ERU Engineering Research Unit University of Moratuwa Sri Lanka

MERCON 2023

KEYNOTE SPEAKER

Towards an Innovation-Driven Economy: Harnessing the Power of Big Data, High-Performance Computing, and Artificial Intelligence

Innovations in Artificial Intelligence (AI) enabled by Big Data and High-Performance Computing will continue to have major impacts on economies and people. I will start this talk with a historical perspective of innovation and AI. I will give a brief introduction to AI and its state-of-the-art and some recent AI-based breakthrough innovations that have the potential to enhance economic growth. I will then present our research contributions in AI and Big Data analytics with a focus on two application domains: Information Warfare and Autonomous Connected Vehicles. I will conclude my talk with a discussion on opportunities and challenges for harnessing the full potential of AI for an Innovation-Driven Economy.

10 NOV | **10.30 AM ONWARDS**

Prof Shanika Karunasekera

Shanika Karunasekera is a Professor in the School of Computing and Information Systems and the Deputy Dean (Academic) in the Faculty of Engineeering and IT. Shanika completed a BSc in Electronics and Telecommunication Engineering at the University of Moratuwa, Sri Lanka with a First Class Honours in 1990. She was the recipient of the UNESCO Gold Medal for the Best Engineering Undergraduate at the University in 1990.She completed a PhD in Electrical Engineering at the University of Cambridge, UK in 1994. From 1995 to 2002 she worked for Lucent Technologies, Bell Labs Innovation, USA where she was a Distinguished Member of Technical Staff. Shanika joined the University of Melbourne in 2003. Her current research focusses on real-time analytics and data stream mining, with applications in Social Media Analytics and Autonomous Traffic Management. Shanika has extensive research interests in distributed computing, network intrusion detection, sensor networks, social network analysis and mining, mobile computing, software engineering and STEM education. Shanika has published widely in high ranking journals and conferences in her research discipline. Shanika has also established research collaborations with many industries and government bodies. Shanika is a passionate educator who has won several excellence in teaching awards including a National Carrick Citation in 2007, and Kelvin Medal and Excellence in teaching award from the Melbourne School of Engineering in 2006.