

# IEEE SIGHT

## Special Interest Group on Humanitarian Technology

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SIGHT Toolkit

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### Solar Power Cleans Water and Lights Classrooms in Honduras



### Note from the Chair



**SIGHT UNAH** in Honduras made major improvements to the Juan Alberto Melgar Castro School in Cablotes, a village in the department of Comayagua, Honduras. The team installed solar panels, a water purification system, LED lighting, two wall fans, audio equipment for civic events and dances, and a school bell.

The two-room school has 51 students who benefited from the work of 14 SIGHT volunteers.

"Great things happened. The community got involved in the project and even the kids were helping to make their school better," says José Castro Jiménez, SIGHT UNAH Secretary.

Field reports from around the world amount to a portfolio of SIGHT's work that is as varied as it is meaningful. This month we hear of solar powered schools in rural Honduras, arsenic

You can find pictures on [SIGHT UNAH's flickr album](#).

In India, a Makeathon to benefit people with disabilities in Canada and more.

## 72-Hour "Makeathon" Set for Calgary

Your news inspires us. Read on for highlights from your fellow SIGHTS. And, as always, thank you for everything that you do!

**Kartik Kulkarni**, Chair, IEEE SIGHT Steering Committee

SIGHT Southern Alberta Section (SAS) will co-host a non-stop **72-hour "Makeathon"** in Calgary, Alberta, Canada, to meet the challenges of living with a disability. Also hosting are IEEE Young Professionals and Tikkun Olam Makers. The event will include eight teams of engineers, designers, programmers and students working with eight people who are living with disabilities.

## Find SIGHT Membership Resources at the Online SIGHT Toolkit



The end result could be useful to the wider community.

"We will release an online document which will be open source toolkit where our members will have access to all the designs," says SIGHT SAS member Tushar Sharma.

Everyone is invited August 26-28. **Details.**

## AquaSift sensors detect and map arsenic contamination in water sources

Learn about the new requirements of SIGHT membership and find resources to help accomplish your goals with the online **SIGHT Toolkit.**

## Deadlines for SIGHT Newsletter Submissions

Share news about your event, innovations and successes with the worldwide SIGHT community. Submit announcements or story ideas by the first of each month for a chance to see it in the next month's edition.

Submission guidelines:

- 150 words or less
- Include photos! (with captions)
- Include Web links! (Interested people will want more information)

Please send correspondence to Rob Goodier at [r.goodier@ieee.org](mailto:r.goodier@ieee.org). Thank you!



Jessica VanderGiessen a student at SCU tests an arsenic detector. Photo courtesy of Ashley Kim

A new sensor system called **AquaSift** detected arsenic contamination in sources of drinking water in field tests in West Bengal, India. After detecting the contaminant, the platform automatically mapped its findings, according to a preliminary report by

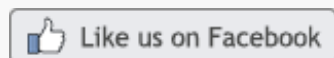
## Are you on Twitter? #IEEESIGHT!

Tweeters around the world are using #IEEESIGHT to tag their SIGHT updates. Use the tag at conferences, during field work or any time you tweet about SIGHT. And search the tag on Twitter for updates from your colleagues around the world.

Here's a recent example of a good use of #IEEESIGHT:

Helping Countries  
Connect and Thrive,  
Starting with Tunisia  
[#IEEESIGHT](#)  
<https://t.co/54EEHeOf7t>  
via [@wordpressdotcom](#)  
- Abir chermiti  
(@Abir\_Chermiti) [July 21, 2016](#)

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## Newsletter Archive



researchers at the Santa Clara University SIGHT in California, USA.

The team had previously developed a bacterial pathogen detector and is now creating sensors for other contaminants such as nitrate and phosphate. They are integrating sensors with a hand-held electrochemical analyzer and mobile application as a complete platform, says Ashley Kim, a bioengineer at SCU who is leading the project.

"The field testing in India gave us invaluable insights on how to design our platform to be more rugged and user-friendly for deployment. We would like an opportunity to collaborate with SIGHT volunteers to field test our platform once it's complete," Kim says.

Those interested can contact Kim at the **phone and email** on her SCU page.

## Humanitarian Design Competition Proposed During the IECBES Conference in Malaysia

**IEEE-MySIGHT4Rehab** will organize a Special Session on **Humanitarian Technology** at the 2016 IEEE Engineering in Medicine and Biology Society's Conference on Biomedical Engineering and Sciences in Kuala Lumpur, Malaysia.

The committee will host a **proposal competition** for IEEE student members as an introduction to humanitarian work.

**Contest deadline:** September 30  
**IECBES Conference:** December 4-8

[Application](#) | [Details](#)

## Impact: Excerpts from Jineet Doshi's Essay in Humans of IEEE



Students in India use tablets to learn English. Photo courtesy of Jineet Doshi

"Impact. If there was one word to describe what IEEE has helped me achieve, that would be the one. Creating an impact that matters has been one of the sole motivations throughout my IEEE journey till now."

And:

"In late 2012, I visited few remote villages in western India and observed that close to 80 percent of class 8 children did not know the English alphabets in spite of English being part of the curriculum since class 5. There was only one teacher for every five classrooms and hence most of the students' time was spent idling around. That's when I went about setting up virtual classrooms in these villages using tablet computers and an internet connection enabled by a mesh network of routers, all in a robust and cost effective way."

-Jineet Doshi, Co-Chair of SIGHT Events. Read his [personal essay at Humans of IEEE](#).

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## **Before and After a Water Infrastructure Project in Nepal**



Before Drinking station installation



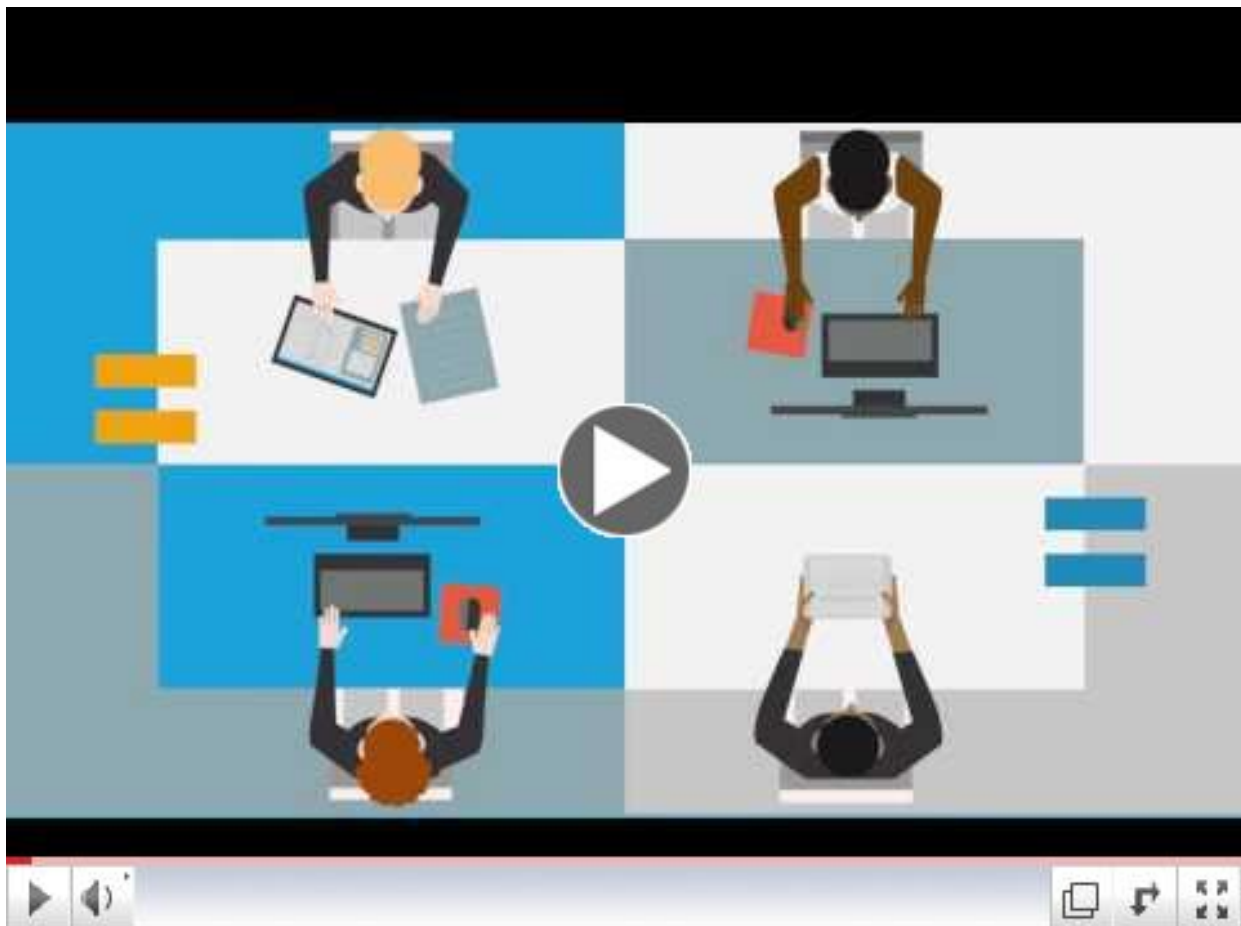
Before condition of drinking station of the School



After the installation of Drinking station

Arun Timalisina and other volunteers at the Nepal Subsection SIGHT installed drinking water and handwashing infrastructure at two schools, Viswa Vidya Mandir and Mary Ward School. "We will install in another 2-3 schools within 2-3 months," he says.

## Improve Your Work in Global Development with Engineering for Change's New Online Course



SIGHT engineers and others working in global development must integrate their technical training with an understanding of economics and business, social science and politics to

benefit people living in poverty. Engineering for Change, with support from the IEEE Humanitarian Activities Committee, has developed a learning framework and courses for those new to the field.

The course is comprised of four modules that integrate best practice, case studies and knowledge checks to help learners synthesize concepts. E4C members can access the course for free and qualify for a Continuing Education Unit (equivalent to 10 Professional Development Hours) upon completion.

Explore resources and take the course at [\*\*Introduction to Engineering for Global Development.\*\*](#)