



9th International Workshop on Multiple Classifier Systems

Nile University, Cairo, Egypt, April 7-9 2010

Final Program

Organized By:



Center for Vision, Speech and Signal Processing
Surrey (UK)



Dept. of Electrical and Electronic Engineering University of
University of Cagliari (Italy)

Workshop Chairs

Neamat El Gayar (Nile University, Egypt)
Josef Kittler (University of Surrey, United Kingdom)
Fabio Roli (University of Cagliari, Italy)

Sponsored By:



The Information Technology Industry
Development Agency (ITIDA)



Microsoft Innovation Laboratory in Cairo (CMIC)

Endorsed By:



The International Association for Pattern
Recognition

Co-sponsored By:



PASCAL Network of Excellence

Venue: Smart Village Club, Smart Village, Giza, Egypt



9TH INTERNATIONAL WORKSHOP ON
MULTIPLE CLASSIFIER SYSTEMS
NILE UNIVERSITY, CAIRO, EGYPT, APRIL 7-9 2010



Day 1: WEDNESDAY 7 APRIL

	<i>Pick up (8:15 AM Hilton 6th October, 8:30 AM NOVOTEL 6th October,)</i>
09:00	<i>Registration</i>
09:20	Opening <i>Neamat El Gayar, Josef Kittler and Fabio Roli</i>
	Classifier Ensemble I Session Chair: Ludmila Kuncheva
09:30	Weighted Bagging for Graph based One-Class Classifiers <i>Santi Segui, Laura Igual and Jordi Vitrià</i>
09:55	Improving multilabel classification performance by using Ensemble of Multi-label Classifiers <i>Muhammad Atif Tahir, Josef Kittler, Krystian Mikolajczyk, and Fei Yan</i>
10:20	New Feature Splitting criteria for Co-training using Genetic Algorithm Optimization <i>Ahmed Salaheldin and Neamat El Gayar</i>
10:45	Incremental Learning of New Classes in Unbalanced Datasets: Learn++.UDNC <i>Gregory Ditzler, Michael D. Muhlbaier and Robi Polikar</i>
11:10	Coffee Break
	Invited Talk I Session Chair: Fabio Roli
11:30	Some Thoughts at the Interface of Ensemble Methods and Feature Selection <i>Gavin Brown</i>
	Classifier Ensemble II Session Chair: Josef Kittler
12:15	Tomographic Considerations in Ensemble Bias/Variance Decomposition <i>David Windridge</i>
12:40	Choosing Parameters for Random Subspace Ensembles for fMRI Classification <i>Ludmila I. Kuncheva and Catrin O. Plumpton</i>
13:05	An Experimental Study on Ensembles of Functional Trees <i>Juan J. Rodríguez, César García-Osorio, Jesús Maudes, and José Francisco Díez-Pastor</i>
13:30	Lunch/ Poster Set Up

<p>14:45</p> <p>15:10</p> <p>15:35</p>	<p>Session I (Classifier Ensemble III)</p> <p>Session Chair: David Windridge Multiple classifier systems under attack <i>Battista Biggio, Giorgio Fumera, and Fabio Roli</i></p> <p>SOCIAL: Self-Organizing Classifier ensemble for Adversarial Learning <i>Francesco Gargiulo and Carlo Sansone</i></p> <p>Unsupervised Change-Detection in Retinal Images by a Multiple Classifier Approach <i>Giulia Troglio, Marina Alberti, Jón Atli Benediksson, Gabriele Moser, Sebastiano Bruno Serpico, and Einar Stefánsson</i></p>
<p>16:00 – 17:30</p>	<p>Poster session & Coffee</p> <p>Forecast Combination Strategies for Handling Structural Breaks for Time Series Forecasting <i>Waleed M. Azmy, Amir F. Atiya and Hisham El-Shishiny</i></p> <p>A Multiple Classifier System for Classification of LIDAR Remote Sensing Data Using Multi-class SVM <i>Farhad Samadzadegan, Behnaz Bigdeli and Pouria Ramzi</i></p> <p>A Multi-Classifer System for O_-Line Signature Verification Based on Dissimilarity Representation <i>Luana Batista, Eric Granger and Robert Sabourin</i></p> <p>A Multi-Objective Sequential Ensemble for Cluster Structure Analysis and Visualization Application to Gene Expression <i>Noha A. Yousri</i></p> <p>Combining 2D and 3D Features to Classify Protein Mutants in HeLa Cells 282 <i>Carlo Sansone, Vincenzo Paduano, and Michele Ceccarelli</i></p> <p>An experimental comparison of Hierarchical Bayes and True Path Rule ensembles for protein function prediction. <i>Matteo Re and Giorgio Valentini</i></p> <p>Recognizing Combinations of Facial Action Units with Different Intensity Using a Mixture of Hidden Markov Models and Neural Network <i>Mahmoud Khademi, Mohammad Taghi Manzuri-Shalmani,, Mohammad Hadi Kiapour, and Ali Akbar Kiaei</i></p>
<p>17:30 PM</p> <p>18:00 PM</p> <p>19:30 PM</p>	<p><i>End of scientific program for Day1</i></p> <p><i>Welcome Reception at the new Campus for Nile University</i></p> <p><i>Return to hotels (Novotel 6th October, Hilton 6th October)</i></p>
<p><i>End of Day 1</i></p>	

Day 2: THURSDAY 8 APRIL

	<p><i>Pick up (8:15 AM Hilton 6th October, 8:30 AM NOVOTEL 6th October,)</i></p> <p>Classifier Diversity Session Chair: Günther Palm</p>
09:30	<p>"Good" and "Bad" Diversity in Majority Vote Ensembles <i>Gavin Brown and Ludmila I. Kuncheva</i></p>
09:55	<p>Multi-Information Ensemble Diversity <i>Zhi-Hua Zhou and Nan Li</i></p>
	<p>Invited Paper</p> <p>Session Chair: Horst Bunke</p>
10:20	<p>Multiple classifier systems for the recognition of human emotions <i>Friedhelm Schwenker, Stefan Scherer, Miriam Schmidt, Martin Schels and Michael Glodek</i></p>
11:05	<p>Coffee Break</p>
	<p>Boosting and bootstrapping</p> <p>Session Chair: Robert Duin</p>
11:30	<p>Class-Separability Weighting and Bootstrapping in Error Correcting Output Code Ensembles <i>R.S.Smith and T.Windeatt</i></p>
11:55	<p>Boosted Geometry-based Ensembles <i>Oriol Pujol</i></p>
12:20	<p>Online Non-Stationary Boosting <i>Adam Pocock, Paraskevas Yiapanis, Jeremy Singer, Mikel Luján, and Gavin Brown</i></p>
	<p>Combining multiple kernels</p> <p>Session Chair: Giorgio Fumera</p>
12:45	<p>A Support Kernel Machine for Supervised Selective Combining of Diverse Pattern-Recognition Modalities <i>Alexander Tatarchuk, Eugene Urlov, Vadim Mottl and David Windridge</i></p>
13:10	<p>Combining Multiple Kernels by Augmenting the Kernel Matrix <i>Fei Yan, Krystian Mikolajczyk, Josef Kittler and Muhammad Atif Tahir</i></p>
13:35	<p>Lunch</p>

Semi-Supervised Learning & Handwriting recognition

Session Chair: Zhi-Hua Zhou

14:45	Combining Neural Networks to Improve Performance of Handwritten Keyword Spotting <i>Volkmar Frinken, Andreas Fischer and Horst Bunke</i>
15:10	Combining Committee-based Semi-supervised and Active Learning and Its Application to Handwritten Digits Recognition <i>Mohamed Farouk Abdel Hady and Friedhelm Schwenker</i>
15:35	Using Diversity in Classifier Set Selection for Arabic Handwritten Recognition <i>Nabiha Azizi, Nadir Farah, Mokhtar Sellami and Abdel Ennaji</i>
16:00	<ul style="list-style-type: none">– <i>End of scientific program for Day2</i>– <i>Transportation to City and Banquet at El Azhar Park</i>– <i>Return to hotels (Novotel 6th October, Hilton 6th October)</i>

End of Day 2

Day 3: FRIDAY 9 APRIL

	<i>Pick up (8:10 AM Hilton 6th October, 8:25 AM NOVOTEL 6th October,)</i>
	Session I-a (Classifier Ensemble / Selection) Session Chair: Terry Windeatt
09:00	Dynamic Selection of Ensembles of Classifiers Using Contextual Information <i>Paulo R. Cavalin, Robert Sabourin, and Ching Y. Suen</i>
09:25	Selecting Structural Base Classifiers for Graph-based Multiple Classifier Systems <i>Wan-Jui Lee, Robert P.W. Duin and Horst Bunke</i>
10:00	Short Coffee Break
10:15 - 11:45	Panel Discussion <i>Back to the past: a speech from 2010 at MCS 2000</i> Moderator: Fabio Roli Panelists: Ludmila Kuncheva, Terry Windeatt, Zhi-Hua Zhou, Bob Duin, Horst Bunke
12.00	Lunch
	Session I-b(Classifier Ensemble / Selection) Session Chair: Terry Windeatt
13.00	A double pruning algorithm for classification ensembles <i>Victor Soto, Gonzalo Martínez-Muñoz, Daniel Hernández-Lobato, and Alberto Suárez</i>
13.25	Estimation of the number of clusters using multiple clustering validity indices <i>Krzysztof Kryszczuk and Paul Hurley</i>
13:55	MCS Closing
14:00	<ul style="list-style-type: none">- <i>End of scientific program for Day 3</i>- <i>Optional Half Day Cultural Program (Pyramids visit and Sound and Light show)</i>- <i>Return to hotels (Novotel 6th October, Hilton 6th October)</i>
End of Day 3	