NTU starts new research centre for optics and lasers

By **MA XIANGYU**

NANYANG Technological University, in partnership with the Economic Development Board, yesterday launched a new research centre, the Centre for Optical and Laser Engineering (Cole), that will focus on research with commercial applications.

With some $10 million already in its kitty, Cole has started on four research projects, while eight companies have made commitments to be industry partners with the new research centre.

The centre's two-fold missions are to work closely with local small to medium-sized enterprises (SMEs) in research and development, and to build a stronger optical and laser engineering talent pool in Singapore.

Research collaboration with Cole is of great use to local SMEs, said Zhu Chuangui, general manager of Sunny Instruments, an SME working with Cole on the development of a miniaturised scanning laser doppler vibrometer.

"(Working with Cole) makes research simpler. We prefer to do R&D in research institutes because they have the researchers and manpower that we don't."

He also cited NTU's wealth of industrial contacts. "Collaboration also means cheaper and faster R&D," Mr Zhu added.

The centre's director, Anand Asundi, said: "Our PhDs come up with patents that we then license to companies. We also develop prototypes, so the industry does not have to spend the money doing so. The work is halfway done. Within three to five months, companies can have a product they can sell."

Optical and laser engineering is key to the field of precision engineering, which makes up about 10 per cent of the output in the Singapore manufacturing sector. The EDB sees precision engineering as key to supporting other high-value industries.

"There seems to be a shortage of talent here," said Prof Asundi. "That's why we started the Masters in Science programme for optical engineering to complement the PhD programmes.

"We're looking at producing at least 10 to 15 Masters graduates a year in optical engineering."

Cole PhD candidates who are working on industry projects in local or multinational companies get their fees and stipends sponsored through EDB's Industrial Postgraduate Programme grants to encourage greater take-up.

Yesterday, Cole also signed memoranda of understanding with three top optical engineering research centres from the University of Michigan, University of Stuttgart and Utsonomiya University, to form a new international research consortium in the area of optical and laser engineering.