

Faculty, Students Train India's Future Engineers to Reduce Energy Footprint

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Rapid economic growth in India has led to a spike in energy consumption, placing a serious strain on the country's grid and energy supplies. Blackouts and brownouts are common and widespread. Worse, limited resources often make it impossible to generate additional energy or increase the distribution capacity of the already congested existing systems.



John Hilla, left, from the College of Engineering and Computer Science, and IITGN's Professor Naran look at the back of solar panels.

A team from the *College of Engineering and Computer Science* set its sights on helping to address this problem by focusing on energy efficiency and education. Professor Suresh Santanam and engineering management and mechanical engineering students John Hilla '14, Enrica Galasso '13, G'15, Jillian Burgoyne '14, G '16 and Mark Seibel '15 traveled to Ahmedabad, Gujarat, to teach a one-week workshop on energy efficiency at the Indian Institute of Technology Gandhinagar (IITGN) to engineering students and faculty from IITGN and surrounding colleges and universities. The training was modeled after the established practices of the Syracuse University *Industrial Assessment Center (IAC)*—a group

managed by faculty and students that conducts no-cost energy assessments for New York State manufacturing facilities.

The team taught a class of India's future engineers the methods to identify and improve energy efficiency to lessen the demand for energy today and to give them the skills to serve as a trained local workforce that can deploy sustainable measures to reduce the energy footprint of commercial and small industrial operations in India for years to come.

In addition to addressing a topic of immediate concern for India, the project provided a unique international experience for the Syracuse engineering students. Students were able to experience Indian culture firsthand. When they weren't teaching they were busy visiting historical and cultural landmarks in and around Ahmedabad.

“Participating in the ITTGN workshop in India has increased my awareness of the diverse ways energy efficiency issues develop and are approached in different parts of the world. . . . Students and faculty from the each university traded knowledge and experience, allowing both parties to gain different perspectives on the issue. This showed me the importance of global collaboration, which is something that I believe will greatly benefit my future endeavors and career in the field of energy efficiency,” says Galasso.

This initiative was funded by chemical engineering alumnus Avi Nash G’77. He challenged faculty and students from the college to propose solutions to address a real-world, societal problem in a place with scarce resources. Nash is the founder of Avi Nash LLC, a management consulting firm that works with global chemical industry leaders in mergers and acquisitions, capital market transactions and other strategic matters. He also serves as trustee of the Indira Foundation.