

# 11<sup>th</sup> International Conference on Machine Learning and Applications ICMLA 2012

December 12-15, Boca Raton, Florida, USA

<http://www.icmla-conference.org/icmla12/>

## Call for Papers for Special Session on: Machine Learning Ensemble Methods and Applications

<http://www.cmp.uea.ac.uk/~wjw/ICMLA12.html>

### Introduction

As rapidly increasing quantity and complexity of real-world data have overwhelmed the existing individual machine learning methods and techniques to produce satisfactory performance when working alone, more and more attention has been paid to machine learning ensemble methods that utilize the collective power of many individual models to achieve better and more importantly highly reliable performance.

Various ensemble methods and algorithms have been developed and applied to many real-world problems over last decade. However, there are still some fundamental issues that are not well understood and there is a need for further in-depth investigation to answer key questions in ensemble approaches.

For example, what factors affect the performance of an ensemble and in what extent they do? Which diversity measures should be used when assessing the difference among the models in an ensemble? What methodology and procedure should be used for constructing an effective ensemble in a more efficient manner? What are the constraints and challenges of the ensemble approach?

This special session is intended to bring the researchers from a widened spectrum to report their progress made in the last few years and to discuss their experiences in researching and using ensemble methods in various applications.

### Topics

The major topics of interests for this special session include, but are not limited to:

- Ensemble methodology, strategies and techniques
- Homogeneous and heterogeneous ensembles
- Diversity definition and measurement
- Techniques for generating diverse models
- Ensemble performance evaluation methods and comparisons with other approaches
- Model selection methods and strategies
- Decision fusion strategies and effectiveness
- Semi-supervised and/or active learning ensemble
- Ensemble for classification and regression
- Clustering ensembles
- Ensemble for feature ranking and selection
- Ensemble for multi-media data mining
- Ensemble software development
- Ensemble for various applications.

Special session papers are treated the same as regular conference papers and will be included in the conference proceedings.

### Important dates

- Special Session
- **Submissions:** August 6th, 2012
- Notification: September 7th, 2012
- Camera ready: October 1st, 2012
- Conference: December 12-15, 2012

You are welcome to contact the organiser in advance if you are interested in submitting any papers.

### Submission

- Papers must conform to the IEEE CS Press Conference Paper Format (single-spaced, double-column, 10-point font size, 6-page limit). More instructions can be found from the conference web site  
<http://www.icmla-conference.org/icmla12/>
- Submit paper PDF: choose "Special session Machine Learning Ensemble Methods and Applications" to via:  
<https://cmt.research.microsoft.com/ICMLA2012/>

### Special Session Organiser and Technical Committee:

- **Organiser and Chair:** Dr. Wenjia Wang, University of East Anglia (UEA), UK.

Co-Chair: Prof. N. Suganthan., Nanyang Technological University, Singapore.

**Technical Committee(TBC):** Daniel C. Neagu (University of Bradford, UK), Marcin Blachnik, (Silesian University of Technology, Poland), Zhi-Hua Zhou (Nanjing University, China), Klaus-Robert Müller, (Berlin Institute of Technology, Berlin, Germany), Ning Zhong (Maebashi Institute of Technology, Japan), Philip Yu (UCI, USA), R. Pal, (Indian Statistical Institute, Kolkatta, India), Qiao Li, (Imperial College, UK), Jamil Alshaqsi (Sultan Qaboos University, Oman), Hujun Yin (University of Manchester, UK), Tony Bagnall(UEA, UK), Gavin Cawley(UEA, UK), Bea de la Iglesia (UEA, UK)

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