

Sydney Mechanical Chapter
Engineers Australia – ASME – IMechE – AIAA
Tuesday 29th November 2011

‘Engineering a Safer World’
Presented by Professor Nancy Leveson (MIT)

Nancy Leveson is Professor of Aeronautics and Astronautics and also Professor of Engineering Systems at MIT. She is an elected member of the United States National Academy of Engineering (NAE). Prof. Leveson conducts research on the topics of system safety, software safety, software and system engineering, and human-computer interaction. In 1999, she received the ACM Allen Newell Award for outstanding computer science research and in 1995 the AIAA Information Systems Award for "developing the field of software safety and for promoting responsible software and system engineering practices where life and property are at stake." In 2005 she received the ACM Sigsoft Outstanding Research Award. She has published over 200 research papers and is author of a book, "Safeware: System Safety and Computers" published by Addison-Wesley. She consults extensively in many industries on the ways to prevent accidents.

Professor Leveson started a new area of research, software safety, which is concerned with the problems of building software for real-time systems where failures can result in loss of life or property. She and her students produced a formal requirements specification for TCAS II, a real collision-avoidance system required on all commercial aircraft in U.S. airspace. Prof Leveson and her team have defined a complete system engineering environment for software-intensive systems that is based on model-driven development and a concept called Intent Specifications. A commercial set of tools was released in June 2003. Most recently, she has been applying these tools to space projects.

Starting: Light refreshments at 6.00pm for a **6.30pm start**
Finishing: 7.40 to 7.50pm
Dinner option: With the speaker; 8.00pm at a nearby restaurant (at your cost)
Venue: Engineers Australia Auditorium
Ground Floor, 8 Thomas Street, Chatswood

The meeting is open to all, and there is no attendance charge

Members in attendance qualify for a CPD credit per the criteria of Engineers Australia or the Institution of Mechanical Engineers.

Members are responsible for keeping their records ready for an audit.