



Sustainable Energy Seminar Series

What on Earth does Lunar Mining, Self-Replicating Machines and Power Beams have to do with Climate Change?

Global demand for energy, currently 15 TW in total, will continue to grow due to a variety of factors including population growth and lifestyle attainment. Current approaches to clean energy are dominated by wind and solar power and cannot on their own supply global demand and its projected growth due to innate problems such as intermittency. At the same time, viable clean alternatives like nuclear power are subject to political and public distaste. However, there is a solution: solar power satellites that can capture solar energy in space and beam it as microwaves to Earth-based passive rectenna arrays directly into the grid. The most efficient means to achieve this is self-replicating machines which offers exponential growth in productive capacity. Dr. Ellery will demonstrate how we could implement this solution.

Thursday, January 23rd

RM 2017 Dunton Tower
Carleton University

5:45– 6:00 PM Meet the Speaker

6:00 - 6:45 PM Presentation

6:45 - 7:30 PM Q & A

Professor Alex Ellery is a Canada Research Professor in Space Robotics & Space Technology at Carleton University. His traditional interest is in space robotics, biomimetic robotics, astrobiology and allied fields. He was educated in the UK with a BSc (Hons) Physics, MSc Astronomy and PhD Astronautics & Space Engineering following which he gained experience in industry, quasi-government and academia. A few years ago, having built a planetary rover for the Canadian Space Agency, he decided to consider what space technology could do for Planet Earth and its escalating climate change problem.

