NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

C S S E M I N A R

Title: **New Trends in Parallel and Distributed Simulation: Many-cores, Cloud Computing and Energy Efficient Simulation**

Speaker: Dr Gabriele D'Angelo
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Date/Time: 26 October 2016, Wednesday, 03:00 PM to 04:30 PM

Venue: Executive Classroom, COM2-04-02

Chaired by: Dr Tan Soon Huat, Gary, Associate Professor, School of Computing
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Abstract:

In recent years, two important technological evolutions happened at the ends of the computing spectrum: at the "small" scale, processors now include an increasing number of independent execution units (cores); at the "large" scale, the Cloud Computing paradigm allows applications to scale by offering resources from a large pool on a pay-as-you-go model.

The main problem is that, multi-core processors and Clouds both require applications to be suitably modified to take advantage of the features they provide. As such, to the simulation developers they present well known problems of synchronization, communication, workload distribution, and so on. Is parallel and distributed simulation ready for these challenges? Furthermore, for many years, minimizing the amount of time necessary to complete the simulation runs has been the main ambition of simulation developers but now other metrics such as the price of computing resources and the power consumption can not be neglected.

Biodata:

Gabriele D'Angelo received the Laurea degree (summa cum laude) in Computer Science in 2001, and a PhD degree in Computer Science in 2005, both from the University of Bologna, Italy. He is an Assistant Professor at the Department of Computer Science and Engineering, University of Bologna. His research interests include parallel and distributed simulation, distributed systems, online gaming and computer security.

Since 2011 he is in the editorial board of the Simulation Modelling Practice and Theory (SIMPAT) journal published by Elsevier.