

## Technical Program (Friday, November 30)

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### Session 1.1 Artificial Intelligence in Medicine

Time & Location: 14:10-15:40, Nov. 30, L009

Chair: Bae-Ling Chen (Professor, Asia Univ.)

(1) Using Machine Learning Algorithms in Medication for Cardiac Arrest Early Warning System

Construction and Forecasting

Hsiao-Ko Chang, Cheng-Tse Wu, Ji-Han Liu, Jyh-Shing Roger Jang

(2) Adverse Drug Reaction Post Classification with Imbalanced Classification Techniques

Chen-Kai Wang, Hong-Jie Dai, Feng-Duo Wang and Emily Chia-Yu Su

(3) Adaptive Generation of Structured Medical Report using NER regarding Deep Learning

Cheng-Tse Wu, Hsiao-Ko Chang, Ji-Han Liu, Jyh-Shing Roger Jang

(4) Tongue Fissure Visualization with Deep Learning

Wen-Hsien Chang, Hsueh-Ting Chu and Hen-Hong Chang

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### Session 1.2 Deep Learning Algorithms

Time & Location: 16:00-17:30, Nov. 30, L009

Chair: Chao-Neng Wang (Professor, Asia Univ.)

(1) Comparison of Loss Functions for Training of Deep Neural Networks in Shogi

Hanhua Zhu and Tomoyuki Kaneko

(2) A Vector Mosquitoes Classification System Based on Edge Computing and Deep Learning

Li-Pang Huang, Ming-Hong Hong, Cyuan Heng Luo, Sachit Mahajan and Ling-Jyh Chen

(3) Application of Deep Reinforcement Learning in Werewolf Game Agents

Tianhe Wang and Tomoyuki Kaneko

(4) Deep Recurrent Q-Network with Truncated History

Oh Hyunwoo, Tomoyuki Kaneko

(5) Multi-label Classification with Feature-aware Cost-sensitive Label Embedding

Hsien-Chun Chiu, Hsuan-Tien Lin

## Technical Program (Saturday, December 1)

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### Session 2.1 Artificial Intelligence Initiatives

Time & Location: 10:20-12:00, Dec. 1, L009

Chair: Yihsin Ho (Professor, Takushoku Univ.)

(1) Successive human tracking and posture estimation with multiple omnidirectional cameras.

Shunsuke Akama, Akihiro Matsufuji, Eri Sato-Shimokawara, Shoji Yamamoto, Toru Yamaguchi

(2) Development of an Intelligent Dialogue Agent with Smart Devices for Older Adults: A Preliminary Study

Satoshi Yamada, Daisuke Kitakoshi, Akihiro Yamashita, Kentarou Suzuki, Masato Suzuki

(3) A Method of Action Recognition in Ego-Centric Videos by using Object-Hand Relations

Akihiro Matsufuji, Wei-Fen Hsieh, Hao-Ming Hung, Eri Sato-Shimokawara, Toru Yamaguchi, Lieu-Hen Chen

(4) A research on document summarization and presentation system based on feature word extraction from stored information

Kei Matsubayashi, Akihiro Yamashita, Hidetoshi Nonaka and Konno Yohko

(5) Machine Learning based Path Prediction System - Adapting One Model for All Intersections

Kai-Qi Huang, Min-Te Sun

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### Session 2.2 Human-Intelligent Systems Time

Time & Location: 14:10-15:40, Dec. 1, L009

Chair: Chair: Min-Te Sun (Professor, NCU)

(1) Passenger Flow Prediction Using Weather Data for Taipei Metro Systems

Lijuan Liu and Rung-Ching Chen

(2) On the Effect of Data Imbalance for Multi-Label Pedestrian Attribute Recognition

Tsaipei Wang, Kai-Chen Shu, Chia-Hao Chang and Yi-Fu Chen

(3) A Fast PM2.5 Forecast Approach Based on Time-Series Data Analysis, Regression and Regularization

Cyuan Heng Luo, Hsuan Yang, Li-Pang Huang, Sachit Mahajan, Ling-Jyh Chen

(4) A YOLO-based Traffic Counting System

Jia-Ping Lin, Min-Te Sun

(5) An Empirical Study of Ladder Network and Multitask Learning on Energy Disaggregation in Taiwan

Fang-Yi Chang, Chun Chen, Shou-De Lin

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## Session 2.3 Artificial Intelligence Applications

Time & Location: 16:00-17:30, Dec. 1, L009

Chair: Anthony Y. H. Liao (Professor, Asia Univ.)

- (1) A Proposal for the Global & Collaborative PBL Learning Environment where all Global Members on Different Campuses are “on the same page” throughout the Process of the Project  
Tosh Yamamoto, Anthony Y. H. Liao, Wen-Chi Vivian Wu, Meilun Shih, Ju-Ling Shih and Hui-Chun Chu
  - (2) Examination of Indicators for Estimating Players’ Strength by using Computer Go  
Yuuto Kosaka, Takeshi Ito
  - (3) Consideration of Life Rhythm for Hearing-Dog Robots Searching for User  
Shotaro Furuta, Tsuyoshi Nakamura, Yuji Iwahori, Shinji Fukui, Masayoshi Kanoh, Koji Yamada
  - (4) Privacy-Preserving SRS Data Anonymization by Incorporating Missing Values  
Wen-Yang Lin, Kuang-Yung Hsu and Jhih-Syun Shen
  - (5) Study on Green Logistics Initiatives Through Text Mining Approach  
Fuyume Sai
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## Session 2.4 Artificial Intelligence for Games

Time & Location: 16:00-17:30, Dec. 1, L008

Chair: Kiminori Matsuzaki (Professor, Kochi Univ.)

- (1) AlphaZero for a Non-deterministic Game  
Chu-Hsuan Hsueh, I-Chen Wu, Jr-Chang Chen and Tsan-Sheng Hsu
- (2) Weighted Majority Voting with a Heterogeneous System in the Game of Shogi  
Shogo Takeuchi
- (3) Learning of Evaluation Functions via Self-Play Enhanced by Checkmate Search  
Taichi Nakayashiki and Tomoyuki Kaneko
- (4) An Alternative Multitask Training for Evaluation Functions in the Game of Go  
Yusaku Mandai and Tomoyuki Kaneko
- (5) Interpreting Neural-Network Players for Game 2048  
Kiminori Matsuzaki and Madoka Teramura

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Session 2.5 TAEA: Theory and Applications of Evolutionary Algorithms

Time & Location: 16:00-17:30, Dec. 1, L011

Chair: Hsing-Chung Chen (Professor, Asia Univ.)

(1) A Multiple Objective PSO-based Approach for Data Sanitization

Jerry Chun-Wei Lin, Yuyu Zhang, Chun-Hao Chen, Ming-Tai Wu, Chien-Ming Chen and Tzung-Pei Hong

(2) A Whale Crow Search Algorithm for Data Clustering

Ze-Xue Wu, Ko-Wei Huang, Abba Suganda Girsang

(3) Ant Colony Optimization with Negative Feedback for Solving Constraint Satisfaction Problems

Takuya Masukane, Kazunori Mizuno and Hiroto Shinohara

(4) Development of a Cebuano Parse Tree for a Grammar Correction Tool using Deep Parsing

Jan Mikhail Gaid, Robert Michael Lim, Christian Maderazo

(5) Empirical Analysis of PUCT Algorithm with Evaluation Functions of Different Quality

Kiminori Matsuzaki

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**Technical Program (Saturday, December 2)**

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Session 3.1 Recommender Systems with Machine Learning and AI

Time & Location: 10:20-12:00, Dec. 2, L010

Chair: Jane Yung-jen Hsu (Professor, NTU)

(1) Rating Matrix Pre-padding for Video Recommendation

Yang Liu, Guijuan Zhang, Xiaoning Jin, Yaozong Jia

(2) Using AHP to Choose the Best Logistics Distribution Model

Mei Lai, Wu Tsay and Zhen Wang

(3) Replay spoofing detection system for automatic speaker verification using multi-task learning of noise classes

Hyejin Shim, Jeeweon Jung, Heesoo Heo, Sunghyun Yoon, Hajin Yu

(4) Personalized Content-Based Music Retrieval by User-Filtering and Query-Refinement

Ja-Hwung Su, Tzung-Pei Hong, Jyun-Yu Li, Jung-Jui Su

(5) Named Entity Filters for Robust Machine Reading Comprehension

Yu-Yan Peng, Jane Yung-jen Hsu