August 5 , 2010

Speaker: Dr. Asit Mazumder, NSERC Industrial Research Chair,Water and Aquatic Science Resach Progam University of Victoria, Canada

Seminar Title: Issues and Challenges of sustaining clean and healthy water and ecosystems

Time: 10am Thursday, August 6, 2010

Location: 376 News-Ziegler Hall

Seminar Abstract: The global effort to sustain clean and healthy water for aquatic life and people is challenged by a variety of stressors including: chemical contaminants; pathogens; pharmaceuticals; water-level fluctuations; and man-made climate extremes. These stressors are leading to chemical and microbial contamination of water used for drinking, aquatic resources and ecosystem services. Over 5 million people die every year from contaminated drinking water and 35 out of 1,000 children in the rural areas and slums of developing countries die before the age of 5 from water related illnesses. More and more aquatic ecosystems are developing anoxic or dead zones, toxic algal blooms, high levels of organic pollutants and heavy metals, and more recently, high levels of pharmaceutical products. The environments that provide us with the critical service of drinking water are being compromised because it is assumed that any water regardless of source and quality can be treated to make it safe and healthy for drinking. We fail to recognize that there could be significant economic returns from sustaining clean and healthy water and aquatic resources. It often is suggested that small, rural and remote communities are at greater public health risks from contaminated water, likely because of lack of expertise, resources and lack of control over the protection and management of water sources. In addition to providing a general overview of the issues and challenges of providing clean and healthy water for global communities, Dr. Mazumder will present results of innovative tools we developed to track sources of chemical and microbial contamination of aquatic ecosystems that could be used to develop strategies to optimize and manage public health and resource risks.