NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

CS SEMINAR

Title: A*DAX: Data Analytics Platform for Smart Cities

Speaker: Dr. Ng Wee Siong

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Urban Systems Programme Office

The Institute for Infocomm Research (I2R)

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Chaired by: Dr Bressan, Stephane, Associate Professor, School of Computing

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Abstract:

The Big Data revolution can radically transform how cities monitor, manage, and enhance the liveability of their communities. A successful smart city will be one in which the public agencies, businesses and people are able to make informed decisions and respond to dynamic conditions based on real-time sensing and data analytics. The A*STAR's Urban Systems Initiative was launched to address the technological needs of the rapidly urbanising world. To achieve Singapore's Smart Nation initiative, large amounts of data collected by the public and private sectors need to be effectively managed, integrated and analysed. The A*STAR Data Analytics Exchange Platform ("A*DAX") is also developed to merge and store such data that can be efficiently accessed and securely shared among programmes-the data backbone for the Urban Systems Initiative. A*DAX is a scalable and open standards based platform designed to store, integrate and manage data for secure data exchange, analytics and visualisation. The platform incorporates data security and privacy features and handles both static and real-time data from the public and commercial sector. It allows translation and integration of data into actionable insights through machine learning and data analytics, so that citizens, businesses and public agencies can make informed decisions.

Wee Siong, Ng is the Deputy Department Head of the Urban Systems Initiative of the Agency of Science, Technology and Research (A*STAR). He is also the Principal Investigator of the A*STAR Data Analytics Exchange Platform (A*DAX") project, Head of Data Management Lab and Co-Director of I2R-LTA and I2R-URA Joint Labs. Wee Siong received his Ph.D. in Computer Science from National University of Singapore in 2004. Previously, he served as the Chief System Architect of a local IT firm (Singapore), which is specialized in Content Management and Multimedia Processing (i.e., text, images, video and audio), where he held various responsibilities including systems architecting, solutions consulting, project management and sale management. Wee Siong has published 50 papers in peer-reviewed journals and international conference and he has received a Best Paper Award on privacy preservation in streaming data. His current research focuses on Big Data Processing, Data Analytics for Smart City, Stream Processing, Data Privacy, Data Management and Distributed Systems.