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SUSTAINABILITY AND THE SEMINAR SERIES FUEL CELLS AND THEIR APPLICATIONS

Date: Tuesday, December 5, 2006
Time: 4:00 p.m.
Location: 1457 London Road, Sarnia, Ontario, N7S 6K4
Room: N105
Cost: Free

AGENDA

- 4:00 p.m.** Introduction to Sustainability and IEEE
Maïke Luiken, PhD, Chair, IEEE London Section,
Dean, School of Technology, Applied Science and Apprenticeship
and School of Fire Sciences, Lambton College
- 4:10 p.m.** **Keynote Speaker: Shahram Karimi**
Cofounder, Platinux Corporation
Coordinator and Professor,
Alternative Energy Engineering Technology Program,
Lambton College
- 5:00 p.m.** Questions and Answers and General Discussion



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ABSTRACT:

Life on earth, in its many forms, depends on the availability of useful energy to support a vital array of activities. Over the years, humans have grown an insatiable appetite for energy. However, most of the energy required to perform various tasks and run different machines come from fossil fuels that are both unsustainable and polluting.

Transforming today's unsustainable and polluting energy sources and use into a globally sustainable energy economy requires not only changes in our behaviour, but also state-of-the-art technologies. In recent years a steady and growing interest in hydrogen fuel cells has emerged. The combination of high efficiency and power density, environmental superiority, and versatility of fuel cells has placed them in the forefront of alternative power conversion devices. The potential applications of fuel cells are very diverse ranging from a few watts for handheld devices such as cell phones and portable electronics to a few kilowatts for portable power generators, hundred kilowatts for vehicles and megawatts for large stationary power generating plants. A brief but thorough overview of different fuel cells and their applications in various sectors of the economy will be presented with emphasis on proton exchange membrane fuel cells.

SPEAKER BIO:

Shahram Karimi is a professor and co-coordinator of the Alternative Energy Engineering Technology Program at Lambton College in Sarnia, Canada. He is a cofounder of Platinux Corporation, a fuel cell company conducting research on various aspects of proton exchange membrane fuel cells. He is also the managing editor of the Bulletin of Science, Technology and Society, a peer-reviewed international journal devoted to understanding the role and impact of science and technology on contemporary societies and the environment. His main fields of interest are renewable energy production technologies, electrochemistry, and proton exchange membrane fuel cells.