

**IEEE**

IEEE Distinguished Lecture

Evolutionary Optimisation and Constraint Handling

Professor Xin Yao

School of Computer Science,
University of Birmingham, UK

<http://www.cs.bham.ac.uk/~xin/>

Venue : Casey Plaza - RMIT City Campus -Building 10, Level 4, Room 27

Date: Wednesday 24 November 2010

Time: 6:30 – 7:30pm

Abstract:

In spite of many successful applications of evolutionary algorithms to real-world optimisation problems, there still seem to be some myths about evolutionary computation. In this talk, I will give a few case studies in evolutionary optimisation and try to summarise the lessons learned. Although a number of evolutionary algorithms will be mentioned during the talk, the primary aim here is not to describe these algorithms in detail since the details can be obtained from the published papers easily. The emphasis of this talk is on deeper insight and understanding of evolutionary algorithms so that we can design better ones in the future. The talk touches upon global optimisation using evolutionary algorithms, landscape approximation and hybrid algorithms, and constraint handling techniques. Some of the recent work on co-evolutionary differential evolution will also be mentioned.

Biosketch of the Speaker:

Xin Yao is a Professor (Chair) of Computer Science at the University of Birmingham, UK. Currently he is the Director of CER-CIA (the Centre of Excellence for Research in Computational Intelligence and Applications, <http://www.cercia.ac.uk>) at the University of Birmingham, UK, which is specialised in applied research and knowledge transfer. He is an IEEE Fellow and a Distinguished Lecturer of IEEE Computational Intelligence Society. He won the 2001 IEEE Donald G. Fink Prize Paper Award, IEEE Transactions on Evolutionary Computation Outstanding 2008 Paper Award (bestowed in 2010), and several other best paper awards. He was a Cheung Kong Scholar (Changjian Chair Professor) of the Ministry of Education of China, a Distinguished Visiting Professor (Grand Master Chair Professorship) of USTC in Hefei, and a Distinguished Visiting Professor of Yuan Ze University, Taiwan. In his spare time, he did the voluntary work as the Editor-in-Chief (2003-08) of IEEE Transactions on Evolutionary Computation, and is an associate editor or editorial board member of 12 international journals, and the editor of the World Scientific book series on "Advances in Natural Computation". He has been invited to give 60 keynote/ plenary speeches at international conferences. His major research interests include evolutionary computation and neural network ensembles. He has more than 300 refereed publications in journals and conferences

Please contact Dr. Xiaodong Li (99259585) for further information. Refreshment will be provided between 5:30 - 6:20pm.

Sponsors: IEEE Computational Intelligence Society; RMIT Foundation Visiting Fellowship; NICTA; IEEE Victorian Section Computational Intelligence Society Chapter; RMIT Platform Technologies Research Institute; School of Computer Science and IT, RMIT University



School of Computer
Science and IT



Platform Technologies
Research Institute

