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Free Event organized by IEEE WA Computational Intelligence Chapter for IEEE and public members.

IEEE CIS (WA Chapter) PhD Research Seminar

Title: Metaheuristics and Hard Combinatorial Optimization Problems

Presenter: Tri A. Budiono, School of Information System, Murdoch University

Time/ Date: 10:30am to 11:30am, Wednesday, 23 May 2012

Venue: Murdoch University, South St Campus, Economics, Commerce and Law Building, Room 1.034. See Map at http://maps.murdoch.edu.au/location/14601034/

RSVP: Kevin Wong, Email: k.wong@murdoch.edu.au by Tuesday 22 May 2012

Abstract:

The majority of Combinatorial Optimization Problems that are of practical interest, such as Scheduling, Timetabling and Vehicle Routing are considered as NP-Hard Problem. Accordingly, such problems cannot be solved by exact method unless for trivial problem size. Metaheuristics do not 'solve' this kind of problem in a mathematical sense, but attempt to generate a 'good' solution for this problem in relatively short time. These methods intelligently explore and exploit the problem search space to find solutions that are possibly near to a global optimum. Memetic Algorithms (MA), as one Metaheuristics technique, take a metaphor from Memetics Theory, in which evolution is applied not only to gene (biological replicator) but also to meme (cultural replicator) and was coined by Moscato in 1989. In this research, critical design issues of MA in dealing with the Timetabling Problem are investigated.

Biography:

Tri holds a master degree in Information Technology from QUT Queensland University of Technology (1999-2001). He worked as a software engineer at Jatis Solution in Jakarta 1996-1999 and 2001-2003. He is a lecturer at Binus University Jakarta and is currently on study leave to undertake his PhD study in Information Technology at Murdoch University (2009-2013), Western Australia. His main research interest is in the area of Combinatorial Optimization, Metaheuristics and Enterprise Computing. He expects to complete his PhD thesis on Memetic Algorithms Design in Timetabling Problems in the end of 2012. email: t.budiono@murdoch.edu.au