## Poster Session 1

**Poster1-1 : Applications** Room International Conference Hall II

The 23rd International Conference on Neural Information Processing

Data Analysis of Correlation Between Project Popularity and Code Change Frequency Dabeeruddin Syed<sup>1</sup>, Jadran Sessa<sup>1</sup>, Andreas Henschel<sup>1</sup>, Davor Svetinovic<sup>1</sup>

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<sup>1</sup>Masdar Institute of Science and Technology

Hidden space neighbourhood component analysis for cancer classification Li Zhang<sup>1</sup>, Xiaojuan Huang<sup>1</sup>, Bangjun Wang<sup>1</sup>, Fanzhang Li<sup>1</sup>, Zhao Zhang<sup>1</sup> <sup>1</sup>Soochow University

Prediction of Bank Telemarketing with Co-training of Mixture-of-Experts and MLP Jae-Min Yu<sup>1</sup>, Sung-Bae Cho<sup>1</sup> <sup>1</sup>Yonsei University

Prioritising Security Tests on Large-Scale and Distributed Software Development Projects by Using Self-Organised Maps Marcos Alvares<sup>1</sup>, Fernando Lima Neto<sup>2</sup>, Tshilidzi Marwala<sup>1</sup> <sup>1</sup>University of Johannesburg <sup>2</sup>University of Pernambuco

Android Malware Detection Method Based on Function Call Graphs Yuxin Ding<sup>1</sup>, Siyi Zhu<sup>1</sup>, Xiaoling Xia<sup>1</sup> <sup>1</sup>Harbin Institute of Technology Shenzhen Graduate School

Proposal of singular-unit restoration by focusing on the spatial continuity of topographical statistics in spectral domain Kazuhide Ichikawa<sup>1</sup>, Akira Hirose<sup>1</sup> <sup>1</sup>The University of Tokyo

## **Poster1-2 : Computational & Cognitive Neurosciences** Room International Conference Hall II

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The Impact of Adaptive Regularization of the Demand Predictor on A Multistage Supply Chain Simulation Fumiaki Saitoh<sup>1</sup> <sup>1</sup>Aoyama Gakuin University

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The effect of reward information on perceptual decision making Devu Mahesan<sup>1</sup>, Manisha Chawla<sup>1</sup>, Krishna P Miyapuram<sup>1</sup> <sup>1</sup>Indian Institute of Technology, Gandhinagar, India

Doubting What to Eat: A Computational Model for Food Choice Using Different Valuing Perspectives Altaf Hussain Abro<sup>1</sup>, Jan Treur<sup>1</sup> <sup>1</sup>VU University, Amsterdam, Netherlands

A Novel Graph Regularized Sparse Linear Discriminant Analysis Model for EEG Emotion Recognition Yang Li<sup>1</sup>, Wenming Zheng<sup>1</sup>, Zhen Cui<sup>1</sup>, Xiaoyan Zhou<sup>2</sup> <sup>1</sup>Southeast University <sup>2</sup>Nanjing University of Information Science & Technology

Information maximization in a feedforward network replicates the stimulus preference of the medial geniculate and the auditory cortex Takuma Tanaka<sup>1</sup> <sup>1</sup>Shiga University

A simple visual model accounts for drift illusion and reveals illusory patterns Daiki Nakamura<sup>1</sup>, Shunji Satoh<sup>1</sup> <sup>1</sup>The University of Electro-Communications

An Internal Model of the Human Hand Affects Recognition of Graspable Tools

Masazumi Katayama<sup>1</sup>, Yusuke Akimaru<sup>1</sup> <sup>1</sup>Department of Human and Artificial Intelligent Systems, Graduate School of Engineering, University of Fukui

Perceptual Representation of Material Quality — Adaptation to BRDFmorphing Images — Kouki Kudou<sup>1</sup>, Ko Sakai<sup>1</sup> <sup>1</sup>University of Tsukuba Rhinal-hippocampal information flow reverses between memory encoding and retrieval

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Juergen Fell<sup>1</sup>, Tobias Wagner<sup>1</sup>, Bernhard Staresina<sup>2</sup>, Charan Ranganath<sup>3</sup>, Christian Elger<sup>1</sup>, Nikolai Axmacher<sup>4</sup>

<sup>1</sup>Dept. of Epileptology, Univ. of Bonn, Germany <sup>2</sup>Dept. of Psychology, Univ. of Birmingham, UK <sup>3</sup>Center for Neuroscience and Dept. of Psychology, Univ. of California, Davis, USA <sup>4</sup>Dept. of Psychology, Ruhr-University Bochum, Germany

GPU-Accelerated Simulations of an Electric Stimulus and Neural Activities in Electrolocation

Kazuhisa Fujita<sup>1</sup>, Yoshiki Kashimori<sup>2</sup>

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 $^1\mathrm{Tsuyama}$ National College of Technology $^2\mathrm{Univ.}$  of Electro-Communications

Analysis of Similarity and Differences in Brain Activities between Perception and Production of Facial Expressions Using EEG Data and the NeuCube Spiking Neural Network Architecture

Hideaki Kawano<sup>1</sup>, Akinori Seo<sup>1</sup>, Zohreh Gholami Doborjeh<sup>2</sup>, Nikola Kasabov<sup>2</sup>, Maryam Gholami Doborjeh<sup>2</sup>

<sup>1</sup>Kyushu Institute of Technology <sup>2</sup>Auckland University of Technology

Self and Non-self Discrimination Mechanism Based on Predictive Learning with Estimation of Uncertainty

Ryoichi Nakajo<sup>1</sup>, Maasa Takahashi<sup>1</sup>, Shingo Murata<sup>1</sup>, Hiroaki Arie<sup>1</sup>, Tetsuya Ogata<sup>1</sup>

<sup>1</sup>Waseda University

A Framework for Ontology Based Management of Neural Network as a Service

Erich Schikuta<sup>1</sup>, Abdelkader Magdy<sup>1</sup>, A. Baith Mohamed<sup>2</sup>

<sup>1</sup>University of Vienna <sup>2</sup>Arab Academy for Science and Technology & Maritime Transport, Egypt

Poster1-3 : Theory & Algorithms Room International Conference Hall II

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Modeling the propensity score with statistical learning Kenshi Uchihashi<sup>1</sup>, Atsunori Kanemura<sup>1</sup> <sup>1</sup>National Institute of Advanced Industrial Science and Technology (AIST)

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Analysis of the DNN-*k*WTA Network Model with Drifts in the Offset Voltages of Threshold Logic Units Chi Sing Leung<sup>1</sup>, Ruibin Feng<sup>1</sup>, John Sum<sup>2</sup> <sup>1</sup>City University of Hong Kong <sup>2</sup>National Chung Hsing University

Efficient Numerical Simulation of Neuron Models with Spatial Structure on Graphics Processing Units Tsukasa Tsuyuki<sup>1</sup>, Yuki Yamamoto<sup>2</sup>, Tadashi Yamazaki<sup>1</sup> <sup>1</sup>The University of Electro-Communications <sup>2</sup>Tokyo Medical and Dental University

A Scalable Patch-Based Approach for RGB-D Face Recognition Nesrine GRATI<sup>1</sup>, Achraf Ben-Hamadou<sup>2</sup>, Mohamed Hammami<sup>1</sup> <sup>1</sup>Miracl Laboratory Sfax-Tunisia <sup>2</sup>Valeo

Gaussian Processes based fusion of multiple data sources for automatic identification of geological boundaries in mining Katherine Silversides<sup>1</sup>, Arman Melkumyan<sup>1</sup> <sup>1</sup>The University of Sydney

Speaker Detection in Audio Stream via Probabilistic Prediction Using Generalized GEBI Koki Sakata<sup>1</sup>, Shota Sakashita<sup>1</sup>, Kazuya Matsuo<sup>1</sup>, Shuichi Kurogi<sup>1</sup> <sup>1</sup>Kyushu Institute of Technology

Probabilistic Prediction for Text-Prompted Speaker Verification Capable of Accepting Spoken Words with the Same Meaning but Different Pronunciations

Shota Sakashita<sup>1</sup>, Satoshi Takeguchi<sup>1</sup>, Kazuya Matsuo<sup>1</sup>, Shuichi Kurogi<sup>1</sup> <sup>1</sup>Kyushu Institute of Technology



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Shikha Gupta<sup>1</sup>, Veena Thenkanidiyoor<sup>2</sup>, Dileep A.D<sup>1</sup> <sup>1</sup>IIT Mandi, H.P India <sup>2</sup>Department of CSE, National Institute of Technology Goa, Ponda, Goa, India

Attention Estimation for Input Switch in Scalable Multi-Display Environments Xingyuan Bu<sup>1</sup>, Mingtao Pei<sup>1</sup>, Yunde Jia<sup>1</sup> <sup>1</sup>Beijing Institute of Technology

Deep Dictionary Learning vs Deep Belief Network vs Stacked Autoencoder: An Empirical Analysis Vanika Singhal<sup>1</sup>, Anupriya Gogna<sup>1</sup>, Angshul Majumdar<sup>1</sup> <sup>1</sup>IIIT Delhi

Bi-directional LSTM Recurrent Neural Network for Chinese Word Segmentation Yushi Yao<sup>1</sup>, Zheng Huang<sup>1</sup> <sup>1</sup>Shanghai Jiaotong University

Alternating optimization method based on nonnegative matrix factorizations for deep neural networks Tetsuya Sakurai<sup>1</sup>, Akira Imakura<sup>1</sup>, Yuto Inoue<sup>1</sup>, Yasunori Futamura<sup>1</sup>

<sup>1</sup>University of Tsukuba

Fissionable Deep Neural Network DongXu Tan<sup>1</sup>, JunMin Wu<sup>2</sup>, HuanXin Zheng<sup>3</sup>, Yan Yin<sup>3</sup>, YaXin Liu<sup>1</sup> <sup>1</sup>School of Software Engineering of USTC <sup>2</sup>Suzhou Institute for Advanced Study of USTC <sup>3</sup>Department of Computer Science and Technology of USTC

A Structural Learning Method of Restricted Boltzmann Machine by Neuron Generation and Annihilation Algorithm Shin Kamada<sup>1</sup>, Takumi Ichimura<sup>2</sup>

<sup>1</sup>Graduate School of Information Sciences, Hiroshima City University, Japan <sup>2</sup>Faculty of Management and Information Systems, Prefectural University of Hiroshima, Japan Semi-supervised Learning for Convolutional Neural Networks using Mild Supervisory Signals Takashi Shinozaki<sup>1</sup> <sup>1</sup>NICT CiNet

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On the Singularity in Deep Neural Networks Tohru Nitta<sup>1</sup> <sup>1</sup>National Institute of Advanced Industrial Science and Technology

A Deep Neural Network Architecture Using Dimensionality Reduction with Sparse Matrices

Wataru Matsumoto<sup>1</sup>, Manabu Hagiwara<sup>2</sup>, Petros Boufounos<sup>3</sup>, Kunihiko Fukushima<sup>1,4</sup>, Toshisada Mariyama<sup>1</sup>, Zhao Xiongxin<sup>1</sup>

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Noisy Softplus: A Biology Inspired Activation Function Qian Liu<sup>1</sup>, Steve Furber<sup>1</sup> <sup>1</sup>University of Manchester

Compressing Word Embeddings Martin Andrews<sup>1</sup> <sup>1</sup>Red Cat Labs