NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

C S S E M I N A R

Title: **Cyber Security Tomorrow: What are the Long-Term challenges?**

Speaker: Professor Andrew Martin
                Director, Centre for Doctoral Training in Cyber Security
                Department of Computer Science
                University of Oxford

Date/Time: 3 March 2015, Tuesday, 05:00 PM to 06:00 PM

Venue: Executive Classroom, COM2-04-02

Chaired by: Dr Dong Jin Song, Associate Professor, School of Computing
                (dongjs@comp.nus.edu.sg)

Abstract:

Cyber Security often seems to be dominated by short-term concerns, because there are a great many issues that need immediate resolution. Simultaneously, many seem to expect that this will be a running theme for many years to come: the underlying problems and challenges show no sign of reaching a firm resolution. The reason for this seems to lie in the relative immaturity of software engineering as a discipline -- even forty years after its foundation -- and also in the way that cyberspace has become a part of everyday reality for most people in the developed world (and for many in the developing world too), reconfiguring social norms as it becomes ever-more pervasive. Meeting these challenges appears to require a profound shift in the education of technologists -- but also in the way we conceive of society and the interactions in which everyone participates.

Biodata:

Prof. Andrew Martin undertakes research and teaching in the area of Systems Security, in the University of Oxford. He conceived the University's new Cyber Security Centre and helps to direct it, leading the University's successful bid to be recognised as a Centre of Excellence in Cyber Security Research. He directs the new Centre for Doctoral Training in Cyber Security, which admits 17 students each year for inter-disciplinary education and research.

His recent research focus has been on the technologies of Trusted Computing, exploring how they can be applied in grid and cloud computing contexts, as well as in mobile devices, in order to address their emerging security challenges. He has published extensively in this area, hosting several related international events in Oxford and speaking on the subject all

over the world. These technologies are now emerging as crucial components in the internet of things, which is proving a fruitful additional research area.

Andrew wrote a doctoral thesis on the subject 'Machine-Assisted Theorem Proving for Software Engineering', in the early 1990s. He then worked as a Research Fellow in the Software Verification Research Centre at the University of Queensland, Australia. Returning to the UK, he was briefly a lecturer at the University of Southampton, before returning to Oxford to take up his present post in 1999. Dr Martin is a fellow of Kellogg College, Oxford.

He is presently the supervisor for seven doctoral students, and holds several research grants.