



**Technical Parallel Session  
Manufacturing Systems and Technology (MST)**

Tuesday, 23 January 2007

Location: Lecture Room 1 (Level 2), Nanyang Executive Centre, Nanyang Technological University

12:50 – 13:20	<b>Registration</b>
13:20 – 13:40	Hyesung Park (MIT) Fabrication of Microfluidic Devices for Artificial Respiration
13:40 – 14:00	Hayden K Taylor (MIT) Hot Micro- and Nano-Embossing: Modelling Pattern Dependencies to Aid Manufacturability, and Understanding Plasma-Activated Polymer–Polymer Bonding
14:00 – 14:20	Vijay Shilpiekandula (MIT) Metrology Techniques for Polymer-Based Microfluidic Devices: Experimental Results and Selection Guidelines
14:20 – 14:40	Daniel J Burns (MIT) Measuring, Shortening and Functionalizing Carbon Nanotube Tipped AFM Probes for DNA Sequencing
14:40 – 15:00	Chin Hock Kua (SMA) Particle Transportation using Programmable Electrode Arrays
15:00 – 15:20	<b>Tea Break</b>
15:20 – 15:40	Ega Shivakumar (SMA) Viscoelastic Effects on Hot-Embossed Micropatterns of Polymethyl Methacrylate
15:40 – 16:00	John Benedict Tajan (SMA) Control of Job Arrivals with Processing Time Windows into Batch Processor Buffer
16:00 – 16:20	Chao Qi (SMA) Preventive Maintenance Scheduling for a Machine with Multiple Quality States
16:20 – 16:40	Yexin Wang (SMA) A Dual-Channel Vendor-Buyer System with Minimum Purchase Commitment
16:40 – 17:00	Prof Stephen Graves (MIT) Performance Analysis of Order Fulfillment for Low Demand Items in E-tailing
17:00	<b>End of Day 1 Session</b>