

## GLOBAL EXPERIENCE: STUDENTS TREK TO NICARAGUA

During spring break, a group of CIT students traveled to Nicaragua as part of a larger Carnegie Mellon student entourage. Their purpose: to cultivate cross-cultural awareness and cooperation, which is in step with the College's desire to expose students to global experiences in engineering. The CIT undergraduates, including Rachael Harding, Sruthi Reddy Chintakunta, Modoluwamu Fatukasi, Akshay Sameer Dave and Manasi Kishor Patil, spent eight days traveling throughout the Central American country. Following is an excerpt from their travel journal.

On Tuesday, we met with Susan Kinne, the Director of Universidad Nacional de Ingenieria's (National Engineering University's) Program for Alternative Sources of Energy called Grupo Fenix. Grupo Fenix was established in 1996 to "create a solar culture in Nicaragua via a university-community

"knowledge cycle." Nicaragua, being one of the poorest countries in the Western Hemisphere, faces shortages and problems regarding resources like electricity. According to Kinne, less than 50% of the country has access to electricity. Hence, people tend to burn wood and other such polluting alternatives. These methods also cause health and environmental problems. Setting up electricity lines for remote villages is very expensive and electric companies tend not to be interested in reaching out to the villages.

We learnt about two types of projects that Grupo Fenix organizes. It has projects to set up solar-powered battery chargers in these remote villages which have no access to electricity. They

also train the users on how to use and maintain the chargers. As the source of energy is close to the user, there isn't much waste. This is called decentralized distribution of renewable energy resources. Grupo Fenix also organizes a solar cooker project. They help women build their own solar cookers, so that among other things, they can roast coffee beans at home. Kinne thinks that "Phoenix" is a great name for the program, because it helps communities "raise out of the ashes."



1. All of the students who went on the trip resided in the Global Studies House at Carnegie Mellon.
2. Drying coffee beans, PRODECOOP's La's Segovias Coffee Mill
3. Gallo Pinto, a staple food
4. Managua, the capital



5. People learn how to make fuel from cotton seeds at the Center for Development in Central America. 6. The National Engineering University.



7. A school near Miraflores  
8. A church in Granada  
9. Children the students encountered  
10. Sunset at Estelí

Photos taken by CIT students



## STUDENT REFLECTIONS

Cooperatives seem to be commonplace in this country which relatively only recently got out of a war. I observed that the people always try to work together to help themselves, each other and the community as a whole. Actually, that is how the coffee farmers can afford to have their own farmland. Every individual farmer in a cooperative has a small piece of land. However, in order to be certified as “organic” or “fair and free trade” zones, they need to have a minimum area of land, which an individual farmer cannot afford. Hence, they register it under one cooperative and work on each other’s lands to get maximum yield for the cooperative. Over there, I witnessed that unity is strength.

*Manasi Kishor Patil (Sophomore, ECE)*

On my flight from Managua, Nicaragua to Houston, Texas I realized that I had learnt a lot in a span of one week. From making pottery to understanding the real issues faced by people suffering from poverty in places that I had not even heard of until last month. If nothing else, it was a humbling experience and one that showed me that there is a world outside of Carnegie Mellon, outside of Pittsburgh and outside of America.

*Akshay Sameer Dave (Sophomore, ECE)*

In Nicaragua, despite the fact that it has a bad infrastructure, the people are willing to go forward and make an effort to make it a better place to live in. The ability of people at the grass roots level to form cooperatives is impressive. These cooperatives are not only distributing a fair price to everyone but they also reserve a part of their profits for the community, whether it is by setting up scholarships for students to study in universities or developing local community facilities.

*Sruthi Reddy Chintakunta (Sophomore, ECE)*

One of the things that is taken away from the trip is the importance of history in other parts of the world. Unlike in the U.S. where we are taught to focus on the future and place less importance on the past, history plays a major role in Nicaraguan life, politics and outlook.

This history can be seen all over Nicaragua, from the damaged buildings in the 1970s earthquake, the temporary housing for the victims of hurricane Mitch and in stories told by the Nicaraguan people.

*Modoluwamu Fatukasi (Sophomore, ChemE)*

I have long held the philosophy that different cultures are not better or worse than one another, nor are they right or wrong—they are just different. My experiences in Nicaragua are challenging that philosophy. On our last day in Nicaragua we discussed globalization with a Nicaraguan economist. One of the major themes of our discussion was transnational companies, which fuel and are fueled by American consumerism, a culture in itself. I used to think that consumerism was ok.

In Nicaragua it is apparent what the effects of consumerism are. We visited a sweat shop that made, for maybe an overhead cost of two dollars, what would later be sold in the U.S. for over \$160. The sweat shop was in a free-trade zone, so there were no taxes or duties for the materials or product. It being a foreign-owned company, all the profit probably went to a foreign bank; the money didn’t stay in Nicaragua.

*Rachael Harding (Sophomore, ECE)*

# Students Take

## FROGGY COMES TO CAMPUS



Chris Garcia, a first-year student and ROTC member, packs boxes with Froggy.



Members of the First-year Advisory Board: (l to r): Cherry Meng, Froggy (honorary board member), Dinesh Ayyappan, Neereja Sundaresan; Dan Hefley (front).

Froggy, the mascot from Pittsburgh radio station Froggy 98, came to Carnegie Mellon on October 21, to help first-year students pack boxes of school supplies for children in Afghanistan. Students from CIT's First-year Advisory Board and the university's Naval ROTC program stuffed boxes with donated items as part of a drive, called "Pencils for Pupils." This ongoing project was developed by students two years ago, after they had learned from alums serving in the U.S. military that terrorists had damaged schools in Afghanistan.

# Action



The cake was donated to the students by Oakmont Bakery.



For exemplary service efforts and service to disadvantaged youth, the college was named to the President's Higher Education Community Service Honor Roll. This award is the highest federal recognition a school can achieve for its commitment to volunteering, service-learning and civic engagement.

## JEROME BETTIS KICKS OFF CIT TOYS FOR TOTS DRIVE

Former Steeler running back Jerome Bettis kicked off CIT's annual "Toys for Tots" drive. This year, in an initiative called, "Stuff the Bus," first-year students in the college with assistance from the Carnegie Mellon University Police collected more than \$5,000 worth of toys and money for the U.S. Marines Corps' national Toys for Tots Campaign. To generate extra excitement, everyone who made a donation, was given a chance to win a football that was autographed by Bettis.

Students Josh Bordin and Gunnery Sergeant Braiden Frantz met up with Bettis at the WPXI television studios in Pittsburgh, where the Jerome Bettis Show is taped. Bordin, a junior in ChemE, participated in the CIT's inaugural Toys for Tots drive in 2006. Frantz is in the Carnegie Mellon Naval ROTC program and had recently returned from a tour of duty in Iraq.



(l to r) Josh Bordin, Braiden Frantz and Jerome Bettis

## UNDERGRADUATE STUDENT DISPLAYS RESEARCH AT STATE CAPITOL



Kelly Frank, a sophomore in Electrical and Computer Engineering, presented her research at the third semi-annual Undergraduate Research at the Capitol–Pennsylvania poster conference on Oct. 7, 2008.

Frank's poster, "System Modeling for MEMS" clearly exemplifies one of the event's chief goals and that is to demonstrate how undergraduate students conduct sophisticated research projects that benefit both Pennsylvania and the larger society.

Advised by Gary Fedder, the director of the Institute for Complex Engineered Systems, Frank's project focused on developing and testing MEMS devices that could potentially lead to improvements in lifesaving devices such as automobile airbags or emergency medical equipment. Frank began her research in 2007 when she participated in Intel's First Year Research Experience program (IFYRE).

Stephanie Wallach, the director of Carnegie Mellon's Office of Undergraduate Research, said that "Kelly did an outstanding job representing the university." Wallach arranged for Frank to meet with legislators, including Frank's local representative Katie True, to discuss her project. Wallach stressed that the event teaches students how to communicate about their work to non-experts and it informs decision makers that "our students are doing amazing things."

## WELCOME CLASS OF 2012

This year the College of Engineering is proud to welcome 447 first-year students, marking our largest incoming class ever. To give them an opportunity to mingle, the College, as part of its First-Year Experience (FYE) initiative, invited its newest students to a get-acquainted party, which was held at FunFest Entertainment Center in Pittsburgh.

The College's FYE program provides first-year students with resources, support, and programming to allow for a successful transition into the Carnegie Mellon and CIT communities.



# FunFest 08