Nectec to test terahertz frequency

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The National Electronics and Computer Technology Center (Nectec) is gearing up to study tremendously high-frequency terahertz for use in non-destructive testing for various sectors such as farming, food and security.

“In the next two years, Nectec will conduct deep research and make use of terahertz technology, a new frontier that can have various applications,” said Chai Wutiwiwatchai, director of Nectec.

Terahertz is a unit of frequency defined as 1 trillion cycles per second. It does not harm any biological species, which is not the case with X-rays.

Terahertz waves have no ionising radiation.

It is non-invasive compared with X-ray waves and is safe for humans, plants and animals.

Mr Chai said the technology can be used for security screening, inspections, medical applications, pharmaceuticals and communication.

In another development, Nectec plans to further develop technologies that are geared towards the bio-circular-green (BCG) economy, with 300 researchers at the agency dedicated to the task.

Key strategic sectors the agency is focusing on are agriculture, healthcare and medical services, energy and tourism.

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CHAI WUTIWIWATCHAI
Director, National Electronics and Computer Technology Center
Electricity Generating Authority of Thailand (Egat) to develop dam monitoring systems as part of preventive measures.

The systems are used at 14 dam locations, supervised by Egat countrywide.

Other countries will be contacted for similar collaboration, said Mr Chai.

The measurement and detection systems developed by Nectec can be beneficial to the industrial sector, he said.

One example is its intelligent industrial platform that can gauge how much energy manufacturers use at their facilities.

Nectec is also developing automated health check kiosks, which will be available at 100 branches of the Bank for Agriculture and Agricultural Cooperatives (BAAC) in 2020.

"Automated health check kiosks are part of a collaboration with the National Health Security Office and the BAAC, as well as the Assistive Technology and Medical Devices Research Centre," said Mr Chai.

Nectec is also preparing to use sensor equipment systems and artificial intelligence to monitor livestock and the surrounding environment at farms.