

***Science and Engineering Council of Santa Barbara:  
October Luncheon***

**Elephant Bar Restaurant, Thursday October 8, 2009, 12:00-1:30**

**----- *This Month's Topic* -----**

**New Thermoelectric Materials  
for Energy Harvesting and Power Generation**

Thermoelectrics are being used for applications from heating and cooling car seats to solar thermal power generation. I will describe some of these new applications, and describe new materials that we are designing to achieve better efficiency in these applications. We are using nanoparticles in materials to simultaneously increase the Seebeck coefficient and reduce the thermal conductivity, which result in dramatic increases in the figure of merit for a thermoelectric.

**----- *Presenter* -----**

**John Bowers, Director; Institute for Energy Efficiency  
University of California, Santa Barbara**



John Bowers holds the Fred Kavli Chair in Nanotechnology, and is the Director of the Institute for Energy Efficiency and a Professor in the Department of Electrical and Computer Engineering. Dr. Bowers received his M.S. and Ph.D. degrees from Stanford University and worked for AT&T Bell Laboratories and Honeywell before joining UC Santa Barbara. Dr. Bowers is a member of the National Academy of Engineering, a fellow of the IEEE, OSA and the American Physical Society, and a recipient of the OSA Holonyak Prize, the IEEE LEOS William Streifer Award and the South Coast Business and Technology Entrepreneur of the Year Award. He has published eight book chapters, 450 journal papers, 700 conference papers and has received 52 patents. He and coworkers received the EE Times Annual Creativity in Electronics (ACE) Award for Most Promising Technology for the hybrid silicon laser in 2007.

**----- *Other Information* -----**

**\$14 SEC members, \$20 non-members.**

**Information:** Barbara Keaney (E-mail [scieng@silcom.com](mailto:scieng@silcom.com)) or call (805) 684-4927.

Reservations not required. Visit our web page at <http://www.scieng.org>

**Elephant Bar Restaurant:** 521 Firestone Road, off Hollister, near airport administration in Goleta.



**From the Co-Presidents:** Fall has arrived with more good speakers in the queue. And, we are excited to say that SEC will soon begin its 50<sup>th</sup> year! More information and announcements will be provided in the coming months to recognize this important milestone. As always at this time of year, our membership renewal reminders will be sent soon, so please keep an eye out for those. Thanks, and we'll see you in October. ***Tim Murphy and Gary Kravetz***

***Please Note: luncheon seating is limited and available on a first-come basis.***

***SPONSORED IN PART by the Santa Barbara NEWS-PRESS***