

NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

C S S E M I N A R

Title: **Synthesizing Heap Manipulations from Box-and-Arrow Diagrams**

Speaker: Assistant Professor Subhajit Roy
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Date/Time: 18 June 2015, Thursday, 03:00 PM to 04:00 PM

Venue: Executive Classroom, COM2-04-02

Chaired by: Dr Roychoudhury, Abhik, Professor, School of Computing
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Abstract:

Writing heap manipulating programs is hard. Even though the high-level algorithms may be simple, it is often tedious to express them using low-level operations. We discuss techniques that use expression of intent in the form of concrete examples drawn using box-and-arrow diagrams to synthesize heap-manipulations. While the programmer provides a set of concrete examples of her high-level strategy, the low-level manipulations are discharged automatically. We have implemented the tool as a code-assist plugin within the Eclipse integrated development environment.

Biodata:

Subhajit Roy is an Assistant Professor in the Indian Institute of Technology Kanpur (IIT Kanpur) since 2010. He is interested in multiple areas in programming languages and software engineering including software verification, synthesis, profiling, compilation, testing and debugging.