VILLANOVA ENGINEERS BRING STEM EDUCATION TO CAMBODIA

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ince 2012, the College of Engineering has sent student and faculty teams to the same rural Cambodian school where they have worked with the Cambodian Foundation Cambodia (CFC) to provide local children with access to a quality education. Established by Anne and Tom Caramanica, PhD, 71 CE, '83 MSE, the CFC built the first Cambodian School in 2006. Today, it is four years since 230 students in seventh through ninth grades. In summer 2014, Bethula Tan '16 ME, a Cambodian Villanova student, spearheaded the building of an adjacent preschool and kindergarten designed by Villanova engineers. It recently opened its doors to more than 70 students and it is the only school of its kind in the province.

During the winter break, a Villanova team made the annual trip to the region, but with a new assignment: Develop and lead a series of science and engineering workshops for the school's eighth- and ninth-graders, nearly 130 students in total. Team leader Alex Poultney '14 ME, '15 MSE, volunteer advisor Edan Meglin '99 ME, Alana Ayers '17 CE and Caroline Trifone '16 ME—prepped a variety of workshop activities including air-propelled rockets, band rubber band cars, water surface testing and robot building.

The week culminated in a robot-building competition that required the CFC students to come up with their own ideas and work under a tight 48-hour deadline. The top two-winning teams, plus three exceptional student leaders, won a trip to mid-March to the first Cambodia Science and Technology Festival held in Phnom Penh, Cambodia.

Weeks after returning from Cambodia, Alex Poultney beams when describing the experience—"Having the local schools, students' faces reflect excitement, joy, surprise, awareness, and even a little fear..."—Andrew Blasetti '04 CE, '06 MSE

WHERE ARE THEY NOW?

Taking His Career to Great Heights
Andrew Blasetti '04 CE, '06 MSE

A
n article about international service learning in the Summer 2009 issue of the College of Engineering's magazine, Andrew Blasetti '04 CE, '06 MSE wrote of his three unforgettable trips to Amigos de Jesus, an orphanage in Honduras. Five years later when asked what the highlight of his time at Villanova, Blasetti doesn't hesitate. "The service-learning trips to Amigos de Jesus in Honduras with Dr. David Dinehart and Mark Coggin." He credits him with introducing him to structural engineering.

Blasetti has worked for Thornton Tomasetti since graduation, and says high-tech structures have been his niche since his earliest days with the firm. He recalls: "We were working on a number of projects with site architecture firms, each having very unique geometries that had to be strucurally unconventional. I had some ideas and successfully presented them to my superiors. He has specialized in high-rise steel structures. Blasetti was able to successfully communicate at an engineer's most valuable skills. "You may be a creative, innovative thinker with all the answers, but your ideas aren't worth much if you cannot deliver them effectively." For this reason, Blasetti encourages today's undergraduates to take advantage of the presentation training their professors assign. "Many engineering firms pay from presenting ideas to clients and supervisors, but presenting your designs in person will get you noticed, build industry connections, and set you ahead of the pack." On the Right Track for Success: Jordan Mahoney (Sarruda) '09 ME

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fter the most of the Class of 2009 had left campus and many had made their careers, Jordan Sarruda '09 ME could still be found on the grounds of Villanova University. Though fully prepared for the new challenges awaiting her, Sarruda had one more Villanova adventure ahead. "I stayed on campus for a few months after graduation, preparing with my women's track and field teammates for a regional meet that summer." A 2007 Big East champion in the 4 x 800 meters, Sarruda was looking forward to a strong season of her life with this last race, and beginning another in a full-time position at Lockheed Martin.

The first three years of Sarruda's career were spent in Lockheed Martin's Engineering Leadership Development Program (ELDP), an elite training regimen for new employees. The ELDP trained Sarruda to assume her role as a business owner, with different functional roles, which would result in the NOVA Award—"I was fortunate to lead a very talented, multi-disciplinary group of engineers through a comprehensive project for which we proposed, developed, tested, and manufactured a design prototypes for a hydrokinetic generator. Our hard work ensured our success both individually and as a team. In the end, one of the most valuable lessons I learned was what is meant to be a leader in engineering." Senior Associate Dean for Graduate Studies and Research Gerard Guerrard ("Jerry") Jonas, PhD, recalls Jordan as “One of the most delightful, genuine, positive-thinking, motivated, stimulating and talented students I have ever known.”

After completing the ELDP, Sarruda moved into a permanent position involving integration and testing for Lockheed Martin’s Aegis Ballistic Missile Defense. In 2013, she led a successful “Pros for Peace” event in Iraq, as an ambassador, a major accomplishment that resulted in the NOVA Award—"Jordan was an outstanding teammate—for Sarruda and her team.” When asked if her life and career are what she would have imagined them to be, Sarruda confesses: “I do not think I could ever have imagined my life and career to mirror my finances.” She appreciates the support of her family, the coaches at Villanova who helped shape her goals and the teachers and classmates who pushed her to succeed, both through a shared vision and friendship.

WHAT IS THEIR RELATIONSHIP?

When asked where he thinks his career will take him, Blasetti: “I just want to imagine the future of the structural engineering field. He notes, however, “I wouldn’t be surprised if teaching on a professional level were to find its way into my career at some point.”

The Summer 2009 Villanova Engineering magazine featured Andrew Blasetti's '04 CE, '06 MSE reflections on change at the core of the institution... "Worldwide Classroom..."

On the Road Ahead
Andrew Blasetti (center) leads the team of structural engineers behind the new Comcast tower. They are, from left: Aprile Inkwitz, and Villanova alumnus Shalese Kate '01 CE, '06 MSE and Tom Caramanica, local office manager. "Worldwide Classroom..."