

# FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM



## Visit to University of Colorado Boulder: April 25, 2017

This report summarizes the visit of Elizabeth Hausler from Build Change that took place at the University of Colorado Boulder on April 25, 2017.

### ITINERARY FOR FRIEDMAN FAMILY VISITING PROFESSIONAL

Tuesday 25 April 2017	
FFVP Elizabeth Hausler	
11:00-11:30	mid-morning seminar ECCR 139
11:30-12:00	
12:00-12:30	lunch with graduate students at the Boulder Dushanbe Teahouse
12:30-1:00	
1:00-1:30	
1:30-2:00	lab tours with Shideh Dashti meet in lobby
2:00-2:30	meeting with Ross Corotis ECOT 452
2:30-3:00	meeting with Abbie Liel ECOT 517
3:00-3:30	meeting with Petros Sideris ECOT 458
3:30-4:00	meet SDT Clark Conference Room
4:00-4:30	
4:30-5:00	meeting with Aaron Opdyke Clark Conference Room
5:00-5:30	meeting with Santina Contreras (and Shawhin Roudbari) DLC 194
5:30-6:00	preparation for evening seminar DLC 194
6:00-6:30	evening seminar DLC Collaboratory
6:30-7:00	
7:00-7:30	

### STUDENT CHAPTER VISIT PLANNING COMMITTEE

#### LEAD ORGANIZER(S):

- Rebecca Scheetz, President, [resc5112@colorado.edu](mailto:resc5112@colorado.edu)
- Kristen Hess, Vice President, [krhe1387@colorado.edu](mailto:krhe1387@colorado.edu)
- Abbie Liel, Faculty Advisor, [Abbie.Liel@coloradado.edu](mailto:Abbie.Liel@coloradado.edu)

### VISITING PROFESSIONAL LECTURE OVERVIEW

The EERI CU Student Chapter very much enjoyed the visit from Elizabeth Hausler, the founder and CEO of Build Change. She gave two seminars which were both well attended by chapter members, the student body, department faculty, and interdisciplinary professionals. In addition, Dr. Hausler made herself available for

meetings with faculty and students, went to lunch with EERI CU student chapter members, and participated in a debrief from the CU Seismic Design Team regarding their performance at the 2017 competition. Overall, we greatly appreciated the opportunity to meet Dr. Hausler and found her seminars interesting and inspiring.



Figure 1: Dr. Hausler presenting at the mid-morning seminar



Figure 2: Attendees of the mid-morning seminar



Figure 3: Dr. Hausler and attendees of the evening seminar

## Lecture Abstract

Mid-morning Seminar: Tuesday April 25 11am to 12pm in ECCR 139 (light refreshments provided)

Disaster-Resilient Building and Economic Development in Emerging Nations: Engineering, Construction and Information Challenges and Opportunities for Rebuilding After Disasters

Abstract: In this talk, Elizabeth described the Build Change model for rebuilding and retrofitting homes after disasters, including the homeowner-driven approach, engineering design and construction, quality monitoring using drones and apps, and innovative methods to improve construction materials quality and workmanship in resource-constrained environments.

Evening Seminar: Tuesday April 25 6pm to 7:30pm in the DLC Collaboratory (light refreshments provided)

Disaster-Resilient Building and Economic Development in Emerging Nations: Preventing the Next Disaster through Policy Change, Engineering Solutions, and Homeowner Incentives

Abstract: In this talk, Elizabeth focused on **Build Change's prevention programs, working with governments and local stakeholders** to retrofit (strengthen) houses and schools before the next earthquake or typhoon. These multi-disciplinary programs leverage efficient engineering solutions and financial and insurance incentives, and are key to reducing risk to families living in the millions of vulnerable houses in Asia and Latin America.

Speaker Bio: Elizabeth Hausler is the Founder and CEO of Build Change, a non - profit social enterprise with a mission to save lives in earthquakes and hurricanes. Build Change designs disaster-resistant houses and schools, trains homeowners, builders, engineers and government officials to build them, works with governments to develop and implement building standards, partners with the private sector to improve building materials quality and create jobs, and facilitates access to incentive-based capital for reconstruction and retrofitting by partnering with financing institutions and government subsidy programs. Build Change currently operates in Indonesia, the Philippines, Nepal, Haiti, and Guatemala.

## SUPPLEMENTAL ACTIVITIES

### Lunch with EERI CU Student Chapter Members

Dr. Hausler attended lunch with six graduate student chapter members at the Boulder Dushanbe Tea House. It was a great opportunity to learn more about Dr. Hausler's career and work at Build Change. The students were able to ask questions and Dr. Hausler learned more about the program and chapter at CU. One of the graduate students had previously worked for on a Build Change project and had the chance to speak with Dr. Hausler about her experience.

### Debrief with the CU Seismic Design Team

Members of the CU Seismic Design Team met with Dr. Hausler to give a short presentation about their participation in the competition. Since their structure survived all three ground motions, they were also able to show her their structure that they designed and built. Dr. Hausler enjoyed learning more about the competition and their work, involvement, and successes this year.

### Personal Meetings with Faculty and Students

Dr. Hausler made herself available for a series of meetings with CU faculty and students. She had the opportunity to speak with Professor Abbie Liel (EERI CU Student Chapter Faculty Adviser), Professor Shideh Dashti, Professor Ross Corotis, Professor Petros Sideris, Aaron Opdyke (Ph.D. candidate in civil systems), and Santina Contreras (Ph.D. candidate in environmental design).

## RESULTS, FEEDBACK AND LESSONS LEARNED

CU EERI very much enjoyed the planning process and getting to know Dr. Hausler through this event. Both seminars were well attended and we received positive feedback from all those involved with Dr. Hausler's visit. The event was easy to coordinate as we're both located in the Greater Denver Area, and our chapter was enthusiastic to develop a relationship with a local professional. We are looking forward to applying to the Friedman Family Visiting Professional program next year!

## ACKNOWLEDGEMENTS

The University of Colorado Boulder EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Elizabeth Hausler through their Friedman Family Visiting Professional Program endowment.

We would also like to thank our friends, family and corporate sponsors for their generous contributions that helped finance this event.

## LIST OF ATTACHMENTS

- Flyer for advertising the 11AM mid-morning seminar
- Flyer for advertising the 6PM evening seminar





## DISASTER-RESILIENT BUILDING AND ECONOMIC DEVELOPMENT IN EMERGING NATIONS: ENGINEERING, CONSTRUCTION AND INFORMATION CHALLENGES AND OPPORTUNITIES FOR REBUILDING AFTER DISASTERS



**BUILD CHANGE**

Build Change designs disaster-resistant houses and schools, trains homeowners, builders, engineers and government officials to build them, works with governments to develop and implement building standards, partners with the private sector to improve building materials quality and create jobs, and facilitates access to incentive-based capital for reconstruction and retrofitting by partnering with financing institutions and government subsidy programs. **Build Change currently operates in Indonesia, the Philippines, Nepal, Haiti, and Guatemala.**

In this talk, Elizabeth will describe the Build Change model for rebuilding and retrofitting homes after disasters, including the homeowner-driven approach, engineering design and construction, quality monitoring using drones and apps, and innovative methods to improve construction materials quality and workmanship in resource-constrained environments.



### ELIZABETH HAUSLER

*2016-2017 EERI Friedman Family Speaker*

**Founder and CEO for Build Change**, an international non-profit social enterprise based in Denver. Elizabeth is a skilled brick, block, and stone mason. Elizabeth has participated in post-disaster reconnaissance studies after 14 earthquakes and typhoons in nine countries including US, Japan, Asia and Latin America.

**Tuesday, April 25<sup>th</sup>**

**11:00 AM – 12:00 PM**

**ECCR 139, Engineering Center**

*(Light Refreshments Provided)*

**Elizabeth Hausler will also be speaking at 6:00 PM – 7:30 PM in the DLC Collaboratory**



## DISASTER-RESILIENT BUILDING AND ECONOMIC DEVELOPMENT IN EMERGING NATIONS: PREVENTING THE NEXT DISASTER THROUGH POLICY CHANGE, ENGINEERING SOLUTIONS, AND HOMEOWNER INCENTIVES



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**DLC Collaboratory Room**

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