

Engineers Without Borders

June 2009 Newsletter



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Welcome... From the Executive Board

Greetings from the Villanova University chapter of EWB! As another busy school year draws to a close, we wanted to reach out to friends, family, alumni and supporters to share with all of you what we have been involved in this year and what our plans are for the future.

This year our focus was on expanding chapter membership beyond the just the engineering

department and broadening our horizons with a variety of new projects, partnerships and service opportunities. We have come along way since the founding of our chapter in 2006 and our initial playground build in New Orleans. We now have well over one hundred active members, with service projects underway on multiple continents, as well as on our own campus and within the

local Philadelphia community. We are always interested in new ventures, so contact us if you have potential projects!

Through this newsletter, we hope to open up channels of communication between our chapter and our family, alumni, partners and sponsors to let everyone know what we are working on, as well as enable future collaboration.

A New Endeavor: Kenya Water Supply Project

This year VU-EWB formed a new partnership with Kenya: Water is Life, a local non-profit run by Joyce Tannian. Joyce has been living in Nairobi for three years, working on a variety of relief projects which include water supply for the Maasai people. Currently living in southern Kenya along the foothills of Mt. Kilimanjaro, near Amboseli National Park and the border of Tanzania, these people have lacked water for their families and their herds for decades. Joyce has raised enough money to have two boreholes drilled in the area, as well as overseeing the construction of a large-capacity storage tank.

With the help of VU-EWB, the project is expanding to include a distribution system to bring water to closer the community, the grazing lands, and the schools. In March 2009, a

team of four students and one faculty advisor traveled to the project area in Kenya on a week-long assessment trip to establish a partnership with the community and determine what design options exist. "It was great to be so well received by the community," remarked sophomore ME Rory Kotter. "This endeavor will certainly require a great deal of coordination between EWB and the people of Meshanani, but we are extremely excited about beginning this project now that we have a relationship with the community."

Since the trip, VU-EWB has launched into a preliminary design phase to explore a variety of options with this project. Your continued support will be crucial, and we will send more updates as the project progresses.



(Above) Gerrad Jones, Rachel Jones, Dr. Bridget Wadzuk, J.P. Gunn and Rory Kotter pose with members of the Maasai tribe.

(Below) The VU-EWB team inspects a hand-dug well which is currently being used for drinking water, despite its extremely high salt and mineral content.



**VU - EWB
Exec Board**

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Update: Thailand Water Supply Project

In May/June 2008, VU-EWB completed the final phase of implementation for our water supply project in Thailand as eight engineering students and two faculty advisors traveled to the Baan Bo Mai to finish upgrading the source, oversee the pipeline completion and bring the system online. The trip was a huge success, and now both the orphanage and the local villagers have access to clean water for irrigation, drinking and living that they have so desperately needed.

After completing the design and technical review phase of our project during the school year, the travel team had to put in long hours to accomplish everything needed to complete the system in just two weeks. After purchasing supplies in Chiang Mai, the team spent the remainder of the trip in the community, overseeing construction of the system and conducting inspections on existing components. In the short period the travel team spent in country, they

made improvements at the source, laid 4 km of pipe, trained the villagers in the construction of 12 tap stands to complete the distribution system, and constructed a 4,000 liter storage tank.

With our project in the post-implementation evaluation and monitoring stage, recent communication with our NGO revealed the system is still operating efficiently. Thanks go out to all of those who have supported us in this endeavor.



(Above) Rory Kotter '11 and Cara Albright help with the preparations for a new tank. (Below) Local students on their way to school.



Honduras Wastewater Treatment System Project

This spring, VU-EWB formed a new partnership with a local non-profit organization called Serving at the Crossroads, which is currently funding a new medical clinic for the people of La Entrada de Copan. Construction of the new facility will begin this summer, and will eventually lead to the establishment of a medical campus.

Led by Dave Rounce (CEE '10), a team of four students spent the spring semester designing a sustainable

wastewater treatment system for the clinic, which includes a septic tank and filter bed. The students have also been working with VU CEE faculty members to complete the building plans for the facility, which were missing the plumbing details.

"This project has been an amazing experience for us to be involved in," commented Dave Rounce. "Through our work with Crossroads and this clinic, we have been able to apply what we learn in the

classroom to a real-life scenario and ultimately impact the lives of thousands of desperate people."

Once complete, this clinic will provide medical assistance to as many as 40,000 needy patients per year, as well as the nearby *Amigos de Jesus* orphanage. VU-EWB may be further involved with this project and the community through potential solids reuse initiatives and various microfinance projects.

"Establishing partnerships between VU-EWB and the community allows us impact thousands of people all over the world."

-- J.P. Gunn, ME '09

Spring International Conference: Milwaukee

This past March, VU-EWB sent three executive board members to Milwaukee to represent our chapter at the international conference hosted by EWB-USA each spring. This year's theme, *"Transformative Education: Creating Opportunity from Knowledge,"* gave students and professionals from all over the United States and cities around the world an

opportunity to collaborate about how we can use what we learn in the classroom to make a positive impact on people in need. The agenda featured a multitude of presentations, panels and breakout sessions geared toward use of appropriate technology and sustainable growth of chapters, with the mindset that engineers can be responsible global citizens

with a commitment to making a difference in the world. "My favorite session was *"Unintended Consequences and the Art of Managing the Unexpected,"* shared junior ME Eric Baker. "It really struck a chord with me based on previous projects we have been involved in." The three students brought back a wealth of new ideas to move VU-EWB forward.



Paw Prints: Villanova Partners With Local High School Students

Paw Prints began as an idea for a business management course project this past fall, and has blossomed into the full-blown VU-EWB outreach program that it is today. Created by Sarah Arcscott (ME '09), former VU-EWB chapter president, the idea behind Paw Prints is to mentor local K-12 students by creating opportunities for them to explore a variety of topics related to math, science, engineering, global initiatives and the environment. During the Spring 2009 semester,

VU-EWB students started out by traveling to local high schools and conducting learning laboratories with interested students using projects from recent EWB workshops and technology challenges. This fall we will continue to build the program by expanding our outreach to include more schools and groups, and by incorporating seminars and presentations about past and present EWB projects into our interaction with the students.



Day of Service = Villanova EWB + Philadelphia

One Saturday morning last fall, alarms went off much earlier than usual across campus and waves of sleepy students filed into the Pavilion to participate in the 5th annual St. Thomas of Villanova Day of Service. With over 25 of our members participating in this event, VU-EWB formed a service team and spent the day painting and renovating a local Boys and Girls Club in Philadelphia. We had such a great experience with this campus-

wide event that we decided to start our own Day of Service tradition, which we hope will grow from year to year.

Our inaugural event was held this spring, when 9 VU-EWB students partnered with the local Caring People Alliance chapter. These students traveled on a Saturday to one of the Philadelphia locations, where they spent the day painting the cafeteria. "It's a really great feeling to know that we are able to positively

impact the local community," commented junior ME Eric Baker, chapter co-president. "There are so many things that could be done throughout the city of Philadelphia, and hopefully we're setting the example by doing our part."

VU-EWB plans to host more community service events in the coming semesters, and we are hoping alumni will join us in this endeavor.

"It doesn't take much for us to give up a few Saturdays... but it makes a huge difference in others' lives."

-- Kathy Bommer, ME '10

Fundraising Corner: Show Off Your 'Nova Spirit!

Catch the spirit wave and show off your school colors at the next Villanova event! We still have plenty of short-sleeved shirts left from our fundraising drive earlier in the school year. Perfect for tailgaters and sporting events, our shirts come in sizes small through extra large. We are selling them for \$12.00 each, or two shirts for \$20.00.

We'll be selling them again on campus during freshmen move-in this coming fall. However, if you're interested in purchasing a shirt before then, please contact VU EWB at ewb@villanova.edu so we can arrange to ship them to you. As always, thank you for your generous support!

-- EWB Fundraising Team



Front of shirt



Back of shirt

Check us out on the web!!

www.students.villanova.edu/egrorgs/EWB

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(Above) Students and faculty of VU EWB with community leaders during the 2008 Thailand implementation trip.

(Below) Rory Kotter '10 poses with a Maasai warrior during the Kenya assessment trip.



Engineers Without Borders USA (EWB-USA) is a non-profit humanitarian organization established to partner with developing communities worldwide in order to improve their quality of life.

This partnership involves the implementation of sustainable engineering projects, while training and involving internationally responsible engineers and engineering students.

VU-EWB was founded in 2006 as a student chapter of EWB-USA. Working with local faculty and mentors, we strive to better the world around us by applying our education and our values to untangle real problems and provide economically and environmentally sustainable solutions to communities in need.

Recent VU-EWB Accomplishments:

- VU-EWB students presented an update regarding past and current projects at the May 2009 meeting of the EWB-MAP Chapter held at Drexel University.
- Former VU-EWB chapter president Sarah Arscott has been awarded the 2009 Villanova University Thomas J. Mentzer Award for dedicated service and “expanding opportunities for the poor and marginalized.”
- JP Gunn, VU-EWB co-president, will be spending the upcoming summer in the Philippines to begin the assessment of a new micro hydro project and establish ties within the local community.
- VU-EWB partnered with Water for Waslala and helped raise \$20,000 at the 5th annual Walk for Water, which will help fund water systems for the communities of Waslala, Nicaragua.
- Our summer Thailand water supply project Phase IV implementation trip was featured in the 2008 College of Engineering Strategic Plan publication, as well as the latest prospective student bulletin.



Sarah Arscott '09 and Professor Jim O'Brien assess the Thailand pipeline with community members.