

Making and Breaking the Internet



ENGINEERS
AUSTRALIA

Guest Speaker: Professor Abhaya Induruwa FIET, FBCS, CITP, FIESL, CEng, Int. Eng

Hosted by: Mechanical Branch Engineers Australia WA, Institution of Mechanical Engineers, American Society of Mechanical Engineers and Australian Society for Bulk Solids Handling

DATE

Thursday 18 December 2014

TIME

5.30pm for a 6.00 pm start

VENUE

Auditorium
Engineers Australia
712 Murray Street
West Perth

TICKETS (incl. GST)

Members & Students: Free
Non-members: \$30.00

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Wednesday 17 December

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1.5 CPD hours

The internet was born about 45 years back. It has advanced and grown exponentially during our lifetime. Already half the population on earth uses it in some way or another. The lives of the entire seven billions of human population on earth have been touched directly or indirectly by its existence. But when you consider what it is capable of, or what's in store for the future, today's Internet is still in its infancy.

The more people, enterprises, organisations, nation states become dependent on the Internet for their daily existence, the more valuable it becomes to the hackers and therefore vulnerable to attacks. Hackers who devise attack vectors become successful mainly due to billions of unsuspecting users on the Internet who can be fooled easily, and because of those that bring services and devices on-line without giving due consideration to proper security measures in order to protect their users. It is a constant challenge for the Internet Engineers who struggle to be a step ahead of the hackers. Equally it is a challenge for the Cybercrime Investigators who have to provide concrete digital forensic evidence to courts. In this talk I will cover the journey of the Internet in the last 45 years, alluding to major contributors and development milestones. I will then look at nascent technologies that are impacting on our lives and the society, and illustrate, using a forensic tool, what our smart phones reveal about our social network identity. Finally I will take a peek at the shape of the future Internet where, for example, an Internet enabled litter box becomes part of the "Internet of Things" and emails you when the cat soils it. I will give a demo on the possible consequences when your Internet enabled power socket is compromised.

About the Speaker

Professor Abhaya Induruwa is a Sri Lankan academic who became the first ever student to graduate with a First Class Honours in Electrical and Electronic Engineering from the University of Sri Lanka, Katubedda Campus, winning the Professor O P Kulshreshtha award for the Best Electrical and Electronic Engineering Graduate in 1975. After reading for his PhD at Imperial College London, with Emeritus Professor B J Cory as his research supervisor, he returned to Sri Lanka in 1980.

In 1985 he pioneered the teaching of Computer Science & Engineering in Sri Lanka by establishing the Department of Computer Science & Engineering of the University of Moratuwa, and served as its Head until 1998. He is the inaugural Professor V K Samaranayake Endowed Professor of Computing at the University of Colombo School of Computing, in addition to being the Director for PhD Research in the School of Law, Criminal Justice and Computing at Canterbury Christ Church University. He has published widely and his current research focuses on smart device forensics and security of the Internet of Things.

In 1989 he pioneered Academic and Research Networking and deployment of Internet in Sri Lanka and led the development of LEARN – Lanka Experimental Academic and Research Network – which today provides Internet connectivity to all Universities, Research Centres, and other Education and Higher Education Institutions in the country. A Founding Member and an Honorary Fellow of the Computer Society of Sri Lanka, Professor Induruwa is a Chartered Engineer and a Chartered Fellow of the Institution of Engineering and Technology, UK; a Chartered Fellow of the Institution of Engineers, Sri Lanka; and a Chartered Fellow of the British Computer Society. He is also a Founding Member of the Internet Society and a Member of the Internet Society, Sri Lanka Chapter.

In recognition of his services to the ICT industry and to the advancement of computer education and professionalism in Sri Lanka the Computer Society of Sri Lanka awarded him the Honorary Fellowship in 2003. In recognition of his life time achievement in pioneering Internet deployment in Sri Lanka the Internet Society honoured Professor Induruwa by inducting him to the Internet Hall of Fame 2014.