

HARNESSING INNOVATION & NEW TECHNOLOGIES
- The NUS & NTU, SITF Technology Showcase 2006
9 Feb 2006, 6.00pm to 9.00pm, Suntec City NUSS Guild House.

About The Event

An increasingly competitive market demands that companies harness more innovation and technologies to generate exciting new commercial opportunities, revenues and retain their competitive edges.

After the 1st successive event held with NUS, we are inviting NTU (Innovation & Technology Office) to join us for this 2nd Technology Showcase this time round. It is a part of the NUS and NTU on-going efforts to increase industry awareness of the cutting edge research & technologies that are generated constantly from University research. The technologies covered include the areas of mobile communications, mixed reality, computer networking, biometrics, generative design and interactive media.

It provides a platform for industry and investors to access nascent technologies and an excellent opportunity to foster interaction and networking amongst high-tech entrepreneurs, venture capitalists, business angels and researchers where business development opportunities such as licensing or collaborative research can be explored.

The event is highly recommended for IT professionals, entrepreneurs, venture capitalists, investors, technology brokers, industry players and anyone who needs to keep up-to-date with cutting edge developments in the IT industry.

Programme

6.00 pm	Registration
7.00 pm	Welcome
7.05 pm	Boomerang and Mobilewise <i>By Mr. Darius Cheung, CEO, tenCube</i>
7.20 pm	IPV6 in China – the Technology, and the Market Needs <i>By Mr. Tao Lei, CEO, I-Link Networks</i>
7.35 pm	Mobile Information System <i>By Mr. Ong Kok Choong, CTO, ByteSquare Technology Pte Ltd</i>
7.50 pm	vFAQ Gives Internet Users the Power to Author Streaming Video <i>By Mr. Paul Gagnon, Senior Deputy Director (Faculty Dev), NTU Centre for Educational Development</i>
8.05 pm	Computer Assisted Cartoon Animation <i>By Asst Prof Tian Feng, NTU School of Computer Engineering</i>
8.20 pm	Presentation by Assoc Professor Thambipillai Srikanthan, NTU Centre for High Performance Embedded Systems
8.35 pm	Q & A followed by Demo and networking
9.00 pm	END

REGISTRATION INFORMATION

This event is open to all SiTF members, staff and alumni of National University of Singapore, Nanyang Technological University and members of the public.

Date : Thursday, 9 Feb 2006
Time : 6.30pm – 9.00pm
Venue : Suntec City NUSS Guild House
Cost : S\$25 nett for SiTF members, NUS & NTU staff & associates
S\$35 nett for non-members
Dress Code : Business Attire

REGISTRATION FORM

Please attach your business card or print/type your personal particulars clearly:

Title (e.g. Prof. / Assoc Prof. / Dr. / Mr. / Mrs. /Ms.):	
Name (Family name):	(First name):
Designation:	
Company / Institution:	
Address:	
Postal Code:	Country:
Tel / Fax / Email:	

Please contact Ricky (tel: 6325 9710 or email ricky@sitf.org.sg) for more information on this event.

About The Presenting Companies/Technology

ByteSquare Technology Pte Ltd

ByteSquare Technology Pte Ltd is founded by a team of research postgraduates, graduates and undergraduates in 2004. They believe in building world class solutions in Mobile Centric Data System. By being Mobile Centric, it means having meaningful data right there in the mobile device on your palm. Imagine a world where data will be revolving around the ubiquitous mobile devices. ByteSquare wants to empower each individual with information intelligence through the ease of data mobility.

I-Link Networks Pte.Ltd

I-Link Networks Pte.Ltd provides a total solution to users from all fields who want to increase productivity & maximize business results through use of wireless and wired network, yet having the security of a network. With the strong support of a team of distinguished professors in the field of networking, from the University, I-Link has access to the most up-to-date technical knowledge of the networking industry. Our advisor Dr A.L. Ananda is an Associate Professor in the School of Computing at the NUS and is one of the key players in developing the NUS's campus wide secure plug-and-play network.

I-Link's projects include hotel networks, condominium networks and school network project. Now the company's main focus is developing and launching an IPV6 and IPv4 transition technology. With this technology, the company is developing market in China, talking to telecoms such as China NetCom and China Telecom. Till now, the company achieved very good business result in China and is confident to make this technology a success in the market.

Tao Lei, co-founder of I-Link Networks Pte Ltd, graduated from School of Computing, National University of Singapore in Year 2005. With support from NUS Venture Support and School of computing, he started this company when he was a final year student in campus in Year 2004. He was a MOE scholar and a very active student in school, joined many school actives before he started his business. As a founder of the company, he contributed many efforts and developed the company to a certain level, received support not only from school but also from many other aspects.

TenCube Pte Ltd

tenCube Pte Ltd aims to be the leading platform that enables mobile devices to intelligently communicate with the web, peer devices and backend systems. Focusing on next generation mobile devices running on the wildly popular Symbian OS, tenCube will be launching 2 products for consumers and mobile operators in Q2 06:

Boomerang – Comprehensive security suite the helps users secure their mobile device & data
MobileWise – An innovative solution that helps mobile operators engage customers and generate sales through content sales, premium services and advertising.

Please contact info@tencube.com for further information.

vFAQ –Gives Internet Users the Power to Author Streaming Video

Mr Paul Gagnon

vFAQ is a Really Simple Tool (RST) that allows Internet Users with a camcorder or webcam to easily record and deliver streaming video from their Website, or Learning Management System course site. What formerly took days or weeks with the combination of videographers, IT

personnel and in-house media servers, now takes only minutes thanks to the power of the vFAQ. Applications include: Answering client/student queries; Introducing your syllabus, and lessons; describing your course; or demonstrating a simple process or procedure. The RSS applications extend easily to commercial websites. Employees can easily respond to Frequent Customer Queries anytime, anyplace, thus providing that competitive edge.

Computer Assisted Cartoon Animation

Asst Prof Tian Feng

A typical production for an animated feature film currently takes 2-4 years to complete. A large amount of manual work is required, especially on frame drawing and painting which represent approximately 60 percent of total labour. The objective of *Computer-Assisted Cartoon Animation* (CACAni) is to develop advanced 2D and 3D animation systems for game, animation and other media industries, based on a novel computer graphics and imaging technology invented by NTU, i.e. disk and ball B-spline (DBBS). The aim is to increase the creativity and productivity of artists by significantly reducing time and labour costs spent on frame drawing, painting, animating and other processes. This gives Singapore an edge over other countries where the labor is redundant and cheap. Apart from traditional animation production, this project can also be extended and applied to online game/animation, mobile game/animation, etc., tapping on advantages of DBBS.

Technologies from NTU Centre for High Performance Embedded Systems

Assoc Professor Thambipillai Srikanthan

The Centre for High Performance Embedded Systems (CHiPES) was established by the School of Computer Engineering (SCE) at the Nanyang Technological University in April 1998 to promote research and development in embedded systems engineering. A total of 3 technologies from the centre will be presented in this forum:

- **Breakthrough Technology for Next Generation Dynamic Navigation Solutions**

CHiPES has developed an unconventional, yet high-speed technique which encapsulates an algorithm that enables dynamic routing solutions for automobiles. Coupled with current global positioning system (GPS) technologies, this resolves the global market bottleneck in supplying low cost navigation systems. This technology addresses a primary market of larger than US\$10 billion, and a secondary market which is expected to cross US\$750 billion in 2010. CHiPES are in the business of providing this technology as products and services to automobile manufacturers, third-party integrators, end-consumers, and logistic service providers. These enabling products and services will allow the company to lead the way in the rapidly growing market of Intelligent Transport Systems encompassing navigation, fleet management, and logistics support.

Key products include: Dynamic Navigation; Logistics Management and Mobile Asset tracking; Pervasive Automobile Tracking; Location Based Services [LBS]; Platform for Intelligent Transportation System [ITS]

- **Real-time Distortion Correction of wide angle lenses**

Cameras with wide viewing angle lens or fish-eye lens are used to enhance the imaging capability by capturing a large field in a single image. However, images formed with these lenses suffer from spatial distortion, referred to, in optics, as “barrel” distortion due to the wide-angle nature of the lens. Barrel distortion introduces non-linear changes in the image, due to which image areas near the distortion centre are compressed less, while areas farther from the centre are compressed more. Hence, the outer areas of the images look significantly smaller than the actual size. This non-homogeneous compression gives rise to optical impairment that is undesirable in applications employing wide-angle lenses.

The existing techniques for distortion correction of wide-angle lenses are limited by their inability to perform real-time distortion correction and/or do not lend well for cost-effective implementation. We have devised VLSI efficient methods and architecture for high-speed distortion correction of wide-angle lenses, which includes a number of unique features not present in existing methods, apparatus or devices. Our solution is portable to FPGA and custom ASIC solutions. On 0.18-micron process technology, the design occupies only 6 square mm of silicon real estate. This design can also deliver up to 30 frames per second of 24-bit colour video for real-time applications.

- **Low-cost voice-authentication/speaker identification system**

Voice Authentication is a proprietary biometric technology, which facilitates the automatic verification of the speaker's identity over the internet, phone or at access terminals. This technology can be used as an added verification layer over the truly ubiquitous form of communication - voice. Leveraging on the fact that microphones are one of the most commonly available and "cheap" input devices today, the market for voice based verification of identity is truly boundless. This technology is portable and hence is suitable for embedded applications. Due to the low complexity of the underlying algorithm the system is also scalable for distributed enterprise applications and portable solutions.