

## **Singapore Pursues Atom Technology -- IMRE Workshop on Atom Technology and Its Applications**

Abstract: Half-day IMRE Workshop on Atom Technology (AT) and its applications was held on 10 June 2010 and attracted over 100 participants from academia and industries who are interested in learning the emerging trends of future applications in electronics and future manufacturing. This workshop showcased IMRE's effort in scientific and technological frontier of the ultimate electronic device and manufacturing R&D.

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10 June 2010, IMRE Workshop on Atom Technology (AT) and its applications was held at Seminar Room 1 (SR1), Institute of Materials Research and Engineering (IMRE). Over 100 participants from academia and industries attended this half-day workshop, which brought together worldwide leading companies working in AT and its related areas to discuss the emerging trends of future applications in electronics and future manufacturing. IMRE is one of A\*STAR leading research institutes with established credentials in innovation. Atom Technology is IMRE's flagship program led by well known scientist Prof. Christian Joachim from France and world leading nanotechnology company Zyvex in the USA. Atom Technology in IMRE focuses on molecular electronics device research headed by Prof. Joachim and atomic precise manufacturing (APM) in partnership with its industry partner Zyvex Asia (sister company of Zyvex Labs in the United States which is leading the DARPA funded APM program). The workshop is to showcase IMRE's effort in scientific and technological frontier of the ultimate electronic device and manufacturing R&D. The Atom Technology program has a very interesting balance between basic research and industry application which was nicely presented at the workshop specially by Prof. Joachim, First Class Director of Research at the France Centre National de la Recherche Scientifique (CNRS) and Mr James Von Ehr (Founder and President of Zyvex Corporation and a visionary of nanotechnology).

Prof Christian Joachim, who is also a visiting scientist under the A\*STAR Visiting Investigator Programme (VIP) attached to IMRE, presented his vision and progress on the ultimate atomic and molecular transistors. Mr Jim Von Ehr presented his vision and his industry "making things and sell" approach towards atomic precise manufacturing, the ultimate manufacturing with digital design and atomic precision that will revolutionize how we make things today, like the way how semiconductor manufacturing has transform our lives. Other speakers distinguished scientists include Dr T. Hasegawa from NIMS Japan, Prof. Damian Allis from Syracuse Univ. USA, and Dr Cedric Troadec from IMRE; and industry representatives Dr. Toshihiko Nagamura from UnisokuJapan and Dr. Ramesh Mohan Thamankar from Omicron NanoTechnology Germany.

Details of the workshop program can be found at IMRE website. ([Read here](#))



Figure Caption: Dr Toshihiko Nagamura, President of Unisoku Co. Ltd.(Japan) presented the recent advances in the Low temperature SPM and multi-probe SPM at the workshop.