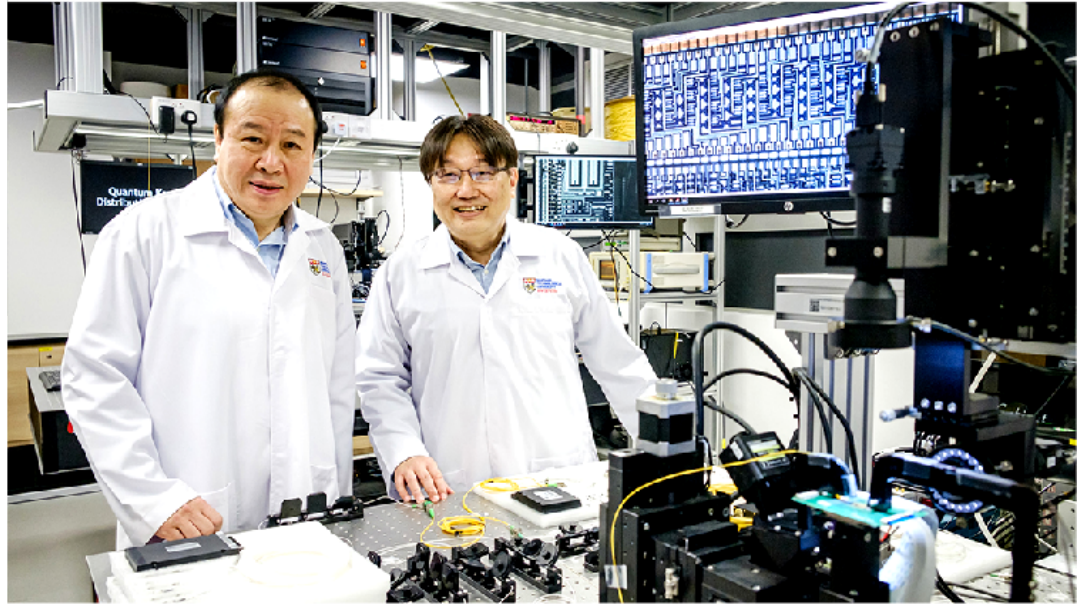


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## Quantum engineering centre seeks to unleash quantum-based chip technologies



NTU has launched the Quantum Science and Engineering Centre (QSec), which aims to develop devices and technologies powered by quantum science – the study of how particles behave at the atomic level.

The centre, the first of its kind in Singapore, will conduct research on developing and producing quantum chips using semiconductor fabrication technologies. These chips form the backbone of quantum devices and hold important applications in many areas such as quantum computing, communication, cryptography, cybersecurity, and sensor technology.

The opening ceremony for QSec was witnessed by Mr Chan Chun Sing, Minister for Education and NTU President Professor Subra Suresh.

QSec aims to develop chip-based quantum communication and computing technologies by building engineering capabilities to improve commercialisation potential. The Centre's focus on developing these chips will play a vital role in Singapore's concerted effort to promote and advance the field.

One of the Centre's key research area is photonic chips. These chips exploit the quantum properties of light particles, instead of using electrical currents that are in the conventional chips of our computers and smartphones. Developing these chips and seeking ways to fabricate them at scale will open the doors for the technology to be used in devices, such as computers or sensors.

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