Singapore, 19 April 2007

NTU researchers clinch prestigious grant from Microsoft
- Only winner from Singapore out of 140 applications worldwide

Imagine being able to visit any place in Singapore on your PC, and monitor the real-time weather conditions of that particular place. A research team from Nanyang Technological University (NTU) is working on a sensor map that may allow you to do just that.

For their innovative system, called the “SensorMap for the National Weather Study Project”, the team has clinched a prestigious research grant from Microsoft Research. Microsoft Research’s request for proposals received more than 140 proposals from more than 17 countries. The NTU team is the only winner from Singapore to receive the grant, and only one of four in Asia-Pacific.

The sensor map system connects various mini weather stations, which are deployed in Singapore schools, to collect and aggregate weather data into a central data depository. It then overlays the real-time weather data collected islandwide over a map, which users can then view and access over the Internet.

The team, led by Dr Lim Hock Beng, Program Director of NTU’s Intelligent Systems Centre (IntelliSys), and Associate Professor Ling Keck Voon of NTU’s School of Electrical and Electronics Engineering, has been working on the project since Oct 2006. IntelliSys is a research centre jointly set up and co-funded by ST Engineering and NTU. The team’s prototype sensor map is being used in Singapore’s National Weather Study Project, a large-scale environmental study project supported by various governmental agencies.

With the grant, the research team will develop new techniques and tools for publishing, visualizing and querying weather data from the National Weather Study Project based on the Microsoft SensorMap platform. The aim is to make it easier and more intuitive for researchers and users to use the weather data.

Dr Lim believes there is potential for an application case study on dengue fever using the sensor map and the weather data the team has collected. If dengue fever data were available, it may be possible to study and establish a correlation between the weather
patterns and dengue fever occurrences in Singapore. He feels the sensor map can also be used to study heat island effect in Singapore, and the results can then potentially be used to improve the design of new buildings.

Dr Lim says, “Sensor networks is still a relatively new area of research, and the potential of the applications are tremendous. We are excited to win the grant from Microsoft Research, especially since competition for it came from top notch research teams worldwide. This grant will certainly help us advance in our research in sensor networks.

He adds, “Going forward, we plan to extend our work to develop a full-scale implementation of the system connecting all the mini weather stations in Singapore schools. We hope to receive research funding from relevant agencies to pursue this effort. We also plan to extend our work to encompass other types of sensors, not just weather sensors and are keen to collaborate with agencies and industry to develop other innovative applications using our sensor map technology.”

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About Nanyang Technological University

Nanyang Technological University (NTU) is a research-intensive university with globally acknowledged strengths in science and engineering. The university is located in a garden campus in western Singapore, tracing its roots back to 1955.

NTU has 4 colleges comprising 12 schools. The College of Engineering comprises six schools focused on technology and innovation. Its research output ranks among the top four in the world. The College of Science pushes the boundaries of Singapore's life sciences initiatives. The Nanyang Business School (the College of Business) offers one of the world's top 100 MBA programmes. The College of Humanities and Arts boasts Singapore's first professional art school offering degree courses in art, design and interactive digital media, the Humanities and Social Science School, and the Wee Kim Wee School of Communication and Information, a top journalism and media school in Asia.

The 13th school, S Rajaratnam School of International Studies, will be inaugurated in 2007. An important component of this autonomous school is the Institute of Defence and Strategic Studies, long recognised as a world authority on strategic studies and terrorism.

NTU is also home to the internationally-acclaimed National Institute of Education, Singapore's only teacher-training institute.

NTU has in place multi-country programmes and initiatives with established institutions worldwide. Key partners include MIT, Stanford University, Cornell University, Caltech,
University of Washington, Georgia Institute of Technology, Carnegie Mellon University in USA, Peking University, Shanghai Jiaotong University, Waseda University, Indian Institute of Technology in Asia, Cambridge University, Imperial College and Swiss Federal Institute of Technology in Europe.

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