



IMECHE CCB Programme 2004/2005

NANOTECHNOLOGY

The Science, Applications, Economic Impact, Way Forward

Overview

We have chosen a theme for next seasons technical programme. Nanotechnology is the science and technology at the atomic and molecular level - nanometric or 10^{-9} m. Nano science and technology covers many fields, from biology and medicine to material sciences and nano machines. It opens the opportunity for a new range of materials, huge advances in sensors, and a generation of more powerful computing capability. Nanotechnology is predicted to be the technology of the 21st century, and be even more pervasive than the development of computers. Many billions of dollars are being spent on development around the world. The US National Science Foundation estimates that by 2015 there will be a \$1trillion global market for nanotechnology. This programme is aimed at cutting through the hype and presenting a useful introduction to nanotechnology for engineers, technologists, and scientists of all disciplines (Mechanical, Electrical, Chemical, Civil, Manufacturing, Industrial, Building, Aerospace, etc).

Programme Outline

Date	Subject	Location
21 Sep 2004	Overview – The underlying science, applications, trends, economic impact	Toronto Board of Trade, Dixon Road Airport
19 Oct 2004	Energy (generation, distribution & sources)	Toronto Board of Trade, Airport
16 Nov 2004	Transportation (space flight, commercial, military)	University of Toronto Aerospace Institute
03 Dec 2004	Computing applications – Photonics	Toronto Board of Trade, Airport
18 Jan 2005	Lubrication for machines	Toronto Board of Trade, Airport
15 Feb 2005	Materials technology	Toronto Board of Trade, Airport
18 Mar 2005	Medical applications and the engineering connections	Toronto Board of Trade, Airport
19 Apr 2005	Environment (soil, pollution control etc.)	Toronto Board of Trade, Airport
17 May 2005	The Way Forward – A Road Map for the Next 50 Years	Toronto Board of Trade, Airport

Why Should You Attend The Nanotechnology Lectures?

There are three reasons:

- First the subject is fascinating.
- Second, all the talks are by knowledgeable experts in their field. As a result attendance at the talks should qualify as meeting requirements for Continuing Professional Development (CPD). IMechE will be issuing a certificate to people who attend more than 7 meetings.
- And third, scientists and engineers have an obligation to ensure that the benefits of Nanotechnology are available in a timely manner to society, and that at the same time we do not descend into the nanohell that some worry about. This requires us to knowledgeably participate in the public debate to ensure that facts and logic prevail.

Programme open to Directors, Managers, Engineers, Scientists, Technologists and Government

Flyers will be created for each lecture and will be posted at www.imeche-ccb.org

To register for the lecture series or for individual lectures, email: imechec@attglobal.net