

New Fraunhofer Singapore Institute at NTU to develop digital solutions for industry



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By -
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This is one of the projects that the new Fraunhofer Singapore Institute, a partnership between Singapore's Nanyang Technological University (NTU) and Germany's Fraunhofer-Gesellschaft, is working on. In collaboration with the BMW Future Mobility Lab, researchers at the Fraunhofer Singapore Institute are working on ways to improve driving safety through digital technology.

Minister for Trade and Industry (Industry) S Iswaran launched the institute on Tuesday (June 6), noting that "strategic international partnerships" such as Fraunhofer Singapore will enhance Singapore's efforts to "build deep digital capabilities and translate these technologies to benefit the economy and society."

The National Research Foundation (NRF) will be providing Fraunhofer Singapore with up to S\$23 million in funding, until 2020, to continue its research and translation activities in visual computing.

The Fraunhofer Singapore Institute seeks to incorporate data analytics, industrial Internet of things and automation into manufacturing processes. These include virtual and augmented reality technologies that will, for example, enable engineers to review virtually created products

using virtual reality glasses before starting on actual production. Another project would allow a user to point a mobile phone camera at a building to display its history and read up on its architecture.

The new institute will continue to work on research projects undertaken by the Fraunhofer Interactive Digital Media at NTU that was opened in 2010, which evolved from the Centre for Advanced Media Technology started in 1998, said NTU and Fraunhofer in a joint statement.

The partnership has yielded results in healthcare solutions, such as digital models of plastinated hearts provided by NTU's Lee Kong Chian School of Medicine, which helps medical students grasp key anatomical concepts in medical education.

NTU Professor Karl Wolfgang Mueller-Wittig, Director of Fraunhofer Singapore, said, "The long-term collaboration with NTU and the strong support of NRF were the foundation to achieve this milestone. I'm happy to see the substantial implementation of the Fraunhofer model in Singapore delivering visual solutions with impact on industry and society."

The institute also aims to advance industrial training methods to make it easier to learn about complex machinery. For example, instead of a thick manual, engineers can learn how to maintain a jet engine on the job by using an app on their mobile phones, with a step-by-step guide in augmented reality.

Apart from projects focusing on virtual reality and augmented reality, the centre will also work on other digital solutions such as cognitive human-computer interfaces and 3D modelling. It will be working with other companies such as Delta Electronics and LDR Ltd.

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