

講演会のご案内

Configurable Deep Stochastic Learning

講師: **Dianhui Wang**

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Schedule: 5月25日(火) : AM11:00-12:45 (Tokyo Time)

Place: ZOOM Online ID: 985 0160 1610 (pw: 009310)

Abstract: Randomised learning techniques for training neural networks have received considerable attention in the past decades. Recently, a new randomized learning algorithm is developed, termed Stochastic Configuration Networks (SCNs), share the universal approximation property. Some real-world applications indicate that SCN, as a powerful tool for data modelling, has good potential for industrial analytics. It is important to mention that the findings on the necessity of supervisory mechanism for random parameter assignment essentially change the poor understandings on way of assigning the random weights and biases and open a door to further develop randomized learning techniques for fast training neural networks without the use of gradient-based optimization techniques. This talk aims to clarify historical developments with milestone results and provide a deep insight into randomized learning techniques for constructing deep neural networks.



Biography: Dr Wang was awarded a Ph.D. from Northeastern University, Shenyang, China, in 1995. From 1995 to 2001, he worked as a Postdoctoral Fellow at Nanyang Technological University, Singapore, and a Researcher at The Hong Kong Polytechnic University, Hong Kong, China. He joined La Trobe University in July 2001 and is currently a Reader and Associate Professor with the Department of Computer Science and Information Technology, La Trobe University, Australia. He is also a Professor at The State Key Laboratory of Synthetical Automation of Process Industries, Northeastern University, China. His current research focuses on industrial bigdata-oriented machine learning theory and applications, specifically on Deep Stochastic Configuration Networks for data analytics in process industries, intelligent sensing systems and power engineering.

Dr Wang is a Senior Member of IEEE and serving as an Associate Editor for IEEE Transactions On Cybernetics, IEEE Transactions on Fuzzy Systems, Information Sciences, and WIREs Data Mining and Knowledge Discovery.