

TCF2010 – Info-communications Technology / Interactive & Digital Media

Track (Day 2, 6th March)

Event: Technology Commercialisation Forum

Venue: PanPacific Hotel, Level 2

Date: 6th March, Sat

Time: 9am – 12.30pm

9am – 10am: Track 2 – ICT/IDM:

Panel discussion: Using and Commercializing Open Source Software

Panel Members:

1. Prof Martin Henz, School of Computing, National University of Singapore (**Moderator**)
2. Stephen Gillespie, Partner, Fenwick & West LLP
3. Gerald Barnett, Research Technology Enterprise Initiative, University of Washington, USA

10.30am – 12pm: Technology Pitching (see list below)

12pm – 12.30pm: Corporate Pitching – looking for technology solutions: **Intellectual Ventures (www.intven.com)**

***Please refer to <http://www.tcf.sg/program2010.html> for full Day 2 program

*** For profile of speakers, please see <http://www.tcf.sg/speaker2010.html>

Title	Inventor	Summary
Symmetric Architecture Modelling with a Single Image	Asst Prof Tan Ping, Electrical and Computer Engineering Department, NUS	A technique to generate realistic 3D models of symmetric architectures from as few as a single image. The user can interactively mark out structure components (e.g. walls and roofs) and the software will automatically recover 3D positions and shapes of these components.
Sketch2Photo: Internet Image Montage	Asst Prof Tan Ping, Electrical and Computer Engineering Department, NUS	A technique to convert a casually drawn sketch into a photorealistic picture. This picture is generated by seamlessly stitching multiple images search from the internet according to the rough sketch and a text label.
Sensor-Assisted Motion Estimation for Efficient Video Encoding	Asst Prof Wang Ye, Dept of Computer Science, School of Computing, NUS	An Accelerometer-Assisted Video Encoder (AAVE) has been developed, by bundling a commercial digital camcorder and an in-house sensor board with dual three-axis accelerometers. We have employed a two-stage motion estimation method, consisting of global motion estimation via sensors for predicting camera motion and local motion estimation for macro-block prediction. Our findings indicate that AAVE dramatically

		improves the efficiency of MPEG encoding, by 2-3 times.
Enhancing Photos with Near-Infrared Images (4-eye camera)	Asst Prof Terence Sim, dept of Computer Science, School of Computing, NUS	The 4-eye camera uses Near-Infrared (NIR) light to augment the usual RGB colors, and is thus able to record more details. In effect, this camera sees in 4 colors (“eyes”), hence its name. By transferring the contrast and high-frequency information from NIR to RGB, this camera produces pleasing images that more accurately capture details in the scene.
Artificial Vision for the Blind (Medical Application)	Dr Amir Amedi, Hebrew University of Jerusalem, Israel	System involving a tiny video camera worn by a blind person to capture the surrounding visual field and convert it into a soundscape (or tactile matrix) using a set of novel algorithms. After training, blind individuals have been able to recognize the letters of the alphabet, “see” pictures of animals, and even find an object—such as a pair of shoes or a person—in a complex visual landscape.
Automatic Ranking of Product Reviews According to Helpfulness (Data Mining, Web Applications)	Dr Ari Rappoport, Hebrew University of Jerusalem, Israel	A Multi Layer Lexical Model (MLLM)-based algorithm for ranking book reviews. The MMLM approach is a system for data mining and content analysis that examines book reviews in order to establish which of the reviews are the most helpful. If available, the text of the book itself can also be used to enhance the output. The layers contain compact, high-quality lexicons of words specific for each layer, such as terms common in product reviews, specific lexical terms connected with the type of book and terms connected with the title.
Title Pending	Portege Pte Ltd (NUS Start-up/licensee)	Portege delivers next generation Portable Interactive Human Machine Interaction Engine for education, wellness and entertainment. The company's vision is to change the way games are played. Portege strives to

		<p>inspire and motivate the users to actively participate and make healthy play as a fun, engaging and integral part of their lifestyle. Portege has been successfully engaged in various collaborations with its enabling platform for creating various IDM contents, including next generation TV interface, interactive solution for wellness and rehabilitation and interactive solution for education. Portege's Future Interface and Development Toolkit continuously serve the industry as a platform to create innovative IDM solution and bring the interactions into the next level of interactivity and complexity.</p>
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