro Niwa (Aichi Institute of Technology, Japan)

- Measurement of Line-of Sight Detection Using Pixel Quantity Variation and Application for Autism
  - Takahiro Niwa, Ippei Torii, Naohiro Ishii
- Generation of Convex Cones Based on Nearest Neighbor Relations
  - Naohiro Ishii, Ippei Torii, Kazunori Iwata, Kazuya Odagiri, Toyoshiro Nakashima
- Concept of Policy Information Decision Method in the Cloud Type Virtual Policy Based Network Management Scheme for the Specific Domain
  - Kazuya Odagiri, Shogo Shimizu, Makoto Takizawa, Naohiro Ishii

**10:45AM-12:00PM**

#### **SCAI-2**

**Room B**

Session Chair: Katsuhide Fujita (Tokyo University of Agriculture and Technology, Japan)

- Deep Learning for Monotonic Support Vector Machines
  - Ming-Chin Lo, Bing-Han Tsai and Sheng-Tun Li
- Automated Extraction of the Essential Region in Computer-aided Diagnosis of Helicobacter Pylori Infection Using Gastric X-ray Images
  - Koji Abe, Kota Shirakawa, Masahide Minami and Kenji Yoshikawa
- Learning accelerator of deep neural networks with logarithmic quantization
  - Takeo Ueki, Keisuke Iwai, Takashi Matsubara and Takakazu Kurokawa

#### **LTLE-WS-2**

**Room C**

Session Chair: Tsung-Yen Chuang (National University of Tainan, Taiwan)

- Your fun≠My fun: The landscape of a game-based learning classroom
  - Tieh-Huai Chang, Yu-Ting Yang and Fei-Ching Chen
- What Are the Better Gamification Tools for Elementary School Teachers?
  - Ming-Shiou Kuo, Tsung-Yen Chuang, Yen-Ning Su, Tzu-Ying Chen and Bo-Yau Cheng
- Impacts of a mobile childbirth educational game on learning achievement, self-efficacy and postnatal depression for puerperal women
  - Yi-Meng Liu and Hui-Chun Chu

#### **LTLE-2**

**Room D**

Session Chair: Chih-Ming Chen (National Chengchi University, Taiwan)

- The Effects of Video-Annotated Listening Review Mechanism on Promoting EFL Listening Comprehension
  - Yi-Chen Su, Chih-Ming Chen and I-Chun Chen
- Improving Effectiveness of Learners' Review of Video Lectures by Using an Attention-based Video Lecture Review Mechanism based on Brainwave Signals
  - Cheng-Ho Lin, Chih-Ming Chen and Yong-Teng Lin
- Community Detection with Opinion Leaders' Identification for Promoting Collaborative Problem-based Learning Performance
  - Han-Wen Tsao, Chih-Ming Chen and Zong-Lin You

#### **DSIR-SS1-2**

**Room E**

Session Chair: Miho Funamori (National Institute of Informatics, Japan)

- Concept of a Unified Research Management System and its Application to Data Clustering
  - Hiroshi Masui, Kei Kikuchi, Ren Kurose and Xun Shao
- DOI-minting to solar-terrestrial physics data in Japan
  - Masahito Nose, Yasuhiro Murayama, Takenari Kinoshita, Yukinobu Koyama, Michi Nishioka, Mamoru

- Ishii, Manabu Kunitake, Koji Imai, Toshihiko Iyemori and Takashi Watanabe
- The Role of Academic Institutions in Supporting Citizen Science: A Historical Seismology Case Study
  - Yuta Hashimoto and Yasuyuki Kano

#### **ACIS CSII-SS2-1**

**Room G**

Session Chair: Ushio Inoue (Tokyo Denki University, Japan)

- Synchronizing Method of Music and Movie Clips Considering Temporal Harmony
  - Toshihiro Ozaki, Teruhisa Hochin, Hiroki Nomiya
- Development of Forest Information Management DB System Considering Ease of Use
  - Kenji Nozaki, Teruhisa Hochin, Hiroki Nomiya
- Incremental Clustering for Hierarchical Clustering
  - Kakeru Narita, Teruhisa Hochin, Hiroki Nomiya

**1:00PM- 1:30PM**

#### **IIAI AAI 2018 Opening Ceremony**

**Room A (Auditorium)**

**1:30PM-2:20PM**

#### **Keynote 1**

**Room A (Auditorium)**

Session Chair: Kiyota Hashimoto, Prince of Songkla University, Thailand

- How we behave at an international conference: Human indoor flow detection and its integration with Big Data
  - Hidekazu Yanagimoto, Dr. Eng. (Osaka Prefecture University, Japan)

**2:20PM-3:10PM**

#### **Keynote 2**

**Room A (Auditorium)**

Session Chair: Naoki Fukuta, Shizuoka University, Japan

- Towards future AI society
  - Hisashi Hayashi, Ph.D. (Advanced Institute of Industrial Technology, Tokyo, Japan)

**3:30PM-5:35PM**

#### **EAIS-1**

**Room B**

Session Chair: Shuichiro Yamamoto, Nagoya University, Japan

- Proposal of software quality confirmation method using feature model
  - Hiroyuki Utsunomiya and Shuichiro Yamamoto
- A Survey On Visualizing EA models
  - Shuichiro Yamamoto
- Healthcare CloudEcosystem Risk Analysis and Modeling: A FAIR Approach
  - Mariam Traore and Shuichiro Yamamoto
- Proposal of a Method to Understand and Model Dynamic Mechanisms Existing in Business Context
  - Koji Okada, Hayato Nishizono, Kosuke Tsubouchi and Tatsuya Hirukawa

#### **LTLE-WS-3**

**Room C**

Session Chair: Jie Chi Yang (National Central University, Taiwan)

- Learning Health Concepts Through Game-Play
  - Ming-Puu Chen, Yi-Husan Chen, Hao-Ling Huang and Teng-Chih Yang
- Effects of Web Issue-Quest Approaches with Different Prompting Strategies on Students' Learning Performance in a Natural Science Course
  - Chia-Ying Tsai, Chun-Chieh Wang, Hui-Chun Chu and Zhi-Wen Chen
- Effects of Question Types on Engagement and Performance of Programming Learning for Non-Computer Science Majors
  - Nuttaphat Arunoprayoch, Chih-Hung Lai, Pham-Duc Tho, Jing-San Liang and Jie Chi Yang
- Effects of Dietary Infographics and Cognitive Styles on Learners Information Processing
  - Chia Ching Lin, Iwen Huang and Shang Hung Wu
- Understanding Teachers' Design Thinking in Designing Game-based Activities
  - Mingfong Jan, Wan-Lin Yang



**LTLE-3****Room D**

Session Chair: Chih-Ming Chen (National Chengchi University, Taiwan)

- An English Vocabulary Learning APP with Self-regulated Learning Mechanism for Promoting Learning Performance and Motivation
  - Wen-Chien Chang, Chih-Ming Chen and Shun-Min Yang
- An Effective Group Incentive Mechanism in a Collaborative Problem-based Learning System for Enhancing Positive Peer Interaction and Learning Performance
  - Chih-Hung Chang, Chih-Ming Chen and Rong-Hua Zhao
- An Automatic Text Annotation System to Improve Reading Comprehension of Chinese Ancient Texts
  - Hsiao-Ting Tsai, Chih-Ming Chen and Chen-Yu Liu
- A Visual Interactive Reading System Based on Eye Tracking Technology to Improve Digital Reading Performance
  - Chih-Ming Chen, Yu-Chieh Lin and Chin-Sheng Chang
- A Collaborative Reading Annotation System with Gamification Mechanisms to Improve Reading Performance
  - Chih-Ming Chen, Ming-Chaun Li and Tze-Chun Chen

**DSIR-SS2****Room E**

Session Chair: Kunihiko Takamatsu (Kobe Tokiwa University, Japan)

- Generic Support System Prototype in Eduinformatics for Students Selecting a Seminar
  - Masayuki Seki, Yasuo Nakata, Yasuhiro Kozaki, Katsuhiko Murakami, Eriko Matsumoto, Kenya Bannaka, Ikuhiro Noda, Kenichiro Mitsunari and Kunihiko Takamatsu
- An Approach for Estimation of Students' Learning States using Bayesian Network with LMS Log Data
  - Nobuhiko Kondo and Toshiharu Hatanaka
- Predicting the Probability of Student Dropout through EMIR Using Data from Current and Graduate Students
  - Katsuhiko Murakami, Kunihiko Takamatsu, Yasuhiro Kozaki, Aoi Kishida, Kenya Bannaka, Ikuhiro Noda, Jyunichiro Asahi, Kazutaka Takao, Kenichiro Mitsunari, Tadashi Nakamura and Yasuo Nakata
- A New Way of Visualizing Curricula Using Competencies: Cosine Similarity and t-SNE
  - Kunihiko Takamatsu, Katsuhiko Murakami, Yasuhiro Kozaki, Kenya Bannaka, Ikuhiro Noda, Raphael-Joel-Wei Lim, Kenichiro Mitsunari, Tadashi Nakamura and Yasuo Nakata

**ACIS CSII-SS2-2****Room G**

Session Chair: Teruhisa Hochin (Kyoto Institute of Technology, Japan)

- Estimation Improvement of Objective Scores of Answer Statements with Consideration of Multicollinearity and Semantic Similarity
  - Yuya Yokoyama, Teruhisa Hochin, Hiroki Nomiya
- Improvement of Automatic Composition System Based on Melodic Outlines and Impression Words
  - Saori Nakamura, Teruhisa Hochin, Hiroki Nomiya
- Estimation of personal preferences on points of interest
  - Shunki Yuge, Akihiro Ogino
- Personalized Impression-based Music Information Retrieval Method
  - Yuta Uenoyama, Akihiro Ogino
- Personal KANSEI coordinating system for Room Interior Design
  - Yuki Yasui, Akihiro Ogino
- Information System for Estimating People's Mood at Sightseeing using Their Pulses Information
  - Yusuke Ikematsu, Akihiro Ogino

**6:30PM-8:30PM****IIAI AAI 2018 Banquet****Cafe-Restaurant-Bar Do-Do-Do**

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**July 10 (Tue), 2018****9:30AM-12:00PM****SCAI-SS2****Room B**

Session Chair: Ruey-Maw Chen and Chi-Chun Chen (National Chin Yi University of Technology, Taiwan)

- Reviews of Feedback-based Over-load Protection Algorithms
  - Hsiung Lin, Kai-Chun Hsiao and Bo-Rong He

- Application of Stock Analysis Using Deep Learning
  - Bo-Sheng Lin, Wei-Tao Chu and Chuin-Mu Wang
- Electronic Platform for Ladder-Climbing Exercise for Stroke Rehabilitation
  - Chi-Chun Chen, Chun-Cheng Lin, Hui-Chun Feng and Ching-Ping Chang
- Optimal Routing for Split Delivery Vehicle Routing Problems
  - Ruey-Maw Chen and Jia-Ci Guo
- A Cyber Cloud Monitoring System Based on Image Recognition
  - Shi-Xun Huang and Wen-Yuan Chen

#### **BMOT-1**

**Room C**

Session Chair: Hidekazu Iwamoto (Josai International University, Japan)

- Exploring International Backpackers' Motivation in Overseas Countries from Travel Career Perspective
  - Yueh-chiu Wang and Chih-Jou Chen
- Apply Data Mining Approach to Identify Non-revisit Factors for Hotel Industry
  - Jing-Rong Chang, Long-Sheng Chen and Shu-Cih Tseng
- Public Resource Supply-Demand Matching on Distributed Cooperative Scheduling
  - Tomoichi Ebata, Tatsuhiro Sato, Yoshiyasu Takahashi and Kojin Yano
- Managing a monolithic system or a System-of-Systems? An assurance case approach to reach intra-organizational consensus
  - Nobuyuki Kobayashi, Aki Nakamoto, Maki Kawase, Fiona Sussan, Makoto Ioki and Seiko Shirasaka
- A Method of Conversion Wants Chain Analysis to System Dynamics for Evaluation of Business Model
  - Seiji Shima, Nobuyuki Kobayashi and Seiko Shirasaka

#### **LTLE-4 + LTLE-SS2**

**Room D**

Session Chair: Kosuke Kaneko (Kyushu University, Japan)

- Time Duration Statistics Spent for Tackling Online Testing
  - Hideo Hirose
- Identifying Optimal Group Size for Collaborative Argumentation Using SNS for Educational Purposes
  - Michiko Sugai, Tatsuya Horita and Yuichi Wada
- An Open-ended Question Self-explanation Classification Methodology for a Virtual Laboratory Learning System
  - Qi-Zhone Huang, Chih-Chao Hsu and Tzone-I Wang
- Reflective feedback to recall and reproduce the successful physical movement
  - Kenji Matsuura
- Developing a Small-Scale Agriculture Knowledge and Information Dissemination System: Tankyu Practice Approach
  - Boikobo Tlhobogang, Muhammed Wannous and Boago Setoto
- A propriety game based learning game to learn Object-Oriented Programming
  - Yoke Seng Wong, Maizatul H.M. Yatim and Wee Hoe Tan

#### **DSIR-SS3**

**Room E**

Session Chair: Michiyo Shimamura (JAMSTEC, Japan)

- Exploring the Role of Socioeconomic Status in Students Outcomes: Evidence from Taiwanese Long Panel
  - Eric Lin and Shih-Yung Chiu
- Measurement of educational effect based on behavioral change in a trans-graduate educational program
  - Shotaro Imai, Michiyo Shimamura and Kazuhiko Terasawa
- Building a learning counseling framework to encourage student growth and self-recognition
  - Kazuhiko Terasawa, Shotaro Imai and Michiyo Shimamura
- What is the most suitable "Transferable Skill Test" for the graduate school students in Research University in Japan?
  - Michiyo Shimamura, Yukinori Kobayashi and Yasuhiro Yamanaka
- Towards better problem finding and creativity in graduate school education: A Case study of Nitobe School Program
  - Ankit Ravankar, Shotaro Imai, Tomohiro Agatsuma, Abhijeet Ravankar, Teruyuki Tsuji, Tomomichi Kato, Taichi Takasuka, Kaori K Shigetomi and Ken Saito
- Construction of learning opportunity for Program Manager – Trial development of Open club of Program Manager
  - Masaaki Ichiki, Ken-Ichi Sato and Yuichi Nakagami

#### **ACIS CSII-SS2-3**

**Room F**

Session Chair: Yuya Yokoyama (Kyoto Prefectural University, Japan)

- Data Migration Scheme Considering Node Reliability for an Autonomous Distributed Storage System
  - Atsushi Nunome, Hiroaki Hirata

- A Study on Social Graph Analysis Using Beacon Bluetooth Radio Transmitter
  - Makoto Takamatsu, Tsuyoshi Tomioka, Seiji Ishihara, Eizaburo Iwata, Makoto Hasegawa
- GUI Testing for Introductory Object-Oriented Programming Exercises
  - Ushio Inoue
- Python Deserialization Denial of Services Attacks and their Mitigations
  - Kousei Tanaka, Taiichi Saito
- Convolutional Neural Network Models for Scattering Pattern Recognition of Scanning Electron Microscopy Images
  - Manop Phankokkrud and Sirirat Wacharawichanant

### ACIS BCD-1

**Room G**

Session Chair: Yuki Manabe (Kumamoto University, Japan)

- BCD Conference Opening by Masateru Tsunoda (Kinki University, Japan)
- Predictability Classification for Software Effort Estimation
  - Naoki Kinoshita, Akito Monden, Masateru Tsunoda and Zeynep Yucel
- Extended Association Rule Mining with Correlation Functions
  - Hidekazu Saito, Akito Monden and Zeynep Yucel

**1:15PM-2:55PM**

### ESKM-3

**Room B**

Session Chair: Sachio Hirokawa (Kyushu University, Japan)

- Sentiment Classification with Gated CNN and Spatial Pyramid Pooling
  - Makoto Okada, Hidekazu Yanagimoto and Kiyota Hashimoto
- Automated User Registration Using Authentication Federation on Academic HPC System
  - Junya Nakamura and Masatoshi Tsuchiya
- Advertising Visual Attention to Facebook Social Network: Evidence from Eye Movements
  - Chun-Chia Wang, Jason C. Hung and Chun-Hong Huang
- Identification of Unnatural Subsets in Statistical Data
  - Takahiko Suzuki, Tsukasa Kamimasu Tsukasa Kamimasu, Tetsuya Nakatoh and Sachio Hirokawa

### BMOT-2

**Room C**

Session Chair: Shimpei Matsumoto (Hiroshima Institute of Technology, Japan)

- Quality Requirements and Satisfaction of Consumer 3D Printers
  - Chih-Hsiang Ko
- Comparison between Different Products by Disassembly System Design with Parts Selection for Cost, Recycling and CO2 Saving Rates using Multi-Criteria Optimization
  - Kento Igarashi, Tetsuo Yamada, Norihiro Itsubo and Masato Inoue
- Mathematical Modeling of Multi-player Multi-objective Decision Making by Linear Physical Programming
  - Tomoaki Yatsuka, Aya Ishigaki, Hiromasa Ijuin, Yuki Kinoshita, Tetsuo Yamada and Masato Inoue
- Shipping Plan for Apparel Products Using Shipping Record and Just-in-time Inventory at a Logistics Warehouse
  - Rina Tanaka, Aya Ishigaki, Tomomichi Suzuki, Masato Hamada and Wataru Kawai

### SCAI-3

**Room D**

Session Chair: Katsuhide Fujita (Tokyo University of Agriculture and Technology, Japan)

- Search for the Optimal Charging Pattern of Multi-Stage Constant Current Charging Method using Particle Swarm Optimization
  - Kun-Che Ho, Yi-Hua Liu and Shun-Chung Wang
- Twitter noun-verb relation thesaurus tree
  - Naoki Urabe and Jun Rokui
- Implementation Swarm based Gain Scheduling Controller of 2D Inverted Pendulum using Programmable logic controller
  - Suppachai Howimanporn, Sasithorn Chookaew and Warin Sootkaneung
- An Acceleration Method for Equilibrium Solution Search in Multiple OD Selfish Routing Games
  - Guu Kofujita and Satoshi Takahashi
- MTSbag: A Method to Solve Class Imbalance Problems
  - Yu-Hsiang Hsiao, Chao-Ton Su, Pin-Cheng Fu and Mu-Chen Chen
- Autoencoder-Based Excessive Information Generation for Improving and Interpreting Multi-Layered Neural Networks
  - Ryotaro Kamimura and Haruhiko Takeuchi

**DSIR-SS4-1****Room E**

Session Chair: Naruhiko Shiratori (Kaetsu University, Japan)

- Do Student-Athletes Learn More in Classrooms or on the Field?
  - Shintaro Tajiri
- A Guide to Interpreting and Implementing Social Skills Data
  - Jonathan Aliponga
- Trends of Institutional Research in Japanese Medical Education: A case study of Jichi Medical University
  - Yoshikazu Asada
- An Analysis on the Relationship between Student Competencies and the Score Change Patterns of the English Skills
  - Masaaki Ishii

**ACIS BCD-2****Room G**

Session Chair: Akito Monden (Okayama University, Japan)

- Thai Defamatory Text Classification on Social Media
  - Ratchakrit Arreerard and Twittie Senivongse
- Identifying Spoofing Accounts on Twitter Based on Relationships of Accounts
  - Keitaro Nakasai, Masateru Tsunoda, Hideaki Hata and Kenichi Matsumoto
- Deep Learning based Sentiment Classification in Social Network Service Datasets
  - Zar Zar Wint, Yuki Manabe and Masayoshi Aritsugi

**3:15PM-5:20PM****ESKM-4****Room B**

Session Chair: Sachio Hirokawa (Kyushu University, Japan)

- User Behavior Analysis for Location-based Social Network
  - Jun Zeng, Xin He, Yingbo Wu and Sachio Hirokawa
- Work Study System Using Indoor Positioning Technology
  - Takumi Tsuji and Sumika Arima
- Category Classification Methods Reflecting Item's Search Behaviors in Online Shopping Sites
  - Yuri Nozaki and Tetsuji Satoh
- Survey on Public Libraries Managed by Outsourcing, with a Focus on Library Usage, Opening Days, and Directors' Qualifications
  - Yuhiro Mizunuma and Keita Tsuji

**BMOT-SS1****Room C**

Session Chair: Tomoko Tateyama (Hiroshima Institute of Technology, Japan)

- Control of Thermal Grid Systems by Machine Learning Techniques Incorporating Mathematical Programming
  - Yuya Morinaga, Kazutoshi Sakakibara, Takuya Matsumoto, Makoto Ohara, Ittetsu Taniguchi and Hisashi Tamaki
- Attitude Survey of Young People to Examine the Usefulness of a Skill Sharing Web Service for Regional Vulnerable Road Users
  - Shimpei Matsumoto and Nobuyuki Ohhigashi
- Development of Flat Finishing Skill Training System based on Personal Peculiarity Classification of Tool Trajectory
  - Masaru Teranishi, Shimpei Matsumoto and Hidetoshi Takeno
- Effectiveness of Momentum Indicators to Improve Accuracy of Stock Price Prediction for Large-Capital Stocks
  - Yuto Otsuka and Takashi Hasuike
- Construction of Virtual Campus Guide System using Mobile Phone
  - Asuka Kigami, Tomoko Tateyama, Shun Nishikawa, Tetsuro Katada and Shimpei Matsumoto

**EAIS-SS1****Room D**

Session Chair: Motoi Iwashita (Chiba Institute of Technology, Japan)

- A directional comparative analysis to find novel approaches for improving the quality of the clinical trials system
  - Tenzin Kunga, Masataka Sano and Motoi Iwashita
- Proposal of Secure Business Model by Visible Light Communication System
  - Shigeaki Tanimoto, Chise Nakamura, Motoi Iwashita, Shinsuke Matsui, Takashi Hatashima, Hitoshi Fuji, Kazuhiko Ohkubo, Junichi Egawa and Yohsuke Kinouchi
- Study on environmental evaluation using PRTR
  - Hiroyuki Ono
- Mobile-Carrier Choice Behavior Analysis Using Supervised Learning Models
  - Akiya Inoue, Ayako Satoh, Kenichi Kitahara and Motoi Iwashita

- On Dynamics of Handover Trajectories in LTE Cellular Network System
  - Yoshiko Sueda and Arata Koike

#### **DSIR-SS4-2**

**Room E**

Session Chair: Shintaro Tajiri (Yokohama College of Commerce, Japan)

- The situation of Institutional Researcher analyzed from workshop -Using Pattern Language method-
  - Toru Sugihara and Takuya Honda
- Derivation of student patterns in drop-out preliminary state and consideration for preventing dropout
  - Naruhiko Shiratori
- Research on resistance training for university students
  - Reona Ogawa, Yoshinori Watanuki and Chieko Kato
- A study on the self-affirmation of university student - Focusing on classification by personality -
  - Tatsuki Saitou, Toru Sugahara and Chieko Kato

#### **ACIS BCD-3**

**Room G**

Session Chair: Masateru Tsunoda (Kinki University, Japan)

- Parallelizing the Construction of a k-Dimensional Tree
  - Hiroki Yamasaki, Atsushi Nunome and Hiroaki Hirata
- Energy Informatics Applicability; Machine Learning and Deep Learning
  - Cristina Heghedus, Antorweep Chakravorty and Chunming Rong

**5:30PM-7:30PM**

#### **IIAI AAI 2018 Conference Reception & Poster Session**

**Foyer at the Top (6<sup>th</sup> Floor)**

Session Co-chair: Naoki Fukuta (Shizuoka University, Japan)

- **Zone A (AI & Smart Computing)**
  - Improvement of Restricted Boltzmann Machine by Sparse Representation based on Lorentz function
    - Libin Chen and Weibao Zou
  - Two Strategies for Bag-of-Visual Words Feature Extraction
    - Chih-Fong Tsai
  - Region Growing Approach on Detecting Drivable Space for Intelligent Autonomous Vehicles
    - Feng-Li Lian
  - Band Selection Method for Real-Time Fire Detection based on AUC Matrix in Hyperspectral Image
    - Heekang Kim, Chanho Song, Guk-Jin Son, Seong-Ho Jeong, Jin-Hwan Son and Young-Duk Kim
  - A Liveliness Sensing System for Solitary Aged Persons
    - Mitsugu Suzuki and Kohei Iduka
  - Method of Correction of Rotated Images using Deep Learning Networks
    - Shun Ogiue and Hiroshi Ito
- **Zone B (Learning Technologies)**
  - The Design and Evaluation of a Gamification Teaching Activity using Board Game and QR Code for Organic Chemical Structure and Functional Groups Learning
    - Chang-Hsin Wu, Chia-Chi Chen, Shu-Ming Wang and Huei-Tse Hou
  - Investigating The Impact of Implementation Intention Strategy on Multimedia Learning Outcome: An Eye-tracking Approach
    - Han-Chin Liu and Hsueh-Hua Chuang
  - Redesign of a data collection in digital textbook systems
    - Kousuke Mouri, Noriko Uosaki, Atsushi Shimada, Chengjiu Yin, Keiichi Kaneko and Hiroaki Ogata
  - Exploring the Effects of Multimedia Design in a Life English VR Serious Game
    - Fang-Chuan Ou Yang, Hsiao-Han Chen and Ching-Jung Liao
  - Developing the immersion virtual reality platform based on experiential learning cycle - using fire disaster prevention education as an example
    - Sung-Chiang Lin, Hsien-Wei Wang, Tsung-Ju Lee and Hung-Chang Chan
  - Brain Wave Influence on Interaction with a Communication Robot
    - Masaya Nakayama, Takahito Tamai, Atsushi Ishigame and Yukie Majima
  - Examination of the Efficacy of an Injection Technique Support System
    - Sakiko Sumai, Kayo Haruta, Norio Ishii, Mieko Suwa, Minako Nakamura, Tomomi Morishita, Shintarou Higashiyama, Yukari Murayama, Ijima Ryota, Hiroaki Sawano and Hatsuko Suzumura
  - Development of a Robot Intervention Program in Medication Instruction at a Pharmacy
    - Keitaro Ishiguro, Yukie Majima, Jun Kawahara and Saki Minamino
  - A Virtual Reality Learning System to Support Situational Interest in Historic Site Courses

➤ Kai-Yi Chin, Ya-Chuan Kao and Hsiang-Chin Hsieh

● **Zone C (Service and Knowledge Management & Business and Industrial Informatics)**

- A Study on the Causes of Information System Failure
  - Kazuko Kobayashi
- A method to distinguish between congestion and vehicle accident using traffic radar
  - Gukjin Son, Junkwang Kim, Chanho Song, Young-Duk Kim and Heekang Kim
- A Cloud Bookcase System for Mobile library
  - Posheng Chiu
- Internet Based Interactive Transcription Support System for Woodblock-Printed Japanese Historical Book Images
  - Chulapong Panichkriangkrai, Liang Li, Takaaki Kaneko, Ryo Akama and Kozaburo Hachimura
- A study of User Participatory Mobile App
  - Wangmi Seok
- Scene Extraction of Oral Explanation for Interaction in a Pointing System
  - Nobuhiko Hama, Kenta Amahaya, Keiya Sugihara, Noboru Nakamichi, Shota Morita and Watanabe Keita
- Pair-testing method to Complement User's behavior records
  - Yukako Kawano, Nobuhiko Hama and Noboru Nakamichi
- Scene Extraction of Oral Explanation for Interaction in a Pointing System
  - Nobuhiko Hama, Kenta Amahaya, Keiya Sugihara, Noboru Nakamichi, Shota Morita and Keita Watanabe

● **Zone D (University Management and Educational Strategy)**

- An AUC-based Active Learning Algorithm via LogitBoost for Binary Classification
  - Zhe-Bin Zhang and Charlotte Wang
- Quality Assurance in Education through the Diploma Policy and President's Message -An Analysis Focused on Local Community-
  - Kahori Ogashiwa, Toru Sugihara, Kumiko Kanekawa, Yuki Kitanaka, Kazuhisa Noguchi, Soichiro Aihara, Masao Mori and Sachio Hirokawa
- Implementation of Business Intelligence With Improved Data-Driven Decision Making Approach Case Study on Student Single Tuition Fee in State University in Indonesia
  - Ardhan Agung Yulianto and Yoshiya Kasahara
- Cluster Analysis of Learners based on Video Annotations
  - Masako Furukawa, Yoshitomo Yaginuma and Tsuneo Yamada
- Flipped Classrooms using Social Networks: An investigation on learning styles
  - Lasith Gunawardena and Prabhani Pitigala Liyanage
- A Study of Augmented Reality in Learning, Memory and Learning Motivation: A Case Study of Practical Writing in Middle School Life
  - Fang-Chuan Ou Yang, Wan-Ting Huang and Ching-Jung Liao

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**July 11 (Wed), 2018**

**9:30AM-12:00PM**

**ESKM-SS1-1**

**Room B**

Session Chair: Tsunenori Mine (Kyushu University, Japan)

- Evaluation of BLE Separate Channel Fingerprinting in Practical Environment
  - Shigemi Ishida, Sou Takaki, Takahiro Yamamoto, Shigeaki Tagashira and Akira Fukuda
- Toward Sustainable Smart Mobility Information Infrastructure Platform - Current Status -
  - Akira Fukuda, Tsuneo Nakanishi, Kenji Hisazumi, Kunihiro Kaneko, Shigeaki Tagashira, Tsunenori Mine, Yutaka Arakawa, Shigemi Ishida, Takahiro Ando, Shuichi Ashihara, Masakatsu Ura, Yoshimichi Nakamura, Soichiro Nakamura, Weiqiang Kong and Guoqiang Li
- A Survey of Formal Techniques for Hardware/Software Co-Verification
  - Kun Liu, Weiqiang Kong, Gang Hou and Akira Fukuda
- Analysis of Interrupt Behavior Based on Probabilistic Model Checking
  - Hou Gang, Kong Weiqiang, Zhou Kuanjiu, Wang Jie, Cao Xun and Fukuda Akira

**BMOT-SS2****Room C**

Session Co-Chairs: Tokuro Matsuo (Advanced Institute of Industrial Technology, Japan), Hidekazu Iwamoto (Josai International University, Japan)

- Multilingual Review Analysis for Attracting Foreign Visitors to Local Cities -About Sightseeing in Hamamatsu city-
  - Yasushi Sugiyama, Jianping Zheng, Tokuro Matsuo, Hidekazu Iwamoto and Teruhisa Hochin
- Comparison of Motivation of Participation to International Conferences between Asians and Non-Asians
  - Yasushi Sugiyama, Tokuro Matsuo, Hidekazu Iwamoto and Teruhisa Hochin
- International Convention Destination: Researchers' Preferences and Requirements
  - Hidekazu Iwamoto, Tokuro Matsuo and Yasushi Sugiyama

**IDDC-SS1****Room D**

Session Chair: Ziran Fan (Toyo University, Japan)

- Ideology of AoD: Analog On Digital-Operating Digitized Objects and Experiences with Analog-like Approach
  - Takayuki Fujimoto
- Proposal of a Scheduling App Utilizing Time-Perception-Reality in Analog Clocks
  - Ziran Fan and Takayuki Fujimoto
- A Design of Application to Turn a Smartphone into a Computer Mouse and Possibility of Preventing from Being Copied
  - Yui Tanaka and Takayuki Fujimoto
- A Proposal for "Infinite Scale" Ruler Application that Provides Analog-like "Sensory Reality"
  - Kazuya Murata, Eigo Ito and Takayuki Fujimoto

**LTLE-5****Room E**

Session Chair: Yuichi Ono (University of Tsukuba, Japan)

- Holonomic Approach for Item Response Theory Parameter Estimation
  - Kazuhisa Noguchi and Eisuke Ito
- Enhancing High-School Students' Computational Thinking with Educational Robotics Learning
  - Sasithorn Chookaew, Suppachai Howimanporn, Pornjit Pratumswan, Santi Hutamarn, Warin Sootkaneung and Charoenchai Wongwatkit
- Study of manga reading comprehension and teaching methods for manga reading
  - Kiichiro Okubo, Kazunori Sato, Yuichi Wada, Kazuyuki Asai, Shunichi Kubo and Tatsuya Horita
- Construction of Teaching Assistant Robot in Programming Class
  - Kazuyoshi Yoshino and Shanjun Zhang
- An Augmented Reality to Support Mobile Game-based Learning in Science Museum on Biodiversity
  - Nongluk Meekaew and Watcharee Ketpichainarong
- Behavior Analysis of Learning Methods to Overcome Stress or Pressure on Learning Situation
  - Kosuke Kaneko and Wang Jingyun

**ACIS CSII-1****Room F**

Session Chair: Tadachika Ozono (Nagoya Institute of Technology, Japan)

- MULESOFT - Salesforce Integration using Batch Processing
  - Manvi Seth
- A branch-and-bound based exact algorithm for the maximum edge-weight clique problem
  - Satoshi Shimizu, Kazuaki Yamaguchi, Sumio Masuda
- An Interactive Storybook-Creation Tool on a Tablet for Kindergarteners
  - Yusuke Niwa, Yasuji Katase, Chieko Hiramatsu
- A multi-objective minimum matrix search algorithm applied to large-scale bi-objective TSP
  - Michael Smith, Yun-Shiow Chen
- Stubs and Drivers Generator for Object-Oriented Program Testing using Sequence and Class Diagrams
  - Peerawut Luengruengroj, Taratip Suwannasart
- Extracting Paper Sticky Notes with Visual-inertial Odometry of ARKit
  - Eishun Ito, Tadachika Ozono and Toramatsu Shintani
- Developing a Linked Data-based Weekly Report Management System
  - Rikiya Ando, Tadachika Ozono and Toramatsu Shintani

**ACIS BCD-4****Room G**

Session Chair: Akinori Ihara (Wakayama University, Japan)

- Tool Breakage Detection using Deep Learning
  - Guang Li, Xin Yang, Duanbing Chen, Anxing Song, Yuke Fang and Junlin Zhou
- Frequent Closed Itemsets More than Size K and Its On-Line Approximation Mining
  - Takumi Nishina, Koji Iwanuma and Yoshitaka Yamamoto

- TOP: An efficient Two-levels of Positive Resampling Framework for Class Imbalanced Data
  - Nathaniel Netirungroj and Eakasit Pacharawongsakda
- A Study of Practical Education Program on AI, Big Data, and Cloud Computing through Development of Automatic Ordering System
  - Sachio Saiki, Naoki Fukuyasu, Kohei Ichikawa, Tetsuya Kanda, Masahide Nakamura, Shinsuke Matsumoto, Shinichi Yoshida and Shinji Kusumoto

### **1:15PM-2:55PM**

#### **SCAI-SS1-2**

**Room B**

Session Chair: Katsuhide Fujita (Tokyo University of Agriculture and Technology, Japan)

- An Evolutionary Approach for Simulating Continuous Coalition Formation
  - Masaaki Horie and Naoki Fukuta
- A Social Networking Support System to Rise up the One's Self-Evaluation
  - Takuma Matsushita and Naoki Fukuta
- A Simulation-based Interactive Tuning Approach for the Parameter Optimization of Privacy-preserved Prediction Markets
  - Takumi Sato and Naoki Fukuta
- Toward Optimization of Elicitation Timings considering Elicitation Costs and User Privacy for Personal Assistant Agents
  - Sho Oishi and Naoki Fukuta

#### **LTLE-SS3**

**Room C**

Session Chair: Jingyun Wang (Kyushu University, University of Tsukuba, Japan)

- Pair-programming Curriculum Development of Motion-based Game for Enhancing Computational Thinking Skills
  - Chih-Kai Chang
- Building a Simulated Blockly-Arduino-based Programming Learning Tool: A Preliminary Study
  - Jun-Ming Su and Ting-Wei Lin
- Exploring an approach for grouping through predicting group performance from analysis of learner characteristics
  - Jingyun Wang and Kentaro Kojima

#### **IDDC-2**

**Room D**

Session Chair: Arisa Fujinoki (Toyo University, Japan)

- Guest Speaker in IDDC2018: Prof/Dr. Tadachika Ozono (Nagoya Institute Technology, Japan)
- Study on Aesthetic Impression of Female Body Type and Posture
  - Masami Miyazaki, Toru Sugahara, Ryuma Onose, Yuko Yamaguti, Taizo Kishimoto, Satoko Ueke and Hiroma Kurono
- Development and evaluation of an exaggerated expression animation support system using Maya
  - Yusuke Sakai, Satoshi Cho and Hisashi Sato
- Developing a Management System and Interface for Instant Application Window Sharing
  - Iwata Satoru, Tadachika Ozono and Toramatsu Shintani

#### **DSIR**

**Room E**

Session Chair: Soichiro Aihara (Shibaura Institute of Technology, Japan)

- Identifying Factors Contributing to University Dropout with Sparse Logistic Regression
  - Gen Hori
- Examining the Character Traits of Students Participating in an Educational Program for Developing Proactive Behavior
  - Yoko Nakazato and Takashi Tsumagari
- Implementation of Active Learning Strategies in a Large-Enrollment Economics Class at a University
  - Tomohiko Sato, Mami Mitachi and Tetsutaro Okada
- Doctoral Students in the American Research Universities: The Difference by Major Field
  - Soichiro Aihara

#### **ACIS CSII-2**

**Room F**

Session Chair: Teruhisa Hochin (Kyoto Institute of Technology, Japan)

- Deep Learning based Bangla Speech-to-Text Conversion
  - Md. Tahsin Tausif, Sayontan Chowdhury, Md. Shiplu Hawlader, Md. Hasanuzzaman, Hasnain Heickal
- End-to-End Speech Synthesis for Bangla with Text Normalization
  - Tanzir Islam, Shahreen Salim, Shabbir Ahmed, Hasnain Heickal



**ACIS BCD-5****Room G**

Session Chair: Hirohisa Aman (Ehime University, Japan)

- Cancer Gene Analysis of Microarray Data
  - Shuichi Shinmura
- Community Information's Effects on User Emotions and Behaviors
  - Yulin Chen

**3:15PM-5:20PM****ESKM-SS1-2****Room B**

Session Chair: Tsunenori Mine (Kyushu University, Japan)

- Overview and Application Examples of Agent-Based Unified Simulation Environment
  - Takahiro Ando, Ryo Fujii, Kenji Hisazumi, Tsunenori Mine, Tsuneo Nakanishi and Akira Fukuda
- A Process of Uncertainty Handling Method to Smart Mobility Application Development
  - Hiromasa Inoki, Kenji Hisazumi, Takahiro Ando, Akira Fukuda and Tsuneo Nakanishi
- Design and Development of Integrated Map Database System to Store and Share Map Datasets
  - Kunihiko Kaneko
- ItoCamLife: a platform of sharing and recommending information considering user contexts to facilitate smart mobility
  - Tsunenori Mine, Hiroyuki Nakamura, Shiro Mise, Takuya Hiraoki, Shiori Koga, Takahiro Ando, Kenji Hisazumi, Tsuneo Nakanishi and Akira Fukuda
- Software Engineering Practices for the Smart Mobility Market
  - Tsuneo Nakanishi, Kenji Hisazumi, Takahiro Ando, Akira Fukuda and Tsunenori Mine

**EAIS-2****Room C**

Session Chair: Atsushi Shimoda, Chiba Institute of Technology, Japan

- Application of Particle Swarm Optimization to Solve Configuration Change Problems
  - Z.H. Che, H.S. Wang, P.C. Huang, P.C. Chang and Y.S. Lee
- Operating cyber-physical systems with microservices: a conceptual modelling approach
  - Michael Walch
- Contribution of Patent Indicators to China Stock Performance
  - Tsui-Min Chen, Chiu-Chi Wei and Hui-Chong Che
- A Hypergraph Based Formal Description Technique for Enterprise Architecture Representation
  - Dóra Óri and Bálint Molnár
- Priority Order Determination Method for Extracting Services Stepwise from Monolithic System
  - Atsushi Shimoda and Tsubasa Sunada

**IDDC-SS2****Room D**

Session Chair: Kazuya Murata (Toyo University, Japan)

- Corporate Identity System Design via Collective Intelligence
  - Yu-Lin Hsu
- SNS as Means of Information Gathering
  - Taishi Nemoto and Takayuki Fujimoto
- Prototype of word-of-mouth video SNS to support reliable and accurate information
  - Arisa Fujinoki and Takayuki Fujimoto
- A Concept of Multi-lingual Translation Application
  - Yang Li

**SCAI-4****Room E**

Session Chair: Naoki Fukuta (Shizuoka University, Japan)

- Common sensing and Analyses to visualize a Production Process with Parallel Utilized Resource-Job-shop and Flow-shop cases
  - Motoharu Tanaka, Takuya Nagata and Sumika Arima
- Development and Evaluation of a Hybrid-flow Scheduling System for Make-to-Order Production
  - Kenta Shinoda and Sumika Arima
- Double-loop controller tuning based Fictitious Reference Iterative Tuning (FRIT) for unmanned ground vehicle
  - Chaiyaporn Silawatchananai, Piyanun Ruangurai and Niphon Lapanaphan
- A Personal Conversation Assistant Based on Seq2seq with Word2vec Cognitive Map
  - Maoyuan Shen and Runhe Huang
- Automation of Personal Food Computers for Research in Drug Development and Biomedicine
  - Almog Boanos, Suganya Chandrababu and Dhundy R. Bastola

**ACIS CSII-3****Room F**

Session Co-Chairs: Masashi Kawaguchi (National Institute of Technology, Suzuka College, Japan), Hiroki Nomiya (Kyoto Institute of Technology, Japan)

- Effective Fusion of Disaster-relief Agent in RoboCupRescue Simulation
  - Taishun Kusaka, Yuki Miyamoto, Akira Hasegawa, Shunki Takami, Kazunori Iwata, Nobuhiro Ito
- AC Transmission Signal Neural Circuit and the Design of Deep Learning Model
  - Masashi Kawaguchi, Naohiro Ishii and Masayoshi Umeno
- Shape Recovery using Improved Fast Marching Method for SEM Image
  - Yuji Iwahori, Lei Huang, Aili Wang and M. K. Bhuyan
- Estimation of Facial Expression Intensity for Lifelog Videos Retrieval
  - Yamato Shinohara, Hiroki Nomiya, Teruhisa Hochin
- Improvement of Emotional Video Scene Retrieval System for Lifelog Videos Based on Facial Expression Intensity
  - Kazuya Sugawara, Hiroki Nomiya, Teruhisa Hochin
- Detection of Dangerous Behavior by Estimation of Head Pose and Moving Direction
  - Kenji Miyoshi, Hiroki Nomiya, Teruhisa Hochin

**ACIS BCD-SS****Room G**

Session Chair: Kiyoshi Honda (Waseda University, Japan)

- Analyzing Software Maintenance Cost Based on Work Efficiency and Unit Cost
  - Masateru Tsunoda, Kenichi Matsumoto, Tomoki Oshino and Sawako Ohiwa.
- Do Review Feedbacks Influence to a Contributor's Time Spent on OSS Projects?
  - Takuto Norikane, Akinori Ihara and Kenichi Matsumoto

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## July 12 (Thu), 2018

**9:30PM-11:30PM****ACIS BCD-6****Room E**

Session Chair: Akinori Ihara (Wakayama University, Japan)

- Characteristics of source code degrading quality in software development by multiple organizations
  - Ryo Ishizuka, Naohiko Tsuda, Hironori Washizaki, Yoshiaki Fukazawa, Shunsuke Sugimura and Yuichiro Yasuda
- Understanding Popularity Growth of Packages in JavaScript Package Ecosystem
  - Shi Qiu, Raula Gaikovina Kula and Katsuro Inoue
- Fault-Prone Source File Analysis Focusing on the Contribution Entropy in Open Source Development
  - Kazuki Yamauchi, Hirohisa Aman, Sousuke Amasaki, Tomoyuki Yokogawa and Minoru Kawahara
- BCD Conference Adjournment by Akinori Ihara (Wakayama University, Japan)

**Forum Discussion (Invitation-Only)****Room S**

Session Chair: Naoki Fukuta (Shizuoka University, Japan)

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## July 13 (Fri), 2018

**Forum Discussion (Invitation-Only)****Room S**

Session Chair: Naoki Fukuta (Shizuoka University, Japan)

# IIAI AAI 2019



8<sup>th</sup> IIAI International Congress on Advanced Applied Informatics

Toyama International Conference Center, Toyama, Japan  
July 7- 11, & 12, 2019

## IIAI AAI's Subconferences

- 10th International Conference on E-Service and Knowledge Management (ESKM 2019)*
- 8th International Conference on Learning Technologies and Learning Environments (LTLE 2019)*
- 8th International Conference on Data Science and Institutional Research (DSIR 2019)*
- 7th International Conference on Smart Computing and Artificial Intelligence (SCAI 2019)*
- 4th International Conference on Business Management of Technology (BMOT 2019)*
- 4th International Conference on Enterprise Architecture and Information Systems (EAIS 2019)*
- 2nd International Conference on Interaction Design and Digital Creation / Computing (IDDC 2019)*

## Conference Publications

- Proceedings will be published by IEEE CPS and IEEE Digital Library (will be index in EI, Scopus, Inspec, ...)

## Post-Conference Publications

- International Journal of Smart Computing and Artificial Intelligence (IJSCAI)
- International Engineering Express (IEE)
- International Journal of Service and Knowledge Management (IJSKM)
- International Journal of Institutional Research and Management (IJIRM)
- International Journal of Learning Technologies and Learning Environments (IJLTLE)

## Important Dates

- Workshop / Special Session Proposal: January 10, 2019
- Full / Short / Poster paper Due: March 10, 2019
- Notification: April 5, 2019
- Cameraready: April 20, 2019
- Early Registration: April 20, 2019
- Conference Dates: July 7-11 & 12, 2019

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