

IIH-MSP 2018

The 14th International Conference on Intelligent Information Hiding and Multimedia Signal Processing

26–28 November, 2018 Sendai, Japan

The Fourteenth International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIH-MSP 2018), is technically co-sponsored by Research Institute of Electrical Communication, Tohoku University in Japan, Fujian University of Technology in China, Taiwan Association for Web Intelligence Consortium, Shandong University of Science and Technology in China, and IEEE Signal Processing Society Sendai Chapter.



The conference proceedings will be published in the book series of Smart Innovation, Systems and Technologies by Springer. Normally, papers in this series are indexed by EI.



Organizing Committee

Conference Founders

Jeng-Shyang Pan (Fujian University of Technology, China) Lakhmi C. Jain (University of Canberra, Australia / Bournemouth University, UK)

Honorary Chairs

Lakhmi C. Jain (University of Canberra, Australia / Bournemouth University, UK) Chin-Chen Chang (Feng Chia University, Taiwan)

Advisory Committee

Yoiti Suzuki (Tohoku University, Japan) Bin-Yih Liao (National Kaohsiung University of Applied Sciences, Taiwan) Kebin Jia (Beijing University of Technology, China) Yao Zhao (Beijing Jiaotong University, China) Ioannis Pitas (Aristotle University of Thessaloniki, Greece)

General Chairs

Akinori Ito (Tohoku University, Japan) Jeng-Shyang Pan (Fujian University of Technology, China)

Program Chairs

Kazuhiro Kondo (Yamagata University, Japan) Chuan-Yu Chang (National Yunlin University of Science and Technology, Taiwan)

Publication Chairs

Chin-Feng Lee (Chaoyang University of Technology, Taiwan) Tsu-Yang Wu (Fujian University of Technology, China) Chien-Ming Chen (Harbin Institute of Technology, Shenzhen Graduate School, China)

Invited Session Chairs

Ching-Yu Yang (National Penghu University of Science and Technology, Taiwan) Hsiang-Cheh Huang (National University of Kaohsiung, Taiwan) Xingsi Xue (University of Birmingham, UK)

Electronic Media Chair

Tien-Wen Sung (Fujian University of Technology, China) Jerry Jun-Wei Lin (Harbin Institute of Technology, Shenzhen Graduate School, China)

Finance Chair

Jui-Fang Chang (National Kaohsiung University of Science and Technology, Taiwan)

Program Committee

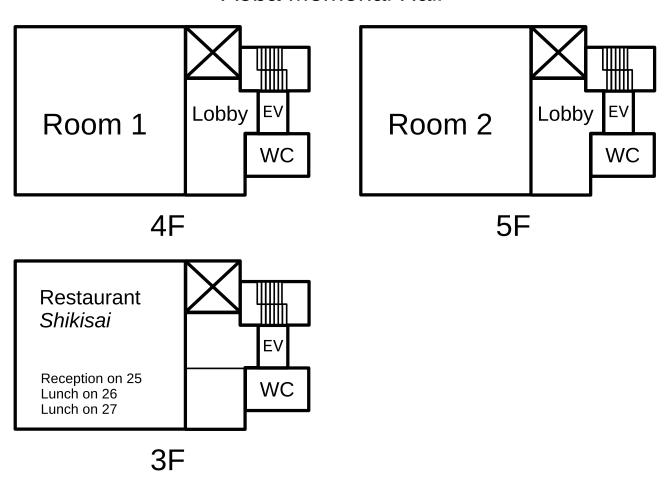
- Naofumi Aoki (Hokkaido University, Japan)
- Ching-Lung Chang (National Yunlin University of Science and Technology, Taiwan)
- Chuan-Yu Chang (National Yunlin University of Science and Technology, Taiwan)
- Shu-Chuan Chu (Flinders University, Australia)
- Yu-Chen Hu (Providence University, Taichung, Taiwan)
- Akinori Ito (Tohoku University, Japan)
- Kazuhiro Kondo (Yamagata University, Japan)
- Chin-Feng Lee (Chaoyang University of Technology, Taiwan)
- Ivan Lee (University of South Australia, Australia)
- Chien-Chou Lin (National Yunlin University of Science and Technology, Taiwan)
- Yi-Hung Liu (Zhejiang University of Technology, Zhejiang, China)
- Ryouichi Nishimura (National Institute of Information and Communications Technology, Japan)
- Takashi Nose (Tohoku University, Japan)
- Kotaro Sonoda (Nagasaki University, Japan)
- Hui-Kai Su (National Formosa University, Taiwan)
- Wen-Fong Wang (National Yun Lin University of Science and Technology, Taiwan)
- Tsu-Yang Wu (Fujian University of Technology, China
- Ching-Yu Yang (National Penghu University of Science and Technology, Taiwan)
- Ru Zhang (Beijing University of Posts and Telecommunications, China)

Conference Venue

Aoba Memorial Hall, Tohoku University 6-6 Aramaki aza Aoba, Aoba-ku, Sendai 980-8579 Japan Aobayama East Campus, Tohoku University



Floor Plan Aoba Memorial Hall



Directions to the campus

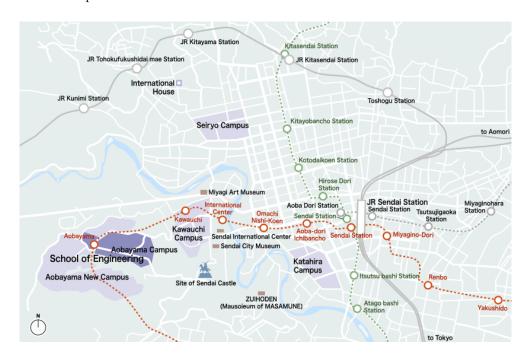
Access from Sendai Station

• Subway [Sendai Subway Tozai Line]

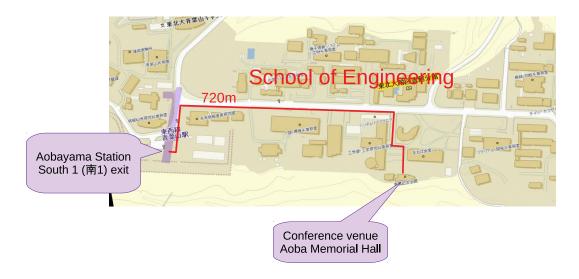
From "Sendai" station, take the Subway bound to "Yagiyama Zoological Park". Get off at "Aobayama" station. It takes 9 minutes and the fare is 250 JPY.

• Taxi

You may take a taxi to the School of Engineering from Sendai Airport or Sendai Station. Fares are about 6,000 yen from Sendai Airport and 1,600 yen from Sendai Station. Taxi can be found at the taxi stands in front of Sendai Airport or Sendai Station.



Campus Map



Social Events

Welcome reception

November 25 (Sun.) 6:00 PM Restaurant *Shikisai*, Aoba Memorial Hall 3F

Dinner

November 26 (Mon.) 6:30 PM Hotel Metropolitan Sendai (next to Sendai Station) https://www.sendaimetropolitan.jp/en-gb

Banquet

November 27 (Tue.) 7:00 PM Restaurant Shokeikaku

Shokeikaku, a restaurant in the former Date family residence. Overlooking the splendid garden from a traditional Japanese style (Shoin style) room, you can taste various local dishes served in a small



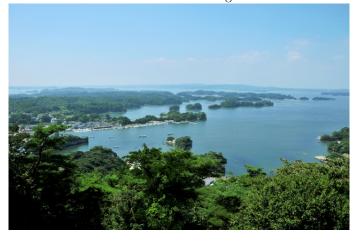


Excursion

November 28 (Wed.) 1:20 PM

Fee: free (including a lunchbox), reservation needed

A bus tour, visiting Matsushima Bay, one of the three scenic spots in Japan. In addition to the bay cruise using a pleasure boat, you will see the traces of the Great East Japan Earthquake and tsunami. The bus returns to Sendai Station in the evening.

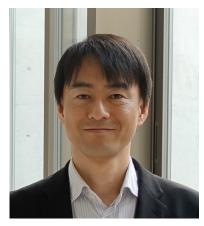


Program at a glance

	Day 0(25)	(25) Day 1(26)		Day 2(27)		Day 3(28)	
Γ	Restaurant	Room 1	Room 2	Room 1	Room 2	Room 1	Room 2
9:00 9:10 9:20 9:30 9:40 9:50 10:00		Opening Keynote 1		Keynote 2	e break	WEA1A Multimedia System and Intelligent Computing 1	WEA1B Emerging Trends in Multimedia Systems and Applications
10:20 10:30 10:40		Coffee break		Conce		6.5	
10:50 11:00 11:10		MOA1A Recent Advances in Information Hiding and Signal Processing for Audio and Speech Signals	MOA1B Emerging Techniques and Its Applications in Computer Science 1		TUA1B Emerging Techniques and Its Applications in Computer Science 4	Coffee break	
11:20 11:30 11:40 11:50 12:00 12:10						WEA2A Multimedia System and Intelligent	WEA2B Internet of Things: Technologies and Applications
12:20 12:30 12:40 12:50		Lunch		Lunch		Computing 2	
13:00 13:10							
13:20 13:30 13:40 13:50 14:00 14:10 14:20 14:30 14:40 14:50 15:00		MOP1A Advances in speech and language processing	MOP1B Emerging Techniques and Its Applications in Computer Science 2	TUP1A Cross-Disciplinary Approaches and Applications 1	TUP1B Advances in Machine Learning Technology for Industrial Applications 1		
15:10 15:20 15:30 15:40 15:50 16:00 16:10 16:20 16:30 16:40 17:00 17:10 17:20 17:30 17:40 17:50	Registration	Coffee break		Coffee break			
		MOP2A Deep Learning for Information Hiding	MOP2B Emerging Techniques and Its Applications in Computer Science 3	TUP2A Cross-Disciplinary Approaches and Applications 2	TUP2B Advances in Machine Learning Technology for Industrial Applications 2	Excursion to Matsushima	
18:00 18:10							
18:20	Reception	Dinner		Banquet			

Keynote Speakers

Keynote 1: Hardware Security: Research Field Expanding in IoT Era



Prof. Naofumi Homma Research Center for Electrical Communication, Tohoku University 26 November, Room 1, 9:20-10:20

Abstract: Hardware security in mobile and embedded systems is drawing much attention in the context of the rapid growth of Internet-of-Things. Due to the easier accessibility, security threats and vulnerabilities for "things" located everywhere are more critical in comparison with PCs and servers in a room. In particular, the threats of side-channel attacks are non-trivial because they can be done by relatively low-cost equipment in a non-destructive manner. This talk will start with an overview of researches on hardware security, and then introduce the-state-of-the-art side-channel attacks and countermeasures.

Bibliography: Naofumi Homma received the PhD degrees in information sciences from Tohoku University, Sendai, Japan, in 2001. Since 2016, he has been a Professor in the Research Institute of Electrical Communication, Tohoku University. In 2009-2010 and 2016-2017, he was a visiting professor at Telecom ParisTech in Paris, France. His research interests include computer arithmetic, VLSI design methodology, and hardware security. He received a number of awards including the Best Symposium Paper Award at the 2013 IEEE International Symposium on Electromagnetic Compatibility (EMC 2013), the Best Paper Award at the 2014 IACR International Conference on Cryptographic Hardware and Embedded Systems (CHES 2014), the JSPS Prize in 2018, and German Innovation Award in 2018. He served as a Program Co-Chair of 2017 IACR International Conference on Cryptographic Hardware and Embedded Systems (CHES 2017).

Keynote 2: Recent Advances in Visual Sensor Systems



Dr. Ivan Lee University of South Australia 27 November, Room 1, 9:00-10:00

Abstract: The rapid development in smart sensor technologies has major impact across most industries, with rich information collected to assist information management and decision making. Among these, visual sensors acquire rich media data from natural and built environments, which plays crucial role in smart Internet of Things. While visual sensors promise improved services in manufacturing, health, surveillance, monitoring, and vehicular industries, techniques in acquisition, processing, and analysis remain on-going challenges. This keynote address will cover the evolution of visual sensor development in the recent past, and showcase various applications facilitated by visual sensors. Present challenges of visual sensor applications will be presented, and future research directions will be discussed.

Bibliography: Ivan Lee received the B.Eng., M.Com., MER, and Ph.D. degrees from The University of Sydney. He was a software development engineer at Cisco Systems, a software engineer at Remotek Corporation, and an Assistant Professor at Ryerson University. Since 2008, he has been a Senior Lecturer with the University of South Australia. He has served as the Program Co-Chair of the 2008 ACM International Conference on Image and Video Retrieval (CIVR), the General Chair of 2013 Australasian Computer Science Week (ACSW), and the General Co-Chair of 2015 International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIH-MSP). He was a recipient of the Lockheed Martin Best Paper Award of 2015 SPIE Defense + Security, Automatic Target Recognition XXV, and the Best Paper Award of 2007 Pacific-Rim Conference on Multimedia. His research findings have been disseminated in over 100 peer-reviewed publications, including IEEE Transactions on Image Processing, IEEE Transactions on Multimedia, IEEE Transactions on Circuits and Systems for Video Technology, IEEE Transactions on Emerging Topics in Computing, IEEE Transactions on Industrial Informatics, and Advanced Functional Materials. His research interests include smart sensors, multimedia systems, and scholarly data analytics.

Technical Programs

MOA1A: Recent Advances in Information Hiding and Signal Processing for Audio and Speech Signals

26 November, 11:00-12:20 Room 1 Session Chair: TBD

MOA1A-1 An Interrogation Speech Manipulation Detection Method using Speech Fingerprinting and Watermarking

Shinya Takahashi and Kazuhiro Kondo

MOA1A-2 Digital Audio Watermarking Method Based on Singular Spectrum Analysis with Automatic Parameter Estimation Using a Convolutional Neural Network

Kasorn Galajit, Jessada Karnjana, Aakinee Aimmanee and Masahi Unoki

MOA1A-3 Muting Machine Speech Using Audio Watermarking

Akinori Ito

MOA1A-4 Leveraging a Small Corpus by Different Frame Shifts for Training of a Speech Recognizer Akinori Ito

MOA1B: Emerging Techniques and Its Applications in Computer Science 1

26 November, 11:00-12:20 Room 2 Session Chair: TBD

MOA1B-1 A Hybrid NSGA-II for Matching Biomedical Ontology

Xingsi Xue, Jie Chen, Junfeng Chen, Dongxu Chen

MOA1B-2 Multi-attributes Graph Algorithm for Association Rules Mining over Energy Internet Ling Wang, Fu Tao Ma, Tie Hua Zhou, Xue Gao

MOA1B-3 Real-time Electricity Pricing Trend Forecasting based on Multi-density Clustering and Sequence Pattern Mining

Tie Hua Zhou, Cong Hui Sun, Ling Wang, Gong Liang Hu

MOA1B-4 TDT_CC: A Hot Topic Detection and Tracking Algorithm based on Chain of Causes Zhen Hong Liu, Gong Liang Hu, Tie Hua Zhou, Ling Wang

MOP1A: Advances in speech and language processing

26 November, 13:20-15:20 Room 1 Session Chair: TBD

MOP1A-1 Evaluation of English Speech Recognition for Japanese Learners Using DNN-based Acoustic Models

Jiang Fu, Yuya Chiba, Takashi Nose and Akinori Ito

MOP1A-2 A Study on a Spoken Dialogue System with Cooperative Emotional Speech Synthesis Using Acoustic and Linguistic Information

Mai Yamanaka, Yuya Chiba, Takashi Nose, and Akinori Ito

MOP1A-3 Comparison of Speech Recognition Performance between Kaldi and Google Cloud Speech API Takashi Kimura, Takashi Nose, Shinji Hirooka, Yuya Chiba, and Akinori Ito

MOP1A-4 Segmental pitch control using speech input based on differential contexts and features for customizable neural speech synthesis

Shinya Hanabusa, Takashi Nose, and Akinori Ito

 ${f MOP1A-5}$ Two-Stage Sequence-to-Sequence Neural Voice Conversion with Low-to-High Definition Spectrogram Mapping

Sou Miyamoto, Takashi Nose, Kazuyuki Hiroshiba, Yuri Odagiri, and Akinori Ito

MOP1A-6 Improvement of Accent Sandhi Rules Based on Japanese Accent Dictionaries Hiroto Aoyama, Takashi Nose, Yuya Chiba, Akinori Ito

MOP1B: Emerging Techniques and Its Applications in Computer Science 2

26 November, 13:20-15:20 Room 2 Session Chair: TBD

MOP1B-1 A New Approximation Algorithm for the d-dimensional Knapsack Problem based on Hopfeld Networks

Hsin-Lung Wu, Jui-Sheng Chang, Jen-Chun Chang

MOP1B-2 A Method of Cancellation Interference In CCFD System

Zengyou Sun, Yujie Zhao

MOP1B-3 Power Optimization Method of Magnetic Coupling Resonant Wireless Energy Transmission System

Jianpo Li, Yang Lu, Songjun Pan, Ziqi Dong, Baochun Mu, Fuxin Liu, Cong Zheng

MOP1B-4 PSO-AFSA Global Maximum Power Point Tracking Algorithm with Adaptive Evolutionary Strategy for PV System

Jianpo Li, Pengwei Dong, Cong Zheng, Fuxin Liu, Songjun Pan, Baochun Mu, Ziqi Dong

MOP1B-5 The Design of RFID Localization System for Library Books

Jianpo Li, Jun Wang, Fuxin Liu, Songjun Pan, Cong Zheng, Baochun Mu, Ziqi Dong

MOP1B-6 The Design and Implementation of Automatic Detection and Control Equipment with Unattended Truck Scales

Yun Wu, Xin Hu, XiaoDong Wang

MOP2A: Deep Learning for Information Hiding

26 November, 15:50-17:50 Room 1 Session Chair: TBD

MOP2A-1 Melody Completion Based on Convolutional Neural Networks and Generative Adversarial Learning

Kosuke Nakamura, Takashi Nose, Yuya Chiba, and Akinori Ito

MOP2A-2 Data Collection and Analysis for Automatically Generating Record of Human Behaviors by Environmental Sound Recognition

Takahiro Furuya, Yuya Chiba, Takashi Nose and Akinori Ito

MOP2A-3 DNN-Based Talking Movie Generation with Face Direction Consideration

Toru Ishikawa, Takashi Nose, and Akinori Ito

MOP2A-4 An Image Steganography Algorithm Based on Pixel Block Difference and Variable Modulus Function

Yu Yang, Ru Zhang, Jianyi Liu, Yuhan Wang and Fuhong Huang

MOP2A-5 Attack Pattern Mining Algorithm Based on Fuzzy Clustering and Sequence Pattern from Security Log

Jianyi Liu, Keyi Li, Yang Li, Ru Zhang and Xi Duan

MOP2A-6 Calculating the truck's box volume with a single image under the circle projection and vanishing points constraint

Wei Sun, Wei Lu, Chun-yu Zhao, Bao-long Guo, Da-jian Li

MOP1B: Emerging Techniques and Its Applications in Computer Science 3

26 November, 15:50-17:50 Room 2 Session Chair: TBD

MOP2B-1 An Interactive Appliances' Intelligent Control Method Based on Time-sharing Electricity Price

Yun Wu, Qiang Wang, Jian Wang

MOP2B-2 Modification Algorithm to Node Localization Error for Wireless Sensor Networks Jianpo Li, Na Li, Cong Zheng, Fuxin Liu, Songjun Pan, Baochun Mu, Ziqi Dong

MOP2B-3 A Real-time Missing Data Recovery Method Using Recurrent Neural Network for Multiple Transmissions

Bor-Shing Lin, Yu-Syuan Lin, I-Jung Lee, Bor-Shyh Lin

MOP2B-4 The extraction and application of the Color Texture Feature Based on Quaternion Gabor Bo Meng, Xiaolin Wang, Xuejun Liu, Linlin Xia, Guannan Deng, Shengxi Jiao

MOP2B-5 Analysis and Detection of Android App Privilege Escalation Vulnerability Based on Machine Learning

Xin Jiang, Wen Zhang, Shaozhang Niu, Yiming Xue

MOP2B-6 A Watermarking Method for Printed QR Code based on Module Expansion Cai-Jie Weng, Jeng-Shyang Pan, Shi-Jian Liu, Mei-Jin Wang

TUA1A: Health Informatics and Intelligent Data Hiding

27 November, 10:30-12:10 Room 1 Session Chair: TBD

TUA1A-1 An Improved High-Capacity ECG Steganography with Smart Offset Coefficients Ching-Yu Yang and Wen-Fong Wang

TUA1A-2 Preview-versioned Essential Secret Image Sharing

Shang-Kuan Chen and Rei-Heng Cheng

TUA1A-3 Visual Cryptography with QR-code transparencies

Shang-Kuan Chen and Yen-Wu Ti

TUA1A-4 Solving multiple charging vehicles scheduling problem for wireless rechargeable sensor networks using cuckoo search approach

Rei-Heng Cheng and Shang-Kuan Chen

TUA1A-5 A State Codebook Generation Algorithm of Side Match Vector Quantization Yang Wang and Zhibin Pan

TUA1B: Emerging Techniques and Its Applications in Computer Science 4

27 November, 10:30-12:10 Room 2 Session Chair: TBD

TUA1B-1 Research on Optimal Combination of Secondary Hybrid Encryption Algorithm Based on K-means Clustering Algorithm

Yun Wu, MengKe Wu, HaoJie Shu

TUA1B-2 Construct Left Ventricular Hypertrophy Prediction Model based on Random Forest Ming-Tai Wu, Meng-Hsiun Tasi, Sheng-Han Xiao, Tsu-Yang Wu

TUA1B-3 The Bayesian Causal Inference in Multisensory Information Processing: a Narrative Review Yang Xi, Ning Gao, Mengchao Zhang, Lin Liu, Qi Li

TUA1B-4 The Neural Mechanism of Audiovisual Integration Modulated by Attention: a DCM Study Yang Xi, Mengchao Zhang, Ning Gao, Yue Li, Lin Liu, Qi Li

TUA1B-5 On the security of a three factor remote user authentication scheme using fuzzy extractor Chien-Ming Chen, Yanyu Huang, Xiaoting Deng, Tsu-Yang Wu

TUP1A: Cross-Disciplinary Approaches and Applications 1

27 November, 13:10-15:10 Room 1 Session Chair: TBD

TUP1A-1 A Novel Tamper Detection and Image Recovery Technique for Color Image Demosaicking Yu-Chen Hu, Pei-Jung Wu, Chia-Mei Chen, and Yi-Hung Liu

TUP1A-2 Improving Latency and Reliability for Vehicle System under Fog Computing Networks Mao-Lun Chiang, Yu-an Lin, Hui-Ching Hsieh and Weng-Chung Tsai

TUP1A-3 Nominate Connected Dominating Set Algorithm in Mobile Ad Hoc Network Mao-Lun Chiang, Ze-Yu Chen, Hui-Ching Hsieh and Tsui-Ping Chang

TUP1A-4 The Keywords of Affecting Performance for Live Streaming Long-Sheng Chen and Yi-Ting Pan

TUP1A-5 Mobile Coupons Using Blockchain Technology Sue-Chen Hsueh and Jia-He Zeng

TUP1A-6 Dual Image Reversible Data Hiding Based on Modified LSB Matching Method Hsien-Wen Tseng, Hui-Xin Lu and Hui-Shih Leng

TUP1B: Advances in Machine Learning Technology for Industrial Applications 1

27 November, 13:10-15:10 Room 2 Session Chair: TBD

TUP1B-1 Security Analysis of a Public Key Authenticated Encryption with Keyword Search Scheme Tsu-Yang Wu, Chien-Ming Chen, King-Hang Wang, Jimmy Ming-Tai Wu, Jeng-Shyang Pan

TUP1B-2 The research about Topic Extraction Method Based on the DTS-ILDA Model Xiaoli Guo, Li Feng, Yuhan Sun, Ping Guo

TUP1B-3 The Study of Power Server operations Information Visualization Key Technologies Xiaoli Guo, Ping Guo, Li Feng, Wei Yue

TUP1B-4 Heart Rate Detection Based on Facial Feature Points Tracking Chuan-Yu Chang and Hsiang-Chi Liu

TUP1B-5 3D MODELING FOR UPPER OF SHOE BASED ON BILATERAL TRIANGULATION Hsien-Huang Wu, Ying-Dong Lian, Ya-Yung Huang

TUP1B-6 A New Application of Hyperspectral Techniques in Drug Classification Shih-Yu Chen, Yen-Chung Chen, and Chou-Tien Lien

TUP2A: Cross-Disciplinary Approaches and Applications 2

27 November, 15:40-17:40 Room 1 Session Chair: TBD

TUP2A-1 A Survey of Semi-Fragile Watermarking Authentication Chin-Feng Lee, Jau-Ji Shen, Fang-Wei Hsu

TUP2A-2 A High Payload Edge Detection-Based Image Steganography Robust to RS-Attack by Using LSB Substitution and Pixel Value Differencing

Chin-Feng Lee, Jau-Ji Shen, Ting-Yi Ou-Yang

TUP2A-3 High-Capacity Reversible Data Hiding Based on Star-Shaped PVO Method Chin-Feng Lee, Jau-Ji Shen, Yu-Chi Kao

TUP2A-4 New Anatomy of Consensus in a Multiple Damage Communication VANET Shu-Ching Wang, Kuo-Qin Yan and Wei-Shu Xiong

TUP2A-5 Customer Management and Marketing Strategy Development in the Internet of Things Kuo-Qin Yan, Shu-Ching Wang, Wei-Shu Xiong, Ke-Yin Lu and Yun-Ju Cha

TUP2A-6 Privacy-Preserving Reversible Watermarking for Data Extration Prevention Through Lexicographic Permutations

Ching-Chun Chang and Chang-Tsun Li

TUP2B: Advances in Machine Learning Technology for Industrial Applications 2

27 November, 15:40-17:40 Room 2 Session Chair: TBD

TUP2B-1 Evaluation of DoS Attacks on Vehicle CAN Bus System

Shi-Huang Chen and Chun-Hung Richard Lin

TUP2B-2 Deep Learning-based Identification of Steel Products

Li-Wei Kang, You-Ting Chen, Wei-Chen Jhong and Chao-Yung Hsu

TUP2B-3 Reinforcement Learning-based Two-Wheel Robot Control

Ching-Lung Chang

TUP2B-4 A localization approach based on Fixed 3D Objects for Autonomous Robots

Chien-Chou Lin

TUP2B-5 Clockwise and counter-clockwise torsion in different operational angles on transverse plane

Dengchuan Cai, Jhongpei Wu and Chuan-Yu Chang

TUP2B-6 Micro Physiological Vibration Detection for Human Heartbeats

Wen-Fong Wang, Ying-Peng Huang, Chuan-Yu Chang and Ching-Yu Yang

WEA1A: Multimedia System and Intelligent Computing 1

28 November, 9:00-10:40 Room 1 Session Chair: TBD

WEA1A-1 Denoising of ECG Signal with Power Line and EMG Interference based on Ensemble Empirical Mode Decomposition

Shing-Hong Liu, Li-Te Hsu, Cheng Hsiung Hsieh, Yung-Fa Huang

WEA1A-2 Using the Photoplethysmography Technique to Improve the Accuracy of LVET Measurement in the ICG Technique

Shing-Hong Liu, Zheng-Yu Zhu, Shao-Heng Lai. Tai-Shen Huang

WEA1A-3 Network Anomaly Detection Based on Artificial Intelligence

Chia-Mei Chen, Wen-Ling Lo, Gu-Hsin Lai, Yu-Chen Hu

WEA1A-4 Traffic Flow Correlation Analysis of K Intersections Based on Deep Learning

Hung-Chi Chu, Chi-Kun Wang, and Yi-Xiang Liao

WEA1A-5 Detecting Attention and Meditation EEG Utilized Deep Learning

Chung-Yen Liao, Rung-Ching Chen, Qiano-En Liu

WEA1B: Emerging Trends in Multimedia Systems and Applications

28 November, 9:00-10:40 Room 1 Session Chair: TBD

WEA1B-1 The Properties of Order and Failure Estimation on Redundancy System

Lin Xu, Chao-Fan Xie, Lu-Xiong Xu, Fuquan Zhang

WEA1B-2 Hepatic Texture Synthesis Method Based on the Accelerated CUDA

Lin Xu, Chao-Fan Xie, Lu-Xiong Xu, Na Wang

WEA1B-3 A P2P Multimedia Service System based on Mesh Chords

Zhiming Cai, Xuehong Huang

WEA1B-4 Resolution Reduction for Two-Phase Test Sample Representation in Face Recognition

Ning Wu, Jinzhan Wei

WEA1B-5 Path Finding for Road Accessibility in Maze using BLOB Extraction

Jinzhan Wei, Ning Wu

WEA2A-1 Improving the Implementation of Sensor Nodes for Illegal Logging Detection Jen-Ting Chen, Chuan-Bi Lin, Jiun-Jian Liaw, Yu-Yan Chen

WEA2A: Multimedia System and Intelligent Computing 2

28 November, 11:10-12:50 Room 1 Session Chair: TBD

WEA2A-2 A Study on CNC Machine Training Based on Virtual Reality Technology Tzu-Chuen Lu, Rong-Chang Chen, Guang-En Hsuen

WEA2A-3 Forecasting for the Total Electricity Consumption of Taiwan by Fuzzy Time Series Jing-Rong Chang, Zhong-Qi Liu, Pei-Yu Yu

WEA2A-4 Performance Analysis of Grouping Strategy in Relay-based Cooperative Networks Jheng-Siam Li and Jyh-Horng WEN

 ${\bf WEA2A\text{-}5}~$ The Development of Display Interface for Automatic Identification System and Digital Selective Calling System

Chien Erh Weng, Zhu-Yun Zheng, Lie Yang

WEA2B: Internet of Things: Technologies and Applications

28 November, 11:10-13:10 Room 1 Session Chair: TBD

WEA2B-1 Intelligent Infant Monitoring System Involving a Wi-Fi Wireless Sensor Network Chi-Chang Lu, Chung-Hsien Wu, Hui-Kai Su

WEA2B-2 Long Lifetime Data Aggregation Using Geographic Division in Wireless Sensor Networks Chia-Hsin Cheng, Hui-Kai Su, Yi-Shiang Chen, Tao-Ping Wang, Feng-Cheng Wu and Yu-An Chen

WEA2B-3 Distortion function for Steganography in Texture Synthesized Images Lina Shi, Zichi Wang, Zhenxing Qian and Xinpeng Zhang

 $\mathbf{WEA2B\text{-}4}\;$ A Design Exploration of Wearable Companion of Smartphone Wen Qi

WEA2B-5 Research and implementation of fuzzy control method of UAV formation with ad hoc network Zhen-hao Zhang, Wei Sun, Wei Lu, Lei Bian

WEA2B-6 Design and Implementation of a Host-based Intrusion Detection System for Linux-based Web Server

Cheng-Chung Kuo, Shu-Han Yao, Chia-Ling Hou and Chu-Sing Yang



IIH-MSP 2018 Program and Abstract Book (C) 2018 IIH-MSP Organizing Committee