

## RESEARCH SEMINAR

**Blockchain for Trust and Transparency:  
Transforming Agriculture and Education****Prof. Joseph LIU**

Professor  
Faculty of Information Technology  
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**Date : 6 May 2025 (Tue)**  
**Time : 9:00 am - 10:00 am**  
**Venue : PQ303**

**Abstract**

Blockchain technology is redefining the foundations of trust and transparency across diverse sectors, including agriculture and education. In this talk, I will explore how blockchain solutions are addressing critical challenges in these fields, fostering integrity, efficiency, and accountability. Drawing from key Australian Government initiatives, this talk will delve into three transformative projects: (1) Agriculture Supply Chain: Leveraging blockchain to enhance traceability and authenticity in agricultural supply chains, ensuring product integrity from farm to table. (2) Greenhouse Gas Monitoring: Employing blockchain to track and verify agricultural greenhouse gas emissions, supporting sustainability and compliance with environmental standards. (3) Education Credentials: Implementing blockchain to authenticate academic records and prevent credential fraud, safeguarding the value of education and empowering institutions globally. By sharing insights from real-world deployments, this talk aims to inspire further innovation and collaboration, showcasing blockchain's pivotal role in shaping trustworthy digital ecosystems for the future.

**About the Speaker**

Prof. Joseph Liu is a Full Professor in the Faculty of Information Technology, Monash University in Melbourne, Australia. He got his PhD from the Chinese University of Hong Kong in 2004. His research areas include cybersecurity, blockchain and applied cryptography. He has received more than 16000 citations and his H-index is 72, with more than 200 publications in top venues such as CRYPTO, ACM CCS, IEEE S&P, NDSS. He has received more than US\$10M funding, and he is currently the Director of the Monash Blockchain Technology Centre. He has been given the prestigious ICT Researcher of the Year 2018 Award by the Australian Computer Society (ACS), and has won the IEEE Technical Achievement Award in 2021 given by the Technology and Engineering Management Society for his achievement in the blockchain and cybersecurity domain. He has several patents and international standards from his research contributions to be adopted by the industry.