



Winter Symposium and Seminar 2013

January 25th, 2012 at 4pm

CNSI Auditorium

Featuring: Dr. Rajeev Ram

Massachusetts Institute of Technology

Research Laboratory of Electronics (RLE)

The Role of Microsystems for a Clean Energy Future

I will focus on improvements in electrical energy efficiency from lower cost, more efficient, solid-state lighting to lighter weight electrical vehicles to a flexible electricity grid. Technologies include chip-scale megahertz switching frequency converters for solid-state lighting and microprocessor power supplies, advanced power electronics platform for photovoltaic converter applications – from chip-scale sub-module DC/DC converters to light-weight multi-MW utility-scale inverters for large solar farms and more. New research to leverage high-voltage, wide-bandgap devices to realize 4-10x cost reductions in FACTS and HVDC sub-systems. Such cost-reductions are essential to realizing a grid where power can be routed much as information is routed within Communications networks today.

Following the Seminar:

Posters and Networking Reception with Hors d'oeuvres

