

MCN Vendor Week 2012

A Showcase of Nanotechnology: Present & Future

On Wednesday, 1st February 2012, the Melbourne Centre for Nanofabrication opened its doors to the nanofabrication community to host the MCN Vendor Week 2012. The three day event, aptly themed “A showcase of nanotechnology, present & future”, commenced with a series of seminar sessions facilitated by esteemed local and international guests.

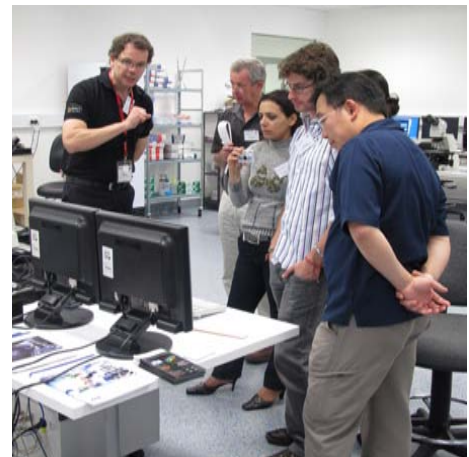
Day one commenced with an impressive presentation simulating the correction of proximity and process effects during E-beam lithography, presented by Nezhir Unal of GenISys, Munich. The seminar provided attendees with useful insight into optimizing current E-beam lithography techniques that would not only improve the quality of their results, but reduce project time and cost.

Some 60 guests were then treated to a buffet lunch and personal welcome from the Director of the MCN, Dwayne Kirk. Attendees were also given the opportunity to network and discuss current issues with field experts and the MCN’s own resident Instrument Managers.

Next on the agenda, a series of presentations describing cutting edge developments in laser microscopy, spectrophotometry and the MCN’s newly commissioned Objet 3D printer. Guests were given a sneak preview of what to expect in the next wave of high-end laser imaging, followed by a workshop held in the MCN’s Biolab on how to generate quick and inexpensive prototypes, at the touch of a button. When participants were asked what they thought of being able to create 3-Dimensional objects from a digital file, many exclaimed they were aware such a concept existed, but did not realize the technology was so readily

accessible and available within the MCN facility. Specialised workshop sessions, held in the Class 100 and Class 10,000 areas of the MCN facility, commenced on day two of the MCN Vendor Week Conference.

Demonstrations on the Mask Aligner and the Hot Embosser; advanced capabilities for lithography, ran concurrently with seminars covering Reactive Ion Etching and the mechanical characterization of nanostructured bio-materials. The importance of nano-structured biomaterials have been widely publicised for their...
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Above: Christian Loebbe of Sciotech suggests techniques for optimising the JPK Biological AFM during a demonstration session in the MCN Biolab.



Above: Mike Butler of Vistec discusses the evolution of Electron Beam Lithography during a seminar presentation in the MCN Boardroom

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applications in and drug delivery, characterization of which, is integral for all associated projects. The afternoon included a feature presentation exploring current trends in Atomic Force Microscopy, facilitated by Ang Li, an application scientist from Bruker, Singapore, before concluding with evening drinks and nibbles in the MCN dining area.



Above : Ang Li of Bruker facilitates a workshop session in the Class 10,000 Cleanroom area, suggesting how to improve imaging of user samples.

Day three of the MCN Vendor Week featured a series of presentations on how to improve ion beam milling processes, followed by a discussion on enhancing current etching methods, with both inert and reactive gases.

Amongst other concurrent demonstration sessions, a dedicated workshop for Layout beamer users, and class 10,000 Atomic Force Microscope workshop provided participants with the opportunity to explore the MCN facility in full operation, whilst being informed on the latest tools and techniques in nanotechnology and nanofabrication.

As the program drew to a close, attendees were invited to join guest speakers and MCN staff for refreshments, encouraging spirited discussion regarding current trends, applications and the future direction of the nano-industry.



Above: A series of "printed" skulls, fabricated from layer polymer. The Objet Nanoprinter, available at the MCN allows users to transform data files into 3-Dimensional printed prototypes with a resolution of 50 microns.

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