#### Scientific Committee– University Instructors

- Ali Shakouri, Professor, Electrical Engineering at the University of California, Santa Cruz.
- **Bryan M. Jenkins**, Professor, Department of Biological & Agricultural Engineering at the University of California, Davis.
- Kurt Kornbluth, Director, Program for International Energy Technologies at the University of California, Davis.
- Joel Kubby, Associate Professor, Electrical Engineering at the University of California, Santa Cruz.
- Arne Remmen, Professor, Department of Development and Planning at Aalborg University, Denmark.
- Chresten Træholt, Associate Professor, Department of Electrical Engineering, Technical University of Denmark.
- Brian Vad Mathiesen, Associate Professor, Department of Development and Planning at Aalborg University, Ballerup, Denmark.
- Martin Lehmann, Associate Professor, Department of Development and Planning at Aalborg University,

The program will be supplemented by invited guest speakers with expertise in the various fields covered during the seminars.

• **Oxnana Pantchenko** Alumni Program Coordinator for 2011 LoCal-Re and UCSC *PhD* candidate.

Admission to the course is limited to a maximum of 30 students, 15 from Denmark and 15 from California. Consequently, a selection process will occur at each individual University. **Applications received by June15, 2011 will receive full consideration.** 

The application form can be found on the website:

http://localrenew.soe.ucsc.edu/

or directly requested through the UC coordinator.

Brenna Candelaria University of California Santa Cruz Program Coordinator CITRIS Santa Cruz and LoCal-Re Phone: 831-459-4464 brenna@soe.ucsc.edu

#### **Previous California Field Trips**

- Meet with Senior Legislative Staff members from the California State Assembly and California State Senate
- Behind the Scenes" Tour of State Capitol building.
- Tour of Lawrence Livermore Labs (National Ignition Facility)
- Visit to California Independent System Operators (Grid control)
- Zero Motorcycles, Scotts Valley, CA.
- Tour of Calpine Geothermal in Middletown CA.
- NASA Ames Research Park, Venture Capital Panel
- Tour of Sandia National Labs
- San Luis Reservoir Visitor Center, Romero Visitor Center
- Visit to Biomass Plant in Woodland, CA
- Visit Merced Energy Institute.
- Guided tour of Solano County Wind Farms.

Philip Chiu, Mechanical Engineering student, UC Davis "LoCal-Re was an amazing program! In our

short time in Denmark, we were audience to some of the leading industry experts, researchers, and politicians in the field of renewable energy. It was aw some to be able to explore Denmark through our field trips. But the best part of the program was being able to meet with other students and professors from around the world who share a passion for renewable energy."



### Toshimi June Barks, Environmental studies student, UC Santa Cruz

"(...) I never thought I could learn as much as I did. Not only did my knowledge of renewable energy grow exponentially during my time in Denmark, but the experiences I gained from project-based learning and the benefits of international education are beyond anything I ever hoped to gain from the program. (...) All in all, I came out of LoCal-RE with an amazing project that I feel very proud of, and an experience in which I learned to grow as a person, as well as a peer."





## California August 1-19, 2011





#### California And Denmark Are Leading The World In Renewable Energy Solutions

The challenges posed by global climate changes, scarce natural resources, and the volatility of the international energy market require targeted action towards finding technologically, economically and socially viable solutions based on renewable energy (RE) sources.

The Denmark-California Summer Program on Renewable Energy is a unique educational initiative developed by leading universities in Denmark and California. Students and researchers from the UC Santa Cruz, UC Davis, UC Merced, Technical University of Denmark and Aalborg University will meet in California for a 3-week renewable energy summer school program. Participants will learn about the economics, politics, science, and technology behind RE implementation from leading experts, while exploring communities and relevant energy sites where such technology is in place or currently being implemented. The interdisciplinary approach and holistic perspective allows students with various academic backgrounds to interact and develop concrete final project ideas, while targeting today's energy problems from different angles.

#### **Open For All Students**

The program is intended for students of all disciplines, chosen on the basis of their academic qualifications, creativity, and commitment to RE. Each year, selected students from engineering, business, environmental studies, political science, geography, economics, and other fields are grouped together across disciplines and national ties to form project-based teams that throughout the program investigate the opportunities and challenges facing RE implementation.

#### **Students Are Tomorrows Leaders**

The emphasis of this research program is to engage students in fieldwork to investigate and acquire data that will enable them to discover practical global solutions to renewable energy challenges.

#### Visit Our Website

To get an overview of previous years, programs, please visit http://localrenew.ning.com/.

#### **Program Description**

The Denmark-California Summer Program takes place annually in California and Denmark alternately, with the 2011 edition being organized in California at the University of California partner universities.

The Summer Program is four weeks long with the first week being an online course. The 3-week program in California consists of classroom lectures, seminars and field trips to relevant energy sites and facilities all around Northern California. These visits intend to provide students with real-world experiences of the technological and social aspects of RE implementation at a local level. The faculty consists of Californian and Danish professors, as well as external professionals and researchers with proven experience in their own field.

In addition to lectures and visits, participants will develop a problem-oriented research project, which represents a fundamental part of the overall learning experience. Upon conclusion of the program, a final written report and presentation is completed by student teams, including analyses of the identified problem, possible solutions, and suggested recommendations.

#### Internships

The Summer Program is closely aligned with public and private institutions working on RE in California and Denmark. "Career sessions" will be arranged, with presentations from relevant organizations, in order to create a link between students and important establishments in the cleantech and renewable energy fields. Participants will therefore have the chance to create significant contacts with key institution discuss internship opportunities.

#### Academic Information

Students will receive credit for a seven-unit upper division course (EE181J Practical Renewable Energies) at UC Santa Cruz.

#### COST:

Course fee's for US students: \$ 1,981 (+\$10 for non UCSC students). Estimated local expenses per student (3 weeks): · Lodging and Food: \$ 1,600-1,800 · Ground transportation: \$ 600 Transportation to and from the program is at student expense. Partners:

# UC SANTA CRUZ



## AALBORG UNIVERSITY





INNOVATION CENTER DENMARK Silicon Valley



