IJCNN 2016 Program

Special Session MA-1: IJCNN-26 Concept Drift, Domain Adaptation and Learning in Dynamic Environments I
Monday, July 25, 8:00AM-10:00AM, Room: 212, Chair: Gregory Ditzler

8:00AM Staged Online Learning: A New Approach to Classification in High Speed Data Streams [#16369]
Chamari Kithulgoda and Russel Pears

8:20AM A Method for Automatic Adjustment of Ensemble Size in Stream Data Mining [#16264]
Lena Pietruczuk, Leszek Rutkowski, Maciej Jaworski and Duda Piotr

8:40AM A Concept-Drift Perspective on Prototype Selection and Generation [#16412]
Ludmila Kuncheva and Iain Gunn

9:00AM Concept Drift Detection Based on Equal Density Estimation [#16509]
Feng Gu, Guangquan Zhang, Jie Lu and Chin-Teng Lin

9:20AM Outlier Detection in the Concept Drifting Environment [#16539]
Huang Shin-Ying, Lin Jhe-Wei and Tsaih Rua-Huan

9:40AM A Study of an Incremental Spectral Meta-Learner for Nonstationary Environments [#16657]
Gregory Ditzler

Session MA-2: Feedforward Neural Networks I
Monday, July 25, 8:00AM-10:00AM, Room: 213, Chair: Paulo Adeodato

8:00AM Threshold Logic: Is There Finally A Solution? [#16122]
Philip Picton

8:20AM An overview on weight initialization methods for feedforward neural networks [#16151]
Celso de Sousa

8:40AM A Network That Uses Parametric Weights [#16201]
Tim Hendtlass and Hans Pierrot

9:00AM Efficient computation of the Levenberg-Marquardt algorithm for feedforward networks with linear outputs [#16820]
Philip de Chazal and Mark McDonnell

9:20AM Polynomial Approximation RAM Neuron Capable of Handling True Continuous Input Variables [#16983]
Paulo Adeodato and Rosalvo Oliveira Neto

9:40AM Density Transformation and Parameter Estimation from Back Propagation Algorithm [#16782]
Prayag Gowgi and Shayan Garani Srinivasa

Session MA-3: Data Mining and Knowledge Discovery I
Monday, July 25, 8:00AM-10:00AM, Room: 214, Chair: Andries Engelbrecht

8:00AM Natural Neighbor-based Clustering Algorithm with Density Peeks [#16072]
Dongdong Cheng, Qingsheng Zhu, Jinlong Huang and Lijun Yang

8:20AM ASTEN: an Accurate and Scalable Approach to Coupled Tensor Factorization [#16322]
Quan Do and Wei Liu
8:40AM Co-Clustering Enterprise Social Networks [#16540]
Ruiqi Hu, Shirui Pan, Guodong Long, Xingquan Zhu, Jing Jiang and Chengqi Zhang

9:00AM Multidimensional Scaling Based Knowledge Provision for New Questions in Community Question Answering Systems [#16348]
Siqi Xiang, Wenge Rong, Yikang Shen, Yuanxin Ouyang and Zhang Xiong


9:40AM Towards a Patient Satisfaction Based Hospital Recommendation System [#16945]
Tannaz Sattari Tabrizi, Mohammad Reza Khoie, Elham Sahebkar, Shahram Rahimi and Nina Marhamati

**Special Session MA-4: IJCNN-05 Optimizing Neural Networks via Evolutionary Computation and Swarm Intelligence**
*Monday, July 25, 8:00AM-10:00AM, Room: 215, Chair: Wei-Chang Yeh, Guang Liu, Feng Sha*

8:00AM A Firefly Algorithm for Modular Granular Neural Networks Optimization Applied to Iris Recognition [#16158]
Daniela Sanchez, Patricia Melin, Juan Carpio and Hector Puga

8:20AM An Evolutionary Optimization Framework for Neural Networks and Neuromorphic Architectures [#16213]
Catherine Schuman, James Plank, Adam Disney and John Reynolds

8:40AM Multi-swarms Dynamic Convergence Optimization for Object Tracking [#16247]
Feng Sha, Wanming Huang, Yuk Ying Chung, Ying Zhou, Kevin K.Y. Kuan and Wei-Chang Yeh

9:00AM Ant Colony Optimization for the Design of Modular Neural Networks in Pattern Recognition [#16743]
Fevrier Valdez, Oscar Castillo and Patricia Melin

9:20AM A Simplified Swarm Optimization for Object Tracking [#17031]
Guang Liu, Yuk Ying Chung and Wei-Chang Yeh

9:40AM Creating Human-Like Non-Player Game Characters using A Memetic Multi-Agent System [#26030]
Yaqing Hou, Liang Feng and Yew-Soon Ong

**Session MA-5: Neuromorphic Hardware**
*Monday, July 25, 8:00AM-10:00AM, Room: 216, Chair: Hiroyuki Torikai*

8:00AM Si elegans: Evaluation of an innovative optical synaptic connectivity method for C. elegans Phototaxis using FPGAs [#16172]
Pedro Machado, Alicia Costalago Meruelo, Alexey Petrushin, Lorenzo Ferrara, Nikesh Lama, David Adama, Kofi Appiah, Axel Blau and T. M. McGinnity

8:20AM High Accuracy Implementation of Adaptive Exponential Integrated and Fire Neuron Model [#16556]
Aliasghar Makhlooghpor, Hamid Soleimani, Arash Ahmadi, Mark Zwolinski and Mehrdad Saif

8:40AM Realization of Desired Super-Stable Spike-Trains Based on Digital Spiking Neurons [#16663]
Kei Yamaoka and Toshimichi Saito
9:00AM Distributed Neural Network: Dynamic Learning via Backpropagation with Hardware Neurons using Arduino Chips [#16949]  
Gary Parker and Mohammad Khan
9:20AM A Digital Neuromorphic Circuit for Neural-Glial Interaction [#16517]  
Shaghayegh Gomar, Mitra Mirhasani, Majid Ahmadi and Mehrdad Seif
9:40AM A Hardware-Efficient Multi-Compartment Soma-Dendrite Model based on Asynchronous Cellular Automaton Dynamics [#17019]  
Narutoshi Jodai and Hiroyuki Torikai

Session MA-6: Deep Neural Networks I
Monday, July 25, 8:00AM-10:00AM, Room: 217-219, Chair: Lawrence Hall

8:00AM Understanding How Deep Neural Networks Learn Face Expressions [#16621]  
Nima Mousavi, Henrique Siqueira, Pablo Barros, Bruno Fernandes and Stefan Wermter
8:20AM Exploring Deep Features from Brain Tumor Magnetic Resonance Images via Transfer Learning [#16325]  
Renhao Liu, Lawrence Hall, Dmitry Goldgof, Mu Zhou, Robert Gatenby and Kaoutar Ahmed
8:40AM Lung Nodule Detection in CT Images using Deep Convolutional Neural Networks [#16717]  
Rotem Golan, Christian Jacob and Joerg Denzinger
9:00AM Supernovae Detection by Using Convolutional Neural Networks [#26038]  
Guillermo Cabrera-Vives, Ignacio Reyes, Francisco Forster, Pablo Estevez and Juan-Carlos Maureira
9:20AM Movie Genre Classification with Convolutional Neural Networks [#17114]  
Gabriel Simoes, Jonatas Wehrmann, Rodrigo Barros and Duncan Ruiz
9:40AM Cooperative Multi-Scale Convolutional Neural Networks for Person Detection [#17017]  
Markus Eisenbach, Daniel Seichter, Tim Wengefeld and Horst-Michael Gross

Session MA-11: Spiking Neural Networks I
Monday, July 25, 8:00AM-10:00AM, Room: 224, Chair: Nikola Kasabov

8:00AM Adaptive Delay Learning in SpikeProp Based on Delay Convergence Analysis [#16046]  
Sumit Bam Shrestha and Qing Song
8:20AM Visual Pattern Recognition using Unsupervised Spike Timing Dependent Plasticity Learning [#16304]  
Daqi Liu and Shigang Yue
8:40AM BPSpike: a backpropagation learning for all parameters in spiking neural networks with multiple layers and multiple spikes [#16318]  
Satoshi Matsuda
9:00AM Unsupervised Regenerative Learning of Hierarchical Features in Spiking Deep Networks for Object Recognition [#16574]  
Priyadarshini Panda and Kaushik Roy
9:20AM Acquisition of Visual Features Through Probabilistic Spike-Timing-Dependent Plasticity [#16647]  
Amirhossein Tavanaei, Timothee Masquelier and Anthony Maida
9:40AM Chaotic States Caused by Discontinuous Resetting Process in Spiking Neuron Model [#17009]
Plenary Talk MPlen: Deep Learning
Monday, July 25, 1:00PM-2:00PM, Room: Ballroom A, Chair: Jurgen Schmidhuber

Plenary Poster Session MPoster: Neural Networks
Monday, July 25, 2:00PM-2:30PM, Room: Ballroom D, Chair: Marios Polycarpou

P101 Channel Estimation for Visible Light Communications Using Neural Networks [#17065]
Anil Yesilkaya, Onur Karatalay, Arif Selcuk Ogrenci and Erdal Panayirci

P102 On the performance of pairings of activation and loss functions in neural networks [#16941]
Rodrigo Soares and Emeson Pereira

P103 Learning with Only Multiple Instance Positive Bags [#16321]
Zhigang Wang, Zengshun Zhao and Changshui Zhang

P104 Co-Regularized Least Square Regression for Multi-View Multi-Class Classification [#16568]
Lan Chao, Deng Yujie, Li Xiaoli and Huan Jun

P105 Deep Neural Network Using Trainable Activation Functions [#16245]
Hoon Chung, Sung Joo Lee and Jeon Gue Park

P106 Hyperbolic Linear Units for Deep Convolutional Neural Networks [#16759]
Jia Li, Hua Xu, Junhui Deng and Xiaomin Sun

P107 Speeding Up Feature Selection: A Deep-Inspired Network Pruning Algorithm [#16148]
Andreas Antoniades and Clive Cheong Took

P108 Data-driven light field depth estimation using deep convolution neural network [#16861]
Xing Sun, Zhimin Xu, Nan Meng, Edmund Y. Lam and Hayden K.-H. So

P109 Multi-digit Image Synthesis Using Recurrent Conditional Variational Autoencoder [#16212]
Haoze Sun, Weidi Xu, Chao Deng and Ying Tan

P110 Convolutional Neural Networks for Human Activity Recognition using Multiple Accelerometer and Gyroscope Sensors [#16235]
Sojeong Ha and Seungjin Choi

P111 Matrix Variate Restricted Boltzmann Machine [#16670]
Guanglei Qi, Yanfeng Sun, Junbin Gao, Yongli Hu and Jinghua Li

P112 A Systematic Algorithm to Escape from Local Minima in Training Feed-Forward Neural Networks [#16703]
Chi-Chung Cheung, Shensheng Sean Xu and Sin-Chun Ng

P113 Tracking the model: data assimilation by artificial neural network [#16835]
Rosangela Cintra, Haroldo Campos Velho and Steven Cocke

P114 Evolving Spiking Neural Networks of Artificial Creatures Using Genetic Algorithm [#17124]
Elahe Eskandari, Arash Ahmadi, Shaghayegh Gomar, Majid Ahmadi and Mehrdad Saif

P115 V-Shaped Neurons in Hidden Layer of ANN Universal Approximator without Flat Domains [#16974]
Josef Bostik, Martin Klimt, Matej Mojzes, Jaromir Kukal, Ivo Bukovsky and Matous Cejnek

P116 Exploring the Space of Adversarial Images [#16920]
Pedro Tabacof and Eduardo Valle

P117 WNN-based Robust Total-sliding-mode Control for the Synchronization of Uncertain Chaotic System
Systems [#16872]
Chiu-Hsiung Chen, Ya-Fu Peng and Sheng-Chieh Chung

P118 Single- and Multi-Objective Particle Swarm Optimization of Reservoir Structure in Echo State Network [#16919]
Naima Chouikhi, Raja Fdhila, Boudour Ammar, Nizar Rokbani and Adel M. Alimi

P119 Gated Recurrent Neural Tensor Network [#16889]
Andros Tjandra, Sakriani Sakti, Ruli Manurung, Mirna Adriani and Satoshi Nakamura

P120 Recurrent Temporal Sparse Autoencoder for Attention-based Action Recognition [#16430]
Miao Xin, Hong Zhang, Mingui Sun and Ding Yuan

P121 Pseudo almost periodic solutions of impulsive recurrent neural networks with mixed delays [#17128]
Hajer Brahmi, Boudour Ammar, Farouk Cherif and Adel M. Alimi

P122 Representing Logical Relations Automatically by Probabilistic Logical Dynamical Neural Network [#16389]
Gang Wang and De-Shuang Huang

P123 Nonlinear Non-negative Matrix Factorization using Deep Learning [#16492]
Hui Zhang, Huaping Liu, Rui Song and Fuchun Sun

P124 Hierarchical Dynamic Neural Networks for Cascade System Modeling with Application to Wastewater Treatment [#16217]
Wen Yu, Xiaou Li and Daniel Munoz

P125 Identification of Minimal Timespan Problem for Recurrent Neural Networks with application to Cyclone Wind-Intensity Prediction [#16186]
Ratneel Deo and Rohitash Chandra

P126 Estimation of States of a Nonlinear Plant using Dynamic Neural Network and Kalman Filter [#17159]
Alok Kanti Deb and Dibyendu Guha

P127 Self-Enforcing Networks (SEN) for the development of (medical) diagnosis systems [#16417]
Christina Kluever

P128 Collective Contextual Anomaly Detection Framework for Smart Buildings [#16951]
Daniel B. Araya, K. Grolinger, Hany F. ElYamany, Miriam A. M. Capretz and G. Bitsuamlak

P129 Multilayer Perceptron with Cuckoo Search in Water Level Prediction for Flood Forecasting [#17144]
Suwannee Phitakwinai, Sansanee Auephanwiriyakul and Nipon Theera-Umpon

P130 Ncfm: Accurate Handwritten Digits Recognition using Convolutional Neural Networks [#16106]
Yan Yin, JunMin Wu and HuanXin Zheng

P131 A Neural Words Encoding Model [#16242]
Dayiheng Liu, Jiancheng Lv, Xiaofeng Qi and Jiangshu Wei

P132 Hybrid Neural Networks for Social Emotion Detection over Short Text [#16855]
Xiangsheng Li, Jianhui Pang, Biyun Mo and Yanghui Rao

P133 Acquisition of Image Features for Material Perception from Fine-tuned Convolutional Neural Networks [#16597]
Daisuke Kobayashi, Noriko Yata and Yoshitsugu Manabe

P134 On Approximating Networks Centrality Measures via Neural Learning Algorithms [#16298]
Felipe Grando and Luis C. Lamb
P135  Analysis of COP Stability in a Refrigeration System using Artificial Neural Networks [#16530]
       Sergio Ledesma and J. M. Belman-Flores

P136  Modeling Subjectiveness in Emotion Recognition with Deep Neural Networks: Ensembles vs Soft
       Labels [#16346]
       Haytham Fayek, Margaret Lech and Lawrence Cavedon

P137  A direct fingerprint minutiae extraction approach based on convolutional neural networks
       [#16050]
       Lu Jiang, Tong Zhao, Chaochao Bai, Yong Aa and Min Wu

P138  Virtual Drug Screening Using Neural Networks [#16646]
       Daniel Hagan and Martin Hagan

P139  An Experimental Study on Joint Modeling of Mixed-Bandwidth Data via Deep Neural Networks
       for Robust Speech Recognition [#16816]
       Jianqing Gao, Jun Du, Changqing Kong, Huaiyang Chen, Enhong Chen and Chin-Hui Lee

P140  Decentralized Adaptive Neural Network Sliding Mode Control for Reconfigurable Manipulators
       with Data-based Modeling [#16119]
       Yuanchun Li, Guibin Ding, Bo Zhao, Bo Dong and Guangjun Liu

P141  A Note on Fractional-Order Non-Linear Controller: Possible Neural Network Approach to Design
       [#16143]
       Ivo Petras

P142  Asteroid Landing via Onboard Optimal Guidance Based on Bidirectional Extreme Learning
       Machine [#16062]
       Peng Zhang, Xiaosong Liu, Bo Zhao, Mujun Xie, Keping Liu and Yuanchun Li

P143  Covariance Descriptor based Convolution Neural Network for Saliency Computation in Low
       Contrast Images [#16729]
       Xin Xu, Nan Mu, Xiaolong Zhang and Bo Li

P144  Semantic Segmentation of Bioimages Using Convolutional Neural Networks [#16735]
       Stiaan Wiehman and Hendrik De Villiers

       Guo Lihua and Guo Chenggang

P146  Power Transformer Disturbance Classification Based on the Wavelet Transform and Artificial
       Neural Networks [#17088]
       Jessika Fernandes, Flavio Costa and Rodrigo Medeiros

P147  An Experimental Study based on Fuzzy Systems and Artificial Neural Networks to Estimate the
       Importance of Reviews about Product and Services [#16825]
       Roney Santos, Rogerio Sousa, Ricardo Rabelo and Raimundo Moura

P148  Neural Forecasting of the Day-Ahead Hourly Power Curve of a Photovoltaic Plant [#16977]
       Emanuele Ogliari, Alessandro Gandelli, Francesco Grimaccia, Sonia Leva and Marco Mussetta

P149  Orthogonal PSO Algorithm for Optimal Dispatch of Power of Large-Scale Thermal Generating
       Units in Smart Power Grid Under Power Grid Constraints [#16334]
       Loau Al Bahrani, Jagdish Patra and Ryszard Kowalczyk

P150  A Rule Extraction Study on a Neural Network Trained by Deep Learning [#16547]
       Guido Bologna and Yoichi Hayashi

P151  PSO Trained Neural Networks for Predicting Forest Fire Size: A Comparison of Implementation
       and Performance [#16516]
       Jeremy Storer and Green Robert
Understanding Neuro-Fuzzy on a class of multinomial malware detection problems [#16398]
Andrii Shalaginov, Lars Strande Grini and Katrin Franke

Using a Hybrid of Fuzzy Theory and Neural Network Filter for Image Dehazing Applications [#16335]
Jyun-Guo Wang, Chen-Chuan Tai, Chin-Ling Lee, Cheng-Jian Lin and Tsung-Hung Lin

Local Adaptive Receptive Field Dimension Selective Self-Organizing Map for Multi-View Clustering [#16960]
Victor Oliveira Antonino and Aluizio Fausto Ribeiro Araujo

Data Classification Combining Self-Organizing Maps and Informative Nearest Neighbor [#16995]
Leandro Moreira and Leandro Silva

Robust Neural Decentralized Control for a Quadrotor UAV [#16775]
M. Elena Antonio-Toledo, Edgar N. Sanchez and Alma Y. Alanis

Community Structure Analysis Using Label Propagation and Flow-Based Ensemble Learning [#16828]
Yunchang He, Jian Xu and Bo Yuan

Short-Term Load Forecasting Using Wavenet Ensemble Approaches [#16299]
Gabriel Trierweiler Ribeiro, Marcos Cesar Gritti, Helon Vicente Hultmann Ayala, Viviana Cocco Mariani and Leandro dos Santos Coelho

 Detecting Overlapping Protein Complexes in Weighted Protein-Protein Interaction Networks Using Pseudo-Clique Extension Based on Fuzzy Relation [#16166]
Buwen Cao, Jiawei Luo, Cheng Liang and Shulin Wang

Enhancing Deep Extreme Learning Machines by Error Backpropagation [#16651]
Migel Tissera and Mark McDonnell

Special Session MM-1: IJCNN-26 Concept Drift, Domain Adaptation and Learning in Dynamic Environments II

Monday, July 25, 2:30PM-4:30PM, Room: 212, Chair: Manuel Roveri

2:30PM FEDD: Feature Extraction for Explicit Concept Drift Detection in Time Series [#16610]
Rodolfo Cavalcante, Leandro Minku and Adriano Oliveira

2:50PM Online Metric Learning for an Adaptation to Confidence Drift [#16627]
Lydia Fischer, Barbara Hammer and Heiko Wersing

3:10PM Online Model-free Sensor Fault Identification and Dictionary Learning in Cyber-Physical Systems [#16732]
Cesare Alippi, Stavros Ntalampiras and Manuel Roveri

3:30PM A Combination of Transductive and Inductive Learning for Handling Non-Stationarities in Motor Imagery Classification [#16848]
Haider Raza, Hubert Cecotti and Prasad Girijesh

3:50PM Augmenting Adaptation with Retrospective Model Correction for Non-Stationary Regression Problems [#17025]
Rashid Bakirov, Bogdan Gabrys and Fay Damien

4:10PM Proactive Drift Detection: Predicting Concept Drifts in Data Streams using Probabilistic Networks [#17096]
Kylie Chen, Yun Sing Koh and Patricia Riddle

Session MM-2: Feedforward Neural Networks II
Monday, July 25, 2:30PM-4:30PM, Room: 213, Chair: Ryotaro Kamimura

2:30PM Intelligent System of Speech Recognition using Neural Networks based on DCT Parametric Models of Low Order [#16714]
Priscila Lima Rocha and Washington Luis Santos Silva

2:50PM Classification and sensitivity analysis to detect fault in induction Motors using an MLP network [#16913]
Renan Vieira, Claudio Medeiros and Elias da Silva Junior

3:10PM Repeated Potentiality Assimilation: Simplifying Learning Procedures by Positive, Independent and Indirect Operation for Improving Generalization and Interpretation [#16632]
Ryotaro Kamimura

3:30PM Partially Affine Invariant Back Propagation [#17112]
Son Nguyen, Kanishka Tyagi, Parastoo Kheirkhah and Michael Manry

3:50PM Boolean Factors Based Artificial Neural Network [#16953]
Lauraine Tiogning Kueti, Norbert Tsopze, Cezar Mbiethieu, Engelbert Mephu-Nguifo and Laure Pauline Fotso

4:10PM Nonlinear Programming Problem Solving based on Winner Take All Emotional Neural Network for Tensegrity Structure Design [#16453]
Nafiseh Lotfi, Ehsan Lotfi, Reza Mirzaei, Abbas Khoosravi and Saeid Nahavandi

Session MM-3: Data Mining and Knowledge Discovery II
Monday, July 25, 2:30PM-4:30PM, Room: 214, Chair: Marcio Dorn

2:30PM Building Mutually Beneficial Relationships Between Question Retrieval and Answer Ranking to Improve Performance of Community Question Answering [#17121]
Man Lan, Guoshun Wu, Chunyun Xiao, Yuanbin Wu and Ju Wu

2:50PM Modularity Optimization by Global-Local Search [#16274]
Xun Wang, Chang-Dong Wang and Jian-Huang Lai

3:10PM FTMF: Recommendation in Social Network with Feature Transfer and Probabilistic Matrix Factorization [#17156]
Zhi-Lin Zhao, Chang-Dong Wang, Yuan-Yu Wan, Jian-Huang Lai and Dong Huang

3:30PM A Bidirectional Hierarchical Skip-Gram Model for Text Topic Embedding [#16089]
Suncong Zheng, Hongyun Bao, Jiaming Xu, Yuexing Hao, Zhenyu Qi and Hongwei Hao

3:50PM Complementary Prioritized Ensemble Selection [#16930]
Kung-Hua Chang and Stott Parker

4:10PM Predicting Protein Structural Features with NeuroEvolution of Augmenting Topologies [#16763]
Bruno Grisci and Marcio Dorn

Special Session MM-4: IJCNN-48 Affective Brain-Computer Interaction
Monday, July 25, 2:30PM-4:30PM, Room: 215, Chair: Bao-Liang Lu, Chin-Teng Lin

2:30PM Application of Deep Belief Networks in EEG-based Dynamic Music-emotion Recognition [#16784]
Nattapong Thammasan, Ken-ichi Fukui and Masayuki Numao

2:50PM Spatio-Temporal EEG Pattern Extraction Using High-Density Scalp Arrays [#17140]
Jeffery Joshua Davis, Robert Kozma, Chin-Teng Lin and Walter J. Freeman

3:10PM Driving Fatigue Detection with Fusion of EEG and Forehead EOG [#16793]
Xue-Qin Huo, Wei-Long Zheng and Bao-Liang Lu

3:30PM Measuring Sleep Quality from EEG with Machine Learning Approaches [#16865]
Lili Wang, Weilong Zheng, Haiwei Ma and Baoliang Lu

3:50PM Multiway Analysis of EEG Artifacts based on Block Term Decomposition [#26055]
Sim Kuan Goh, Hussein A. Abbass, Kay Chen Tan, Abdullah Al-Mamun, Cuntai Guan and Chuan Chu Wang

4:10PM Learning Auditory Neural Representations for Emotion Recognition [#16402]
Pablo Barros, Cornelius Weber and Stefan Wermter

Special Session MM-5: IJCNN-45 Neuro-inspired Computing with Beyond CMOS Technology
Monday, July 25, 2:30PM-4:30PM, Room: 216, Chair: Amit Trivedi, Saibal Mukhopadhyay

2:30PM Resistive Memory Device Requirements for a Neural Algorithm Accelerator [#16789]
Sapan Agarwal, Steven Plimpton, David Hughart, Alexander Hsia, Isaac Richter, Jonathan Cox, Conrad James and Matthew Marinella

2:50PM ReRAM Crossbar based Recurrent Neural Network for Human Activity Detection [#17087]
Yun Long, Eui Min Jung, Jaeha Kung and Saibal Mukhopadhyay

3:10PM Exploiting the Short-term to Long-term Plasticity Transition in Memristive Nanodevice Learning Architectures [#16991]
Christopher H. Bennett, Selina La Barbera, Adrien F. Vincent, Jacques-Olivier Klein, Fabien Alibart and Damien Querlioz

3:30PM Gate/Source-Overlapped Heterojunction Tunnel FET-based LAMSTAR Neural Network and its Application to EEG Signal Classification. [#17016]
Susmita Dey Manasi and Amit Ranjan Trivedi

3:50PM On the Energy Benefits of Spiking Deep Neural Networks: A Case Study [#16579]
Bing Han, Abhronil Sengupta and Kaushik Roy

4:10PM Memristor Crossbar Deep Network Implementation Based on a Convolutional Neural Network [#16706]
Chris Yakopcic, Zahangir Alom and Tarek Taha

Session MM-6: Deep Neural Networks II
Monday, July 25, 2:30PM-4:30PM, Room: 217-219, Chair: Kunihiko Fukushima

2:30PM Margined Winner-Take-All: New Learning Rule for Pattern Recognition [#16157]
Kunihiko Fukushima

2:50PM Automatic Graphic Logo Detection via Fast Region-based Convolutional Networks [#16419]
Goncalo Oliveira, Xavier Frazao, Andre Pimentel and Bernardete Ribeiro

3:10PM A Theoretical Analysis of Deep Neural Networks for Texture Classification [#16505]
Saikat Basu, Manohar Karki, Robert DiBiano, Sangram Ganguly, Supratik Mukhopadhyay, Shreekant Gayaka and Ramakrishna Nemani

3:30PM Training Deep Neural Networks with Gradual Deconvexification [#16176]
James Lo, Yichuan Gui and Yu Peng

3:50PM SAM: A Rethinking of Prominent Convolutional Neural Network Architectures for Visual Object Recognition [#16266]
Zhenyang Wang, Zhidong Deng and Shiyao Wang

4:10PM  Echo-State Conditional Variational Auto-Encoder for Anomaly Detection [#17053]
        Suwon Suh, Daniel H. Chae, Hyon-Goo Kang and Seungjin Choi

Session MM-11: Spiking Neural Networks II
Monday, July 25, 2:30PM-4:30PM, Room: 224, Chair: Kazushi Ikeda

2:30PM  Recurrent lateral inhibitory spiking networks for speech enhancement [#16697]
        Julie Wall, Cornelius Glackin, Nigel Cannings, Gerard Chollet and Nazim Dugan

2:50PM  Wheel Slip Regulation Using Fuzzy Spiking Neural Networks [#16806]
        Yesim Oniz and Okyay Kaynak

3:10PM  O(1) time Sorting Algorithms using Spiking Neurons [#16528]
        Samya Bagchi, Srikrishna S Bhat and Atul Kumar

3:30PM  Simulation of Bayesian Learning and Inference on Distributed Stochastic Spiking Neural
        Networks [#17032]
        Khadeer Ahmed, Amar Shrestha and Qinru Qiu

3:50PM  Adaptive conversion of real-valued input into spike trains [#16353]
        Alexander Hadjivivanov

4:10PM  A Novel Homeostatic Plasticity Model Realized by Random Fluctuations in Excitatory
        Synapses [#16352]
        Takashi Matsubara and Kuniaki Uehara

Special Session MP-1: IJCNN-39 Hybrid Neural Intelligent Systems
Monday, July 25, 4:30PM-6:30PM, Room: 212, Chair: Patricia Melin

4:30PM  A Metagenomic Hybrid Classifier for Paediatric Inflammatory Bowel Disease [#16526]
        Benjamin Wingfield, Sonya Coleman, Martin McGinnity and Anthony Bjourson

4:50PM  Background Modeling on Depth Video Sequences Using Self-Organizing Retinotopic Maps
        [#16720]
        Mario Chacon-Murguia, Oscar Chavez-Montes and Juan Ramirez-Quintana

5:10PM  A Hybrid Neuro-Evolutive Algorithm for Neural Network Optimization [#16885]
        Lidio Mauro Lima De Campos, Roberto Celio Limao De Oliveira and Mauro Roisenberg

5:30PM  Repairing Blackbox Constraint Violations in Multi-Objective Optimisation by Use of Decision
        Trees [#16324]
        Timothy Rawlins, Andrew Lewis and Timoleon Kipouros

5:50PM  A probabilistic and dynamic chart pattern recognition hybrid system applied to foreign
        exchange rate prediction [#17020]
        Rodrigo F. B. de Brito and Adriano L. I. de Oliveira

6:10PM  A Constructive Algorithm for Neural Networks Inspired on Decision Trees and Evolutionary
        Algorithms [#16571]
        Marcus Vinicius Mazega Figueredo, Emerson Cabrera Paraiso and Julio Cesar Nievola

Session MP-2: Reservoir Networks
Monday, July 25, 4:30PM-6:30PM, Room: 213, Chair: Derong Liu

4:30PM  Stochastic Hardware Implementation of Liquid State Machines [#16080]
Miquel Lleo Alomar, Vincent Canals, Antoni Morro, Antoni Oliver and Josep Lluis Rossello
4:50PM Diverse, Noisy and Parallel: a New Spiking Neural Network Approach for Humanoid Robot Control [#16086]
Ricardo de Azambuja, Angelo Cangelosi and Samantha Adams
5:10PM An Experimental Evaluation of Echo State Network for Colour Image Segmentation [#16470]
Abdelkerim Souahlia, Ammar Belatreche, Abdelkader Benyettou and Kevin Curran
5:30PM Neural Network based denoised methods for Retinal Fundus and MRI Brain Images [#16549]
Toufique Ahmed Soomro and Junbin Gao
5:50PM AP-STDP: A Novel Self-Organizing Mechanism for Efficient Reservoir Computing [#16518]
Yingyezhe Jin and Peng Li
6:10PM An Energy Efficient Decoding Scheme for nonlinear MIMO-OFDM Network using Reservoir Computing [#16441]
Susanna Mosleh, Cenk Sahin, Lingjia Liu, Yahong Rosa Zheng and Yang Yi

Special Session MP-3: IJCNN-30 Biologically Inspired Computational Vision & Robotics
Monday, July 25, 4:30PM-6:30PM, Room: 214, Chair: Khan Iftekharuddin

4:30PM LGMD and DSNs Neural Networks Integration for Collision Predication [#16192]
Guopeng Zhang, Chun Zhang and Shigang Yue
4:50PM NFLB Dropout: Improve Generalization Ability by Dropping out the Best \ A Biologically Inspired Adaptive Dropout Method For Unsupervised Learning [#17076]
Peijie Yin, Lu Qi, Xuan Yang Xi, Bo Zhang and Hong Qiao
5:10PM Integrating Convolutional Neural Networks into a Sparse Distributed Representation Model based on Mammalian Cortical Learning [#17160]
Daniel Padilla and Mark McDonnell
5:30PM Efficient Feature Extraction with Simultaneous Recurrent Network for Metric Learning [#16572]
Mahbubul Alam, Lasitha Vidyaratne and Khan Iftekharuddin
5:50PM Deep Recurrent Neural Network for Seizure Detection [#16958]
Lasitha Vidyaratne, Alexander Glandon, Mahbubul Alam and Khan Iftekharuddin
6:10PM Neuro-fuzzy Learning of Locust's Marching in a Swarm [#16637]
Gil Segal, Amiram Moshaiov, Amichay Guy and Ayali Amir

Special Session MP-4: IJCNN-16 Applications of Machine Learning Techniques to Bioinformatics
Monday, July 25, 4:30PM-6:30PM, Room: 215, Chair: Xingming Zhao

4:30PM A hybrid sequential feature selection approach for the diagnosis of Alzheimer's Disease [#16529]
Yang Han and Xingming Zhao
4:50PM Classification of GPCR Proteins Using a Statistical Encoding Method [#16875]
Muhammad Javed Iqbal, Ibrahima Faye and Samir Belhaouari-Brahim
5:10PM Prediction of Membrane Protein Structures using a Projection based Meta-cognitive Radial Basis Function Network [#17094]
Shamima Rashid and Suresh Sundaram
5:30PM Large-Scale Prediction of Drug-Target Interactions from Deep Representations [#17100]
Peng-Wei Hu, Keith C.C. Chan and Zhu-Hong You
5:50PM Classification and diagnostic Prediction of Prostate Cancer using Gene Expression and Artificial Neural Networks [#16794]
Sreenivas Sremath Tirumala and Narayanan Ajit

6:10PM Clustering Based Active Learning for Biomedical Named Entity Recognition [#16804]
Xu Han, Chee-Keong Kwoh and Jung-jae Kim

Special Session MP-5: IJCNN-18 Neural Networks: Model and Application in Real World Problems
Monday, July 25, 4:30PM-6:30PM, Room: 216, Chair: Zhi-Hui Zhan, Jing-Hui Zhong, Yong Wee Foo

4:30PM Simulating Robotic Cars Using Time-Delay Neural Networks [#16428]
Alberto F. De Souza, Jackson R. C. Silva, Filipe Mutz, Claudine Badue and Thiago Oliveira-Santos

4:50PM Detecting Multiple Changes from Multi-Temporal Images by Using Stacked Denosing Autoencoder Based Change Vector Analysis [#16537]
Linzhi Su, Jiao Shi, Puzhao Zhang, Zhao Wang and Maoguo Gong

5:10PM Detection and Classification of Power Quality Disturbances in Time Domain Using Probabilistic Neural Network [#16904]
Ziming Chen, Mengshi Li, Tianyao Ji and Qinghua Wu

5:30PM Speciation and Diversity Balance for Genetic Algorithms and Application to Structural Neural Network Learning [#16906]
Yong Wee Foo, Cindy Goh and Yun Li

5:50PM Application of Surrogate Models for the Optimization and Design of Chemical Processes [#16956]
Corina Nentwich and Sebastian Engell

6:10PM Self-Regulated Incremental Clustering with Focused Preferences [#17005]
Di Wang and Ah-Hwee Tan

Session MP-6: Deep Neural Networks III
Monday, July 25, 4:30PM-6:30PM, Room: 217-219, Chair: Jacek Zurada

4:30PM Multi-Fidelity Matryoshka Neural Networks for Constrained IoT Devices [#16291]
Sam Leroux, Steven Bohez, Elias De Coninck, Tim Verbelen, Bert Vankeirsbilck, Pieter Simoens and Bart Dhoedt

4:50PM Clustering of Receptive Fields in Autoencoders [#16726]
Babajide Ayinde and Jacek Zurada

5:10PM About Pyramid Structure in Convolutional Neural Networks [#16946]
Ihsan Ullah and Alfredo Petrosino

5:30PM Deep Self-organizing Reservoir Computing Model for Visual Object Recognition [#16459]
Zhidong Deng, Chengzhi Mao and Xiong Chen

5:50PM Convolutional Neural Network Based Sentiment Analysis using Adaboost Combination [#16356]
Yazhi Gao, Wenge Rong, Yikang Shen and Zhang Xiong

6:10PM Match Memory Recurrent Networks [#16634]
Spyridon Samothrakis, Tom Vodopivec, Maria Fasli and Michael Fairbank

Special Session MP-11: IJCNN-35 Spiking Neural Networks
Monday, July 25, 4:30PM-6:30PM, Room: 224, Chair: Nathan Scott

4:30PM An Application Development Platform for Neuromorphic Computing [#16179]
   Mark Dean, Jason Chan, Christopher Daffron, Adam Disney, John Reynolds, Garrett Rose,
   James Plank, Douglas Birdwell and Catherine Schuman

4:50PM Rate Coding vs. Temporal Coding - Is Optimum Between? [#16383]
   Mikhail Kiselev

5:10PM Longitudinal Study of Alzheimer's Disease Degeneration through EEG Data Analysis with a
   NeuCube Spiking Neural Network Model [#16725]
   Elisa Capecci, Zohreh Gholami Doborjeh, Nadia Mammone, Fabio La Foresta, Francesco C.
   Morabito and Nikola Kasabov

5:30PM Which Method to Use for Optimal Structure and Function Representation of Large Spiking
   Neural Networks: A Case Study on the NeuCube Architecture [#16787]
   Anne Abbott, Neelava Sengupta and Nikola Kasabov

5:50PM Personalised Modelling on Integrated Clinical and EEG Spatio-Temporal Brain Data in the
   NeuCube Spiking Neural Network System [#16821]
   Maryam Gholami Doborjeh and Nikola Kasabov

6:10PM Self-Repairing Mobile Robotic Car using Astrocyte-Neuron Networks [#16856]
   Junxiu Liu, Jim Harkin, Liam McDaid, David M. Halliday, Andy M. Tyrrell and Jon Timmis

Special Session TA-1: IJCNN-49 Machine Learning Methods Robust to Large Outliers I
Tuesday, July 26, 8:00AM-10:00AM, Room: 212, Chair: Badong Chen, Lei Sun

8:00AM Multiple Adaptive Kernel Size KLMS for Beijing PM2.5 Prediction [#16444]
   Zheng Cao, Shujian Yu, Guibiao Xu, Badong Chen and Jose Principe

8:20AM A Dictionary Based Survival Error Compensation for Robust Adaptive Filtering [#16599]
   Lei Sun, Badong Chen, Jie Yang, Ronghua Zhou, Qing Nie and Aihua Wang

8:40AM Robust Affine Iterative Closest Point Algorithm Based on Correntropy for 2D Point Set
   Registration [#16165]
   Wu Zongze, Chen Hongchen and Du Shaoyi

9:00AM ADMM for Maximum Correntropy Criterion [#16724]
   Fei Zhu, Abderrahim Halimi, Paul Honeine, Badong Chen and Nanning Zheng

9:20AM Generalized Correntropy Induced Loss Function for Deep Learning [#16250]
   Chen Liangjun, Qu Hua and Zhao Jihong

9:40AM Robust Bounded Logistic Regression in the Class Imbalance Problem [#16275]
   Guibiao Xu, Bao-Gang Hu and Jose Principe

Session TA-2: Supervised Learning
Tuesday, July 26, 8:00AM-10:00AM, Room: 213, Chair: Ana Carolina Lorena

8:00AM Large Scale Metric learning [#16239]
   Zay Maung Maung Aye, Kotagiri Ramamohanarao and Benjamin Rubinstein

8:20AM Measuring the Complexity of Regression Problems [#16500]
   Aron Maciel, Ivan Costa and Ana Carolina Lorena

8:40AM Enhancing Multi-label Classification Based on Local Label Constraints and Classifier Chains
   [#16700]
Benhui Chen, Weite Li, Yuqing Zhang and Jinglu Hu

9:00AM Supervised Radar Signal Classification [#16293]
Ivan Jordanov, Nedyalko Petrov and Alessio Petrozziello

9:20AM Optimizing Neural-network Learning Rate by Using a Genetic Algorithm with Per-epoch Mutations [#16244]
Yasushi Kanada

9:40AM Spatially Constrained Location Prior for Scene Parsing [#16739]
Ligang Zhang, Brijesh Verma, David Stockwell and Sujan Chowdhury

Special Session TA-3: Advances in Computational Intelligence for Applied Time Series Forecasting (ACIATSF)
Tuesday, July 26, 8:00AM-10:00AM, Room: 214, Chair: Cristian Rodriguez Rivero, Martin Stepnicka, Michal Burda

8:00AM Clustering Based Methods for Solar Power Forecasting [#16342]
Zheng Wang, Irena Koprinska and Mashud Rana

8:20AM An Adaptive Forecasting Strategy with Hybrid Ensemble Models [#16559]
Joerg Wichard

8:40AM Meta-Learning with Neural Networks and Landmarking for Forecasting Model Selection - An Empirical Evaluation of Different Feature Sets Applied to Industry Data [#17158]
Mirko Kueck, Sven F. Crone and Michael Freitag

9:00AM An automatic calibration framework applied on a metaheuristic fuzzy model for the CIF competition [#16922]
Vitor N. Coelho, Igor M. Coelho, R. Meneghini Ivan, J. F. Souza Marcone and Frederico G. Guimaraes

9:20AM Feature Selection of Autoregressive Neural Network Inputs for Trend Time Series Forecasting [#17155]
Sven, F. Crone and Stephan Haeger

9:40AM Recurrent Neural Network Based Prediction of Indian Summer Monsoon Using Global Climatic Predictors [#16128]
Moumita Saha and Pabitra Mitra

Special Session TA-4: Online Real-Time Learning Strategies for Large Data Streams
Tuesday, July 26, 8:00AM-10:00AM, Room: 215, Chair: Mahardhika Pratama

8:00AM A comparative study of HTM and other neural network models for online sequence learning with streaming data [#16167]
Yuwei Cui, Chetan Surpur, Subutai Ahmad and Jeff Hawkins

8:20AM Detection of Event Onset using Twitter [#16354]
Satya Katragadda, Ryan Benton, Shahid Virani and Vijay Raghavan

8:40AM Predicting the sentiment of SaaS online reviews using supervised machine learning techniques [#16809]
Asma Alkalbani, Ahmed Mohamed Ghamry, Farookh Khadeer Hussain and Omar Khadeer Hussain

9:00AM CD-TDS: Change Detection in Transactional Data Streams for Frequent Pattern Mining [#17034]
Yun Sing Koh
9:20AM Sentiment Classification Using Comprehensive Attention Recurrent Models [#16506]
   Yong Zhang, Meng Joo Er, Ning Wang, Mahardhika Pratama and Venkatesan Rajasekar
9:40AM Tweet Modeling with LSTM Recurrent Neural Networks for Hashtag Recommendation
   [#16350]
   Jia Li, Hua Xu, XingWei He, Junhui Deng and Xiaomin Sun

Special Session TA-5: IJCNN-03 Machine Learning Methods Applied to Vision and Robotics
Tuesday, July 26, 8:00AM-10:00AM, Room: 216, Chair: Jose Garcia-Rodriguez, Jorge Azorin

8:00AM PointNet: A 3D Convolutional Neural Network for Real-Time Object Class Recognition
   [#16727]
   Alberto Garcia-Garcia, Francisco Gomez-Donoso, Jose Garcia-Rodriguez, Sergio Orts-
   Escolano, Miguel Cazorla and Jorge Azorin-Lopez
8:20AM Group Activity Description and Recognition based on Trajectory Analysis and Neural
   Networks [#17006]
   Jorge Azorin-Lopez, Marcelo Saval-Calvo, Andres Fuster-Guillo, Jose Garcia-Rodriguez,
   Miguel Cazorla and Maria Teresa Signes-Pont
8:40AM Evolutionary Cellular Automata Based Approach to High-dimensional Image Segmentation for
   GPU Projection [#16525]
   Blanca Priego, Javier Lopez-Fandino, Dora B. Heras, Francisco Arguello and Richard Duro
9:00AM Probabilistic Human Mobility Model in Indoor Environment [#17057]
   Bo Tang, Chao Jiang, Haibo He and Yi Guo
9:20AM Computing the 2-D Image Euler Number by an Artificial Neural Network [#16635]
   Humberto Sossa, Angel Carreon, Elizabeth Guevara and Raul Santiago
9:40AM Facial Expression Recognition Based on Motion Estimation [#16777]
   Hemir Santiago, Ing Ren Tsang and George Cavalcanti

Session TA-6: Deep Learning I
Tuesday, July 26, 8:00AM-10:00AM, Room: 217-219, Chair: Guillermo Cabrera

8:00AM Assessing Diffusion of Spatial Features in Deep Belief Networks [#16139]
   Hasari Tosun, Ben Mitchell and John Sheppard
8:20AM Deep Learning with Random Neural Networks [#16502]
   Erol Gelenbe and Yonghua Yin
8:40AM A Deep Quasi-Linear Kernel Composition Method for Support Vector Machines [#16692]
   Weite Li, Jinglu Hu and Benhui Chen
9:00AM Node Label Matching Improves Classification Performance in Deep Belief Networks [#16283]
   Allan Campbell, Vic Ciesielski and A. K. Qin
9:20AM Deep Inverse Regression with Modified Document Probability for Text Classification [#26024]
   Ruoxu Ren, Li Ma and Kay Chen Tan
9:40AM Person Re-identification Based on Deep Spatio-temporal Features and Transfer Learning
   [#16826]
   Shengke Wang, Cui Zhang, Lianghua Duan, Lina Wang, Shan Wu and Long Chen

Special Session TA-11: IJCNN-27 Extreme Learning Machines I
Tuesday, July 26, 8:00AM-10:00AM, Room: 224, Chair: Jonathan Wu, Ajay Patrikar

8:00AM Towards Using Reservoir Computing Networks for Noise-Robust Image Recognition [#16123]
Azarakhsh Jalalvand, Wesley De Neve, Rik Van de Walle and Jean-Pierre Martens

8:20AM Improving Accuracy of Gaussian Mixture Model Classifiers with Additional Discriminative Training [#16218]
Ajay Patrikar and John Baker

8:40AM Heterogeneous Extreme Learning Machines [#16221]
Julio J. Valdes

9:00AM Automatic seizure detection using a novel EEG feature based on nonlinear complexity [#16269]
Jiang Ling Song and Rui Zhang

9:20AM Multi-Modal Local Receptive Field Extreme Learning Machine for Object Recognition [#16494]
Fengxue Li, Huaping Liu, Xinying Xu and Fuchun Sun

9:40AM Fast Training of Convolutional Neural Network Classifiers through Extreme Learning machines [#16504]
Youngwoo Yoo and Se-Young Oh

Plenary Talk TPlen: Dynamic Mapping and Interfacing with the Human Brain
Tuesday, July 26, 1:00PM-2:00PM, Room: Ballroom A, Chair: Bin He

Special Session TM-1: IJCNN-49 Machine Learning Methods Robust to Large Outliers II
Tuesday, July 26, 2:30PM-4:30PM, Room: 212, Chair: Badong Chen, Lei Sun

2:30PM Topology Preserving Dictionary Learning for Pattern Classification [#16386]
Jun Guo, Yanqing Guo, Bo Wang, Xiangwei Kong and Ran He

2:50PM A Novel Entropy Optimized Kernel Least-Mean Mixed-Norm Algorithm [#16564]
Xiong Luo, Jing Deng, Ji Liu, Ayong Li, Weiping Wang and Wenbing Zhao

3:10PM Generalized Correntropy Matching Pursuit: A novel, robust algorithm for sparse decomposition [#16577]
Carlos Loza and Jose Principe

3:30PM Robust Image Registration with Rotation, Scale and Translation Using Best-Buddies Pairs [#16879]
Shuang Luo, Yang Yang, Shaoyi Du and Qian Kou

3:50PM Extended Kalman Filter under Maximum Correntropy Criterion [#16661]
Xi Liu, Hua Qu, Jihong Zhao and Badong Chen

4:10PM Kernel Adaptive Filtering under Generalized Maximum Correntropy Criterion [#16616]
Yicong He, Fei Wang, Jing Yang, Haijun Rong and Badong Chen

Session TM-2: Supervised Learning II
Tuesday, July 26, 2:30PM-4:30PM, Room: 213, Chair: Bonny Banerjee

2:30PM A Time Window Neural Network Based Framework for Remaining Useful Life Estimation [#26050]
Pin Lim, Chi Keong Goh and Kay Chen Tan
2:50PM  Human Skeleton Matching for E-learning of Dance Using A Probabilistic Neural Network [#17074]
        Sriparna Saha, Rimita Lahiri, Amit Konar, Bonny Banerjee and Atulya Nagar

3:10PM  Manifold optimization for nonnegative coefficient logistic regression [#16042]
        Xia Hong and Junbin Gao

3:30PM  Online Data Centering Modifications for Adaptive Filtering with NLMS Algorithm [#16554]
        Matous Cejnek and Ivo Bukovsky

3:50PM  Semi-hierarchical naive Bayes classifier [#16109]
        Hasna Njah, Salma Jamoussi and Walid Mahdi

4:10PM  Discriminant Vector Transformations in Neural Network Classifiers [#17106]
        Soumitro Auddy, Kanishka Tyagi, Son Nguyen and Michael Manry

Special Session TM-3: IJCNN-01 Mind, Brain and Cognitive Algorithms
Tuesday, July 26, 2:30PM-4:30PM, Room: 214, Chair: Leonid Perlovsky

2:30PM  Godel vs. Aristotle: Algorithmic Complexity, Models of the Mind, and Top Representations [#17153]
        Leonid Perlovsky

2:50PM  Unsupervised Transfer Learning via Low-Rank Coding for Image Clustering [#16085]
        Sheng Li and Yun Fu

3:10PM  Super-intelligence Challenges and Lossless Visual Representation of High-Dimensional Data [#16449]
        Boris Kovalerchuk

3:30PM  Toward a Neuro-developmental Theory of Decision Attribute Weighting [#17061]
        Daniel Levine

3:50PM  Brains as Optimal Emergent Turing Machines [#17080]
        Juyang Weng

4:10PM  Divergent Thinking in a Neurodynamical Model of Ideation [#17171]
        Mei Mei and Ali Minai

Special Session TM-4: Online Real Time Learning Strategies for Large Data Streams II
Tuesday, July 26, 2:30PM-4:30PM, Room: 215, Chair: Meng Joo Er

2:30PM  A Novel Online Real-time Classifier for Multi-label Data Streams [#17069]
        Rajasekar Venkatesan, Meng Joo Er, Shiqian Wu and Mahardhika Pratama

2:50PM  Evolving Type-2 Recurrent Fuzzy Neural Network [#16191]
        Mahardhika Pratama, Edwin Lughofer, Meng Joo Er, Wenny Rahayu and Tharam Dillon

3:10PM  Functionally Expanded Streaming Data as Input to Classification Processes Using Ensembles of Constructive Neural Networks [#16189]
        Joao Bertini and Maria Nicoletti

3:30PM  Mahalanobis Distance Metric Learning Algorithm for Instance-based Data Stream Classification [#16426]
        Jorge Rivero, Bernardete Ribeiro and Carlos Morell

3:50PM  Deep Neural Network for Online Writer Identification using Beta-Elliptic Model [#16910]
        Thameur Dhieb, Wael Ouarda, Houcine Boubaker and Adel M. Alimi

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4:10PM A Boosting-like Online Learning Ensemble [#16733]

Special Session TM-5: IJCNN-23 Research on Large Scale Clustering Algorithms
Tuesday, July 26, 2:30PM-4:30PM, Room: 216, Chair: Yiming Zhang, Shaohe Lv, Xin Niu

2:30PM Large Scale Spatial Temporal Data Visualization based on Spark and 3D Volume Rendering [#16280]
  Bo Mao, Zhengchun Yu and Jie Cao

2:50PM Learning from Wireless: a Prospective Approach to Human-Centered Computing [#16320]
  Yong Lu, Shaohe Lv, Xue Yang, Xiaodong Wang, Minne Li and Xingming Zhou

3:10PM Hermes: An Optimization of HyperLogLog Counting in Real-time Data Processing [#16476]
  Yunxiang Zhao, Songtao Guo and Yuanyuan Yang

3:30PM A mobile recommendation system based on Logistic Regression and Gradient Boosting Decision Trees [#16728]
  Yaozheng Wang, Dawei Feng, Dongsheng Li, Xinyuan Chen, Yunxiang Zhao and Xin Niu

3:50PM Speeding-up the prototype based kernel k-means clustering method for large data sets [#16808]
  Hitendra Sarma Togerchety, Viswanath Pulabaigari and Negi Atul

4:10PM Centrality Clustering-Based Sampling for Big Data Visualization [#16289]
  Thanh Tam Nguyen and Insu Song

Session TM-6: Deep Learning II
Tuesday, July 26, 2:30PM-4:30PM, Room: 217-219, Chair: Minho Lee

2:30PM Adaptive Driver Assistance System based on Traffic Information Saliency Map [#16591]
  Jihun Kim, Seonggyu Kim, Rammohan Mallpeddi, Giljin Jang and Minho Lee

2:50PM Exploring Multimodal Video Representation for Action Recognition [#16261]
  Cheng Wang, Haojin Yang and Christoph Meinel

3:10PM Learning a metric for class-conditional KNN [#16570]
  Jiwoong Im and Graham Taylor

3:30PM Sparsely Connected Autoencoder [#16077]
  Kavya Gupta and Angshul Majumdar

3:50PM Empirical Investigation of the Low Temperature Energy Function of the Restricted Boltzmann Machine Using a 1000 qubit D-Wave 2X [#16939]
  Yaroslav Koshka, Dilina Perera, Spencer Hall and M.A. Novotny

4:10PM Deep Kernel-SVM Network [#16311]
  Ilyes Rebai, Yassine BenAyed and Walid Mahdi

Special Session TM-11: IJCNN-27 Extreme Learning Machines II
Tuesday, July 26, 2:30PM-4:30PM, Room: 224, Chair: Amaury Lendasse, Vijay Manikandan

2:30PM Direct Heuristic Dynamic Programming Design with Extreme Learning Machine [#16524]
  Xiong Luo, Yixuan Lv, Weiping Wang, Mi Zhou and Wenbing Zhao

2:50PM Least Mean p-Power Extreme Learning Machine for Obstacle Avoidance of a Mobile Robot [#16681]
  Jing Yang, Pengpeng Chen, Hai-Jun Rong and Badong Chen
3:10PM Prediction of Photoplethysmogram Signals Using Sequential ELM [#16710]
Amita Mahuli, Niranjana Krupa and Koshy George

3:30PM Stacked Tensor Subspace Learning for Hyperspectral Image Classification [#16765]
Wei Yantao and Zhou Yicong

3:50PM Anomaly Detection in Aviation Data using Extreme Learning Machines [#16769]
Vijay Manikandan Janakiraman and David Nielsen

4:10PM Construction of Multi-class Classifiers by Extreme Learning Machine Based One-class Classifiers [#16783]
Chandan Gautam, Aruna Tiwari and Sriram Ravindran

Session TP-1: Attractor and Oscillatory Neural Networks
Tuesday, July 26, 4:30PM-6:30PM, Room: 212, Chair: Robert Kozma

4:30PM In the quest of efficient hardware implementations of dynamic neural fields: an experimental study on the influence of the kernel shape [#16303]
Benoit Chappet de Vangel and Jeremy Fix

4:50PM Synchronization Detection in Networks of Coupled Oscillators for Pattern Recognition [#16957]
Damir Vodenicarevic, Nicolas Locatelli, Julie Grollier and Damien Querlioz

5:10PM Modeling Quasi-Periodic Lightcurves using Neuropercolation [#26056]
Catalina Elzo, Pablo Estevez and Robert Kozma

5:30PM Analysis of Various Periodic Orbits in Simple Dynamic Binary Neural Networks [#16676]
Ryuji Sato, Kazuma Makita and Toshimichi Saito

5:50PM On the Design of Phase Locked Loop Oscillatory Neural Networks: Mitigation of Transmission Delay Effects [#16310]
Rongye Shi, Thomas Jackson, Brian Swenson, Soummya Kar and Lawrence Pileggi

6:10PM Reliable Storage and Recall of Aperiodic Spatiotemporal Activity Patterns Using Scaffolded Attractors [#16581]
Furqan Afzal and Ali Minai

Session TP-2: Brain Machine Interfaces
Tuesday, July 26, 4:30PM-6:30PM, Room: 213, Chair: Hubert Cecotti

4:30PM Estimation of Effective Fronto-Parietal Connectivity during Motor Imagery using Partial Granger Causality Analysis [#16915]
Dheeraj Rathee, Hubert Cecotti and Girijesh Prasad

4:50PM An EEG-Based Brain-Computer Interface for Emotion Recognition [#16438]
Jiahui Pan, Yuanqing Li and Jun Wang

5:10PM Verification of Fraudulent PIN Holders by Brain Waves [#16592]
Hiromichi Iwase, Teruki Horie and Yasuo Matsuyama

5:30PM A study on relationship between Age and Oddball-Task difficulty on Peak Latency of P300 [#16598]
Kentaro Takakura, Tomohiro Yoshikawa and Takeshi Furushashi

5:50PM Spectral Analysis and Artificial Neural Network Based Classification of Three Mental States for Brain Machine Interface Applications [#16695]
Trongmun Jiralerspong, Fumiya Sato, Chao Liu and Jun Ishikawa
6:10PM Decimation Filter with Common Spatial Pattern and Fishers Discriminant Analysis for Motor Imagery Classification [#16798]
Shiu Kumar, Ronesh Sharma, Alok Sharma and Tatsuhiko Tsunoda

**Session TP-3: Temporal Data Analysis, Prediction and Forecasting, Time Series Analysis**
*Tuesday, July 26, 4:30PM-6:30PM, Room: 214, Chair: Manuel Roveri*

4:30PM Hidden Markov Model Inference in an Associative Memory Architecture [#16961]
Jussi Poikonen, Mika Laiho, Eero Lehtonen and Timo Knuutila

4:50PM Applying a General Hybrid Intelligent System for Ultra-High-Frequency Stock Market Forecasting [#16998]
Paulo S. G. de Mattos Neto and Tiago Ferreira

5:10PM Predictive planning with neural networks [#17108]
Russell Ainslie, John McCall, Sid Shakya and Gilbert Owusu

5:30PM Derivative Based Prediction with Look Ahead [#16985]
Tomas Barton and Petr Musilek

5:50PM Online Time Series Prediction with Meta-Cognition [#16343]
Koshy George and Prabhanjan Mutalik

6:10PM Multi-Step-Ahead Forecasting using Kernel Adaptive Filtering [#16605]
Sergio Garcia-Vega, German Castellanos-Dominguez, Michel Verleysen and John Lee

**Special Session TP-4: IJCNN-19 Ordinal Regression and Ranking**
*Tuesday, July 26, 4:30PM-6:30PM, Room: 215, Chair: Pedro A. Gutierrez*

4:30PM Learning and Ensembling Lexicographic Preference Trees with Multiple Kernels [#16736]
Kelwin Fernandes, Jaime Cardoso and Hector Palacios

4:50PM Exploiting Monotonicity Constraints to Reduce Label Noise: an Experimental Evaluation [#16868]
Ad Feelders and Tjijmen Kolkman

5:10PM Tackling the ordinal and imbalance nature of a melanoma image classification problem [#16117]
Maria Perez-Ortiz, Aurora Saez, Javier Sanchez-Monedero, Pedro Antonio Gutierrez and Cesar Hervas-Martinez

5:30PM Combination of uncertain ordinal expert statements: The combination rule EIDMR and its application to low-voltage grid classification with SVM [#16170]
Sebastian Breker and Bernhard Sick

5:50PM Representing ordinal input variables in the context of ordinal classification [#16600]
Pedro Antonio Gutierrez, Maria Perez-Ortiz, Javier Sanchez-Monedero and Cesar Hervas-Martinez

6:10PM Tackling Class Imbalance with Ranking [#16731]
Ricardo Cruz, Kelwin Fernandes, Jaime Cardoso and Joaquim Costa

**Special Session TP-5: IJCNN-15 Machine Learning with Incompletely Labeled Data**
*Tuesday, July 26, 4:30PM-6:30PM, Room: 216, Chair: Min-Ling Zhang, Yang Yu*

4:30PM Transfer Learning for Image Classification with Incomplete Multiple Sources [#16065]
Zhengming Ding, Ming Shao and Fu Yun

4:50PM  A Community Discovery Approach in Multi-label data [#16401]
Na Li, Zhisong Pan, Mingchu Jiang, Yanyan Zhang and Haimin Yang

5:10PM  Crowdsourcing of Network Data [#16411]
Ding Wang, Prakash Mandayam Comar and Pang-Ning Tan

5:30PM  A Robust UCB Scheme for Active Learning in Regression from Strategic Crowds [#16712]
Divya Padmanabhan, Satyanath Bhat, Dinesh Garg, Shirish Shevade and Y. Narahari

5:50PM  Discriminative Kernel Transfer Learning via l2,1-Norm Minimization [#16155]
Lei Zhang, Sunil Kr. Jha, Tao Liu and Guangshu Pei

6:10PM  A Non-parametric Approach for Learning from Crowds [#16535]
Jiayi Fu, Jinhong Zhong, Yunfeng Liu, Zhenyu Wang and Ke Tang

Special Session TP-6: IJCNN-12 Deep Learning for Brain-Like Computing and Pattern Recognition
Tuesday, July 26, 4:30PM-6:30PM, Room: 217-219, Chair: Guoqiang Zhong

4:30PM  Deep Hashing Learning Networks [#16877]
Guoqiang Zhong, Hui Xu, Pan Yang, Sijiang Wang and Junyu Dong

Guoqiang Zhong, Yaxin Shi and Mohamed Cheriet

5:10PM  Scalable Large Margin Online Metric Learning [#16609]
Guoqiang Zhong, Yan Zheng, Sheng Li and Yun Fu

5:30PM  Sparse Canonical Temporal Alignment with NTF for RGB-D Action Recognition [#16195]
Chengcheng Jia, Ming Shao and Yun Fu

5:50PM  Vision-based Vehicle Detecting and Counting for Traffic Flow Analysis [#17073]
Zhimei Zhang, Kun Liu, Feng Gao, Xianyun Li and Guodong Wang

6:10PM  Loop Closure Detection for Visual SLAM Using PCANet Features [#17107]
Yifan Xia, Jie Li, Lin Qi and Hao Fan

Special Session TP-11: IJCNN-27 Extreme Learning Machines III
Tuesday, July 26, 4:30PM-6:30PM, Room: 224, Chair: Guang-Bin Huang, Mark McDonnell

4:30PM  Learning Boltzmann Machine with EM-like Method [#16126]
Jinmeng Song and Chun Yuan

4:50PM  On the importance of pair-wise feature correlations for image classification [#16815]
Mark McDonnell, Robby McKilliam and Philip de Chazal

5:10PM  Smile Detection Using Pair-wise Distance Vector and Extreme Learning Machine [#16447]
Dongshun Cui, GuangBin Huang and Tianchi Liu

5:30PM  Two-Stage Structured Learning Approach for Stable Occupancy Detection [#16538]
Tianchi Liu, Yue Li, Zuo Bai, Jaydeep De, Cao Vinh Le, Zhiping Lin, Shih-Hsiang Lin, Guang-Bin Huang and Dongshun Cui

5:50PM  Multivariate Electricity Consumption Prediction with Extreme Learning Machine [#16863]
Hui Song, A. K. Qin and Flora D. Salim

6:10PM  ELM Meets RAE-ELM: A Hybrid Intelligent Model for Multiple Fault Diagnosis and
Remaining Useful Life Predication of Rotating Machinery [#16924]
Zhi-Xin Yang and Peng-Bo Zhang
Session WA-1: Recurrent Neural Networks  
Wednesday, July 27, 8:00AM-10:00AM, Room: 212, Chair: Jinde Cao

8:00AM Finite-time stability analysis of fractional order delayed memristive neural networks [#16027]  
Ruoxia Li, Jinde Cao and Ying Wan

8:20AM Periodic and partly periodic oscillation in Hopfield recurrent neural networks with time-varying inputs and delays [#16312]  
Chunhua Feng and Rejean Plamondon

8:40AM Accommodative Neural Filters [#16129]  
James Lo and Yu Guo

9:00AM Dynamics of Structured Complex Recurrent Hopfield Networks [#16248]  
Rama Murthy Garimella, Anil Rayala and Sai Dileep Munugoti

9:20AM Recurrent neural identification on Xilinx system generator using V7 FPGA for a 2DOF robot manipulator [#16767]  
Ulises Davalos, Carlos Castaneda, Pedro Esquivel, Francisco Jurado and Onofre Morfin

9:40AM Modified Elman Neural Network Based Neural Adaptive Inverse Control of Rate-Dependent Hysteresis [#16734]  
Liang Deng, Rudolf J. Seethaler, YangQuan Chen, Ping Yang, Qiming Cheng and Ning Yang

Session WA-2: Unsupervised Learning and Clustering I  
Wednesday, July 27, 8:00AM-10:00AM, Room: 213, Chair: Jim Bezdek

8:00AM Unsupervised Mining of Under-resourced Speech Corpora for Tone Features Classification [#16067]  
Moses Ekpenyong and Udoinyang Inyang

8:20AM Adaptive Objective Function of ICA by Gaussian Approximation in Second-Order Polynomial Feature Space [#16142]  
Yoshitatsu Matsuda and Kazunori Yamaguchi

8:40AM Achieving Stable Subspace Clustering by Post-Processing Generic Clustering Results [#16146]  
Pham Duc-Son, Ognjen Arandjelovic and Svetha Venkatesh

9:00AM Fast entropy clustering of sparse high dimensional binary data [#16270]  
Marek Smieja, Szymon Nakoneczny and Jacek Tabor

9:20AM Autonomous Data Density based Clustering Method [#26020]  
Plamen P. Angelov, Xiaowei Gu, German Gutierrez, Jose Antonio Iglesias and Araceli Sanchis

9:40AM Random Projection below the JL Limit [#16018]  
James Bezdek, Xiuyi Ye, James Keller, Mihail Popescu and Alina Zare

Special Session WA-3: IJCNN-14 Advanced Supervised Learning Techniques and its Applications  
Wednesday, July 27, 8:00AM-10:00AM, Room: 214, Chair: Min-Ling Zhang, Bing Han

8:00AM Tag Correlation and User Social Relation based Microblog Recommendation [#16161]  
Ma Huifang, Jia Meihuizi, Lin Xianghong and Zhuang Fuzhen

8:20AM Embedded Locality Discriminant GPLVM for Dimensionality Reduction [#16256]  
Bing Han, Lixia Zhang, Xinbo Gao, Dacheng Tao and Xiaojing Zhao

8:40AM Sketch Metric Learning [#16360]  
Yuting Mai, Weihong Li, Yongyi Tang, Xixi Bi and Wei-Shi Zheng
9:00AM  Cost-Sensitive One-vs-One Ensemble for Multi-Class Imbalanced Data [#16562]
        Bartosz Krawczyk
9:20AM  Granular Multiple Birth Support Vector Machine based on Weighted Linear Loss [#16696]
        Shifei Ding and Xiekai Zhang
9:40AM  Tagging Chinese Microblogger via Sparse Feature Selection [#16698]
        Di Shang, Xin-Yu Dai, Shujian Huang, Yi Li and Jiajun Chen

Special Session WA-4: IJCNN-41 Incremental Machine Learning
Wednesday, July 27, 8:00AM-10:00AM, Room: 215, Chair: Seiichi Ozawa

8:00AM  Incremental Nearest Neighborhood Graph for Data Stream Clustering [#16400]
        Ibrahim Louhi, Lydia Boudjeloud-Assala and Thomas Tamisier
8:20AM  Anomaly Detection in Non-stationary Data: Ensemble based Self-Adaptive OCSVM [#16485]
        Zahra Ghafoori, Sarah Erfani, Sutharshan Rajasegarar, Shanika Karunasekera and Christopher
        Leckie
8:40AM  Adaptive and Scalable Android Malware Detection through Online Learning [#16909]
        Annamalai Narayanan, Liu Yang, Lihui Chen and Jinliang Liu
9:00AM  Unsupervised Incremental STDP Learning Using Forced Firing of Dormant or Idle Neurons
        [#16648]
        Jason Allred and Kaushik Roy
9:20AM  Neural Field: Supervised Apportioned Incremental Learning (SAIL) [#16292]
        Justin Lovinger and Iren Valova
9:40AM  Improving the Incremental Gaussian Mixture Neural Network Model for Spatial Interpolation
        and Geostatistical Simulation [#16633]
        Sergio Aurelio Ferreira Soares, Guenther Schwedersky Neto and Mauro Roisenberg

Special Session WA-5: IJCNN-10 & 11 Human-like Visual Semantic Learning from Image Data
Wednesday, July 27, 8:00AM-10:00AM, Room: 216, Chair: Zhaoxiang Zhang, Xiang Bai

8:00AM  Face Super Resolution for VLQ Facial Images via Parent patch Matching [#16566]
        Liang Chen, Ruimin Hu, Qing Li, Zheng Lu, Zhen Han and Zhongyuan Wang
8:20AM  Accurate Object Tracking by Combining Correlation Filters and Keypoints [#16859]
        Xin Zhang, Zifeng Wang, Gui-Song Xia and Liangpei Zhang
8:40AM  Spatiotemporal Saliency based on Location Prior Model [#17082]
        Liuyi Hu, Zhongyuan Wang, Mang Ye, Jing Xiao and Ruimin Hu
9:00AM  Facial Skin Beautification Via Sparse Representation Over Learned Layer Dictionary [#16308]
        Xi Lu, Xiaobin Chang, Xiaohua Xie, Jian-Fang Hu and Wei-Shi Zheng
9:20AM  Learning Perceptual Texture Similarity and Relative Attributes from Computational Features
        [#16866]
        Jianwen Lou, Lin Qi, Junyu Dong, Hui Yu and Guoqiang Zhong
9:40AM  Artificial Swarm Intelligence vs. Human Experts [#16306]
        Louis Rosenberg

Session WA-6: Applications of Deep Networks I
Wednesday, July 27, 8:00AM-10:00AM, Room: 217-219, Chair: Robert Sabourin
8:00AM  Fault Analysis of High Speed Train with DBN Hierarchical Ensemble [#16132]
         Chao Guo, Yan Yang, Hong Pan, Tianrui Li and Weidong Jin

8:20AM  Breast Cancer Histopathological Image Classification using Convolutional Neural Networks
         [#16315]
         Fabio A. Spanhol, Luiz S. Oliveira, Caroline Petitjean and Laurent Heutte

8:40AM  Predicting User's Multi-Interests With Network Embedding in Health-Related Topics [#16370]
         Zhipeng Jin, Ruoran Liu, Qiudan Li, Dajun Daniel Zeng, YongCheng Zhan and Lei Wang

9:00AM  Writer-independent Feature Learning for Offline Signature Verification using Deep
         Convolutional Neural Networks [#16037]
         Luiz Hafemann, Robert Sabourin and Luiz Oliveira

9:20AM  Deep Convolutional Neural Networks for Detection of Rail Surface Defects [#16796]
         Shahrzad Faghih-Roohi, Siamak Hajizadeh, Alfredo Nunez, Robert Babuska and Bart De
         Schutter

9:40AM  Airport Detection from Remote Sensing Images Using Transferable Convolutional Neural
         Networks [#16522]
         Zhang Peng, Niu Xin, Dou Yong and Xia Fei

**Special Session WA-11: IJCNN-27 Extreme Learning Machines IV**
*Wednesday, July 27, 8:00AM-10:00AM, Room: 224, Chair: Donald Wunsch, Yuanlong Yu*

8:00AM  A Pruning Algorithm for Extreme Learning Machine based on Sparse Coding [#16982]
         Yuanlong Yu and Zhenzhen Sun

8:20AM  Stochastic Resonance induced Continuous Activation Functions in a Neural Network
         consisting of Threshold Elements [#17099]
         Shuhei Ikemoto, Fabio DallaLibera and Koh Hosoda

8:40AM  A Coarse-to-Fine Feature Selection Method for Accurate Detection of Cerebral Small Vessel
         Disease [#17119]
         Yiqiang Chen, Meiyu Huang, Chunyu Hu, Yicheng Zhu, Fei Han and Chunyan Miao

9:00AM  Combined Nonlinear Visualization and Classification: ELMVIS++C [#17125]
         Andrey Gritsenko, Anton Akusok, Yoan Miche, Kaj-Mikael Bjork, Stephen Baek and Amaury
         Lendasse

9:20AM  Word Based Dialect Classification using Extreme Learning Machines [#17164]
         Muhammad Rizwan, Babafemi Odelowo and David Anderson

9:40AM  Video Anomaly Detection based on ULGP-OF Descriptor and One-class ELM [#17167]
         Siqi Wang, En Zhu and Jianping Yin

**Plenary Talk WPlen: Fragility of Interconnected Cyber-Physical Systems**
*Wednesday, July 27, 1:00PM-2:00PM, Room: Ballroom A, Chair: Marios Polycarpou*

**Session WM-1: Self-organizing Maps & LVQ**
*Wednesday, July 27, 2:30PM-4:30PM, Room: 212, Chair: Thomas Villmann*

2:30PM  Automated Topological Co-Clustering Using Fuzzy Features Partition [#16943]
         Nistor Grozavu, Guenaël Cabanes, Nicoleta Rogovschi and Hatim Chahdi

2:50PM  Validating the Stable Clustering of Songs in a Structured 3D SOM [#16846]
         Arnulfo Azcarraga, Arturo Caronongan, Rudy Setiono and Sean Manalili
3:10PM  Density Based Self Organizing Incremental Neural Network For Data Stream Clustering  
Baile Xu, Furao Shen and Jinxi Zhao

3:30PM  Using Semantic Relatedness Measures with Dynamic Self-Organizing Maps for Improved Text Clustering  
Nilupulee Nathawitharana, Damminda Alahakoon and Daswin De Silva

3:50PM  Adaptive Tangent Metrics in Generalized Learning Vector Quantization for Transformation and Distortion Invariant Classification Learning  
Sascha Saralajew and Thomas Villmann

4:10PM  Encoding Auditory-Visual Interactions in a Neural Model of Sensory Abnormalities in Autism  
Gerardo Noriega

Session WM-2: Unsupervised Learning and Clustering II  
Wednesday, July 27, 2:30PM-4:30PM, Room: 213, Chair: Cesare Alippi

2:30PM  Adaptive Transferred-profile Likelihood Learning  
Son Tran and Artur Garcez

2:50PM  Visual Data Completion via Local Sensitive Low Rank Tensor Learning  
Qing-Yi Liu, Lin Zhu and De-Shuang Huang

3:10PM  ELM based Multiple Kernel k-means with Diversity-Induced Regularization  
Yang Zhao, Yong Dou, Xinwang Liu and Teng Li

3:30PM  Mixture Modeling with Compact Support Distributions for Unsupervised Learning  
Ambedkar Dukkipati, Debarghya Ghoshdastidar and Jinu Krishnan

3:50PM  Multi-Source Multi-View Clustering via Discrepancy Penalty  
Weixiang Shao, Jiawei Zhang, Lifang He and Philip S. Yu

4:10PM  Clustering-based feature selection for black-box weather temperature prediction  
Zahra Karevan and Johan A. K. Suykens

Special Session WM-3: IJCNN-33 Computational Intelligence and Machine Learning for Power Grid Security & Power System Applications  
Wednesday, July 27, 2:30PM-4:30PM, Room: 214, Chair: Qinglai Wei

2:30PM  Comparative Studies of Power Grid Security with Network Connectivity and Power Flow Information Using Unsupervised Learning  
Shiva Poudel, Zhen Ni, Xiangnan Zhong and Haibo He

2:50PM  Weighted Vote Algorithm Combination Technique for Anomaly Based Smart Grid Intrusion Detection Systems  
Joris Lueckenga, Dominik Engel and Robert Green

3:10PM  Enhanced SVR Ensembles for Wind Power Prediction  
Wei Lee Woon and Oliver Kramer

3:30PM  Whole-House Non-Intrusive Appliance Load Monitoring via Multi-Label Classification  
Ding Li and Scott Dick

3:50PM  Induction Motor Torque Control via Discrete-Time Neural Sliding Mode  
Eduardo Quintero-Manriquez, Edgar Sanchez and Ramon Felix
4:10PM  A Least Squares Enhanced Smart DFT Technique for Frequency Estimation of Unbalanced Three-Phase Power Systems [#16810]
Yili Xia, Kai Wang, Pei Wenjiang, Zoran Blazic and Danilo Mandic

Special Session WM-4: IJCNN-22 Sequential Learning with Neural Networks and Learning Systems
Wednesday, July 27, 2:30PM-4:30PM, Room: 215, Chair: Huanhuan Chen, Giacomo Boracchi

2:30PM  Decision Making With Long Delays Using Networks of Flip-Flop Neurons [#16069]
Pavan Holla and V Srinivasa Chakravarthy

2:50PM  kNN Ensembles with Penalized DTW for Multivariate Time Series Imputation [#16405]
Stefan Oehmcke, Oliver Zielinski and Oliver Kramer

3:10PM  Sequential Appearance-Based Global Localization Using an Ensemble of kNN-DTW Classifiers [#16437]
Avelino Forechi, Alberto De Souza, Claudine Badue and Thiago Oliveira-Santos

3:30PM  Neural Turing Machine for Sequential Learning of Human Mobility Patterns [#16926]
Jan Tkacik and Pavel Kordik

3:50PM  Analysis of Sequence to Sequence Neural Networks on Grapheme to Phoneme Conversion Task [#16359]
Sivanand Achanta, Ayushi Pandey and Suryakanth V Gangashetty

4:10PM  GTM Mixture through time for sequential data [#17165]
Rakia Jaziri, Faicel Chamroukhi, Mustapha Lebbah and Younes Bennani

Session WM-5: Anomaly & Fault Detection, Concept Drift
Wednesday, July 27, 2:30PM-4:30PM, Room: 216, Chair: Marios Polycarpou

2:30PM  Regularized Covariance Matrix Estimation with High Dimensional Data for Supervised Anomaly Detection Problems [#16645]
Daniel Nikovski and Kiran Byadarhaly

2:50PM  A Cognitive Fault-Detection Design Architecture [#17174]
Georgios Milis, Eliades Demetrios, Panayiotou Christos and Polycarpou Marios

3:10PM  An Alternative Sensor Cloud Architecture for Vital Signs Monitoring [#16043]
Sara Ghanavati, Jemal Abawajy and Davood Izadi

3:30PM  Benchmarking a Coevolutionary Streaming Classifier under the Individual Household Electric Power Consumption Dataset [#16216]
Alexander Loginov, Malcolm I. Heywood and Garnett Wilson

3:50PM  Minimum Description Length Principle applied to Structure Adaptation for Classification under Concept Drift [#16996]
Pierre-Alexandre Murena and Antoine Cornuejols

4:10PM  System Identification Models and Using Neural Networks for Ground Source Heat Pump with Ground Temperature Modeling [#16071]
Ahmet Kose and Eduard Petlenkov

Session WM-6: Applications of Deep Networks II
Wednesday, July 27, 2:30PM-4:30PM, Room: 217-219, Chair: Plamen Angelov

2:30PM  Real-time Reconstruction of EEG Signals from Compressive Measurements via Deep Learning
Angshul Majumdar and Rabab Ward

2:50PM Binary Codes for Tagging X-Ray Images via Deep De-Noising Autoencoders [#16215]
Antonio Sze-To, Hamid R. Tizhoosh and Andrew K.C. Wong

3:10PM Generating Binary Tags for Fast Medical Image Retrieval Based on Convolutional Nets and Radon Transform [#16423]
Xinran Liu, Hamid R. Tizhoosh and Jonathan Kofman

3:30PM A General Purpose Intelligent Surveillance System For Mobile Devices using Deep Learning [#26029]
Antreas Antoniou and Plamen Angelov

3:50PM A Trajectory-based Approach for Object Detection from Video [#16550]
Chunhui Jiang, Guiying Li, Junlong Liu, Yunfeng Liu and Ke Tang

4:10PM Fast Classifier Learning under Bounded Computational Resources using Partitioned Restricted Boltzmann Machines [#16163]
Hasari Tosun and John Sheppard

Special Session WM-11: IJCNN-27 Extreme Learning Machines V
Wednesday, July 27, 2:30PM-4:30PM, Room: 224, Chair: Julio Valdes, Weizhong Yan

2:30PM An Ensemble of Extreme Learning Machine for Prediction of Wind Force and Moment Coefficients in Marine Vessels [#16068]
Krishna Kumar Nagalingam, Savitha Ramasamy and Abdullah Al Mamun

2:50PM One-class Extreme Learning Machines for Gas Turbine Combustor Anomaly Detection [#16110]
Weizhong Yan

3:10PM Extreme Learning Machines for Approximating Nonlinear Dimensionality Reduction Mappings: Application to Haptic Handwritten Signatures. [#16220]
Julio J. Valdes, Fawaz A. Alsulaiman and Abdulmotaleb El Saddik

3:30PM Online Neuro-Identification of Nonlinear Systems using Extreme Learning Machine [#17058]
Emerson Grzeidak, Jose A.R. Vargas and Sadek C.A. Alfaro

3:50PM Clinical Narrative Classification using Discriminant Word Embeddings with ELM [#17064]
Paula Lauren, Guangzhi Qu, Feng Zhang and Amaury Lendasse

4:10PM Modular Expansion of the Hidden Layer in Single Layer Feedforward Neural Networks [#17078]
Migel Tissera and Mark McDonnell

Special Session WP-1: IJCNN-40 CI for Safer and Smarter Societies
Wednesday, July 27, 4:30PM-6:30PM, Room: 212, Chair: Seiichi Ozawa

4:30PM Towards Personalized and Context-Aware Reminder Service for People with Dementia [#16408]
Seiki Tokunaga, Hiroyasu Horiuchi, Hiroki Takatsuka, Sachio Saiki, Shinsuke Matsumoto, Masahide Nakamura and Kiyoshi Yasuda

4:50PM A Comparison of Autoencoder and Statistical Features for Cattle Behaviour Classification [#16463]
Ashfaqur Rahman, Daniel Smith, James Hills, Greg Bishop-Hurley, Dave Henry and Richard
Rawnsley

5:10PM MMMS-induced k-member Co-clustering for k-anonymization of Cooccurrence Information [#16652]
Katsuhiro Honda, Hikaru Sakamoto, Seiki Ubukata and Akira Notsu

5:30PM Extraction of interaction information between breeding cows with GPS and its application to estrus detection [#16774]
Kengo Matsumoto, Kenji Oyama, Takeshi Honda and Takenao Ohkawa

5:50PM A Method of Detecting Interaction Between Breeding cows from Time-series Bird's Eye Pictures of Pasture [#16788]
Yoji Hosomi, Kenji Oyama, Takeshi Honda and Takenao Ohkawa

6:10PM A Neural Network Model for Detecting DDoS Attacks Using Darknet Traffic Features [#17132]
Siti Hajar Aminah Ali, Seiichi Ozawa, Tao Ban, Junji Nakazato and Jumpei Shimamura

Session WP-2: Unsupervised Learning and Clustering III

Wednesday, July 27, 4:30PM-6:30PM, Room: 213, Chair: Donald Wunsch

4:30PM Biclustering ARTMAP Collaborative Filtering Recommender System [#16997]
Islam Elnabarawy, Donald Wunsch and Ashraf Abdelbar

4:50PM LVC: Local Variance-based Clustering [#16721]
Rania Ibrahim, Ahmed Elbagoury, Mohamed Kamel and Fakhri Karray

5:10PM Skew-Normal Mixture of Experts [#17148]
Faicel Chamroukhi

5:30PM Learning Compact Binary Codes from Higher-Order Tensors via Free-Form Reshaping and Binarized Multilinear PCA [#16589]
Haiping Lu, Jianxin Wu and Yu Zhang

5:50PM LRI: A Low Rank Approach to Non-Local Sparse Representation for Image Interpolation [#16927]
Mingli Zhang, Qiang Qu, Sadegh Nobari and Desrosiers Christian

6:10PM An Information Theoretic ART for Robust Unsupervised Learning [#17102]
Leonardo Enzo Brito da Silva and Donald C. Wunsch II

Session WP-3: Signal Processing, Image Processing, and Multimedia

Wednesday, July 27, 4:30PM-6:30PM, Room: 214, Chair: Ognjen Arandjelovic

4:30PM Description Transition Tables for Object Retrieval using Unconstrained Cluttered Video Acquired using a Consumer Level Handheld Mobile Device [#16130]
Warren Rieutort-Louis and Ognjen Arandjelovic

4:50PM Image Segmentation Based on Prototypes Extraction and Merging of Clusters in Multiple Spaces [#16173]
Xiaofeng Shi, Furao Shen and Jinxi Zhao

5:10PM Automatic Detection of Bike-riders without Helmet using Surveillance Videos in Real-time [#16309]
Kunal Dahiya, Dinesh Singh and C. Krishna Mohan

5:30PM Log-Demons with Driving Force for Large Deformation Image Registration [#16340]
Le Zhang and Ying Wen
5:50PM  Gait Fingerprinting-based User Identification on Smartphones [#16704]
Muhammad Ahmad, Mehmood Khan Adil, Alexander Brown Joseph, Protasov Stanislav and Masood Khattak Asad

6:10PM  Non-Negative Matrix Factorization for Non-Parametric and Unsupervised Image Clustering and Segmentation [#17103]
Dimah Dera, Nidhal Bouaynaya, Robi Polikar and Hassan Fathallah-Shaykh

**Special Session WP-4: IJCNN-25 Distributed Learning Algorithms for Neural Networks and Learning Systems**
*Wednesday, July 27, 4:30PM-6:30PM, Room: 215, Chair: Massimo Panella, Simone Scardapane*

4:30PM  A Convergent and Fully Distributable SVMs Training Algorithm [#16406]
Andrea Manno, Simone Sagratella and Lorenzo Livi

4:50PM  Weight Exchange in Distributed Learning [#17033]
Julian Dorner, Samuel Favrichon and Arif Selcuk Ogrenci

5:10PM  A Lite Cellular Generalized Neuron Network for Frequency Prediction of Synchronous Generators in a Multimachine Power System [#17086]
Yawei Wei and Ganesh Kumar Venayagamoorthy

5:30PM  Distributed Spectral Clustering based on Euclidean Distance Matrix Completion [#16691]
Simone Scardapane, Rosa Altilio, Massimo Panella and Aurelio Uncini

5:50PM  Distributed Variance Regularized Multitask Learning [#16491]
Michele Donini, David Martinez-Rego, Martin Goodson, John Shawe-Taylor and Massimiliano Pontil

6:10PM  Distributed Mean Shift Clustering with Approximate Nearest Neighbours [#16262]
Gael Beck, Tarn Duong, Hanene Azzag and Mustapha Lebbah

**Special Session WP-5: IJCNN-34 Smart Educational Techniques in Big Data Age**
*Wednesday, July 27, 4:30PM-6:30PM, Room: 216, Chair: Guandong Xu, Gang Li and Wu He*

4:30PM  Learning Space Model for Educational Social Networks [#16481]
Thanh Tam Nguyen and Insu Song

4:50PM  Evolutionary Lazy Learning for Naive Bayes Classification [#16685]
Yu Bai, Haishuai Wang, Jia Wu, Yun Zhang, Jing Jiang and Guodong Long

5:10PM  Dropout Prediction in MOOCs Using Behavior Features and Multi-view Semi-supervised Learning [#16887]
Wentao Li, Min Gao, Hua Li, Qingyu Xiong, Junhao Wen and Zhongfu Wu

5:30PM  Using Data Mining to Extract Knowledge from Student Evaluation Comments in Undergraduate Courses [#17042]
Anna Koufakou, Justin Gosselin and Dahai Guo

5:50PM  Reducing Cold Start Problems in Educational Recommender Systems [#17043]
Stanislav Kuznetsov, Pavel Kordik, Tomas Rehorek, Josef Dvorak and Petr Kroha

6:10PM  Multimedia Recommendation System Using Adaptive Resonance Theory Neural Model for Digital Storytelling [#16596]
Ju-Youn Park, Woo-Ri Ko and Jong-Hwan Kim

**Session WP-6: Applications of Deep Networks III**
Wednesday, July 27, 4:30PM-6:30PM, Room: 217-219, Chair: Fakhri Karray

4:30PM Aspect-based Opinion Summarization with Convolutional Neural Networks [#16479]
Haibing Wu, Yiwei Gu, Shangdi Sun and Xiaodong Gu

4:50PM Enhancing Bidirectional Association between Deep Image Representations and Loosely Correlated Texts [#16425]
Qiwen Chen and Qinru Qiu

5:10PM Three Convolutional Neural Network-based Models for Learning Sentiment Word Vectors towards Sentiment Analysis [#17004]
Man Lan, Zhihua Zhang, Yue Lu and Ju Wu

5:30PM Deep Auto-encoder in Model Reduction of Large-scale Spatiotemporal Dynamics [#16159]
Mingliang Wang, Han-Xiong Li and Wenjing Shen

5:50PM Multi-patch Deep Features for Power Line Insulator Status Classification from Aerial Images [#16233]
Zhenbing Zhao, Guozhi Xu, Yincheng Qi, Ning Liu and Tiefeng Zhang

6:10PM Big-Data-Generated Traffic Flow Prediction Using Deep Learning and Dempster-Shafer Theory [#17029]
Ridha Soua, Arief Koesdwjady and Fakhri Karray

Session WP-11: Support Vector Machines and Kernel Methods
Wednesday, July 27, 4:30PM-6:30PM, Room: 224, Chair: Barbara Hammer

4:30PM A null space based one class kernel Fisher discriminant [#16287]
Franck Dufrenois and Jean Charles Noyer

4:50PM Fast Kernel-based Method for Anomaly Detection [#16972]
Anh Le, Trung Le, Khanh Nguyen, Van Nguyen, Thai Hoang Le and Dat Tran

5:10PM Sparse Least Squares Support Vector Regression via Multirespnce Sparse Regression [#16711]
David Clifte Vieira, Ajalmar Rocha Neto and Antonio Wendell Rodrigues

5:30PM Fuzzy Kernel Stochastic Gradient Descent Machines [#16999]
Tuan Nguyen, Phuong Duong, Trung Le, Viet Ngo, Dat Tran, Wanli Ma and Le Anh

5:50PM Second Order Design of Multiclass Kernel Machines [#17097]
Yilong Hao, Kanishka Tyagi, Rohit Rawat and Michael Manry

6:10PM Offline Arabic Handwritten Recognition System with Dropout applied in Deep Networks based-SVMs [#16801]
Mohamed Elleuch, Raouia Mokni and Monji Kherallah

Special Session HA-1: IJCNN-04 Machine Learning for Computer Vision I
Thursday, July 28, 8:00AM-10:00AM, Room: 212, Chair: Brijesh Verma

8:00AM Aggregating Pixel-level Prediction and Cluster-level Texton Occurrence within Superpixel Voting for Adaptive Roadside Vegetation Classification [#16740]
Ligang Zhang, Brijesh Verma, David Stockwell and Sujan Chowdhury

8:20AM Non-parametric Hidden Conditional Random Fields for Action Classification [#16120]
Natraj Raman and Steve Maybank

8:40AM Manifold Locality Constrained Low-Rank Representation and Its Applications [#16211]
Cong-Zhe You, Xiao-Jun Wu, Vasile Palade and Abdulrahman Altahhan
9:00AM  Sparse Hierarchical Nonparametric Bayesian Learning for Light Field Representation and Denoising [#16373]
Xing Sun, Nan Meng, Zhimin Xu, Edmund Y. Lam and Hayden K.-H. So

9:20AM  Riemannian Optimization with Subspace Tracking for Low-rank Recovery [#16395]
Qian Li, Wenjia Niu, Gang Li, Jianlong Tan, Gang Xiong and Li Guo

9:40AM  Classification from a Riemannian Graph Embedding Viewpoint [#16818]
Antonio Robles-Kelly, Gu Lin and Ran Wei

**Session HA-2: Information Theoretic Learning**
*Thursday, July 28, 8:00AM-10:00AM, Room: 213, Chair: Jose Principe, Pablo Estevez*

8:00AM  Information Theoretic-Learning Auto-Encoder [#16639]
Eder Santana, Matthew Emigh and Jose Principe

8:20AM  Study of Learning Entropy for Onset Detection of Epileptic Seizures in EEG Time Series [#16981]
Ivo Bukovsky, Matous Cejnek, Jan Vrba and Noriyasu Homma

8:40AM  Distributed Information-Theoretic Metric Learning in Apache Spark [#16445]
Yuxin Su, Haiqin Yang, Irwin King and Michael Lyu

9:00AM  One-Class Classification Through Mutual Information Minimization [#16501]
Lorenzo Livi and Cesare Alippi

9:20AM  Correntropy Based Filtering for Supernova Detection [#26054]
Pablo Huentelemu, Pablo Estevez and Forster Francisco

9:40AM  Unsupervised Entropy-Based Selection of Data Sets for Improved Model Fitting [#17041]
Pedro M. Ferreira

**Session HA-3: Probabilistic Methods and Gaussian Processes**
*Thursday, July 28, 8:00AM-10:00AM, Room: 214, Chair: Wieslaw Palka*

8:00AM  Manifold Gaussian Processes for Regression [#16277]
Roberto Calandra, Jan Peters, Carl Edward Rasmussen and Marc Peter Deisenroth

8:20AM  Clustering of Gaussian Distributions [#16187]
Przemyslaw Spurek and Wieslaw Palka

8:40AM  Gaussian Process Kernels for Popular State-Space Time Series Models [#16911]
Alexander Grigorievskiy and Juha Karhunen

9:00AM  Stochastic Collapsed Variational Bayesian Inference for Biterm Topic Model [#16896]
Narutaka Awaya, Jun Kitazono, Toshiaki Omori and Seiichi Ozawa

9:20AM  Content-based image retrieval by using Deep Kernel Machine with Gaussian Mixture Model [#16593]
Mohammad Ahangar Kiasari, Jixiang Shen and Minho Lee

9:40AM  Nonparametrically Guided Autoencoder with Laplace Approximation For Dimensionality Reduction [#17104]
Xinwei Jiang, Xin Song, Junbin Gao, Zhihua Cai and Dongmei Zhang

**Special Session HA-4: IJCNN-20 Computational Intelligence Algorithms for Digital Audio Applications**
*Thursday, July 28, 8:00AM-10:00AM, Room: 215, Chair: Stefano Squartini*
8:00AM Combining Evolution Strategies and Neural Network procedures for Compression Driver design [#16617]
Michele Gasparini, Fabio Vesperini, Stefania Cecchi, Stefano Squartini, Francesco Piazza and Romolo Toppi

8:20AM Deep Neural Networks for Multi-Room Voice Activity Detection: Advancements and Comparative Evaluation [#16689]
Fabio Vesperini, Paolo Vecchiotti, Emanuele Principi, Stefano Squartini and Francesco Piazza

8:40AM Filterbank Learning for Deep Neural Network Based Polyphonic Sound Event Detection [#16149]
Emre Cakir, Ezgi Can Ozan and Tuomas Virtanen

9:00AM Comparing Time and Frequency Domain for Audio Event Recognition Using Deep Learning [#16382]
Lars Hertel, Huy Phan and Alfred Mertins

9:20AM Convolutional RNN: an Enhanced Model for Extracting Features from Sequential Data [#16429]
Gil Keren and Bjoern Schuller

9:40AM Design of Hybrid Nonlinear Spline Adaptive Filters for Active Noise Control [#16536]
Vinal Patel, Danilo Comminiello, Michele Scarpiniti, Nithin George and Aurelio Uncini

Special Session HA-5: IJCNN-51 Advanced Methods in Optimization and Machine Learning for Multimedia Computing I

Thursday, July 28, 8:00AM-10:00AM, Room: 216, Chair: Yuping Wang, Yan Liu

8:00AM A New Parallel MRI Image Reconstruction Model with Elastic Net Regularization [#16272]
Bingjiang Qiu, Wensheng Chen, Bo Chen and Binbin Pan

8:20AM Empirical Study of Effect of Grouping Strategies for Large Scale Optimization [#16278]
Haiyan Liu, Yuping Wang, Xuyan Liu and Shiwei Guan

8:40AM Efficient Single Image Dehazing via Scene-adaptive Segmentation and Improved Dark Channel Model [#17150]
Zhang He, Liu Xin and Cheung Yiu-ming

9:00AM Block Kernel Nonnegative Matrix Factorization and Its Application to Face Recognition [#16357]
Wen-Sheng Chen, Yugao Li, Binbin Pan and Chen Xu

9:20AM A Pseudoinverse Incremental Algorithm for Fast Training Deep Neural Networks with Application to Spectra Pattern Recognition [#16544]
Ke Wang, Ping Guo, Qian Yin, A-li Luo and Xin Xin

9:40AM Life Stage Based Recommendation in E-commerce [#16650]
Bin Guo, Kai Dou and Li Kuang

Session HA-6: Feature Selection, Extraction, and Aggregation I

Thursday, July 28, 8:00AM-10:00AM, Room: 217-219, Chair: Roberto Battiti

8:00AM X-MIFS: Exact Mutual Information for Feature Selection [#16968]
Mauro Bruno and Roberto Battiti

8:20AM Semi-supervised co-selection: features and instances by a weighting approach [#16677]
Raywat Makkhongkaew, Khalid Benabdeslem and Haytham Elghazel
8:40AM  Internet Traffic Classification based on Min-Max Ensemble Feature Selection [#16770]
        Yinxiang Huang, Yun Li and Baohua Qiang

9:00AM  Clustering algorithm using rough set theory for unsupervised feature selection [#16462]
        Fannia Pacheco, Mariela Cerrada, Rene Vinicio Sanchez, Diego Cabrera, Chuan Li and Jose
        Valente de Oliveira

9:20AM  A Brief Review of Document Image Retrieval Methods: Recent Advances [#16435]
        Fahimeh Alaei, Alireza Alaei, Michael Blumenstein and Umapada Pal

9:40AM  Class-dependent feature selection algorithm for text categorization [#16527]
        Rogerio Fragoso, Roberto Pinheiro and George Cavalcanti

**Special Session HA-11: IJCNN-29 Reinforcement Learning and Approximate Dynamic Programming for Optimization in Dynamic Environment**

*Thursday, July 28, 8:00AM-10:00AM, Room: 224, Chair: Daoyi Dong, Dongbin Zhao*

8:00AM  Adaptive Optimal Tracking Control of Unknown Nonlinear Systems Using System
        Augmentation [#16451]
        Yongfeng Lv, Jing Na, Qinmin Yang and Guido Herrmann

8:20AM  Context-Switching and Adaptation: Brain-Inspired Mechanisms for Handling Environmental
        Changes [#16758]
        Eric Chalmers, Edgar Bermudez Contreras, Brandon Robertson, Artur Luczak and Aaron
        Gruber

8:40AM  Adaptive Dynamic Programming Based Fault Compensation Control for Nonlinear Systems
        with Actuator Failures [#26006]
        Zhao Bo, Liu Derong, Li Yuanchun and Shi Guang

9:00AM  Policy Iteration for Optimal Switching with Continuous-time Dynamics [#17068]
        Tohid Sardarmehni and Ali Heydari

9:20AM  Optimal Self-Learning Control Scheme for Discrete-Time Nonlinear Systems Using Local
        Value Iteration [#26010]
        Qinglai Wei and Derong Liu

        Bin Wang, Dongbin Zhao, Jin Cheng, Yuan Xu and Yueyang Li

**Plenary Talk HPlen: Collective Neurodynamic Optimization Approaches to Constrained Optimization**

*Thursday, July 28, 1:00PM-2:00PM, Room: Ballroom A, Chair: Jun Wang*

**Plenary Poster Session HPoster: Machine Learning**

*Thursday, July 28, 2:00PM-2:30PM, Room: Ballroom D, Chair: Jong-Hwan Kim*

P301  Class-wise Deep Dictionaries for EEG Classification [#16778]
      Prerna Khurana, Angshul Majumdar and Rabab Ward

P302  Density-dependent Quantized Kernel Least Mean Square [#16358]
      Bao Xi, Lei Sun, Badong Chen, Jianji Wang, Nanning Zheng and Jose Carlos Principe

P303  Scalable Focussed Entity Resolution [#16397]
      Ranganath B. N. and Shalabh Bhatnagar

P304  Pain Recognition and Intensity Classification Using Facial Expressions [#17083]
Warren Shier and Yanushkevich Svetlana
P305 Hierarchical Classification for Dealing with The Class Imbalance Problem [#17037]
Mohamed Bader-El-Den, Eleman Teitei and Adda Mo
P306 Grasp the Implicit Features: Hierarchical Emotion Classification based on Topic Model and SVM [#16465]
Fan Zhang, Hua Xu, Jiushuo Wang, Xiaomin Sun and Junhui Deng
P307 Face Recognition using Locality Sparsity Preserving Projections [#16209]
Ying Wen, Yang Shicheng, Hou Lili and Zhang Hongda
P308 Feature Space Distance Metric Learning for Discriminant Graph Embedding [#16862]
Li Bo
P309 Superpixel-Based Sparse Representation Classifier for Hyperspectral Image [#16377]
Min Han, Chengkun Zhang and Jun Wang
P310 Low Level Visual Extraction by Learning of Multiple Tasks for Convolutional Neural Networks. [#16523]
Hidenori Ide and Takio Kurita
P311 Deep Random Vector Functional Link Network for Handwritten Character Recognition [#16847]
Hubert Cecotti
P312 Neural network-based event-triggered control design of nonlinear continuous-time systems with variable sampling [#16049]
Songlin Hu, Dong Yue, Xiuxia Yin and Xiangpeng Xie
P313 A network-based approach to detect spammer groups [#16785]
Quynh Ngoc Thuy Do, Aleksei Zhilin, Caibre Zordan Pio Junior, Gaoxiang Wang and Farookh Khadeer Hussain
P314 New efficient clustering quality indexes [#17145]
Jean-Charles Lamirel, Nicolas Dugue and Pascal Cuxac
P315 Joint l_p- and l2,p-norm minimization for subspace clustering with outlier pursuit [#16230]
Mingbo Zhao, Haijun Zhang, Wenlong Chen and Zhao Zhang
P316 Gene Expression Data Clustering Using Tree-Like SOMs with Evolving Splitting-Merging Structures [#16376]
Marian B. Gorzalczany, Filip Rudzinski and Jakub Piekoszewski
P317 An Enhanced Dominant Sets Clustering Method [#16399]
Jian Hou, Weixue Liu and Hongxia Cui
P318 An Angle and Density-based Method for Key Points Detection [#16620]
Xiaojie Li, Jiancheng Lv, Lili Li and Ao Feng
P319 Fast Trajectory Clustering using Hashing Methods [#16590]
Ivan Sanchez, Zay Maung Maung Aye, Benjamin Rubinstein and Kotagiri Ramamohanarao
P320 A Novel Sample Weighting K-Means Clustering Algorithm based on Angles Information [#16899]
Lei Gu
P321 Sparse Kernel Principal Component Analysis Based on Elastic Net Regularization [#16757]
Duo Wang and Toshihisa Tanaka
P322 Denoised Kernel Spectral Data Clustering [#16171]
Raghvendra Mall, Halima Bensmail, Langone Rocco, Varon Carolina and Suykens Johan
P323 Manifold Regularization based Approximate Value Iteration for Learning Control [#16021]
Hongliang Li, Miao He, Xunan Zhang and Changrui Ren
P324 Heuristic Dynamic Programming for Mobile Robot Path Planning Based on Dyna Approach [#17123]  
Seaar Al Dabooni and Donald Wunsch  
P325 Feature Selection via Competitive Levy Flights [#16976]  
Matej Mojzes, Martin Klimt, Jaromir Kukal, Ivo Bukovsky, Jan Pitel and Vrba Jan  
P326 Network Structural Optimization Based on Swarm Intelligence for Highlevel Classification [#16569]  
Murillo Carneiro, Liang Zhao, Ran Cheng and Yaochu Jin  
P327 Design and Optimization of a Neural Network-based Driver Recognition System by means of a Multiobjective Genetic Algorithm [#16857]  
Javier Echanobe, Ines del Campo and M. Victoria Martinez  
P328 Classification on Stiefel and Grassmann Manifolds via Maximum Likelihood Estimation of Matrix Distributions [#16029]  
Muhammad Ali, Junbin Gao and Michael Antolovich  
P329 Joint Nuclear-norm Nonlinear Manifold Learning and Robust Classification by Linear Embedding [#16434]  
Yan Zhang, Zhao Zhang, Lei Jia and Fanzhang Li  
P330 A novel semi-supervised approach for feature extraction [#16169]  
Junyang Qiu, Yanyan Zhang, Zhisong Pan, Haimin Yang, Huifeng Ren and Xin Li  
P331 Nonlinear Dictionary Learning Based Deep Neural Networks [#16831]  
Hui Zhang, Huaping Liu, Rui Song and Fuchun Sun  
P332 A Novel Approach for Generating Fast Multi-Class SVM Topologies with Nested Dichotomies [#17093]  
Ismail Uluturk and Ismail Uysal  
P333 A Comparison of Action Selection Methods for Implicit Policy Method Reinforcement Learning in Continuous Action-Space [#16641]  
Barry Nichols  
P334 Advances in Multi-View Matrix Factorizations [#17013]  
Yifeng Li  
P335 Towards Emotion-based Reputation Guessing Learning Agents [#16545]  
Jones Granatyr, Jean Paul Barddal, Adriano Weihmayer Almeida, Fabricio Enembreck and Adaiane Pereira dos Santos Granatyr  
P336 A Multi-view Multi-dimensional Ensemble Learning Approach to Mining Business Process Deviances [#16606]  
Alfredo Cuzzocrea, Francesco Folino, Guarascio Massimo and Luigi Pontieri  
P337 Conjugate Descent for the SMO Algorithm [#16701]  
Alberto Torres-Barran and Jose R. Dorronsoro  
P338 Autonomic decision making based on bayesian networks and ontologies [#16869]  
Jose Aguilar, Jose Torres and Kristell Aguilar  
P339 A Reinforcement Learning Approach to the Shepherding Task Using SARSA [#16565]  
Clark Kendrick Go, Bryan Lao, Junichiro Yoshimoto and Kazushi Ikeda  
P340 Advantage Based Value Iteration for Markov Decision Processes with Unknown Rewards [#16933]  
Pegah Alizadeh, Yann Chevaleyre and Francois Levy  
P341 A Kernel Level Composition of Multiple Local Classifiers for Nonlinear Classification [#16844]
Weite Li, Bo Zhou and Jinglu Hu

P342 Ensemble Minimum Sum of Squared Similarities Sampling for Nystrom-Based Spectral Clustering [#16531]
Djallel Bouneffouf and Inanc Birol

P343 Theoretical Analysis of the Minimum Sum of Squared Similarities Sampling for Nystrom-Based Spectral Clustering [#16741]
Djallel Bouneffouf and Inanc Birol

P344 Human Action Recognition Based on Discriminative Supervoxels [#16393]
Yanan Guo, Wei Ma, Lijuan Duan, Qing En and Juncheng Chen

P345 A Comparative Analysis of Wavelets for Vascular Similarity Measurement [#17118]
Reza Derakhshani, Sriram Pavan Tankasala, Simona Crihalmeanu, Arun Ross and Rohit Krishna

P346 Sonar-based Place Recognition using Joint Sparse Coding Method [#16551]
Zheng Xiangmei, Liu Huaping, Sun Fuchun, Gao Meng, Li Jiakui and Zhang Qing

P347 A Lyapunov Based Switching Control to Track Maximum Power Point of WECS [#16521]
Mohammad Abu Jami‘in, Jinglu Hu and Eko Juliarto

P348 An Emotional Controller PLC Implementation for an Industrial Fan System [#17162]
Ronaldo Aquino, Luiz Cordeiro, Davidson Marques, Jeydson Silva, Camila Bandeira and Andre Andrade

P349 Improving Automatic Cardiac Arrhythmia Classification: Joining Temporal-VCG, Complex Networks and SVM classifier [#17055]
Gabriel Garcia, Eduardo Luz, Gladston Moreira and David Menotti

P350 Application of Deep Belief Networks for Opcode Based Malware Detection [#16619]
Yuxin Ding, Sheng Chen and Jun Xu

P351 An Expert Disambiguation Method based on Attributed Graph Clustering [#16024]
Gao Shengxiang, Wang Zhuo, Yu Zhengtao, Jiang Jin and Wu Lin

P352 Assessment of power curves in models of wind power forecasting [#16489]
Ronaldo Aquino, Jonata Albuquerque, Otoni Nobrega Neto, Milde Lira, Manoel Carvalho Jr., Alcides Codeceira Neto and Aida Ferreira

P353 Robust Estimation for Subspace Based Classifiers [#16115]
Hemant Kumar Aggrawal and Anshul Majumdar

P354 Learning control of population transfer between subspaces of quantum systems using an adaptive target scheme [#16102]
We Zhang, Daoyi Dong and Ian R. Petersen

P355 Simplified Swarm Optimization for Repairable Redundancy Allocation Problem in Multi-state Systems with Bridge Topology [#16199]
Wei-Chang Yeh, Chyh-Ming Lai, Siang-Tai Wang, Yen-Cheng Huang, Yuk-Ying Chung and Jsen-Shung Lin

P356 Mining Subcascade Features for Cascade Outbreak Prediction in Big Networks [#16738]
Haishuai Wang, Jia Wu, Chuan Zhou, Zhenyan Ji and Jun Wu

P357 Online Variational Bayesian Support Vector Regression [#16884]
Siqi Deng, Kan Gao, Changying Du, Wenjing Ma, Guoping Long and Yucheng Li

P358 An Experimental Study on New Features for Activity of Daily Living Recognition [#17151]
Daniele Ferretti, Emanuele Principi, Stefano Squartini and Luigi Mandolini

P359 A Principal Curve-based Method for Data Clustering [#16580]
Special Session HM-1: IJCNN-04 Machine Learning for Computer Vision II
Thursday, July 28, 2:30PM-4:30PM, Room: 212, Chair: Brijesh Verma

2:30PM Fast Pedestrian Detection based on Object Proposals and HOG [#16824]
   Shengke Wang, Lianghua Duan, Cui Zhang, Long Chen, Guoan Cheng and Jingai Yu
2:50PM Multi-target Osteosarcoma MRI recognition with Texture Context Features Based on CRF
   [#16890]
   Wen-Bo Huang, Dunwei Wen, Yang Yan, Man Yuan and Ke Wang
3:10PM Human activity recognition based on mid-level representations in Video Surveillance
   applications [#17007]
   Abdelhedi Slim, Wali Ali and Alimi Adel M.
3:30PM Semi-Rotation Invariant Feature Descriptors using Zernike Moments for MLP classifier
   [#17139]
   YuBin Yoon, Lae-Kyoung Lee and Se-Young Oh
   [#17154]
   Srikanta Pal, Jean Christophe Burie, Umapada Pal and Jean Marc Ogier
4:10PM Theoretical Motion Functions for Video Analysis, with a Passive Navigation Example [#16490]
   Jacqueline Christmas

Session HM-2: Semi-supervised and Transfer Learning
Thursday, July 28, 2:30PM-4:30PM, Room: 213, Chair: Celso de Sousa, David Miller

2:30PM Multi-Label Semi-Supervised Learning using Regularized Kernel Spectral Clustering [#16059]
   Siamak Mehrkanoon and Johan Suykens
2:50PM An Inductive Semi-supervised Learning Approach for the Local and Global Consistency
   Algorithm [#16144]
   Celso de Sousa
3:10PM Exploiting the Value of Class Labels in Topic Models for Semi-Supervised Document
   Classification [#16184]
   Hossein Soleimani and David J. Miller
3:30PM Semi-supervised Auto-encoder Based on Manifold Learning [#16952]
   Yawei Li, Lizuo Jin, A. K. Qin, Changyin Sun, Yew Soon Ong and Tong Cui
3:50PM Resp-kNN: A probabilistic k-nearest neighbor classifier for sparsely labeled data [#17084]
   Adrian Calma, Tobias Reitmaier and Bernhard Sick
4:10PM Active Transfer Learning and Selective Instance Transfer with Active Learning for Motor
   Imagery based BCI [#16200]
   Ibrahim Hossain, Abbas Khosravi and Saeid Nahavandi

Session HM-3: Mixture Models, Ensemble Learning and other Meta-learning or Committee
Algorithms
Thursday, July 28, 2:30PM-4:30PM, Room: 214, Chair: Yong Liu

2:30PM Generalized Cascade Classification Model with Customized Transformation Based Ensembles
   [#16108]
Judith Neugebauer, Joerg Bremer, Christian Hinrichs, Oliver Kramer and Michael Sonnenschien

2:50PM Ensemble LSDD-based Change Detection Tests [#16595]
Li Bu, Cesare Alippi and Dongbin Zhao

3:10PM How to Confine Errors in Negative Correlation Learning [#16747]
Yong Liu

3:30PM A Dynamic Channel Selection Algorithm for the Classification of EEG and EMG Data [#16750]
Ahmed Al-Ani, Irena Koprinska, Ganesh Naik and Rami Khushaba

3:50PM A Disagreement-based Active Matrix Completion Approach with Provable Guarantee [#17036]
Chao Lan, Yujie Deng and Jun Huan

4:10PM Copulas-Based Ensemble of Artificial Neural Networks for Forecasting Real World Time Series [#16992]
Ricardo T. Antunes de Oliveira, Thaize Fernandes O. de Assis, Paulo Renato A. Firmino, Tiago A. E. Ferreira and Adriano L. I. Oliveira

**Special Session HM-4: IJCNN-17 Complex-Valued Neural Networks I**
*Thursday, July 28, 2:30PM-4:30PM, Room: 215, Chair: Yasuaki Kuroe*

2:30PM Complex-Valued B-Spline Neural Network and its Application to Iterative Frequency-Domain Decision Feedback Equalization for Hammerstein Communication Systems [#16020]
Sheng Chen, Xia Hong, Emad Khalaf, Fuad E. Alsaadi and Chris J. Harris

2:50PM Proposal of Polarization State Prediction Using Quaternion Neural Networks for Fading Channel Prediction in Mobile Communications [#16380]
Maoki Hikosaka, Tianben Ding and Akira Hirose

3:10PM Feature Extraction for Classification Method using Principal Component based on Conformal Geometric Algebra [#16587]
Minh Tuan Pham, Phuc Hao Do and Kanta Tachibana

3:30PM How Complex-Valued Multilayer Perceptron Can Predict the Behavior of Deterministic Chaos [#16601]
Seiya Satoh and Ryohei Nakano

3:50PM GPU Simulator of Multilayer Neural Network Based on Multi-Valued Neurons [#16754]
Christian Hacker, Igor Aizenberg and Jeff Wilson

4:10PM Retrieval Performance of Hopfield Associative Memory with Complex-Valued and Real-Valued Neurons [#17045]
Toshifumi Minemoto, Teijiro Isokawa, Masaki Kobayashi, Haruhiko Nishimura and Nobuyuki Matsui

**Special Session HM-5: IJCNN-51 Advanced Methods in Optimization and Machine Learning for Multimedia Computing II**
*Thursday, July 28, 2:30PM-4:30PM, Room: 216, Chair: Yiu-Ming Cheung, Ping Guo*

2:30PM Quality Preserved Data Summarization for Fast Hierarchical Clustering [#16686]
Yiqun Zhang, Yiu-ming Cheung and Yang Liu

2:50PM Kernel Selection with Evolutionary Algorithm for Multiple Kernel Independent Component Analysis [#16690]
Session HM-6: Feature Selection, Extraction, and Aggregation II
Thursday, July 28, 2:30PM-4:30PM, Room: 217-219, Chair: Julia Chung

2:30PM Structural Manifold Analysis: A New Method for Dimensionality Reduction Based on a Computational Theory of Human Concept Learning [#16136]
Ronaldo Vigo and Fnu Basawaraj

2:50PM Maximum Class Boundary Criterion for Supervised Dimensionality Reduction [#16684]
K Ramachandra Murthy, Ajoy Mondal and Ashish Ghosh

3:10PM Robust L1-Norm Matrixed Locality Preserving Projection for Discriminative Subspace Learning [#16154]
Yu Tang, Zhao Zhang, Yan Zhang and Fanzhang Li

3:30PM Robust Sparse Subspace Learning for Unsupervised Feature Selection [#16693]
Wang Feng, Rao Qi, Zhang Yongquan and Chen Xu

3:50PM An Unsupervised-based Dynamic Feature Selection for Classification tasks [#16649]
Anne Canuto, Romulo Nunes, Carine Dantas and Joao Xavier-Junior

4:10PM A Dynamic Self-Structuring Neural Network Model to Combat Phishing [#16082]
Fadi Thabtah, Mohammad Rami and McCluskey Lee

Special Session HM-11: IJCNN-37 Approximate/Adaptive Dynamic Programming for Control of Cyber-Physical Systems
Thursday, July 28, 2:30PM-4:30PM, Room: 224, Chair: Ali Heydari, Kyriakos Vamvoudakis

2:30PM Optimal Output Synchronization of Nonlinear Multi-agent Systems using Approximate Dynamic Programming [#16222]
Hamidreza Modares, Frank L Lewis and Ali Davoudi

2:50PM Game-Theoretic Tracking Control for Actuator Attack Attenuation in Cyber-Physical Systems [#16484]
Kyriakos Vamvoudakis

3:10PM Dual Heuristic Dynamic Programming Based Event-Triggered Control for Nonlinear Continuous-Time Systems [#17035]
Lu Dong, Changyin Sun and Haibo He

3:30PM Neural Network-based Attack Detection in Nonlinear Networked Control Systems [#17070]
Haifeng Niu and Jagannathan Sarangapani

3:50PM Finite and Infinite Horizon Optimal Triggering of Networked Control Systems [#16188]
Ali Heydari

4:10PM Optimal Switching of DC-DC Voltage Converters using Approximate Dynamic Programming
Special Session HP-1: IJCNN-38 Energy Efficient Deep Neural Networks
Thursday, July 28, 4:30PM-6:30PM, Room: 212, Chair: Andrew Cassidy, Mike DeBole

4:30PM LATTE: Low-power Audio Transform with TrueNorth Ecosystem [#16623]
Wei-Yu Tsai, Davis Barch, Andrew Cassidy, Michael DeBole, Alexander Andreopoulos, Bryan Jackson, Myron Flickner, Dharmendra Modha, Jack Sampson and Vijaykrishnan Narayanan

4:50PM TrueHappiness: Neuromorphic Emotion Recognition on TrueNorth [#16542]
Peter U. Diehl, Bruno U. Pedroni, Andrew Cassidy, Paul Merolla, Emre Neftci and Guido Zarrella

5:10PM Probabilistic Inference Using Stochastic Spiking Neural Networks on A Neurosynaptic Processor [#17038]
Khadeer Ahmed, Amar Shrestha, Qinru Qiu and Qing Wu

5:30PM Weighted Population Code for low power neuromorphic image classification [#17062]
Antonio Jimeno Yepes, Jianbin Tang, Shreya Saxena, Tobias Brosch and Arnon Amir

5:50PM Sparse approximation on energy efficient hardware [#17170]
Kaitlin Fair and David Anderson

6:10PM A Low-Power Neurosynaptic Implementation of Local Binary Patterns for Texture Analysis [#16737]
Alexander Andreopoulos, Rodrigo Alvarez-Icaza, Andrew Cassidy and Myron Flickner

Session HP-2: Evolutionary Learning & Robotics
Thursday, July 28, 4:30PM-6:30PM, Room: 213, Chair: Yoonsuck Choe

4:30PM Application of Modified Ant Colony Optimization for Computer Aided Bleeding Detection System [#16507]
Shahed K. Mohammed, Farah Deeba, Francis M. Bui and Khan A. Wahid

4:50PM Sleep Learning and Max-Min Aggregation of Evolving Connectionist Systems [#16990]
Michael Watts

5:10PM Analysis of Tool Use Strategies in Evolved Neural Circuits controlling an Articulated Limb [#16897]
Michael Freitag and Yoonsuck Choe

5:30PM Dynamical Analysis of Recurrent Neural Circuits in Articulated Limb Controllers for Tool Use [#16331]
Han Wang, Qinbo Li, Jaewook Yoo and Yoonsuck Choe

5:50PM Individual Distinguishing Pheromone in a Multi-Robot System for a Balanced Partitioned Surveillance Task [#17131]
Rodrigo Calvo, Ademir Constantino and Mauricio Figueiredo

6:10PM Motor-Based Autonomous Grounding in a Model of the Fly Optic Flow System [#16294]
Amey Parulkar and Yoonsuck Choe

Special Session HP-3: IJCNN-32 Advanced Machine Learning Methods and Applications from Complicated Data Environment I
Thursday, July 28, 4:30PM-6:30PM, Room: 214, Chair: Jia Wu
4:30PM  Training Cost-sensitive Deep Belief Networks on Imbalance Data Problems [#26028]  
Chong Zhang and Kay Chen Tan

4:50PM  Training Deep Neural Networks on Imbalanced Data sets [#16326]  
Shoujin Wang, Wei Liu, Jia Wu, Longbing Cao, Qinxue Meng and Paul J. Kennedy

5:10PM  Summarizing Uncertain Transaction Databases by Probabilistic Tiles [#16439]  
Chunyang Liu and Ling Chen

5:30PM  A Novel Feature Subspace Selection Method in Random Forests for High Dimensional Data  
[#16482]  
Yisen Wang and Shu-Tao Xia

5:50PM  Multi-instance Graphical Transfer Clustering for Traffic Data Learning [#16548]  
Shan Xue, Jie Lu, Jia Wu, Guangquan Zhang and Li Xiong

6:10PM  Contribution of Data Complexity Features on Dynamic Classifier Selection [#16111]  
Andre L. Brun, Alceu S. Britto Jr., Luiz S. Oliveira, Fabricio Enembreck and Robert Sabourin

Special Session HP-4: IJCNN-17 Complex-Valued Neural Networks II
Thursday, July 28, 4:30PM-6:30PM, Room: 215, Chair: Akira Hirose

4:30PM  System Identification using FRA and a modified MLMVN with Arbitrary Complex-Valued Inputs [#16181]  
Igor Aizenberg, Antonio Luchetta, Stefano Manetti and Maria Cristina Piccirilli

4:50PM  Multi-valued Autoencoders for Multi-valued Neural Networks [#16588]  
Ryusuke Hata and Kazuyuki Murase

5:10PM  Theoretical and Computational Aspects of Quaternionic Multivalued Hopfield Neural Networks  
[#16640]  
Marcos Eduardo Valle and Fidelis Zanetti Castro

5:30PM  A Model of Hopfield-Type Octonion Neural Networks and Existing Conditions of Energy Functions [#16843]  
Yasuaki Kuroe and Hitoshi Iima

5:50PM  Complex-valued Online Classifier [#16655]  
Masaya Ishikawa and Kazuyuki Murase

6:10PM  On Improving the Efficiency of Complex-Valued ELM [#16410]  
Chandra B. and Rajesh K. Sharma

Special Session HP-5: IJCNN-06 Computational Intelligence for Big Social Data Analysis
Thursday, July 28, 4:30PM-6:30PM, Room: 216, Chair: Iti Chatuverdi, Andres Gomez de Silva

4:30PM  Event Identification and Assertion from Social Media Using Auto-Extendable Knowledge Base  
[#16515]  
Ahmed Talal Suliman, Khaled Al Kaabi, Di Wang, Ahmad Al-Rubaie, Ahmed Al Dhanhani,  
John Davies, Sandra Stincic and Dymitr Ruta

4:50PM  Persuasion Driven Influence Analysis in Online Social Networks [#17122]  
Xiaoqian Yi, Xiao Shen, Wei Lu, Tung-shan Chan and Fu-lai Chung

5:10PM  Validation of Matching [#16070]  
Ya Le, Eric Bax, Nicola Barbieri, David Garcia Soriano, Jitesh Mehta and James Li

5:30PM  Sentic LDA: Improving on LDA with Semantic Similarity for Aspect-Based Sentiment Analysis [#17179]
Soujanya Poria, Chaturvedi Iti, Cambria Erik and Bisio Federica
5:50PM Lyapunov Filtering of Objectivity for Spanish Sentiment Model [#17178]
   Iti Chaturvedi, Cambria Erik and Vilares David
6:10PM Stock Market Prediction Exploiting Microblog Sentiment Analysis [#16771]
   Bo Zhao, Yongji He, Chunfeng Yuan and Yihua Huang

Session HP-6: Feature Selection, Extraction, and Aggregation III
Thursday, July 28, 4:30PM-6:30PM, Room: 217-219, Chair: Ronaldo Vigo

4:30PM Sparse Tensor Discriminative Locality Alignment for Gait Recognition [#16290]
   Nengwen Zhao, Lefei Zhang, Bo Du, Liangpei Zhang, Dacheng Tao and Jane You
4:50PM A Probabilistic Prior Knowledge Integration Method: Application to Generative and
   Discriminative Models [#16300]
   Nataliya Sokolovska and Thierry Artieres
5:10PM Efficient feature extraction of vibration signals for diagnosing bearing defects in induction
   motors [#16446]
   Maryam Farajzadeh-Zanjani, Roozbeh Razavi-Far, Mehrdad Saif and Luis Rueda
5:30PM Document fraud detection by ink analysis using texture features and histogram matching
   [#16612]
   Apurba Gorai, Rajarshi Pal and Phalgungi Gupta
5:50PM A Multimodal Data Fusion Approach Efficiently Predicts Disease Duration in Multiple
   Sclerosis [#17092]
   Ava Sheikh Shoshtari, Sue-Jin Lin, Martin J. McKeown and Z. Jane Wang
6:10PM Combining User-based and Global Lexicon Features for Sentiment Analysis in Twitter
   [#17079]
   Zhou Jin, Yujiu Yang, Xianyu Bao and Biqing Huang

Special Session HP-11: IJCNN-52 Approximate Dynamic Programming and Reinforcement
Learning for High Dimensional Systems
Thursday, July 28, 4:30PM-6:30PM, Room: 224, Chair: Dongbin Zhao

4:30PM Model-Free Reinforcement Learning for Nonlinear Zero-Sum Games with Simultaneous
   Explorations [#16127]
   Qichao Zhang, Dongbin Zhao, Yuanheng Zhu and Xi Chen
4:50PM Convolutional Fitted Q Iteration For Vision-Based Control Problems [#16499]
   Dongbin Zhao, Yuanheng Zhu, Le Lv, Yaran Chen and Qichao Zhang
5:10PM Neural-network-based robust optimal control of uncertain nonlinear systems using model-free
   policy iteration algorithm [#26004]
   Chao Li, Ding Wang and Derong Liu
5:30PM An Adaptive Dynamic Programming Based Method for Optimization of Electricity
   Consumption in Office Buildings [#26009]
   Guang Shi, Qinglai Wei and Derong Liu
5:50PM Convergence Analysis of GrDHP-based Optimal Control for Discrete-time Nonlinear System
   [#17030]
   Xiangnan Zhong, Zhen Ni and Haibo He
6:10PM Self-reflective Deep Reinforcement Learning [#17098]
Abdulrahman Altahhan

Special Session FA-1: IJCNN-09 Intelligent Vehicle and Transportation Systems
Friday, July 29, 8:00AM-10:00AM, Room: 212, Chair: Yi Lu Murphey, Dev Kochhar

8:00AM  MTS-DeepNet for Lane Change Prediction [#16937]
        Xipeng Wang, Yi Murphey and Dev Kochhar
8:20AM  Automatic Knowledge Learning Using Case-Based Reasoning [#16075]
        Viviane Souza, Andre Borges, Sato Denise, Avila Braulio and Scalabrin Edson
8:40AM  A Vision-Based Auxiliary System of Multirotor Unmanned Aerial Vehicles for Autonomous
        Rendezvous and Docking [#16083]
        Dexing Zhong, Xuefei Zhang, Haotian Sun, Zhigang Ren and Jiuqiang Han
9:00AM  Challenges in Visual Parking and How a Developmental Network Approaches the Problem
        [#16413]
        Zejia Zheng and Juyang Weng
9:20AM  A hybrid vision system for detecting use of mobile phones while driving [#16876]
        Rafael Berri, Fernando Osorio, Rafael Parpinelli and Alexandre Silva
9:40AM  Improving Anytime Behavior for Traffic Signal Control Optimization Based on NSGA-II and
        Local Search [#16918]
        Phuong Thi Mai Nguyen, Benjamin N. Passow and Yingjie Yang

Special Session FA-2: IIJCNN-21 Deep Learning, Medical Imaging and Translational Medicine
Friday, July 29, 8:00AM-10:00AM, Room: 213, Chair: Xiao-Hua (Helen) Yu

8:00AM  Using Convolutional Neural Network for Edge Detection in Musculoskeletal Ultrasound
        Images [#16313]
        Shaima Jabbar, Charles Day, Nicholas Heinz and Edward Chadwick
8:20AM  Precise 2D Point Set Registration Using Iterative Closest Algorithm and Correntropy [#16351]
        Xu Guanglin, Du Shaoyi and Xue Jianru
8:40AM  Modularity Analysis of Brain Network under Real-time Working Memory Feedback Training
        [#16204]
        Xueli Yu and Xiaojie Zhao
9:00AM  Classification from Generation: Recognizing Deep Grammatical Information During Reading
        from Rapid Event-Related fMRI [#16928]
        Tali Bitan, Alex Frid, Hanananel Hazan, Larry Manevitz, Haim Shalebashvili and Yael Weiss
9:20AM  Image Registration With Artificial Neural Networks Using Spatial and Frequency Features
        [#17117]
        Pramod Gadde and Xiao-Hua Yu
9:40AM  Automated GrowCut for Segmentation of Endoscopic Images [#16487]
        Farah Deeba, Francis M. Bui and Khan A. Wahid

Session FA-3: Dynamics of Neural Computation
Friday, July 29, 8:00AM-10:00AM, Room: 214, Chair: Peter Andras

8:00AM  State Filtering and Parameter Estimation for Hodgkin-Huxley Model [#17000]
        Fang Liao, Xuyang Lou, Cui Baotong and Wu Wei
8:20AM Attractor-Based Complexity of a Boolean Model of the Basal Ganglia-Thalamocortical Network [#16385]
Jeremie Cabessa and Alessandro E.P. Villa

8:40AM Modelling the Restoration of Activity in a Biological Neural Network [#16583]
Filipa Dos Santos, Jannetta Sophia Steyn and Peter Andras

9:00AM EEG Based Gesture Mimicking by An Artificial Limb Using Cascade-Correlation Learning Architecture [#17071]
Sriparna Saha, Amit Konar, Anuradha Saha, Arup Sadhu, Bonny Banerjee and Atulya Nagar

9:20AM The Evolution of a Generalized Neural Learning Rule [#16421]
Jeff Orchard and Lin Wang

9:40AM Hardware Implementation of Deep Brain Stimulator on a Biophysical Neural Population Model [#16555]
Ehsan Karami, Arash Ahmadi, Majid Ahmadi and Mehrdad Saif

Special Session FA-4: IJCNN-32 Advanced Machine Learning Methods and Applications from Complicated Data Environment II
Friday, July 29, 8:00AM-10:00AM, Room: 215, Chair: Jia Wu

8:00AM Contextual Weisfeiler-Lehman Graph Kernel For Malware Detection [#16907]
Annamalai Narayanan, Guozhu Meng, Liu Yang, Jinliang Liu and Lihui Chen

8:20AM A Recursive Method for Big Network Influence Estimation [#16829]
Wei-Xue Lu, Chuan Zhou, Jia Wu, Chunyi Liu, Li Gao and Yue Hu

8:40AM Query Expansion for Exploratory Search with Subtopic Discovery in Community Question Answering [#16823]
Li Gao, Yao Lu, Qin Zhang, Hong Yang and Yue Hu

9:00AM Denoising Auto-Encoders toward Robust Unsupervised Feature Representation [#16541]
Wei Xiong, Bo Du, Lefei Zhang, Liangpei Zhang and Dacheng Tao

9:20AM Improving Decision Trees by Tsallis Entropy Information Metric Method [#16033]
Yisen Wang, Chaobing Song and Shu-Tao Xia

9:40AM Optimising a constrained echo state network using evolutionary algorithms for learning mental models of complex dynamical systems [#17101]
Hassan Abdelbari and Kamran Shafi

Session FA-5: Models of Neurons and Local Circuits
Friday, July 29, 8:00AM-10:00AM, Room: 216, Chair: Pedro Machado

8:00AM C. elegans Behavioural Response Germaine to Hardware Modelling [#16422]
Kofi Appiah, Pedro Machado, Alicia Costalago Meruelo and T.M. McGinnity

8:20AM Bio-inspired Small Target Motion Detector with a New Lateral Inhibition Mechanism [#16654]
Hongxin Wang, Jigen Peng and Shigang Yue

8:40AM A Two Layer Disparity Selective Simple Cell Model [#17022]
Sijing Cheng, Qiuyan Peng and Bertram Shi

9:00AM Comparing Data Assimilation Filters for Parameter Estimation in a Neuron Model [#16803]
Nicola Politi, Jianfeng Feng and Wenlian Lu

9:20AM Challenges in clustering C. elegans neurons using computational approaches [#16480]
Alicia Costalago Meruelo, Pedro Machado, Kofi Appiah and McGinnity T. Martin

file:///Users/VsonicV/Downloads/IJCNN2016sessions270416.php.html
9:40AM  Optimization of an electro-optical representation of the C. elegans connectome through neural network cluster analysis [#16575]
        Alexey Petrushin, Lorenzo Ferrara and Axel Blau

Session FA-6: Radial Basis Function Networks & Other NNs
Friday, July 29, 8:00AM-10:00AM, Room: 217-219, Chair: Varun Kumar Ojha

8:00AM  Intermittent Fault Estimation for Satellite Attitude Control Systems Based on the Unknown Input Observer [#16249]
        Xin Wen and Yaping Zhu
8:20AM  Locally Imposing Function for Generalized Constraint Neural Networks - A Study on Equality Constraints [#16409]
        Linlin Cao, Ran He and Baogang Hu
8:40AM  Meta-cognitive Regression Neural Network for Function Approximation: Application to Remaining Useful Life Estimation [#16722]
        Sateesh Babu Giduthuri, Xiao-LI Li and Suresh Sundaram
9:00AM  Adaptive Learning Algorithm for RBF Neural Networks in Kernel Spaces [#16626]
        Maryam Pazouki, Sonia Seyed Allaei, M. Hossein Pazouki and Dietmar P.F. Moeller
9:20AM  A Substitution of the General Partial Differential Equation with Extended Polynomial Networks [#16133]
        Ladislav Zjavka, Vaclav Snasel, Witold Pedrycz and Varun Kumar Ojha
9:40AM  On the Synergism of Evolutionary Neuro-Fuzzy System [#16894]
        Vivek Srivastava, Bipin Tripathi, Vinay Pathak and Anand Tiwari

Session FA-11: Data Analysis and Pattern Recognition I
Friday, July 29, 8:00AM-10:00AM, Room: 224, Chair: Alceu Britto

8:00AM  A Computational Approach for Authorship Attribution of Literary Texts using Sintatic Features [#16152]
        Paulo Varela, Edson Justino, Alceu Britto and Flavio Bortolozzi
8:20AM  Order of Experimentation for Metamodeling Tasks [#16276]
        Julian Belz, Konrad Bamberger and Oliver Nelles
8:40AM  A combined Bayesian network method for predicting drive failure times from SMART attributes [#16486]
        Pang Shuai, Jia Yuhan, Stones Rebecca, Liu Xiaoguang and Wang Gang
9:00AM  Biometric palmprint identification via efficient texture features fusion [#16914]
        Raouia Mokni, Mohamed Elleuch and Monji Kherallah
9:20AM  An Architecture for Encoding Two-Dimensional Cyclone Track Prediction Problem in Coevolutionary Recurrent Neural Networks [#16183]
        Rohitash Chandra, Ratneel Deo and Christian Omlin
9:40AM  Enhancing Temporal Alignment with Autoencoder Regularization [#16442]
        Liquan Nie, Yuanyuan Wang, Xiang Zhang, Xuhui Huang and Zhigang Luo

Plenary Talk FPlen: Adaptive Learning and Optimization for MI: From the Foundations to Complex Systems
Friday, July 29, 1:00PM-2:00PM, Room: Ballroom A, Chair: Haibo He
Session FM-1: Neuro & Fuzzy Control  
Friday, July 29, 2:30PM-4:30PM, Room: 212, Chair: Ivo Bukovsky, Jan Pitel

2:30PM Adaptive Maneuver Control of Hypersonic Reentry Flight via Self-organizing Recurrent Functional Link Network [#16925]  
Yanli Du, Dongyang Sun, Jian Fu and Peng Zhang

2:50PM Adaptive Neural Control of Pure-feedback Stochastic Nonlinear Systems with Multiple Unknown Time-Varying Delays [#16284]  
Li Zifu, Li Tieshan and Feng Gang

3:10PM Model Reference Multiple-Degree-of-Freedom Adaptive Control with HONUs [#16978]  
Ivo Bukovsky, Peter Benes, Martin Vesely, Jan Pitel and Madan Gupta

3:30PM Prediction Interval-based ANFIS Controller for Nonlinear Processes [#16817]  
Mohammad Anwar Hosen, Abbas Khosravi, Saeid Nahavandi and Lachlan Sinnott

3:50PM A learning algorithm for a Data-driven Controller based on Fictitious Reference Iterative Tuning [#16457]  
Shin Wakisato and Toru Yamamoto

4:10PM Self-Organizing Neural Adaptive Tracking Control of High Speed Trains Subject to Unexpected Traction-Breaking Failures [#16917]  
Rui-Zhen Gao, Yu-Juan Wang, Jun-Feng Lai and Yong-Duan Song

Session FM-2: Robotics I  
Friday, July 29, 2:30PM-4:30PM, Room: 213, Chair: Ying Wang

2:30PM An Autonomous Robot Tracking System through Fusing Vision with Sonar Measurements [#16047]  
Qichang Zheng, Sheng Li, Boyu Hou, Haoxiang Lang and Ying Wang

2:50PM Bayesian perception of touch for control of robot emotion [#16281]  
Uriel Martinez-Hernandez, Adrian Rubio-Solis and Tony J. Prescott

3:10PM Road Junction Detection from 3D Point Clouds [#16752]  
Danilo Habermann, Carlos Vido, Fernando Osorio and Fabio Ramos

3:30PM Event-Sampled Adaptive Neural Network Control of Robot Manipulators [#16883]  
Vignesh Narayanan and Jagannathan Sarangapani

3:50PM Combining local and global visual information in context-based neurorobotic navigation [#16622]  
Marwen Belkaid, Nicolas Cuperlier and Philippe Gaussier

4:10PM Continuous Material Identification through Tactile Sensing [#17003]  
Augusto Gomez Eguiluz, Inaki Rano, Sonya Coleman and Martin McGinnity

Session FM-3: Power System Applications  
Friday, July 29, 2:30PM-4:30PM, Room: 214, Chair: Marco Musseta

2:30PM Solar Power Forecasting Using Weather Type Clustering and Ensembles of Neural Networks [#16337]  
Mashud Rana, Irena Koprinska and Vassilios Agelidis

2:50PM Neural Network-based Load Forecasting and Error Implication for Short-term Horizon [#16615]
Swasti R. Khuntia, Jose L. Rueda and Mart van der Meijden
3:10PM Forecasting Wind Power - An Ensemble Technique With Gradual Coopetitive Weighting Based on Weather Situation [#16629]
Andre Gensler and Bernhard Sick
3:30PM Solar Radiation Forecast under Convex Piecewise Linear Cost Functions [#16420]
Seyyed A. Fatemi, Anthony Kuh and Matthias Fripp
3:50PM Solar Radiation (Insolation) Forecasting Using Constructive Neural Networks [#16433]
Liying Ma, Naoto Yorino and Khashayar Khorasani
4:10PM Hybrid Weather-based ANN for Forecasting the Production of a Real Wind Power Plant [#16900]
Mattia Morina, Francesco Grimaccia, Sonia Leva and Marco Mussetta

Session FM-4: Visual, Auditory and Other Sensory Systems
Friday, July 29, 2:30PM-4:30PM, Room: 215, Chair: Andre Bigand

2:30PM Learning to Link Human Objects in Videos and Advertisements with Clothes Retrieval [#16228]
Haijun Zhang, Shuang Wang, Xiong Cao, Heng Yue and Ke Wang
2:50PM Contour Representation and Shape Matching Based on Mechanism of Visual Cortex [#16243]
Hui Wei and Zheng Dong
3:10PM Perception of noise in Global Illumination based on Inductive Learning [#16594]
Joseph Constantin, Ibtissam Constantin, Andre Bigand and Denis Hamad
3:30PM A Biologically Plausible Spiking Model for Interaural Level Difference Processing Auditory Pathway in Human Brain [#16361]
Xiao Feng and Weibei Dou
3:50PM Modelling the Generation of Tinnitus in a Silent Environment [#16969]
Richard Gault, T.M. McGinnity and Sonya Coleman
4:10PM A spatio-temporal model of multi-sensory learning that demonstrates improved object recall [#16073]
A. Ravishankar Rao

Session FM-5: Biomedical Engineering
Friday, July 29, 2:30PM-4:30PM, Room: 216, Chair: Vinicius de Melo

2:30PM Detection of Alzheimer's Disease Using Advanced Local Binary Pattern from Hippocampus and Whole Brain of MR Images [#16196]
Devvi Sarwinda and Alhadi Bustamam
2:50PM Feature Learning with Deep Convolutional Neural Networks for Screening Patients with Paroxysmal Atrial Fibrillation [#16338]
Bahareh Pourbabae, Mehrsan Javan Roshtkhari and Khashayar Khorasani
3:10PM Radon Features and Barcodes for Medical Image Retrieval via SVM [#16475]
Shujin Zhu and Hamid R. Tizhoosh
3:30PM A Hybrid Neural System for the Automatic Segmentation of the Interventricular Septum in Echocardiographic Images [#17008]
Saley Baracho, Daniel Pinheiro, Vinicius Melo and Regina Coelho
3:50PM Deep Self-Organising Maps for Efficient Heterogeneous Biomedical Signatures Extraction
Nataliya Sokolovska, Thanh Hai Nguyen, Karine Clement and Jean-Daniel Zucker

4:10PM RNA-Seq Data Analysis using Nonparametric Gaussian Process Models [#17146]
Thanh Nguyen, Saeid Nahavandi, Douglas Creighton and Abbas Khosravi

Session FM-6: Sparse Coding
Friday, July 29, 2:30PM-4:30PM, Room: 217-219, Chair: Sylvain Chartier

2:30PM Online Non-negative Dictionary Learning via Moment Information for Sparse Poisson Coding [#16436]
Xiaotian Yu, Haiqin Yang, Irwin King and Michael Lyu

2:50PM Sufficient Conditions for Sparse Recovery by Weighted L1-Constrained Quadratic Programming [#17166]
Jun Zhang, Yuanqing Li, Zhu Liang Yu and Zhenghui Gu

3:10PM Nearest Neighbour Search Using Binary Neural Networks [#16673]
Demetrio Ferro, Vincent Gripon and Xiaoran Jiang

3:30PM Image Representation via Sub-dictionary based Sparse Coding [#17126]
Bingxin Xu, Qian Yin, Ping Guo and Hongzhe Liu

3:50PM Encoding Sparse Features in a Bidirectional Associative Memory. [#16240]
Nareg Berberian, Zoya Aamir, Sebastien Helie and Sylvain Chartier

4:10PM Low-Rank Representation based Road Network Traffic Data Completion Method [#16339]
Rong Du, Yong Zhang, Boyue Wang, Baocai Yin, Hao Liu and Guanglei Qi

Session FM-11: Data Analysis and Pattern Recognition II
Friday, July 29, 2:30PM-4:30PM, Room: 224, Chair: Julio Cesar Nievola, Alceu Britto

2:30PM Face Recognition by Humans Performed on Basis of Linguistic Descriptors and Neural Networks [#16625]
Michal Dolecki, Pawel Karczmarek, Adam Kiersztyn and Witold Pedrycz

2:50PM BALLKNN: An Efficient and Scalable KNN based on Euclidean Similarity [#16675]
Peipei Lv, Peng Yang, Yongqiang Dong and Liang Gu

3:10PM Facial Expression Recognition Using a Pairwise Feature Selection and Classification Approach [#16898]
Marcelo Cossetin, Julio Nievola and Alessandro Koerich

3:30PM A Statistical Approach to Reduce Failure Facilities Based on Predictive Maintenance [#16096]
Junya Shimada and Satoko Sakajo

3:50PM Perceptron Rule Improvement on FIMT-DD for Large Traffic Data Stream [#16432]
Ari Wibisono, Hanif Wisesa, Devvi Sarwinda, Wisnu Jatmiko and Petrus Mursanto

4:10PM Evaluation of Machine Learning Methods to Predict Knee Loading from the Movement of Body Segments [#16418]
Ahmed Aljaaf, Abir Hussain, Paul Fergus, Andrzej Przybyla and Gabor Barton

Session FP-1: Learning & Memory
Friday, July 29, 4:30PM-6:30PM, Room: 212, Chair: Jong-Hwan Kim

4:30PM Deep Adaptive Resonance Theory for Learning Biologically Inspired Episodic Memory
Gyeong-Moon Park and Jong-Hwan Kim
4:50PM Quantifying Neural Information Content: A Case Study of the Impact of Hippocampal Adult Neurogenesis [#16362]
Craig Vineyard, Stephen Verzi, Conrad James and James Aimone
5:10PM A Hippocampal Model for Episodic Memory using Neurogenesis and Asymmetric STDP [#17040]
Motonobu Hattori and Yoshinori Kobayashi
5:30PM Recursive Functions in High-Dimensional Computing with Random Vectors [#16959]
Jussi Poikonen, Eero Lehtonen and Mika Laiho
5:50PM A Reservoir Computing Model Of Episodic Memory [#16613]
David Bhowmik, Kyriacos Nikiforou, Murray Shanahan, Michail Maniadakis and Panos Trahanias
6:10PM Efficient SpiNNaker simulation of a heteroassociative memory using the Neural Engineering Framework [#16403]
James Knight, Aaron Voelker, Andrew Mundy, Chris Eliasmith and Steve Furber

Session FP-2: Robotics II
Friday, July 29, 4:30PM-6:30PM, Room: 213, Chair: Bertram Shi

4:30PM Tactile Sequence Based Object Categorization: A Bag of Features Modeled by Linear Dynamic System with Symmetric Transition Matrix [#16790]
Haolin Yang, Fuchun Sun, Wenbing Huang, Lele Cao and Bin Fang
4:50PM Networked Control Of Unmanned Vehicle Using Wavelet-Based Generalized Predictive Controller [#16659]
Hamid Khodabandehlou and Mohammad Sami Fadali
5:10PM Control of Elastic Joint Robot Based on Electromyogram Signal by Pre-trained Multi-Layer Perceptron [#16755]
Mahdi Souzanchi-K, Moein Owhadi-Kareshk and Mohammad-R. Akbarzadeh -T.
5:30PM Robotic Implementation of Classical and Operant Conditioning as a Single STDP Learning Process [#17014]
Etienne Dumesnil, Philippe-Olivier Beaulieu and Mounir Boukadoum
5:50PM Simultaneous learning of the structure and kinematic model of an articulated body from point clouds [#17051]
Tao Zhou and Bertram Shi

Session FP-3: Multiagent Systems
Friday, July 29, 4:30PM-6:30PM, Room: 217-219, Chair: Derong Liu

4:30PM A Conceptual Modeling of Flocking-regulated Multi-agent Reinforcement Learning [#26019]
Caishun Chen, Yaqing Hou and Yew-Soon Ong
4:50PM Distributed control of second-order nonlinear time-delayed multiagent systems with disturbance using neural networks [#26005]
Hongwen Ma, Derong Liu and Ding Wang
5:10PM Pluralistic Ignorance: Emergence and Hypotheses Testing in a Multi-agent System [#17050]
Fatima B. Seeme and David G. Green
5:30PM  Cluster cooperative output regulation of heterogeneous linear multi-agent systems with multiple leaders [#16665]
  Yanming Wu, Zhanshan Wang, Guotao Hui and Huaguang Zhang

5:50PM  On adaptive pinning consensus for dynamic multi-agent networks with general connected topology [#16667]
  Lianghao Ji, Yi Tang, Qun Liu and Xiaofeng Liao

6:10PM  A Multiagent Reinforcement Learning Approach to En-Route Trip Building [#16378]
  Ana Bazzan and Ricardo Grunitzki