

IEEE 2008 World Congress on Computational Intelligence

June 1 - 6, 2008, Hong Kong http://www.wcci2008.org Submission Deadline extended to December 15 2007.

Call for Papers for special session: Ensemble Methods and Applications

http://www.cmp.uea.ac.uk/~wjw/ema08.html

Scope

Ensemble as a powerful computational paradigm, which constructively combines multiple algorithms and models, has been increasingly applied for dealing with complex real-world problems in various fields for classification, prediction, regression, clustering, or feature selection. However, it appeared in most cases the accuracy of the ensembles built is not or only marginally better than that of individual models. This indicates that there are still some fundamental issues that are not well understood and certainly worth of further investigations. For example, what factors and in what extent do they affect the performance of an ensemble? What methodology and procedure should be used for constructing more effective ensembles in user-friendly platform. Following a very successful special session in the WCCI2006, it is now necessary to have a follow-up special session with a widened theme aiming to bring in more researchers into the field to critically review the progress on ensemble methods and their applications in various fields, and to identify the challenging research issues for the future.

Topics

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

- Ensemble methodology, strategies and techniques;
- Ensemble for classification, prediction, regression, clustering, feature selection;
- Homogeneous and heterogeneous ensembles;
- Methods for building ensembles, e.g. various Boosting strategies, Random Forest, etc.
- Diversity definition and measurement, and their relationships with ensemble's accuracy,
- Evaluation of ensemble performance and comparisons with other approaches,
- Decision fusion strategies,
- Ensemble software development,
- Applications in any fields.

Special session papers are treated the same as regular conference papers and will be included in the conference proceedings. The code for this Special Session is NN15. Please choose this code when submitting your papers.

Submission

- All special session papers must be submitted through the <u>WCCI 2008 submission webpage</u>, where Instructions for Authors are also available.
- Please select "NN15: Ensemble Methods and Applications" as your main research topic.
- A paper is limited **to 8 pages**, including all figures, tables, graphs and bibliography entries.

Important dates

- Submissions: December 15, 2007
- Notification:
 - ion: February 1, 2008 eady: March 1, 2008
 - Camera ready: March 1
 - Conference: June 1 -6, 2008.

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

Special Session Organiser and Technical Committee

- Organiser and Chair: Dr. Wenjia Wang, University of East Anglia (UEA), UK.
- **Technical Committee**: Derek Partridge (University of Exeter, UK), Zhi-Hua Zhou (Nanjing University, China), Ning Zhong (Maebashi Institute of Technology, Japan), Stephen Wong (Harvard, USA), Philip Yu (IBM, USA), Yinhui Jun (University of Manchester, UK), Daniel C. Neagu (University of Bradford, UK), Tony Bagnall, Gavin Cawley, George Smith, Bea de la Iglesia (UEA).

Contact Information: Dr. Wenjia Wang, School of Computing Sciences, UEA, Norwich, NR4 7TJ, UK. <u>wjw@cmp.uea.ac.uk</u>, Tel: +44 (0)1603 592577, Fax: +44 1603 593345, <u>http://www.cmp.uea.ac.uk/~wjw</u>