



# IEEE Okanagan Subsection Presents

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## Alternative Energy: Today and Tomorrow

**Time & Date:** 5pm-6pm, November 21, 2012

**Location:** EME 1202, UBC Okanagan campus



### Talk Abstract:

The industrial revolution has caused an unprecedented and rapid change in our way of lives since the 18th century. These changes were fuelled by coal, and later in the 20th century, by petroleum. However, the comfort and convenience brought by the Hydrocarbon based economy has not been without its side effects. Issues such as pollution, peak oil, and global warming are forcing us to change our view of the world and seek alternative and renewable sources of energy. Some of these sources have been around long before the industrial revolution, such as hydro and wind power, and some like fuel cells and photovoltaic panels are new and evolving technologies. In this talk, following a review of the traditional power generation cycles and their limitations, alternative energy methods and their potential for replacing the existing sources are discussed. The state of the art and future trends in some of these technologies will be reviewed.

### Speaker Biography:

Dr. Mehravaran received his Ph.D. in Mechanical Engineering from Michigan State University in 2005. His dissertation was on micro-gravity effects on turbulent flames and LES/FMDF modeling of high-speed turbulent flames with detailed chemistry. After graduation, he was as a research associate in the University of Karlsruhe, under a collaborative research program funded by the German government. He worked on understanding and modeling curvature and stretch effects on turbulent premixed flames using DNS. He has worked in air-conditioning and power-generation industries as well. Prior to joining UBC-Okanagan, he was a Research Associate in Imperial College London, where he developed models for Large Eddy Simulation (LES) of diesel fuel injection, under the project titled “LES/CMC of diesel engine combustion with detailed chemistry”.

**Pizza and drinks** will be provided after the talk. For further information please contact:  
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