

# New NTU programme to tackle complex systems

HOW might human actions lead to irreversible eco-system changes? How do technological innovations evolve? And why do cities thrive for centuries while companies inevitably wither?

A new programme at Nanyang Technological University (NTU) aims to study these and other questions about complex systems, which are systems greater – so to speak – than the sum of their parts.

NTU is looking to be the Asian hub for such research, mirroring institutes in the United States and Europe.

During a conference on this field of study at the university yesterday, NTU president Bertil Andersson said complexity research was a “big opportunity” for NTU and Singapore, with this being among pioneering efforts in Asia.

The programme here will be similar to

the one in the 28-year-old Santa Fe Institute in the US and the Institute Para Limes in the Netherlands, which was set up in 2006. Both encourage inter-disciplinary collaboration.

The effort here, named the Complexity Program, is headed by Mr Jan Vasbinder, 66.

The Dutchman started out as a nuclear physics researcher, went on to become the attache for science and technology in Washington and Ottawa, and then became a consultant.

Reporting directly to Professor Andersson instead of a specific department or school in NTU, he oversees 25 researchers drawn from various disciplines in the university.

He declined to disclose the funding that the programme will run on, but said the

kitty will keep it going for two years.

By then, he said, the programme would have found other funding sources, gained local and international notice and built a community of researchers.

So far, the programme has piqued the interest of the National University of Singapore and the Singapore University of Technology and Design, which hope to collaborate on studies with NTU.

Representatives from government agencies and the Agency for Science, Technology and Research (A\*Star) are also attending the conference which ends tomorrow.

Mr Vasbinder said: “All the major problems that we deal with have their basis in complex systems, and unless we understand those complex systems better than we do, we’ll be unable to address them.”

**GRACE CHUA**