



Singapore, France tie up to develop defense, security apps

Anne-Francoise Pele

EE Times

10/07/2009 2:27 PM

PARIS — Singapore's Nanyang Technology University (NTU), France's National Center for Scientific Research (CNRS) and French electronics group Thales have concluded a nanotechnology research alliance to develop defense and security applications.

The alliance, known as the CNRS International-NTU-Thales Research Alliance or CINTRA, will be materialized through the creation of a joint research laboratory.

Among other developments, the three partners mentioned enabling technologies such as an imaging chip to process and display real-time multi-dimensional information and a low power signal processing chip capable of super high-speed performance of a terabit per second or more.

Questioned by *EE Times* about critical issues and bottlenecks that CINTRA lab intends to challenge and tackle in the short and in the mid-terms, NTU's spokesman explained: "An example of how the CINTRA lab will overcome the limitation and bottlenecks of present technology is by harnessing the latest optical and laser technologies for applications such as detection, communications and optical information processing. Key advantages of this technology are its immunity to electromagnetic interference as evident in today's silicon-based mainstream technology, and its capability for remote sensing over long distances."

He then commented on the specific role of the three partners: "They are to provide appropriate resources in terms of personnel, finance and materials to the lab for carrying out research. For example, French researchers will be attached to the CINTRA lab at NTU to work on research projects, while NTU researchers may be attached overseas based on research requirements, for example where the equipment or resources needed are located over at CNRS or Thales/Thales affiliates."

The CINTRA Laboratory is due to open by the end of October at NTU's Research Techno Plaza and expects to house about fifty Singapore and French researchers in the next two years. It will be managed by a scientific committee with representatives from the three entities. Professor Dominique Baillargeat of CNRS will be director of the laboratory, while Professor Tjin Swee Chuan of NTU and Dr Myriam Kaba of Thales will be deputy directors.

The funding of the lab, noted NTU's spokesman, will come from the three partners.

NTU, Thales and CNRS have been collaborating for some time. Indeed, in February 2005, NTU and Thales created a joint research laboratory, dubbed Thales@NTU, to collaborate on photonics, III-V semiconductor materials and devices, as well as Ultra-wideband communication. This was the first joint venture between Thales and a non-European university.

Later in 2005, NTU also formalized an initial agreement with CNRS to collaborate on scientific programs, joint projects and other research activities.