

New centre for blockchain research projects opens at NTU

It will develop online platform for firms to trial digital versions of smart grid systems

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Efforts to improve electricity supply networks worldwide could receive a boost with a new research centre in Singapore that can test digital versions of smart grid systems.

The Algorand Centre of Excellence at Nanyang Technological University (ACE@NTU) is tapping blockchain technology to develop

an online platform for companies to trial these electricity supply systems.

By testing digital versions of smart grid systems, companies could save on the costs of building physical prototypes, improve efficiency and reduce their carbon footprint.

NTU said the platform's underlying blockchain technology, which involves a decentralised digital ledger of transactions, will ensure

that data can easily be shared among researchers worldwide.

ACE@NTU, which started operating yesterday, will conduct four other blockchain research projects.

One of them involves researchers developing machine-learning technology for financial data management.

"A key focus for ACE@NTU will be to develop real-world applications based on blockchain in collaboration with industry partners, which will have societal, sustainability and economic impact for Singapore and the region," said

NTU's senior vice-president for research Lam Khin Yong.

The research and education centre is part of global blockchain organisation Algorand Foundation's \$50 million research programme.

Currently the largest blockchain research and education initiative in the world, the programme aims to establish a global network of blockchain and cryptocurrency research and education centres.

ACE@NTU is one of 10 centres the foundation is funding in universities across the world, and the only one in Asia.

NTU said it aims to advance blockchain development and adoption in Singapore and the region over the next five years, through

the centre.

ACE@NTU will be led by Professor Wen Yonggang, an associate dean at NTU's College of Engineering, and Professor Boh Wai Fong, deputy dean at the university's Nanyang Business School.

NTU said its Smart Campus initiative, which seeks to prepare students for a new world being shaped by advanced digital technologies, will be an ideal test bed for solutions developed by the research centre.

The university will also establish a sandbox for new blockchain technologies to be tested and validated, to help accelerate industry uptake

and commercialisation of such technologies.

"NTU will also look to nurture new talents in the field through a new Master of Science in blockchain postgraduate programme and a minor in blockchain for undergraduates," it said.

Students will learn about technology and content related to the Algorand blockchain, with hands-on experience on the Algorand Foundation's blockchain platform.

Enrolment is expected to begin next year.

There are also plans to develop upskilling courses for working professionals.

Prof Wen said that these education programmes will provide a pool of workforce-ready talent trained in blockchain technology for Singapore.

"The research arm will provide a steady stream of blockchain innovations for real-world applications, and serve to inspire greater interest in blockchain amongst the NTU community and general public," he added.

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