

# Seminar

Professor Xin Yao (IEEE Fellow)

University of Birmingham, UK

Venue: LT06 (Bldg. 32, Lecture Theatre North), UNSW Canberra.

Time: Tuesday, 10 Nov. 2015, 10:30am – 11:30am.



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## Ensemble Approaches in Learning

**Abstract:** Designing a monolithic system for a large and complex learning task is hard. Divide-and-conquer is a common strategy in tackling such large and complex problems. Ensembles can be regarded an automatic approach towards automatic divide-and-conquer. Many ensemble methods, including boosting, bagging, negative correlation, etc., have been used in machine learning and data mining for many years. This talk will describe three examples of ensemble methods, i.e., multi-objective learning, online learning with concept drift, and multi-class imbalance learning. Given the important role of diversity in ensemble methods, some discussions and analyses will be given to gain a better understanding of how and when diversity may help ensemble learning.



**Xin Yao** is a Chair (Professor) of Computer Science and the Director of CERCIA (Centre of Excellence for Research in Computational Intelligence and Applications) at the University of Birmingham, UK. He is an IEEE Fellow and the President (2014-15) of IEEE Computational Intelligence Society (CIS).

His major research interests include evolutionary computation, ensemble learning and their applications, especially in software engineering.

His work won the 2001 IEEE Donald G. Fink Prize Paper Award, 2010 and 2015 IEEE Transactions on Evolutionary Computation Outstanding Paper Awards, 2010 BT Gordon Radley Award for Best Author of Innovation (Finalist), 2011 IEEE Transactions on Neural Networks Outstanding Paper Award, and many other best paper awards. He won the prestigious Royal Society Wolfson Research Merit Award in 2012 and the 2013 IEEE CIS Evolutionary Computation Pioneer Award.