

E-201 Ocean Engineering Seminar, Sp 2012

E201 is held Fridays: 2-2:30 Beverages, 2:30-4 Seminar

Ocean Renewable Energy, A Review

By

Reza Alam, Ph.D.

Department of Mechanical Engineering, UC Berkeley

February 10, 2012 - 3110 Etcheverry Hall

2:30- 4PM



Abstract:

The ocean is a large and relatively untapped renewable energy resource. Powerful ocean waves, tides, and temperature difference between layers of water are known to be able to provide substantial energy to our power hungry world. According to London Based Carbon Trust, wave energy alone can realistically provide over 2000 TWh/year which is approximately 10% of global electricity need. In this talk I will briefly go over underlying concepts of each type of ocean energy resources, and will review the most promising ideas and technologies in each branch with a glimpse at open questions, research potentials and the future of ocean energy.

Speaker's Biography:

Professor Reza Alam is an assistant professor of Mechanical Engineering at the University of California, Berkeley. He joined UC Berkeley in July 2011 after the completion of his PhD (2008) and serving as a postdoctoral associate and lecturer (2008-2011) at MIT. His research is mainly focused on theoretical hydrodynamics and coastal wave phenomena with the specific application in ocean renewable energy. Reza has served as a consultant, technical advisor, and the chief science officer of a number of wave energy companies.

Host: Professor Ron Yeung