

For Landwards Autumn 2017

Douglas Bomford Trust – an update. (Header as per previous issues)

Awards and Prizes

At Cranfield University

The 2017 Douglas Bomford Trust Prize at Cranfield University for the best student on the Land Reclamation and Restoration course was awarded to Karolina Krystyna Golicz. Peter Redman, representing The Trust, presented the award at the Prize Giving ceremony on Friday 30th June 2017 – the same day as the Graduation Ceremony for the School of Water, Energy and the Environment at Cranfield University.



At The Royal Agricultural University

The Douglas Bomford prize at The Royal Agricultural University for the best application of engineering to solve a problem in Agriculture, Food or the Environment was awarded to Harry Cotton. The prize was presented to Harry at a Prize Giving ceremony that for the first time was held as a separate event at the University on Thursday 21st July. Harry was something of a star performer at the University receiving a total of four prizes at the ceremony. The picture (right) shows the prize being presented by Trust secretary Paul Miller with Harry, Paul Miller and trustee Peter Redman together immediately after the presentation (below).



Other news from The Trust

- The Trust jointly sponsored and supported an exhibit at a one-day conference at Cranfield University – Cranfield Science for a circular economy: How to tackle the Water, Energy and Food nexus. This was held at the University on Friday 16th June and provided an opportunity for students involved in different aspects of “the nexus” to learn what others were doing in a friendly and competitive environment.
- The Trust again provided some financial support for the IAgrE Young Engineers competition that was hosted by Kubota
- The Field Robot event, which is an international event intended to promote the development of robotic systems for agriculture, was held at Harper Adams University between the 13th and 16th June with The Trust providing sponsorship for a team from the host University. A total of 14 teams entered the event which was won by a team called Kamaro Engineering from Karlsruhe Institute of Technology.

Sponsored projects – a recent example

In April 2016, The Trust agreed to award Stuart Llewellyn a grant to travel to Peru to undertake voluntary work over a six-month period as part of the “Engineers without Borders” scheme. In September 2016, Stuart travelled to Playa Blanca in Northern Peru to join a team from the WindAid Institute working to provide electricity for a small fishing community. On his return, he prepared a brief report for The Trust, edited sections of which are quoted below. (Further details available from The Trust secretary if required).

The recipient community

“The villagers had previously used kerosene, it was cheap but then could no longer be sourced and candles were expensive. In 2005, some villagers were able to purchase diesel generators but these are extremely expensive to run - 5 soles (£1.20) a day. The municipality had installed some solar panels in (September 2014). However, there was no accompanying training in their use, so many ceased working. WindAid has been able to support those families a little in understanding how the panels work and there are now around a little more than half functioning in the village. The wind turbine and associated equipment (wind turbine controller, DC lighting circuitry and USB mobile phone charger) was gifted to families, on the agreement that the family pays into a community run maintenance fund. Previously, on average families would spend 1 nuevo sol a day on candles, hence the figure of 30 nuevo soles (~£7.40) a month was agreed.

The families use the energy for lights; charging mobile phones and batteries. Some families also, at an additional cost, buy an inverter that allows them to use AC appliances such as radios, TV’s and fridges.”

“The relationship with the community is such that land was gifted to WindAid, in order to build a workshop facility in the community, where our teams could stay whilst deploying the wind turbines, and the hope was that local technicians would be involved in the manufacturing and maintenance processes in the medium to long term future.”



Two of a collection of photographs supplied by Stuart showing the village workshop with a wind turbine and one of the team training sessions

What did I achieve during my placement

“In the 6-month placement, I was part of various volunteer teams that installed and commissioned 6 Wind Turbines with estimated 65 people directly benefiting from these systems.”

Personal benefits gained from my placement

“Personally, I benefited from learning a whole new skill set with microcontrollers, and small portable computers. I learnt to ‘stand on the shoulders of giants’ - wealth of information available on this subject matter online, and to select parts that are suitable, adapt and implement for our purpose.

Constantly had to overcome seen and unforeseen problems. Improved my networking skills, reaching out to other engineers on other placements, current and past.

Level of Spanish has improved massively, working with non-English speakers, and engage with community members.

I have decided to continue working in international development, I have been offered a position within WindAid.”