

NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

C S S E M I N A R

Title: **The Picat Language and System**

Speaker: Professor Neng-Fa Zhou
 Department of Computer and Information Science
 Brooklyn College & Graduate Center
 City University of New York

Date/Time: 29 January 2015, Thursday, 02:00 PM to 04:00 PM

Venue: MR1, COM1-03-19

Chaired by: Dr Yap Hock Chuan, Roland, Associate Professor, School of Computing
 (ryap@comp.nus.edu.sg)

Abstract:

Picat (picat-lang.org) is a new logic-based multi-paradigm programming language that integrates logic programming, functional programming, dynamic programming with tabling, and scripting. The support of explicit unification, explicit non-determinism, tabling, and constraints makes Picat more suitable than functional (such as Haskell and F#) and scripting languages (such as Python and Ruby) for symbolic computations. Picat provides facilities for solving combinatorial search problems, including solver modules that are based on CP (constraint programming), SAT (propositional satisfiability), and MIP (mixed integer programming), and a module for planning that is implemented by the use of tabling. This talk will give an overview of the Picat language and the underlying techniques used in the Picat system.

Biodata:

Neng-Fa Zhou is a professor of Computer and Information Science at Brooklyn College and Graduate Center of the City University of New York. He received a BS degree in Computer Science from Nanjing University, China, in 1984, and MS and PhD degrees in Computer Science and Engineering from Kyushu University, Japan, in 1988 and 1991, respectively. Before joining CUNY, he was an associate professor at Kyushu Institute of Technology from 1991-1999. He had visiting positions at Yale University (1997), University of Alberta (1998), Tokyo Institute of Technology (2002), and Monash University/the University of Melbourne (2005).