



South Pacific Centre for Central Banking

Developing Capacity for Research and Policymaking in the Region

Regional Workshop: Blockchain and Cryptocurrency

In collaboration with the South Asia Research Network of Monash University and the School of Economics, Finance and Marketing of RMIT University

WS#1: Thursday 10 March 2022, 10 am – 12 pm [AEST, Brisbane time]

WS#2: Thursday 24 March 2022, 10 am – 12 pm [AEST, Brisbane time]

1.0 General Information

The South Pacific Centre for Central Banking of Griffith University, in collaboration with the South Asia Research Network of Monash University and the School of Economics, Finance and Marketing of RMIT University will conduct two workshops on *Blockchain and Cryptocurrency*. Dr. Abu Zafar Shahriar of Monash University and Dr. Michael Wang of RMIT University will discuss different aspects of blockchain technology and some of its major applications to economic and financial services, such as cryptocurrency and central bank digital currency. The workshops will cover some potential research directions on blockchain and cryptocurrency.

2.0 Workshop description

Blockchain, a decentralised digital ledger of economic transactions, was first popularised as the technology behind the cryptocurrency, Bitcoin. Based on cryptographic proof instead of trust, Bitcoin allowed—for the first time in history—any two willing parties to transact directly without any “trusted” intermediary. Since then, the blockchain technology has emerged in various other forms and given rise to applications, such as smart contracts, decentralised payments and financing through initial coin offerings. These workshops, broadly speaking, will cover three topics. First, we will discuss the role of blockchain mechanisms in generating and maintaining decentralized consensus and its real-world implications. Second, we will discuss the economic, legal, and technical perspectives of cryptocurrency, which is the best-known deployment of blockchain technology. We will further discuss the risks and rewards of investing in cryptocurrency and financing through initial coin offerings. Finally, we will discuss the evolution of central bank digital currency—a new form of digital money that would be a liability of (or a claim on) the central bank. We will also discuss some important research-based issues, such as the possibility of replacing fiat money with cryptocurrencies, comparing crypto-assets with gold, mining and environment, the three generations of blockchain technology and its future.

3.0 Instructor details

Dr. Abu Zafar Shahriar

Associate Professor of Banking and Finance, Monash University

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Shahriar teaches banking and finance at both undergraduate and postgraduate levels. He earned his Bachelor degree with Honours in Economics from the University of Dhaka in Bangladesh and completed his Masters in Development Economics from Williams College under the auspices of a Fulbright Fellowship. He earned his PhD degree from Purdue University. Shahriar conducts empirical research on financial inclusion, microfinance, entrepreneurship, and crowdfunding. He adopts a multidisciplinary approach in his research aimed at overcoming some of the greatest social challenges of our time, such as poverty, inequality, and gender-based discrimination and exclusion. His research has appeared in the *Journal of Corporate Finance*, *Journal of Banking and Finance*, *Journal of Business Venturing*, and *Entrepreneurship Theory and Practice*, among others.

Dr. Michael Wang

Lecturer of Finance, RMIT University

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Michael Wang is currently a lecturer in Finance at RMIT University with PhD (Finance) accomplished from Monash University in 2019. He has taught (managed) more than 20 units at both undergraduate and postgraduate levels at Australian Universities (e.g., Monash University, Deakin University, and RMIT University) across the subjects in FinTech, Investment (Equity and Portfolio), Advanced Corporate Finance, Business Analysis, Financial (Integrated) Reporting, (International) Commercial Banking. His research portfolio covers FinTech, ESG issues relating to business strategy, blockholder activism, investment, and corporate reporting. His research outcomes have been widely presented at top Australian and International conferences, including FIRN annual meeting and CICF (China International Conference in Finance), and published in the *Journal of Corporate Finance*, among others. He also has experience in deploying machine learning and textual analysis algorithms for business research with unstructured data.

4.0 Workshop Aims

The overall aim of these workshops is to provide participants with a thorough understanding of blockchain technology and some of its major applications to economic and financial services, such as cryptocurrency and central bank digital currency.

5.0 Activities

Date	Module	Activity
Thursday 10 March 22	Workshop #1 – Blockchain Fundamentals	The fundamentals of blockchain technology; cryptography in bitcoin; Proof of Work; Proof of Stake; Risks in Blockchain; Business applications of Blockchain
Thursday 24 March 22	Workshop #2 – Blockchain in Economics and Business	Discussion on related research directions in economics perspective (e.g., can blockchain create monetary currency to replace the fiat currency? Is cryptocurrency really like gold?; The three generations of blockchain technology and their application in the business world; The future of blockchain technology and how it could re-shape the business world?; Central Bank Digital Currency