

engineering worldhealth



EWH DTU Newsletter, March 2018, by Julie Schou-Jensen

Meet EWH DTU

Come and meet EWH DTU and learn more about the organization at

- **Open house**, 1st of March
- **Medico bazar**, 7th of March
- **DSE fair Lyngby**, 21st and 22nd of March

Are you prevented in participating in these events, please let us know if you have any questions at ewh.dtu@gmail.com or visit our website ewh.dtu.dk or our facebook page "[Engineering World Health, DTU](#)" for relevant information.

Who is Engineering World Health DTU?

Engineering World Health DTU (EWH DTU) is a student chapter of the American-founded EWH. Our vision is to improve healthcare technology in developing countries by utilizing

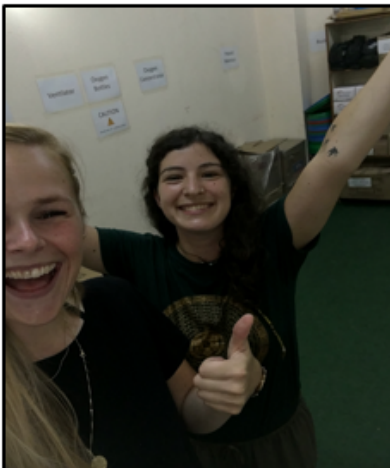
the members' engineering skills. Since 2014, EWH DTU has sent biomedical engineering students to developing countries (Tanzania, Rwanda, Nepal, and in 2018 Mongolia).

A Story from last year's Summer Institute

Emilie Eskildsen Zwicky, Medicine and Technology

This summer, I attended Engineering World Health's Summer Institute in Nepal, which is one of the destinations available through EWH. The Summer Institute is a great opportunity to become thoroughly versed in the practical use of medical equipment through hands on experience, to engineer smart solutions with minimal resources available, to learn how to communicate and cooperate in a different culture, and most importantly; to make a difference for the quality of health care provided in a developing country.

Last summer, 17 members of EWH DTU participated in the Summer Institute in Nepal, which lasted six weeks. Prior to the departure, all participants attended a 3-weeks preparation course at DTU, where we learned the essential tools for repairing medical equipment. The Institute started for all of us in the capital of Nepal, Kathmandu, where we spent 10 days on language training and culture lessons. Afterwards we went to some of the more remote areas where we spent the remaining time in groups of two to do volunteer work in the local hospital repairing medical equipment. As for me, I was sent to a town called Baglung, which is located 8 hours west of Kathmandu. Our stay in Baglung was not, however, as we expected. We experienced that the hospital did not need us to repair equipment, because everything seemed to be rather new and they had several pieces of spares in case of a breakdown. Through further observation, we found that part of the problem was the hospital management rather than the resources available. Therefore, we had to reconsider our purpose into a more management related direction. With this in mind, we spent a lot of time organizing equipment rooms, putting equipment into lists and systems, which would also be useful for the staff after our departure. At first, it was quite confusing that we did not get the chance to repair medical equipment, but after some time it struck me that, what we did was in fact engineering! We were presented with something, we analyzed the needs and we engineered a solution! That is engineering! So now is the question: *Are you ready to become a true engineer and make a difference in a developing country?*



Images from Emilie E. Zwicky '14

Nicaragua project



It is a known fact that sugarcane workers in León die of kidney failure before they turn 35 years old. Of all deaths in the region 46% are caused by Chronic Kidney Disease of non-Traditional Causes (CKDnT). The complex disease is not fully understood, but it is believed that the combination of extreme temperatures, repeated dehydration and the use of pesticides has a substantial influence on the pathophysiology of the disease.

In the spring 2017 EWH DTU entered a donation project to Nicaragua in collaboration with Engineers Without Borders (EWB), Denmark. At that time Charlotte Valløe from EWB had already initiated the contact with CISTA, the regions National Institute of Occupational Health. EWB had at the moment no projects related to medical devices; hence the project was handed to Hilal Erdogan Lavik from EWH DTU who started the collaboration with Charlotte. The main purpose of the project is to provide cheap or free hemodialysis treatment for the sugarcane workers in León. The members of EWH DTU Hilal Erdogan Lavik and Patrick Janowski have during the last year collaborated with Bornholms Hospital, Rigshospitalet, Genbrug & Donation and Baxter in order to prepare, maintain and coordinate the donation of 16 pieces of hemodialysis equipment to four hospitals on the west coast of Nicaragua. The hemodialysis equipment will together with other medical equipment be packed in a container and shipped from Genbrug & Donation in week 12 of 2018.

Annual general assembly 2017

At the annual general assembly held on the 26th of October 2017 the new board members were elected:

- | | |
|---------------------------------------|--|
| – Tine Holmbæk Petersen (President) | – Julie Schou-Jensen (PR & Networking) |
| – Sana Ahmed (Vice president) | – Silje Grini Nielsen (Going abroad and Fundraising) |
| – Emilie Eskildsen Zwicky (Treasurer) | – Cecilie Saskia Lochet (Workshops and Education) |

Additionally, coordinators for each of the four groups were elected in EWH DTU. EWH DTU would like to thank everyone who showed up for a successful meeting.



Contact information:

Address: Anker Engelunds Vej 1 bygning 101E, 2800 Kgs. Lyngby
Webpage: www.ewh.dtu.dk, Mail: ewh.dtu@gmail.com

Want to join our Summer Institute?

Are you an aspiring engineer with a desire to get hands on experience with medical equipment, going abroad, and engage in different cultures and meet new people? Then Engineering World Health's Summer Institute is the abroad program for you! EWH offers Summer Institutes in Nicaragua, Rwanda and Tanzania, Nepal, Guatemala and Mongolia. Whichever country you choose, you will repair and maintain much-needed medical equipment and if necessary also teach the local staff proper handling of the equipment. In addition, each team completes a secondary project aimed at specifically meeting the needs of the hospital. An example could be designing and establishing sanitary hand dispensers to increase hospital hygiene.

Who can join?

The EWH DTU Summer Institutes are available to all students in Denmark and new students from Nordic Five Tech universities (Aalto University in Finland, Chalmers University of Technology in Sweden, Technical University of Denmark, Royal Institute of Technology in Sweden and Norwegian University of Science and Technology). New students will complete a 3 week preparatory course in June 2018 at Technical University of Denmark (DTU) in Lyngby. You can read more about this course at www.kurser.dtu.dk/31598. Visit EWH's www.ewh.org or EWH DTU's www.ewh.dtu.dk/going-abroad, if you are interested in finding out more about this program.

Sign up Today!

Do you want to take part in our organisation and events? Or do you want to become a volunteer in a developing country through EWH? Join today on www.ewh.dtu.dk/Enroll and engage in one of our four groups. The annual membership fee is 100 DKK.