Distinguished Lecture

Title:	Training mappers with entropy concepts – a revolution in developing models and adaptive intelligent systems
Speaker :	Prof. Vladimiro Henrique Barrosa Pinto de Miranda IEEE Fellow Professor of Faculty of Engineering, University of Porto (FEUP)
Language:	English
Date and Time:	19 October 2006 (Thursday) 3:30 p.m.
Venue:	L105, University of Macau

Abstract

The presentation will discuss a new criterion and procedure to develop mappers like neural networks or fuzzy inference systems, based on Renyi's Entropy combined with Parzen windows (an approach named Information Theoretic Learning). Application examples will be presented, namely to wind power prediction. As a method to provide training for fuzzy or neural systems, the application of EPSO – Evolutionary Particle Swarm Optimization will be discussed using Entropy as its objective function.

About the speaker

Prof. Vladimiro Henrique Barrosa Pinto de Miranda, IEEE Fellow and Full Professor of Faulty of Engineering of the University of Porto (FEUP). He is currently the Director of INESC Porto and the Honorary Consultant of INESC Macau. He had been engaged as a consultant to represent the company in international technical committee for EDP, to provide consultancy services on projects under the EUREKA framework for Innovation Agency S.A., IT projects for EFACEC S.A. and IT projects with China for SPI S.A.. In 1996 – 1997, he was the Full Professor of Faculty of Science and Technology of the University of Macau and the first President of Board of Directors of INESC Macau.

Prof. Miranda concentrated on his main research area on Power System Planning and Analysis, and other scientific areas like Computational Intelligence (fuzzy sets, evolutionary computing, neural networks) and application to power systems. He had more than 200 publications and most of them were published in main international reviews and conferences with selection by referees. His main journal of publication is "IEEE Transactions on Power Systems". He had Prize paper in Seminário Nac. De Produção e Transmissão de Engergia Elétrica (SNPTEE) in Brasil in 1991 and another one in Intelligent System Applications in Power Systems (ISAP) 01 in Budapest in June 2001.

Until now, he has supervised 13 PhDs. and 17 M.Sc. students. There are 1 PhD and 2 M.Sc students under his supervising in the faculty now.

ALL ARE WELCOME