SWINBURNE UNIVERSITY OF TECHNOLOGY

Digital Research Innovation Capability Platform

Blockchain Innovation Lab

The Blockchain Innovation Lab provides key R&D capabilities in Blockchain application development and security.

Blockchain Innovation Lab

Blockchain provides a practical solution that allows data and transactions to be verified accurately and efficiently.

As a revolutionary technology, blockchain provides a practical solution that allows data and transactions to be recorded in a reliable and verifiable way via the mechanism of the secure and decentralised ledger. Blockchain is nowadays the backbone of almost all the prominent infrastructure with vast potentials in many domains. It can be envisaged that in the near future blockchain technology will be widely used in the domains such as healthcare, government, finance, education, manufacturing, transportation, and logistics.

The Swinburne Blockchain Innovation Lab aims to deliver strong blockchain research outcomes and help the industry to grow. We collaborate with the major stakeholders in the blockchain ecosystem and provide key R&D capabilities in blockchain application development and blockchain security. Our research has been supported by the Australian Research Council (ARC), Data61, and various key industry partners.

FOCUS AREAS AND CAPABILITIES

Our research is application and impact-driven, focused on the development and evaluation of new generation blockchain systems in different application areas. Much of it is experimental, validating the proposed new concepts by means of implementation and deployment in prototypes that are used in the real world.

Our special areas of capabilities include:

- Blockchain architecture
- Performance and efficiency of blockchain
- Blockchain applications & proof-of-concept
- Smart contracts
- Security & privacy in blockchain
- AI in blockchain
- Cross-chain transactions

CASE STUDY

We are working with our industry partner ArtChain Global, on a revolutionary blockchain system for registration, tracking, protection and accountability for artwork. Based on open, extendable blockchain technology, the platform synchronizes digital and offline assets for anyone involved in trading, collecting or producing works of art. The system innovatively solves the problems in the art world in the following innovative ways:

- Decentralised consortium
- Public chain and authority management
- Extendable basement blockchain
- Online integration of offline assets
- Intelligent hardware and IoT monitoring network

KEY CONTACT

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