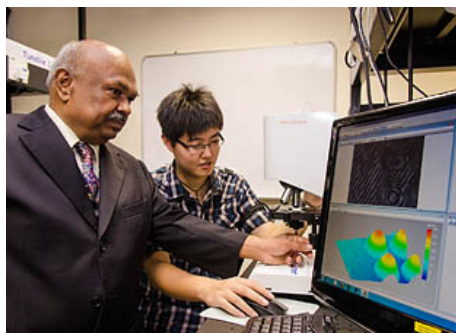


NTU Launches S\$30 Million Center For Optical And Laser Engineering



[Academia](#)

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Singapore's Nanyang Technological University has launched a new research center to help local companies sharpen their edge in optical and laser engineering research.

AsianScientist (Apr. 9, 2013) – Singapore's Nanyang Technological University (NTU) has launched a new research center to help local companies sharpen their edge in optical and laser engineering research.

Called the Center for Optical and Laser Engineering (COLE), the S\$30 million center will drive research with the aim of developing commercial applications in optical and laser engineering. Its industry partners are Sunny Instrument, WaveLab Scientific, KLA Tencor, JM Vistec System, Life Technologies Holdings, Disco Hi-Tec (Singapore), Opto-Precision, and Precision Optical Systems Singapore.

Optics and lasers have in the last decade played a big part in our everyday lives in devices ranging from microscopes and digital cameras to DVD players and the optical mouse used for computers. They are also used for many commercial applications such as in high-tech precision manufacturing, measurement systems, and more notably in biomedical industry for medical diagnosis.

Located at NTU's School of Mechanical & Aerospace Engineering, COLE will have about 100 faculty and researchers, and it will focus on three key areas: computational optics, optical metrology and instrumentation, and laser processing and patterning. Projects at the new center include forms of 3D measurements; new devices such as a patented "lenseless" microscope; and medical imaging for tissue and cancer diagnosis.

Professor Anand Krishna Asundi, Director of COLE, said optical and laser engineering research will propel the precision engineering and biomedical sectors to new heights in Singapore and beyond.

"In recent years, NTU has developed many new optical and laser technologies, such as a patented lens-less 3D microscope which allows us to take a photo and focus on the details later. We have also been successful in developing precision laser systems which improves emerging technologies, such as 3D printing and nano-patterning. With COLE, we expect our successes in optical and laser engineering to grow further," said Prof Asundi.

As demand for optical and laser engineers is growing, NTU has initiated a specialization in Optical Engineering as part of its Master's Degree program in Precision Engineering. The course started in 2011 and has graduated 30 students.

In addition, COLE has also signed Memoranda of Understanding with three international research centers: the Center for Laser Aided Intelligent Manufacturing from University of Michigan, USA; Institute of Technical Optics from the University of Stuttgart, Germany; and the Center for Optics Research and Education (CORE) from Utsonomiya University, Japan.

Source: [NTU](#).

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