Engineering World Health
2011 Annual Report

Our Mission

Engineering World Health is a non-profit organization that mobilizes the biomedical engineering community to improve the quality of health care in hospitals that serve resource-poor communities of the developing world. With this professional expertise, we install donated and newly-designed medical equipment, carry out repairs and build local capacity to manage and maintain the equipment. We also harness the resources of collegiate engineering programs through a network of university-based chapters and contract with Duke University to manage a summer program that sends student biomedical engineers to developing country hospitals where they repair broken equipment.

Engineering World Health
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From the Executive Director

Dear Friends,

It's hard to know where to begin as I reflect not just on the last year, but also on the past 11 years that have passed since EWH was founded and the past 2+ years that I've been a part of the team. I'm humbled by our staff's commitment, our donor's generosity, our volunteers' enthusiasm, and our board's dedication to EWH's mission.

Our shared goals have been achieved and exceeded during this past year. EWH has worked with 48 students through the EWH Summer Institute in Central America and Tanzania. Those students repaired over 750 pieces of equipment totaling over $1.5 million in critical medical equipment repairs. The EWH BMET is operational in four countries: Rwanda, Honduras, Cambodia, and Ghana. Through these programs we have trained 57 biomedical equipment technicians who are consistently returning35% more equipment to service than their non-participating counterparts. Our suite of student programs is now reaching students at 40 university-based EWH chapters in 6 countries whose activities range from device design and kit assembly to awareness generation and fundraising.

While these accomplishments are staggering, the unwavering commitment to EWH's mission is even more remarkable. As the EWH staff and board move forward, we recognize that those with whom we work in developing countries worldwide embody our mission and continue each day to make an impact that saves lives. The vital importance of medical equipment and the role it plays in saving lives is too often overlooked, but the accomplishments of the healthcare workers who strive each day to ensure that all patients have access to modern healthcare should be commended.

The involvement and investment of numerous individuals have made the mission and vision for EWH a reality and have created an organization that will, no doubt, continue to achieve its lofty goals for years to come. Our work is not yet done, but it is my hope that we will all continue to address the problem of limited access to modern healthcare delivery in developing countries and to become the benchmark educational organization on medical device repair and maintenance.

Melissa Driver Beard
Executive Director and CEO

What We Do

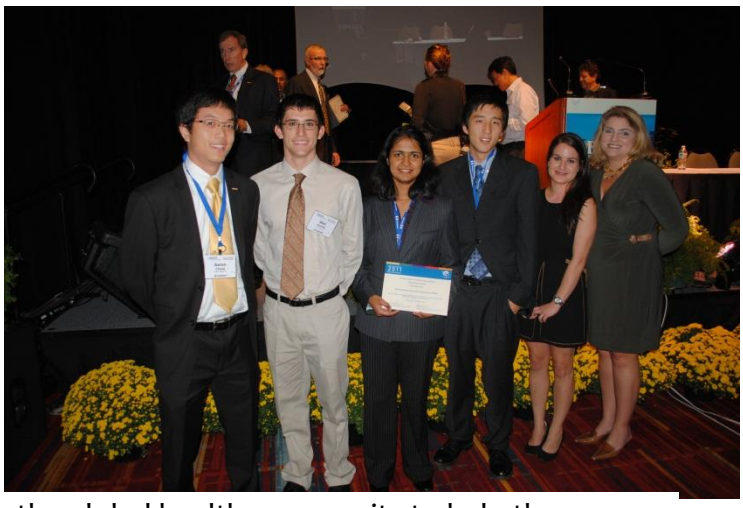
BMET Training Program

The EWH BMET training programs feature needs-based curricula tailored to each country in partnership with Duke University. In Rwanda and Cambodia an introductory BMET training course is offered. The students learn about healthcare technology management, computer skills, principles of medical device operation, and professional development. They build their equipment repair abilities through a broad base of specific skills that apply to the maintenance and repair of numerous types of biomedical equipment. In these countries, technicians attend a two-month intensive course twice per year. With this method, the student technicians reinforce their classroom learning with alternating time periods of hands-on practice at their hospital, and the hospitals begin reaping the benefits immediately after the first session of classes finish. After three years and six training sessions, the students receive a certification in BMET.

Chapters

Participation in an EWH chapter raises awareness among students of health care challenges that characterize the developing world as well as the medical technology issues unique to resource-poor settings. Chapters also provide ways for members to contribute to solutions. This may be the first time that engineering students have seen their chosen profession in this context and understood their potential to make lasting contributions to improving the lives of people who live in some of the world's most vulnerable communities.

Design Competition



In August of 2009, EWH launched an annual design competition that is unique in being directed at the needs of developing country health care. Participating teams are invited to create a multi-disciplinary Innovation Team that brings engineering students from the EWH chapter and industry engineers together with expertise in industrial design, social entrepreneurism, business planning, etc. Indeed, the Teams can choose to work with any organization from the global health community to help them identify one or more challenges in providing health care in developing countries that appear suited to a technology solution. Teams can also select projects from EWH's own **Projects That Matter** list.

Kits

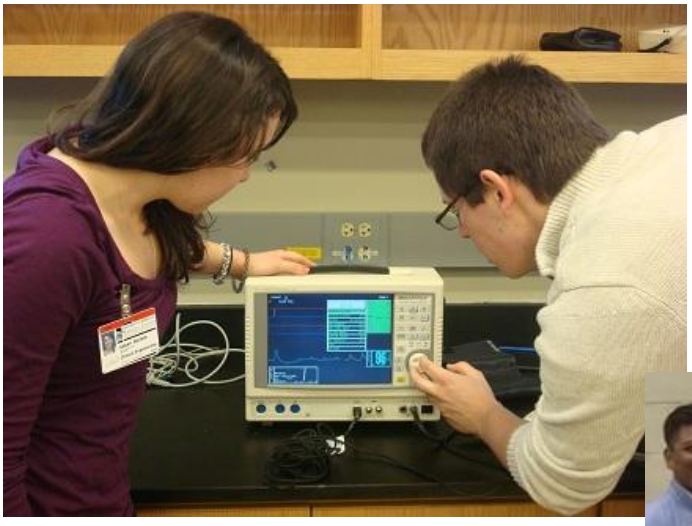
Promising technologies arising from the Projects that Matter challenges may be suitable for further development in the EWH Kits program, which provides low-cost medical devices to hospitals in developing countries. Even a simple technology can be the difference between life and death in the developing world. The construction of a single kit creates a medical product that can benefit many people, perhaps saving the life of someone's child, friend, or loved one. There are several new designs in the works to complement the currently available ESU tester kit.

Summer Institute

Since 2004, the EWH Summer Institute has provided young engineers with the chance to live in a developing country with a local family, learn a new language and use newly acquired technical skills to improve health care in the community. One month of training is followed by a month of service in a local hospital during which participants install and repair medical equipment, train the staff, take inventory, solve problems and perform other engineering duties.

The program is open to qualified people from all countries. Although a majority of participants are undergraduate and graduate students, the program often includes postgraduates and some young professional engineers. In addition to improving the quality of health care, the program offers participants a life-changing experience and the opportunity to contribute in a meaningful way to international development. For many it is the beginning of a long-term commitment to helping poor and vulnerable people.

The Year in Review…



Johns Hopkins EWH chapter organized an internship with University of Maryland medical center allowing students to learn about healthcare technology in a clinical setting.

BMET Training program starts in Honduras with first session in fall of 2010.

Rwanda BMET students with their certificates after completion of technical training on Zeiss microscope.

Rwanda BMET students in two hours repair dental x-ray machine that had been out of service for two months.

The winning Design Competition entry. A blood pressure monitor powered by a cell phone! Submitted by the BP team from Oxford University in the UK.

Cambodia assessment trip, fall 2010.

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A big thank you to all of our supporters, we couldn't do this without you!

Engineering World Health
Statements of Financial Position
September 30, 2011 and 2010

	2011	2010
Assets		
Current Assets		
Cash and cash equivalents	$ 435,939	$ 1,283,248
Investments	297,363	-
Accounts receivable	3,556	4,385
Inventories, net	763	3,209
Prepaid expenses	19,893	1,123
TOTAL CURRENT ASSETS	757,514	1,291,965
Property and Equipment		
Computer Equipment	13,653	8,740
Furniture and fixtures	173	173
	13,826	8,914
Less accumulated depreciation	(4,525)	(4,258)
PROPERTY AND EQUIPMENT, NET	9,301	4,655
TOTAL ASSETS	$ 766,815	$ 1,296,620
LIABILITIES AND NET ASSETS		
Current Liabilities		
Accounts payable and accrued expenses	$ 191,377	$ 157,212
Net Assets		
Unrestricted	537,794	1,130,764
Temporarily restricted	37,644	8,644
TOTAL NET ASSETS	575,438	1,139,408
TOTAL LIABILITIES AND NET ASSETS	$ 766,815	$ 1,296,620

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