# **IIHMSP/FITAT 2020**

**IIH-MSP 2020** THE 16<sup>th</sup> INTERNATIONAL CONFERENCE ON INTELLIGENT INFORMATION HIDING AND MULTIMEDIA SIGNAL PROCESSING.

FITAT 2020 13th INTERNATIONAL CONFERENCE ON FRONTIERS OF INFORMATION TECHNOLOGY, APPLICATIONS AND TOOLS.

5 - 7 NOVEMBER, 2020

# **CONFERENCE PROGRAM**

# **Organizers**



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# **S**ponsors



**Ton Duc Thang University** 



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Keynote Speaker
Professor
NIPON THEERA-UMPON

**Chiang Mai University** 



http://www.ee.eng.cmu.ac.th/nipon

Title: A.I. in Biomedicine

**Abstract:** Artificial intelligence (A.I.) has been applied in several areas including military, medicine, science, engineering, economics, etc. This presentation briefly describes Biomedical Engineering Institute, Chiang Mai University. The research works conducting at Computational Intelligence (C.I.) Research Laboratory, Chiang Mai University, are also presented. The research works at C.I. Lab on that applied to biomedicine are particularly focused in this presentation. We successfully applied A.I./C.I. techniques in several real-world biomedical problems.

Biography: Nipon Theera-Umpon received his B.Eng. (Hons.) degree from Chiang Mai University, M.S. degree from University of Southern California, and Ph.D. degree from the University of Missouri-Columbia, all in electrical engineering. He has been with the Department of Electrical Engineering, Chiang Mai University since 1993. He has served as editor, reviewer, general chair, technical chair and committee member for several journals and conferences. He has been bestowed several royal decorations and won several awards. He was associate dean of Engineering, chairman for graduate study in electrical engineering, and the chairman for graduate study in biomedical engineering. He is currently the Director of Biomedical Engineering Institute, Chiang Mai University. He is a member of Thai Robotics Society, Biomedical Engineering Society of Thailand, and Council of Engineers in Thailand. He has served as Vice President of the Thai Engineering in Medicine and Biology Society, Dr. Theera-Umpon is a senior member of the IEEE, IEEE-IES Technical Committee on Human Factors, and IEEE-CIS Trayel Grant Subcommittee. He has published more than 190 full research papers in international refereed publications and a handful of national research publications. His research interests include Pattern Recognition, Digital Image Processing, Neural Networks, Fuzzy Systems, Digital Signal Processing, Artificial Intelligence, Medical Imaging, Machine Learning, Big Data Analysis, Data Mining.



**Keynote Speaker** 

Emeritus Professor HO TU BAO

Japan Advanced Institute of Science and Technology (JAIST)



http://www.jaist.ac.jp/~bao/

Title: Learning from medical data

**Abstract:** This talk presents our work in the project "Building core technologies for exploitation of electronic medical records". The talk first addresses challenges in processing medical data then presents some of our work on learning from clinical text, causality in adverse drug reaction, learning and recommending treatments from electronic medical records.

**Biography:** Ho Tu Bao received the B.Tech. degree in applied mathematics from Hanoi University of Science and Technology (1978); master and PhD degrees in artificial intelligence (1984 and 1987, respectively) from the University of Paris 6, France. His research interest is in machine learning and its appplications, in particular in medicine and. He worked at the Vietnam Academy of Science and Technology (1979-2010, Associate Professor in 1991) and the Japan Advanced Institute of Science and Technology (JAIST 1993-2018, Professor in 1998). He is currently Professor Emeritus of JAIST, Director of Data Science Laboratory of the Vietnam Institute for Advanced Study in Mathematics (VIASM) and Scientific Director of John von Neumann Institute of Vietnam National University at Ho Chi Minh City.



# **Keynote Speaker**

# Professor LIMSOON WONG

**National University of Singapore** 



https://www.comp.nus.edu.sg/cs/bio/wongls/

**Title:** Some opinion and advice on machine learning in population-based genomic medicine

**Abstract:** Large amounts of genome-wide association studies (GWAS) and other omics studies have been accumulated and analyzed. However, most of the heritability accounting for many complex diseases remains unexplained by variants reported by GWAS. The mystery of this missing heritability maybe due to shortcomings of current approaches inability to exploit correlation structures in these variations (e.g. functional relationships between genes) while avoiding their potential confounding effects. Deep learning and other forms of machine learning have become a general hammer for finding correlations and making predictions these days. Can these be used (and how) in the context of GWAS and other omics data analysis? In this talk, I will offer some opinions and advice on this question.

**Biography:** Limsoon Wong is Kwan-Im-Thong-Hood-Cho-Temple chair professor of computer science in the School of Computing at the National University of Singapore (NUS). He was also a professor (now honorary) of pathology in the Yong Loo Lin School of Medicine at NUS. Before coming to NUS in 2005, he was the Deputy Executive Director for Research at A\*STAR's Institute for Infocomm Research, where he started his career as a young software engineer in the late 1980s. Limsoon also co-founded Molecular Connections in India the early 2000s; and as this start-up's chairman, he oversaw its profitable 400x growth over a decade and a half. As a scientist, Limsoon has many well-known results in two distinct fields: database theory and computational biology; and he was inducted in 2013 as a Fellow of the ACM for his seminar works in both fields. These days he works mostly on knowledge discovery technologies and their application to biomedicine, with a current special interest on batch effects in gene expression and proteomic profile analysis.



# **Keynote Speaker**

Professor JUNBAO LI

Harbin Institute of Technology

Title: Embedded artificial intelligence

**Abstract:** According to the practical application requirements of embedded artificial intelligence, we sort out the key scientific problems of embedded artificial intelligence from the data, algorithm and platform. We focus on solving the key theories and methods of network structure design, interpretable, lightweight network and accelerated computing. Combined with practical applications, we proposed the idea and key technology of hardware and software collaborative development. At the same time, we described the development and application scenarios of embedded artificial intelligence practical application system. Further, we forecast the future development trend and direction.

Biography: Junbao Li, a Ph.D., full professor and doctoral supervisor. He is the awarder of "new century talents" of the Ministry of education. He was born in Mishan City, Heilongjiang Province in 1978. He received the Ph.D. degree from Harbin Institute of Technology, Harbin, China, in 2008. He is currently a professor at the School of Electronics and Information Engineering, Harbin Institute of Technology. His research interests are image processing and pattern recognition. He has presided over more than 50 national and provincial natural science, aerospace innovation, and other scientific research projects. He has published more than 80 papers, including more than 60 SCI journal papers, 2 Chinese and English Monographs, and 11 invention patents. At the same time, he served as the reviewer of many fund projects, such as the National Natural Science Foundation of China and the natural science foundation of Heilongjiang Province. He is a deputy editor in chief of four international journals. In 2010, he was selected into the "985 young scholars' support program" of the Harbin Institute of Technology. In 2012, he was selected into the "basic research outstanding talent cultivation plan" of the Harbin Institute of Technology. In 2013, he was selected into the "new century" talent support program of the Ministry of education. In 2017, he won the title of the excellent scientific and technological worker in Heilongjiang Province. In 2015, he won the second prize in the natural science of Heilongjiang Province as the first author. In 2019, he was selected as one of the first team core members of the "leading wild goose" program in Heilongjiang province.

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Intelligent for Manufacturing

Kuo-Chi ChangFujian University of TechnologyChinaYuh-Chung LinFujian University of TechnologyChinaKai-Chun ChuNational Central UniversityTaiwan

Pattern Recognition and Computational Intelligence

Vietnam Institute of Information Technology of

Quoc-Tao Ngo Vietnamese Academy of Science and Vietnam

Technology

Huu-Quynh Nguyen Thuyloi University Vietnam Truong-Giang Ngo University of Manage And Technology Vietnam

Wireless Networks and Its Application

Ling Wang Northeast Electric Power University China Jianpo Li Northeast Electric Power University China

Data Mining and Applications in Biology and Medicine

Xun JinTianjin Medical UniversityChinaYongjun PiaoNankai UniversityChina

Big Data and Its Applications

Young-Ho Park Sookmyung Women'S University Korea Aziz Nasridinov Chungbuk National University Korea

Medical Informatics and Big Data

Hyo Soung ChaNational Cancer CenterKoreaKwang Sun RyuNational Cancer CenterKorea

Statistical Analysis and Data Mining

Oyun-Erdene Namsrai National University of Mongolia Mongolia Erdenebileg Batbaatar Chungbuk National University Korea

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Mongolia

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# IIHMSP/FITAT 2020

# **Conference Schedule**

	Day I. Thursday, 05 November 2020		
Time zone in Vietnam (VST); GMT+7			
09:00 – 09:10	Opening Remarks I: Prof. Jeng-Shyang Pan; Prof. Keun Ho Ryu		
09:10 - 09:20	Opening Remarks II: Prof. Lakhmi C. Jain; Prof. Oyun-Erdene Namsrai	Organized by: Prof. Keun Ho Ryu; Prof. Pham Van Huy Room:	
09:20 - 09:25	Group Photo	https://us02web.zoom.us/j/89624	
09:25 - 09:35	Coffee Break	690613?pwd=am03dFpPTjh4Rnl 2SHNPRDhRZjd5UT09	
09:35 – 10:05	Keynote Speech I: Nipon Theera-Umpon; Chiang Mai University	Meeting ID: 896 2469 0613 Password: TDTU2020	
10:05 – 10:35	Keynote Speech II: Ho Tu Bao; Emeritus of JAIST		
10:35 – 10:45	Coffee Break		
Parallel Sessions I			
10:45 – 12:30	SS3: Pattern Recognition and Computational Intelligence Organized by: Prof. Q.T.Ngo, Assoc.Prof. H.Q.Nguyen, and Dr. T.G.Ngo Room 1: https://zoom.us/j/98629146237?pwd=K3Z3WXM5Y1OvMy84bEt5MkNwSjlqdz09 Session ID: 986 2914 6237 Password: TDTU2020 SS5: Data Mining and Applications in Biology and Medicine Organized by: Prof. Xun Jin, and Prof. Yongjun Piao		

SS8: Medical Informatics and Big Data

Organized by: Prof. Hyo Soung Cha, and Dr. Kwang Sun Ryu

Room 4:

https://zoom.us/i/93788250951?pwd=bm82RVZKUjNwUDRobFhpOXh4YjNTdz09

Session ID: 937 8825 0951 Password: TDTU2020

SSI: Technologies for Next Generation Network Environments

Organized by: Prof. Tsu Yang Wu

Room 5:

https://us02web.zoom.us/i/87840140881?pwd=K1JNRVFCTkdUT095SHJoNWdxTk1Td

z09

Session ID: 878 4014 0881 Password: TDTU2020

12:30 - 14:00 | Lunch

### **Parallel Sessions II**

SS9: Statistical Analysis and Data Mining

Organized by: Prof. Oyun-Erdene Namsrai, and Dr. Erdenebileg Batbaatar

Room I:

https://zoom.us/j/94374670018?pwd=cVZ|Z0|EQzNaTFErb3dRL3FLUVBSQT09

Session ID: 943 7467 0018 Password: TDTU2020

G2: Multimedia Signal Processing and Networking

Organized by: Prof. Pham Van Huy

Room 2:

https://zoom.us/j/97694214675?pwd=N3dLZjlkeEtCOWRDcGdJemcwUndoZz09

Session ID: 976 9421 4675 Password: TDTU2020

G5: Industrial Applications and Doctoral Research Discussions

Organized by: Prof. Ling Wang

Room 3:

14:00 - 18:00

https://zoom.us/j/8686093152?pwd=c0g5aHVhdEpKaEJqWThvMDV1bHlzQT09

Session ID: 868 609 3152 Password: TDTU2020

G4: Emerging and Interdisciplinary Technologies

Organized by: Prof. Keun Ho Ryu

Room 4:

https://zoom.us/j/94467616737?pwd=T1lyR0V6UzcrcW02ZFNSbHVtMFQwUT09

Session ID: 944 6761 6737 Password: TDTU2020

SSI: Technologies for Next Generation Network Environments

Organized by: Prof. Tsu Yang Wu

Room 5:

https://us02web.zoom.us/j/81220762213?pwd=UjU3THV0Szl2Q0FldDhHZlRycjVnQT09

Session ID: 812 2076 2213 Password: TDTU2020

# Day 2. Friday, 06 November 2020

Time zone in Vietnam (VST); GMT+7

Time Zone in Vieulam (V31), Griff 17				
Parallel Sessions III				
09:00 – 10:45	Session ID: 948 4375 0460 Password: TDTU2020 SS2: Intelligent for Manufacturing Organized by: Prof. Kuo-Chi Chang, I Room 2: https://zoom.us/ij/96004830097?pwd= Session ID: 960 0483 0097 Password: TDTU2020 G1: Information Hiding and Secur Organized by: Prof. Nipon Theera Room 3: https://zoom.us/ij/8686093152?pwd=c Session ID: 868 609 3152 Password: TDTU2020 G3: Database, Data mining, Bioinf Organized by: Prof. Oyun-Erdene Room 4: https://zoom.us/ij/93464176532?pwd=Session ID: 934 6417 6532 Password: TDTU2020 SS10: Deep Learning for Intelligent Organized by: Prof. Le Anh Cuon Room 5: https://us02web.zoom.us/ij/823918 NGtPdz09 Session ID: 823 9185 6755 Password: TDTU2020	Prof. Ling Wang  bHMxdXpNdIJCaGJuUlJGcXpyVEsxdz09  Prof. Yuh-Chung Lin, and Prof. Kai-Chun Chu  dGFPOVgvNmZzRIFPV2xndDAzdERUZz09  ity  a-Umpon  Og5aHVhdEpKaEJqWThvMDV1bHlzQT09  formatics and Applications Namsrai  bW5oUG1FUE1VcGdlczFJQ1A4c2k0UT09  t Systems		
10:45 – 10:55	Coffee Break			
10:55 – 11:25	Keynote Speech III: Limsoon Wong; National University of Singapore	Organized by: Prof. Jen-Shyang Pan; Prof. Keun Ho Ryu; Room:		
11:25 – 11:30	Group Photo	https://us02web.zoom.us/j/87607094834?pw		
11:30 – 12:00	Keynote Speech IV: Junbao Li; Harbin Institute of Technology	d=a0tFUTd3bm42bVFKL3VaZIINS2IrUT09 Meeting ID: 876 0709 4834 Password: TDTU2020		
12:00 – 13:30	Lunch			

# **Parallel Sessions IV** SS4: Wireless Networks and Its Application Organized by: Prof. Jianpo Li, and Prof. Ling Wang Room I: https://zoom.us/i/95041753460?pwd=RFNNSnhXQS9UWncydW1pZEhlb2RNZz09 Session ID: 950 4175 3460 Password: TDTU2020 SS2: Intelligent for Manufacturing Organized by: Prof. Kuo-Chi Chang, Prof. Yuh-Chung Lin, and Prof. Kai-Chun Chu Room 2: https://zoom.us/i/96964263143?pwd=K29IRXBLQkFSSnhLdnFTVzIVQ1Z6UT09 Session ID: 969 6426 3143 Password: TDTU2020 GI: Information Hiding and Security Organized by: Prof. Nipon Theera-Umpon Room 3: 13:30 - 18:00https://zoom.us/j/8686093152?pwd=c0g5aHVhdEpKaElqWThvMDV1bHlzQT09 Session ID: 868 609 3152 Password: TDTU2020 G3: Database, Data mining, Bioinformatics and Applications' Organized by: Prof. Oyun-Erdene Namsrai Room 4: https://zoom.us/j/91569752372?pwd=c0lyQ2I1U08yTHE1cFEzcEExY2|nUT09 Session ID: 915 6975 2372 Password: TDTU2020 SS10: Deep Learning for Intelligent Systems Organized by: Prof. Le Anh Cuong Room 5: https://us02web.zoom.us/j/85333460754?pwd=aXZXM3NURzhlNjkvbjVLVW VUM2tFZz09 Session ID: 853 3346 0754

Day	v 3.	Saturday	, 07	Noveml	per 2020
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Closing

Password: TDTU2020

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# **Technical Programs**

### Day I. Thursday, 05 November 2020

Time zone in Vietnam (VST); GMT+7

Parallel Session I (10:45 - 12:30)				
SS3	SS5	SS6	SS8	SSI

# SS3: Pattern Recognition and Computational Intelligence

Organized by: Prof. Q.T.Ngo, Assoc.Prof. H.Q.Nguyen, and Dr. T.G.Ngo

05 November 2020 (10:45 - 12:30)

Room I: https://zoom.us/i/98629146237?pwd=K3Z3WXM5Y1QvMy84bEt5MkNwSilqdz09

Session ID: 986 2914 6237 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SS3-72

Title: A Solution to Sensor Node Localization Using Glowworm Swarm Optimization Hybridizing

Positioning Model

Authors: Trong-The Nguyen, Jie Yu, Thi-Thanh-Tan Nguyen, Thi-Kien Dao and Truong-Giang Ngo

#### Paper ID: IIHMSP/FITAT2020-SS3-73

Title: A Detection for Positioning Sensor Node Based on Multilayer Perceptron

Authors: Thi-Kien Dao, Shi-Jie Jiang, Truong-Giang Ngo, Thi-Thanh-Tan Nguyen and Trong-The Nguyen

#### Paper ID: IIHMSP/FITAT2020-SS3-94

Title: A Power Balance Control Strategy of Wireless Sensor Network with Collaborating

Authors: Jie Yu, Thi-Kien Dao, Truong-Giang Ngo, Trong-The Nguyen and Quoc-Tao Ngo

#### Paper ID: IIHMSP/FITAT2020-SS3-95

Title: An Optimizing Multilevel Thresholding for Image Segmentation based on Hybrid Swarm Computation Optimization

Authors: Thi-Kien Dao, Hong-Jiang Wang, Jie Yu, Huu-Quyng Nguyen, Truong-Giang Ngo and Trong-The Nguyen

### Paper ID: IIHMSP/FITAT2020-SS3-96

Title: An Optimizing Parameters and Feature Selection in SVM Based on Improved Cockroach Swarm Optimization

Authors: Trong-The Nguyen, Jie Yu, Thi-Thanh-Tan Nguyen, Quoc-Anh Lai, Truong-Giang Ngo and Thi-Kien Dao

### Paper ID: IIHMSP/FITAT2020-SS3-108

Title: A Solution to Text Hiding in Media with Hybrid Gravity Search Algorithm and Transposition Scheme

Authors: Trong-The Nguyen, Truong-Giang Ngo, Thi-Thanh-Tan Nguyen, Chi-Kien Tran and Ngoc-Cuong Nguyen

# SS5: Data Mining and Applications in Biology and Medicine

Organized by: Prof. Xun Jin, and Prof. Yongjun Piao

05 November 2020 (10:45 - 12:30)

Room 2: https://zoom.us/i/97853154992?pwd=dTZhUVBYUIRmOHVzSFViUkRTcUtHUT09

Session ID: 978 5315 4992 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SS5-17

Title: Improved Cancer Classification with Supervised Variational Autoencoder on DNA

Methylation Data

Authors: Keun Ho Ryu and Erdenebileg Batbaatar

Paper ID: IIHMSP/FITAT2020-SS5-18

Title: Cost-Sensitive Neural Network for Prediction of Hypertension using Class Imbalance

Dataset

Authors: Khishigsuren Davagdorj, Jong Seol Lee, Kwang Ho Park and Keun Ho Ryu

Paper ID: IIHMSP/FITAT2020-SS5-40

Title: Comparison of Classification Analysis Using LASSO and Principal Component Analysis for

Kidney Cancer

Authors: Ho Sun Shon, Kyoung Ok Kim, Eun Jong Cha and Kyung Ah Kim

Paper ID: IIHMSP/FITAT2020-SS5-67

Title: Distant metastases in patients with primary uveal melanoma Authors: Xiao Sun, Yongjun Piao, Rong Xiang and Yan Wang

#### **SS6:** Big Data and Its Applications

Organized by: Prof. Young Ho Park, and Prof. Aziz Nasridinov

05 November 2020 (10:45 - 12:30)

Room 3: https://zoom.us/j/8686093152?pwd=c0g5aHVhdEpKaElqWThvMDV1bHlzQT09

Session ID: 868 609 3152 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SS6-28

Title: The adaptive compression system for historical data of power load

Authors: Yun Wu, Mengke Wu and Yu Shi Paper ID: IIHMSP/FITAT2020-SS6-74

Title: Pork Price Prediction using Topic Modeling and Feature Scoring Method

Authors: Tserenpurev Chuluunsaikhan, Aziz Nasridinov, Kwan-Hee Yoo and Hyungchul Rah

Paper ID: IIHMSP/FITAT2020-SS6-75

Title: Feasibility study of outlier detection in smart manufacturing applications Authors: Chinbold Gansukh, Manas Bazarbaev, Kwan-Hee Yoo and Aziz Nasridinov

Paper ID: IIHMSP/FITAT2020-SS6-76

Title: Multi-time Scale Features for Anomaly Detection from Surveillance Videos

Authors: U-Ju Gim, Aziz Nasridinov and Young-Ho Park

Paper ID: IIHMSP/FITAT2020-SS6-121

Title: A Network Attack Detection Model of Smart Grid based on Xgboost Algorithm Authors: Lifang Gao, Yangyang Lian, Pengbo Fang, Pengpeng Lu, Liandong Chen, Lijuan Gao and Fan Xiao

# SS8: Medical Informatics and Big Data

Organized by: Prof. Hyo Soung Cha, and Dr. Kwang Sun Ryu

05 November 2020 (10:45 - 12:30)

Room 4: https://zoom.us/i/93788250951?pwd=bm82RVZKUjNwUDRobFhpOXh4YjNTdz09

Session ID: 937 8825 0951 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SS8-81

Title: Prediction of Hypertension using Deep Autoencoder based Feature Representation

Authors: Hyun Woo Park, Yul Hwangbo and Keun Ho Ryu

Paper ID: IIHMSP/FITAT2020-SS8-84

Title: The Prediction Model for High Risk Patient with Liver Cancer Based on Classification

**Approaches** 

Authors: Kwang Sun Ryu, Sang Won Lee and Hyo Soung Cha

Paper ID: IIHMSP/FITAT2020-SS8-90

Title: Avoid Selection Bias in Observational Study based on Health Big Data

Authors: Sangwon Lee, Kwang Sun Ryu and Hyo Soung Cha

Paper ID: IIHMSP/FITAT2020-SS8-92

Title: Caffeine drinks and the risk of cancer: A review Authors: Jae Ho Kim, Kwang Sun Ryu and Hyo Soung Cha

Paper ID: IIHMSP/FITAT2020-SS8-101

Title: Association Rule mining method to predict Coronary artery disease: KNHANES 2016-2018

Authors: Nayoung You, Kwang Sun Ryu and Hyo Soung Cha

# **SSI:** Technologies for Next Generation Network Environments

Organized by: Prof. Tsu Yang Wu 05 November 2020 (10:45 – 12:30)

Room5: https://us02web.zoom.us/i/87840140881?pwd=K1JNRVFCTkdUT095SHJoNWdxTk1Tdz09

Session ID: 878 4014 0881 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SSI-I12

Title: A Study of Guide Interpretation of Haihunhou Pavilion in Nanchang in the Age of Artificial

Intelligence

Authors: Jun Tan and Weiwei Zhou

Paper ID: IIHMSP/FITAT2020-SSI-122

Title: A Brief Survey on Recent Advances of Object Detection with Deep Learning

Authors: Ruo-Bin Wang, Dang-Kang Yan and Lin Xu

Paper ID: IIHMSP/FITAT2020-SSI-123

Title: Research on the method of neural network switchgear portrait based on sequence

clustering

Authors: Yong Wang, Han Liu, Yang Jiao and Jianfei Chen

Paper ID: IIHMSP/FITAT2020-SSI-137

Title: Research on Real-time Deformation Measurement of Structural Frame Based on Data-

Driven

Authors: Zhou Yan, Jun Weng and Qing Wang

Paper ID: IIHMSP/FITAT2020-SSI-138

Title: A sensor fusion method for in-station articulation of train

Authors: Zhaoqing Liu, Xingyuan Song, Yihao Chen and Zhenni Yang

# Day I. Thursday, 05 November 2020

Time zone in Vietnam (VST); GMT+7

Parallel Ses	sion II(	14:00 - 1	8:00)
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SS9 G2 G5 G4 SSI

### **SS9:** Statistical Analysis and Data Mining

Organized by: Prof. Oyun-Erdene Namsrai, and Dr. Erdenebileg Batbaatar

05 November 2020 (14:00 - 18:00)

Room I: https://zoom.us/i/94374670018?pwd=cVZIZ0IEQzNaTFErb3dRL3FLUVBSQT09

Session ID: 943 7467 0018 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SS9-23

Title: Detection of Point Outliers in Meteorological Data (Case study: Ulaanbaatar, Mongolia)

Authors: Jamiyan Sukhbaatar, Bold Zagd and Nyamjav Jambaljav

Paper ID: IIHMSP/FITAT2020-SS9-29

Title: Mongolian Spelling Error Correction Using Word N-Gram Method

Authors: Byambasuren Ivanov, Markhamet Musa and Uuganbaatar Dulamragchaa

# Paper ID: IIHMSP/FITAT2020-SS9-30

Title: Forecasting of the COVID-19 Spreading in Global using the Exponential Smoothing Method Authors: Enkhzol Dovdon, Suvdaa Batsuuri, Lkhamrolom Tsoodol and Batnyam Battulga

#### Paper ID: IIHMSP/FITAT2020-SS9-31

Title: Mongolian Part-of-Speech Tagging with Neural Networks

Authors: Ganchimeg Lkhagvasuren, Javkhlan Rentsendorj and Oyun-Erdene Namsrai

#### Paper ID: IIHMSP/FITAT2020-SS9-32

Title: A Comparative Study of NoSQL and Relational Database

Authors: Uyanga Sambuu, Munkhtsetseg Namsraidorj, Batbayar Sereeter and Bat-Ulzii Shagdarsuren

Paper ID: IIHMSP/FITAT2020-SS9-33

Title: Methodology in securities portfolio selection from the stock exchange listed companies Authors: Enkhtuul Bunkhsuren and Oyun-Erdene Namsrai

Paper ID: IIHMSP/FITAT2020-SS9-34

Title: Predicting Grade of General Entrance Exam using Machine Learning Techniques

Authors: Naranbat Bayanmunkh, Zoljargal Munkhjargal and Amarsanaa Ganbold

#### Paper ID: IIHMSP/FITAT2020-SS9-61

Title: Evaluation of Panoramic Image Projection for "Ulaanbaatar GigaPixel Panaroma"

Authors: Javkhlan Rentsendorj, Ganchimeg Lkhagvasuren, Batdorj Oyunerdene, Oyunerdene

Namsrai and Baatarbileg Altangerel

#### Paper ID: IIHMSP/FITAT2020-SS9-68

Title: Enhancing Higher Education Quality Assurance Using survey-based decision support framework

Authors: Lkhamrolom Tsoodol, Enkhzol Dovdon, Baatarbileg Altangerel, Batnyam Battulga and Oyun-Erdene Namsrai

# G2: Multimedia Signal Processing and Networking

Organized by: Prof. Pham Van Huy 05 November 2020 (14:00 – 18:00)

Room 2: https://zoom.us/j/97694214675?pwd=N3dLZjlkeEtCOWRDcGdJemcwUndoZz09

Session ID: 976 9421 4675 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-G2-9

Title: A Comparative Research on Interaction Design of Social Function in Music Application

Authors: Wen Qi and Yiying Cai

Paper ID: IIHMSP/FITAT2020-G2-21

Title: Chromatographic Peaks of Dissolved Gases in Transformer Oil Identification by Random

Forest

Authors: Hao-Min Chen, Cheng-Kuo Chang, Jeng-Shyang Pan, Jie Shan and Zhi-Jun Li

Paper ID: IIHMSP/FITAT2020-G2-38

Title: Process Analysis of The Online Course Development

Authors: Uyanga Sambuu, Suvdmaa Tuul, Otgontugs Banzragch and Narantuya Mend

Paper ID: IIHMSP/FITAT2020-G2-49

Title: Research on Natural Gas Customer Evaluation Model and System Authors: Bifei Qin, Ce Zheng, Huilin Zheng, Yaning Li and Dingkun Li

Paper ID: IIHMSP/FITAT2020-G2-50

Title: Chromatographic Peak Identification Based on Bayesian Classification Model

Authors: Jie Shan, Cheng-Kuo Chang, Hao-Min Chen and Jeng-Shyang Pan

Paper ID: IIHMSP/FITAT2020-G2-51

Title: Analysis and Diagnosis of Generator Step-up Transformer Faults

Authors: Zhijun Li, Jie Shan, Cheng-Kuo Chang, Weigen Chen, Lingyan Cao and Zhiyong Yang

Paper ID: IIHMSP/FITAT2020-G2-71

Title: OrdinalEncoder and PCA based NB classification for Leaked Natural Gas Prediction using

IoT based Remote Monitoring System

Authors: Khongorzul Dashdondov, Sang-Mu Lee and Mi-Hye Kim

Paper ID: IIHMSP/FITAT2020-G2-113

Title: An Adaptive Multimeme Memetic Algorithm for the VLSI Standard Cell Placement Problem

Authors: Xiongfeng Chen, Jianli Chen and Tao Wang

Paper ID: IIHMSP/FITAT2020-G2-I17

Title: Toward a new human action recognition framework: Applying Deep Belief Networks to 3D

skeleton sequences

Authors: Bo Meng, Xiaolin Wang, Dongwei Li and Li Wang

# **G5:** Industrial Applications and Doctoral Research Discussions

Organized by: Prof. Ling Wang 05 November 2020 (14:00 – 18:00)

Room 3: https://zoom.us/i/8686093152?pwd=c0g5aHVhdEpKaElqWThvMDV1bHlzQT09

Session ID: 868 609 3152 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-G5-5

Title: Design Of Wideband Microstrip Helical Vhf/Uhf Antenna For Naval Ships Application Authors: Usman Tijani Alhaji and Chen Xiaojuan

Paper ID: IIHMSP/FITAT2020-G5-7

Title: Research on Control Strategy of Four-leg Inverter under Unbalanced and Non-linear Load Authors: Zezhou Wang and Jing Huang

Paper ID: IIHMSP/FITAT2020-G5-26

Title: Short-term Power Prediction for Photovoltaic Power Generation Based on IKPCA and

**PSO-BPNN** 

Authors: Yun Wu and Yu Shi

Paper ID: IIHMSP/FITAT2020-G5-52

Title: Design of architecture for carpooling based on flexible pickup and delivery locations

Authors: Van Manh Tran and Thi Hong Nhan Vu

Paper ID: IIHMSP/FITAT2020-G5-69

Title: Design of Modified Booth multiplier based on Field Programmable Gate Array

Authors: Battogtokh Jigjidsuren, Zorig Badarch, Jamiyan Sukhbaatar and Oyun-Erdene Namsrai

Paper ID: IIHMSP/FITAT2020-G5-99

Title: Automobile Parts Localization Using Multi-layer Multi-model Images Classifier Ensemble

Authors: Nattapat Karaket, Sansanee Auephanwiriyakul and Nipon Theera-Umpon

Paper ID: IIHMSP/FITAT2020-G5-102

Title: Evaluation of UWB-based Indoor Positioning in Smart Factory Environment

Authors: Yang Koo Lee, Seung-Jun Lee and Daesub Yoon

Paper ID: IIHMSP/FITAT2020-G5-116

Title: Optimal Design of Work Quantification System Authors: Liu Lei, Lin Wenru and Huang Yingcong

Paper ID: IIHMSP/FITAT2020-G5-145

Title: An Efficient Tool for Semantic Biomedical Document Analysis

Authors: Meijing Li, Jingyu Hu and Keun Ho Ryu

# G4: Emerging and Interdisciplinary Technologies

Organized by: Prof. Keun Ho Ryu 05 November 2020 (14:00 – 18:00)

Room 4: https://zoom.us/i/94467616737?pwd=T1lyR0V6UzcrcW02ZFNSbHVtMFQwUT09

Session ID: 944 6761 6737 Password: TDTU2020

Paper ID: IIHMSP/FITAT2020-G4 - 6

Title: CNN Character Recognition Model for 3D Integral Image Character

Authors: Zorig Badarch, Battogtokh Jigjidsuren, Nomin-Erdene Dalkhaa and Ganbat Baasantseren

Paper ID: IIHMSP/FITAT2020-G4 - 8

Title: Using virtual machines in Computer Networking class

Authors: Batbayar Sereeter, Munkhtsetseg N, Bat-Ulzii Sh and Oyun-Erdene Namsrai

Paper ID: IIHMSP/FITAT2020-G4 - 20

Title: An Implementation of Ionic based hybrid mobile application for controlling Bluetooth Low

Energy based humidifier device

Authors: Dongoh Jung, Khongorzul Munkhbat, Jong Yun Lee and Keun Ho Ryu

Paper ID: IIHMSP/FITAT2020-G4 - 25

Title: Image Feature Detection and Clustering for UAV Multiple Obstacles Avoidance

Authors: Baohua Zhao, Tien-Wen Sung and Xin Zhang

Paper ID: IIHMSP/FITAT2020-G4 - 36

Title: Sentiment Analysis For Mongolian Tweets with RNN

Authors: Orgilbat Ariunaa and Zoljargal Munkhjargal

Paper ID: IIHMSP/FITAT2020-G4 - 41

Title: Thin Point Light Source Display

Authors: Nomin-Erdene Dalkhaa, Bymba-Ochir Chagnaadorj, Choijamts Namsraijaw and Ganbat

Baasantseren

Paper ID: IIHMSP/FITAT2020-G4 - 54

Title: A New JPEG Encryption Scheme Using Adaptive Block-size

Authors: Peiya Li, Jiale Meng and Zefan Sun

Paper ID: IIHMSP/FITAT2020-G4 - III

Title: Research on Intelligent Scene Generation Based on Unity3D

Authors: Lingbin Zheng, Menghua Li, Yuxi Gao, Hang Chen and Fuquan Zhang

Paper ID: IIHMSP/FITAT2020-G4 - I 15

Title: Research of Software Testing Technology Based on Statechart Diagram

Authors: Cuijuan Chen and Wenru Lin

Paper ID: IIHMSP/FITAT2020-G4 - 118

Title: Research on Intelligent Optimization Method of Grid Communication Server Based on

Support Vector Machine

Authors: Xiaohui Zhu, Lu Ji, Huijing Bi and Xiaobo Zhao

Paper ID: IIHMSP/FITAT2020-G4 - 146

Title: Cache Learning Method for Terrific Detection of Atrial Fibrillation

Authors: Mohamed Bashir, Keun Ho Ryu, Abdul Hakim H.M. Mohamed, Akbar Khanan, Fadi

Abdel Muniem Abdel Fattah and Wang Ling

Paper ID: IIHMSP/FITAT2020-G4 - 147

Title: Enhanced The Depth of Integral Image Display by Using Barrier Array Authors: Yulian Cao, Nonin-Erdene Dalkhaa and Ganbat Baasantseren

# **SSI:** Technologies for Next Generation Network Environments

Organized by: Prof. Tsu Yang Wu 05 November 2020 (14:00 – 18:00)

Room 5: https://us02web.zoom.us/j/81220762213?pwd=UjU3THV0Szl2Q0FldDhHZlRycjVnQT09

Session ID: 812 2076 2213 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SSI-140

Title: Intelligent fault diagnosis using limited data under different working conditions based on SEflow model and data augmentation

Authors: Si Jue Li, Gao Liang Peng, Dao Yong Mao, Zhi Yu Zhu, Meng Yu Ji and Yuan Hang Chen

Paper ID: IIHMSP/FITAT2020-SSI-141

Title: The unified framework of deep multiple kernel learning for small sample sizes of training samples

Authors: Jing Liu, Tingting Wang and Yulong Qiao

Paper ID: IIHMSP/FITAT2020-SS1-142

Title: Quasiconformal Mahalanobis Distance-based Kernel Mapping Machine Learning for

Hyperspectral Data Classification Authors: Jing Liu and Yulong Qiao

### Day 2. Friday, 06 November 2020

Time zone in Vietnam (VST); GMT+7

Parallel Session III (09:00 - 10	).45)
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SS4 SS2 GI G3 SS10

# **SS4:** Wireless Networks and Its Application

Organized by: Prof. Jianpo Li, and Prof. Ling Wang

06 November 2020 (09:00 -10:45)

Room I: https://zoom.us/i/94843750460?pwd=bHMxdXpNdIJCaGluUIJGcXpyVEsxdz09

**Session ID:** 948 4375 0460

Password:TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SS4-42

Title: Dynamic Token Distribution Model for Privacy Protection of Mobile Users

Authors: Tiehua Zhou, Kaitai Gao, Yu Lu and Ling Wang

#### Paper ID: IIHMSP/FITAT2020-SS4-62

Title: Retina Macular Edema and Age-related Macular Degeneration Feature Recognition Method based on the OCT Images

Authors: Ling Wang, Wen Ce Xie, Tong Li, Yi Min Liu and Tie Hua Zhou

### Paper ID: IIHMSP/FITAT2020-SS4-63

Title: Gene Expression PPI Network Clustering Analysis between Endometrial Cancer and Ovarian Cancer

Authors: Tie Hua Zhou, Wei Jian Pu, Hua Xie, Li Yan Zhang and Ling Wang

#### Paper ID: IIHMSP/FITAT2020-SS4-64

Title: Automatic Identification and Classification Method for Diabetic Retinopathy FFA Image Processing

Authors: Tie Hua Zhou, Yi Min Liu, Wen Ce Xie, Hong Na Li and Ling Wang

#### Paper ID: IIHMSP/FITAT2020-SS4-65

Title: Emotional Expression Analysis based on Fine-Grained Emotion Quantification Model via Social Media

Authors: Ling Wang, Hang Yu Liu, Wen Long Liang and Tie Hua Zhou

#### **SS2:** Intelligent for Manufacturing

Organized by: Prof. Kuo-Chi Chang, Prof. Yuh-Chung Lin, and Prof. Kai-Chun Chu

06 November 2020 (09:00 -10:45)

Room 2: https://zoom.us/i/96004830097?pwd=dGFPOVgvNmZzR1FPV2xndDAzdERUZz09

Session ID: 960 0483 0097 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SS2-I

Title: Modeling and Simulation for battery energy storage system participating in power system frequency modulation based on Power System Analysis Software Package

Authors: Pengcheng Cao, Peiqiang Li and Kuo-Chi Chang

#### Paper ID: IIHMSP/FITAT2020-SS2-14

Title: Study of Low-Cost based Smart Home Control Using IoT Powered by Photovoltaic Cells Authors: Shoaib Ahmad, Chang Kuo-Chi, Sung Tien-Wen, Chu Kai-Chun, Zhou Yu-Wen, Abdalaziz Altayeb Ibrahim Omer, David Kwabena Amesimenu and Chang Fu-Hsiang

aper ID: IIHMSP/FITAT2020-SS2-15

Title: Design of Combined Cycle Gas Turbine and IoT in Production Electricity from KIVU Lake

Methane Gas

Authors: Gakiza Joram, Chang Kuo-Chi, Chu Kai-Chun, Wang Hsiao-Chuan, Kwabena

Amesimenu Governor David, Ahmad Shoaib, Mdobaydul Haque Shamim and Chang Fu-Hsiang

Paper ID: IIHMSP/FITAT2020-SS2-22

Title: Study of Assessing the Stability of Rwanda's Power System from Big Data Based on Power

Generation

Authors: Shyirambere Gilbert, Chang Kuo-Chi, Chu Kai-Chun, Altayeb Ibrahim Omer Abdalaziz,

Kwabena Amesimenu David, Wang Hsiao-Chuan and Chang Fu-Hsiang

Paper ID: IIHMSP/FITAT2020-SS2-43

Title: Cascading fault prevention of power grid based on key power generation nodes

Authors: Kuo-Chi Chang, Jie Luo, Huiqiong Deng, Qin Bin Li, Rong Jin Zheng and Pei Qiang Li

# GI: Information Hiding and Security

Organized by: Prof. Nipon Theera-Umpon

06 November 2020 (09:00 -10:45)

Room 3: https://zoom.us/i/8686093152?pwd=c0g5aHVhdEpKaElqWThvMDV1bHlzQT09

Session ID: 868 609 3152 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-G1-10

Title: Usability Evaluation of Mobile Website of Luxury Brands Based on the Analytic Hierarchy

**Process** 

Authors: Wen Qi and Paite Yang

Paper ID: IIHMSP/FITAT2020-G1-48

Title: Game Theoretic Decision-Making Analysis on Antivirus

Authors: Sang-Hoon Lee and Tae-Sung Kim

Paper ID: IIHMSP/FITAT2020-G1-53

Title: Enhanced Conditional Handover for 5G Heterogeneous Networks?

Authors: Telmuun Tumnee, Yu Keping and Battulga Davaasambuu

Paper ID: IIHMSP/FITAT2020-G1-88

Title: Improve the Fingerprinting algorithm based on affinity propagation clustering to increase the accuracy and speed of indoor positioning systems

Authors: Bình Ngô, Vương Quang Phương and Tung Hoang Do Thanh

Paper ID: IIHMSP/FITAT2020-G1-114

Title: Detection Method for Crowd Abnormal Behavior Based on Long-Short Term Memory

Network

Authors: Bo Meng, Li Wang and Dongwei Li

#### G3: Database, Data mining, Bioinformatics and Applications

Organized by: Prof. Oyun-Erdene Namsrai

06 November 2020 (09:00 -10:45)

Room 4: https://zoom.us/j/93464176532?pwd=bW5oUG1FUE1VcGdlczFJQ1A4c2k0UT09

Session ID: 934 6417 6532 Password:TDTU2020

#### Paper ID: IIHMSP/FITAT2020-G3-I3

Title: Reconstruction Error based Efficient Deep Neural Network for Diabetes Prediction in the

Korean population

Authors: Tsatsral Amarbayasgalan, Meijing Li, Oyun-Erdene Namsrai and Keun Ho Ryu

ID: IIHMSP/FITAT2020-G3-19

Title: Bayesian Meta Regression

Authors: Lkhagvadori Munkhdalai, Van Huy Pham and Keun Ho Ryu

Paper ID: IIHMSP/FITAT2020-G3-27

Title: Research on Principal Component Feature Extraction Method Based on Improved Pearson

Correlation Coefficient Analysis

Authors: Yun Wu, Qiang Wang and Yu Shi

Paper ID: IIHMSP/FITAT2020-G3-37

Title: Predicting the Occurrence of Major Adverse Cardiac Events in Patients with Acute Coronary Syndrome Using Synthetic Minority Oversampling Technique and Machine Learning Approach

Authors: Huilin Zheng, Batireedui Baterdene and Jong Yun Lee

Paper ID: IIHMSP/FITAT2020-G3-104

Title: Attention-based Deep Neural Network for Coronary Heart Disease Risk Prediction Authors: Tsatsral Amarbayasgalan, Kwang Ho Park, Lkhagvadorj Munkhdalai and Keun Ho Ryu

# **SSI0:** Deep Learning for Intelligent Systems

Organized by: Prof. Le Anh Cuong 06 November 2020 (09:00 –10:45)

Room 5: https://us02web.zoom.us/i/82391856755?pwd=RUsxSWtiSnIIQ3o0elNQQ2|xNGtPdz09

Session ID: 823 9185 6755 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SS10-85

Title: A new feature selection and classification approach for optimizing breast cancer subtyping based on gene expression

Authors: Tri-Cong Pham, Antoine Doucet, Tran-Tien Bui, Minh-Sao-Khue Luu, Duy-Anh Mai, Chi-Mai Luong and Van-Dung Hoang

Paper ID: IIHMSP/FITAT2020-SS10-86

Title: Emotionally-Aware Sequence-to-Sequence Models for Conversational Systems

Authors: Quoc-Dai Tran-Luong, Anh-Cuong Le and Duc-Hong Pham

Paper ID: IIHMSP/FITAT2020-SS10-87

Title: A hybrid model for Recommendation systems Authors: Thi-Linh Ho, Anh-Cuong Le and Dinh-Hong Vu

Paper ID: IIHMSP/FITAT2020-SS10-91

Title: Exploring Subword Segmentation Methods In English - Vietnamese Neural Machine

Translation

Authors: Thang Nguyen-Vo, Duc Truong, Long Nguyen and Dien Dinh

Paper ID: IIHMSP/FITAT2020-SS10-97

Title: Evaluating the Deep Convolutional Neural Network for Thyroid Nodule Detection on Vietnamese Ultrasound Dataset

Authors: Tri-Cong Pham, Antoine Doucet, Van-Dung Hoang, Quang-Hoa Nguyen, Trong-Bach

Phan, Cong-Thanh Tran, Tran-Tien Bui, Chi-Mai Luong and Van-Giang Bui

# Day 2. Friday, 06 November 2020

Time zone in Vietnam (VST); GMT+7

Parallel Session IV (	(13:30 - 18:30)
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SS4 SS2 GI G3 SS10

# **SS4:** Wireless Networks and Its Application

Organized by: Prof. Jianpo Li, and Prof. Ling Wang

06 November 2020 (13:30 - 18:30)

Room 1: https://zoom.us/i/95041753460?pwd=RFNNSnhXQS9UWncydW1pZEhlb2RNZz09

Session ID: 950 4175 3460 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SS4-110

Title: Framework design of anti-online learning anomie behavior system Authors: Shutang Liu, lie Xu, Shiji Feng, Youguo Liao and Junhua Li

Paper ID: IIHMSP/FITAT2020-SS4-126

Title: Detection of False Data Injection Attack in Power Grid Based on Machine Learning Authors: Xiaoli Guo, Shiyuan Wang, Yuhan Sun, Tieli Sun, Li Feng and Zhexing lin

Paper ID: IIHMSP/FITAT2020-SS4-127

Title: Demand Response Strategy Model Based on User Satisfaction Authors: Xiaoli Guo, Yuhan Sun, Li Feng, Chaoyang Qu and Tieli Sun

Paper ID: IIHMSP/FITAT2020-SS4-128

Title: Low Complexity MMSE Precoding Based on SSOR Iteration for Large-Scale Massive MIMO Systems

Authors: Iianpo Li, Saeed I. A. Saeed, Tao Yang, Yan Xie and Guoge Zhang

Paper ID: IIHMSP/FITAT2020-SS4-129

Title: Design of Intelligent Substation Communication Network Security Audit System Authors: Wenting Wang, Xin Liu, Xiaohong Zhao, Yang Zhao, Rui Wang and Jianpo Li

Paper ID: IIHMSP/FITAT2020-SS4-130

Title: Research on Security Auditing Scheme of Intelligent Substation Communication Network

Authors: Wenting Wang, Guilin Huang, Xin Liu, Hao Zhang, Rui Wang and Jianpo Li

Paper ID: IIHMSP/FITAT2020-SS4-131

Title: Design of Radio Frequency Energy Harvesting System Authors: Xing Liu, Jihai Yang, Tao Yang, Jun Gao and Jianpo Li

Paper ID: IIHMSP/FITAT2020-SS4-132

Title: An Encryption Method of Power Cloud Data Based on n-RSA

Authors: Yong Wang, Qiang Ma, Lei Li, Ti Guan, Yujie Geng, Shuowang Yao and Jianpo Li

Paper ID: IIHMSP/FITAT2020-SS4-133

Title: K-means-based Method for Identifying Characteristics of Wireless Terminal Equipment in Power System

Authors: Yueqin Yin, Zhantu Zhang, Huajian Zhang, Shengze Sun and Jianpo Li

Paper ID: IIHMSP/FITAT2020-SS4-134

Title: Security Transmission Technology of WSN Based on Trust Management Mechanism in Power System

Authors: Yong Wang, Lei Li, Qiang Ma, Ti Guan, Yujie Geng, Shici Li and Jianpo Li

Paper ID: IIHMSP/FITAT2020-SS4-135

Title: Survey of Attack Detection and Defense Technologies in Wireless Sensor Networks Authors: Jianpo Li, Shici Li, Tao Yang, Yan Xie and Guoge Zhang

Paper ID: IIHMSP/FITAT2020-SS4-136

Title: A Wireless Hijack Attack on Power Consumption System of Power Metering Automation

Authors: Yong Xiao, Xin Jin, Junhao Feng and Zitong Zhang

Paper ID: IIHMSP/FITAT2020-SS4-139

Title: Simulation Analysis of Optimized Configuration of Distributed Power

Authors: Jing Huang and Yan-Feng Qi

# SS2: Intelligent for Manufacturing

Organized by: Prof. Kuo-Chi Chang, Prof. Yuh-Chung Lin, and Prof. Kai-Chun Chu

06 November 2020 (13:30 - 18:30)

Room 2: https://zoom.us/i/96964263143?pwd=K29IRXBLQkFSSnhLdnFTVzIVQ1Z6UT09

Session ID: 969 6426 3143 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-SS2-44

Title: Optimal power generation output considering cascading failure

Authors: Hui Qiong Deng, Jie Luo, Qin Bin Li, Rong Jin Zheng, Pei Qiang Li and Kuo Chi Chang

Paper ID: IIHMSP/FITAT2020-SS2-45

Title: A parallel hybrid PSOGSA algorithm for function optimization

Authors: Jie Yu, Wang Hong-Jiang, Pan Jeng-Shyang, Chang Kuo-Chi, Truong-Giang Ngo and Nguyen Trong-The

Paper ID: IIHMSP/FITAT2020-SS2-46

Title: A survey of common IoT communication protocols and IoT Smart-X applications of 5G cellular

Authors: Turatsinze Elias, Chang Kuo-Chi, Chu Kai-Chun, Zhou Yu-Wen, Wang Ming-Tsung and Chang Fu-Hsiang

Paper ID: IIHMSP/FITAT2020-SS2-47

Title: Study of Thermal Power Plants Intelligent Fire Detection and Suppression System via WSNetwork and Carbon Capture and Storage Technology

Authors: Chang Kuo-Chi, Kwabena Amesimenu David, Sung Tien-Wen, Chu Kai-Chun, Wang Hsiao-Chuan, Hsu Tsui- Lien, Wang Ming-Tsung and Chang Fu-Hsiang

Paper ID: IIHMSP/FITAT2020-SS2-56

Title: Study of Smart Decorating Machine on Cake Patten

Authors: Jiang Shi-Jie, Chang Kuo-Chi, Wang Hong-Jiang, Chu Kai-Chun, Wang Hsiao-Chuan and Chang Fu-Hsiang

Paper ID: IIHMSP/FITAT2020-SS2-57

Title: Study of Advanced Low-cost Smart Prepaid Electricity Meter using Arduino and GSM Authors: Altayeb Ibrahim Omer Abdalaziz, Chang Kuo-Chi, Deng Hui-Qiong, Chu Kai-Chun, Kwabena Amesimenu Governor David, Zhou Yu-Wen and Chang Fu-Hsiang

Paper ID: IIHMSP/FITAT2020-SS2-58

Title: Study of Integrating the Data Fusion method for Reducing and Preventing Road Accidents Occur at Blackspots Places in Third World Countries

Authors: Shyirambere Gilbert, Chang Kuo-Chi, Chu Kai-Chun, Kwabena Amesimenu Governor David, Ahmad Shoaib, Wang Hsiao-Chuan and Chang Fu-Hsiang

Paper ID: IIHMSP/FITAT2020-SS2-59

Title: Study of Kalman filter with complete worked out example for 2-D sub-marine tracking Authors: Gakiza Joram, Chang Kuo-Chi, Chu Kai-Chun, Wang Hsiao-Chuan, Hsu Tsui- Lien, Kwabena Amesimenu Governor David and Chang Fu-Hsiang

Paper ID: IIHMSP/FITAT2020-SS2-77

Title: Fuzhou PM2.5 prediction and related factors analysis

Authors: Zhang Wen-Ji, Chen Li-Wen, Zhou Yao, Zheng Ri-Jing and Chang Kuo-Chi

Paper ID: IIHMSP/FITAT2020-SS2-78

Title: An Improved Whale Algorithm and its Application to Power Generation in Cascade Reservoir

Authors: Lü Ji-Xiang, Yan Li-Jun, Pan Tien-Szu, Chu Shu-Chuan, Pan Jeng-Shyang, He Xian-Kang and Chang Kuo-Chi

Paper ID: IIHMSP/FITAT2020-SS2-144

Title: Research on time-delay estimation of PMSM drivingsystem based on RLS method Authors: Chen Zhong-Zhen, He Dong-Wei, Liu Li-Sang, Li Jian-Xing and Chang Kuo-Chi

# GI: Information Hiding and Security

Organized by: Prof. Nipon Theera-Umpon 06 November 2020 (13:30 – 18:00)

Room 3: https://zoom.us/j/8686093152?pwd=c0g5aHVhdEpKaElqWThvMDV1bHlzQT09

Session ID: 868 609 3152 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-G1-119

Title: Research on Optimization Model for Thread Pool Performance on Grid Information Server Authors: Xiaohui Zhu, Xiaobo Zhao, Kenan Yi and Zihang Jia

Paper ID: IIHMSP/FITAT2020-G1-120

Title: Network Security Situation Assessment of Power Information System based on Improved Artificial Bee Colony Algorithm

Authors: Lifang Gao, Zhihui Wang, Huifeng Yang, Shaoying Wang, Qimeng Li, Shaoyong Guo and Chao Ma

# G3: Database, Data mining, Bioinformatics and Applications

Organized by: Prof. Oyun-Erdene Namsrai 06 November 2020 (13:30 – 18:00)

Room 4: https://zoom.us/i/91569752372?pwd=c0lyQ2I1U08yTHE1cFEzcEExY2InUT09

Session ID: 915 6975 2372 Password: TDTU2020

#### Paper ID: IIHMSP/FITAT2020-G3-105

Title: Adaptive Softmax Regression for Credit Scoring

Authors: Lkhagvadorj Munkhdalai, Khishigsuren Davagdorj, Van-Huy Pham and Keun Ho Ryu

Paper ID: IIHMSP/FITAT2020-G3-106

Title: Shared Representation with Multi-Omics Distributed Latent Spaces for Cancer Subtype

Classification

Authors: Keun Ho Ryu, Kwang Ho Park, Oyun-Erdene Namsrai, Van-Huy Pham and Erdenebileg Batbaatar

#### Paper ID: IIHMSP/FITAT2020-G3-107

Title: Local Interpretable Model-Agnostic Explanations of Predictive Models for Hypertension Authors: Khishigsuren Davagdori, Meijing Li and Keun Ho Ryu

Paper ID: IIHMSP/FITAT2020-G3-109

Title: Image denoising using a conditional generative adversarial network with residual dense blocks

Authors: Yuqin Li, Chengcheng Zhang and Zhengang Jiang

Paper ID: IIHMSP/FITAT2020-G3-124

Title: Theme-based Literature Analysis in the Field of Transportation

Authors: Sifan Zhang, Hao Lu, Fuquan Zhang, Yifan Zhu and Rongrong Wang

# **SSI0:** Deep Learning for Intelligent Systems

Organized by: Prof. Le Anh Cuong 06 November 2020 (13:30 – 18:30)

Room 5: https://us02web.zoom.us/j/85333460754?pwd=aXZXM3NURzhlNjkvbjVLVWVUM2tFZz09

Session ID: 853 3346 0754 Password: TDTU2020

Paper ID: IIHMSP/FITAT2020-SS10-100

Title: A Survey on Transfer Learning for COVID-19 Medical Imaging Diagnosis

Authors: Minh Thang Dang

Paper ID: IIHMSP/FITAT2020-SS10-103

Title: Exploring neural machine translation on the Russian-Vietnamese language pair

Authors: Thien Nguyen, Huu Nguyen and Phuoc Tran

Paper ID: IIHMSP/FITAT2020-SS10-125

Title: Student behavior recognition in remote video classrooms

Authors: Rongorng Wang, Guanglong Zhang, Fuquan Zhang, Zhiwei Dong and Mingzhu Qi