



IESVic Seminar

- DATE:** Wednesday, July 31st, 2019
- TIME:** 11:30-12:30 pm
- LOCATION:** Engineering Computer Science Bldg [ECS] Room 660
- SPEAKER:** **Marc Rosen**
Professor, Faculty of Engineering and Applied Science
University of Ontario Institute of Technology
- TITLE:** ***Using Exergy to Enhance Ecological and Environmental Understanding and Stewardship***

Abstract: In efforts to understand ecological systems and environmental impact, techniques can be used which combine thermodynamics with environmental and ecological disciplines. Most such assessments consider thermodynamics in terms of energy, but it is believed by many that ecological and environmental factors are better understood using the thermodynamic quantity exergy. One rationale for this statement is that exergy, but not energy, is often a measure of the potential for ecological and environmental impact. In this seminar, a summary is presented of existing analysis techniques which integrate exergy and ecological and environmental factors. The goals of most such analysis techniques include improving understanding of the impact on ecological systems and the environment of processes, and the determination of appropriate ecological and environmental improvement measures.

Biography: Marc A. Rosen is a Professor at the University of Ontario Institute of Technology in Oshawa, Canada, where he served as founding Dean of the Faculty of Engineering and Applied Science from 2002 to 2008. Dr. Rosen was President of the Engineering Institute of Canada and the Canadian Society for Mechanical Engineering. He has served in many professional capacities, including Editor-in-Chief of several journals and a member of the Board of Directors of Oshawa Power and Utilities Corporation. With over 60 research grants and contracts and 600 technical publications, Dr. Rosen is an active teacher and researcher in sustainable energy, the environmental impact of energy and industrial systems, and energy technology (including hydrogen energy systems). Much of his research has been carried out for industry, and he has written numerous books. Dr. Rosen has worked for such organizations as Imatra Power Company in Finland, Argonne National Laboratory near Chicago, and the Institute for Hydrogen Systems near Toronto. Dr. Rosen has received numerous awards and honours, and he is a Fellow of the American Society of Mechanical Engineers.

For further information, please contact the IESVic office (250) 721-6295.