

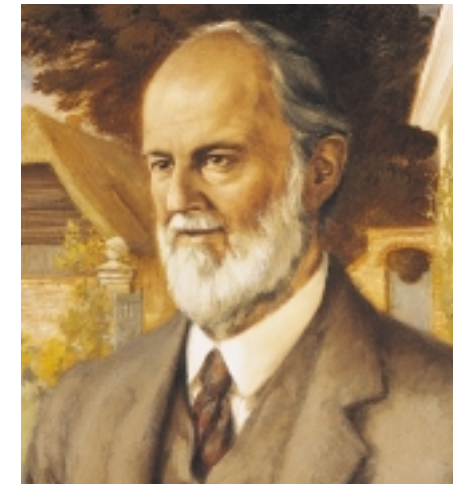
# Panasonic Trust News

Issue 6 November 1999

## Environmental Study Awards Announced

This year's winners of the coveted Panasonic Trust Fellowships were announced at a recent meeting of Trustees. The engineers, who are about to commence full-time masters courses, will each receive Trust support of £7,000. The winners are: Fahad Khan, 24 from London and Michael Welti, 23 from the Isle of Wight who will both be studying the Cranfield Manufacturing Masters course. Thirty-three year old Scotsman Ken Burgess who will be attending Heriot-Watt University to study Geotechnical Engineering. Recently graduated Mark Preston, 24 from Wokingham in Berkshire who will remain at Bath University to study Multimedia Technology. Twenty-two year old Kamaldeep Rayet who will be moving from Birmingham to Uxbridge to study Microelectronics Systems Design at Brunel University, whilst Tyneside is the destination for 33-year-old man of Kent Chris Baker, as he prepares to travel to Newcastle University to study Sustainable Water Resource Management. And finally the Renewable Energy and Environment course at Reading University will provide the home for Martyn Berry, 24 from Hambledon in Hampshire over the next 12 months.

Commenting on this year's awards, Panasonic Trust Chairman Robin Bond FREng said, "The quality of applicants we have interviewed for these awards was beyond our expectations. All credit must go to the Universities for being able to attract such motivated and passionate individuals to their courses." When asked about the Trustees view of the Scheme to date Bond was clear "We believe that training in Sustainable Development and Environmental issues are not only key to the future economy of this country but also the quality of life its population will enjoy. We have made a start by supporting the training of 12 engineers in related subjects. When they enter the workplace we hope they will live up to the scheme's ideals and exploit their new found knowledge and skills for the betterment of their fellow citizens."



Sir Frederick Henry Royce 1863 - 1933

## The Royce spirit of achievement lives on

In addition to supporting students from its own funds, the Panasonic Trust has the privilege of administering awards on behalf of other bodies. One of these is the Sir Henry Royce Memorial Foundation. Since 1995, the Foundation has sponsored up to three bursaries to support industrial engineers in the study of automobile or aeronautical engineering each year. To date all graduating awardees have done so with distinction, which is a tremendous achievement for the individuals and the scheme.

Representatives of the Trust and Foundation met recently to select the 1999 bursary winners. Awards were confirmed upon Russell Osborn of GKN Automotive Ltd, Andrew Gray of INBIS Technology Ltd and Caroline Mohamed of Rolls-Royce plc. Russell will be studying the IGDS Automotive Masters course at the University of Hertfordshire, whilst both Andrew and Caroline will be at Bristol studying the IGDS Aerospace Masters course. Both the Trust and Foundation wish them well with their studies.

## Do you run a Technology Updating Course?

The Panasonic Trust is always keen to expand the number of courses it supports with its awards. Suitable courses, either full or part-time, can cover any aspect of new technology. Suitable applicants need not be graduates but should have an engineering qualification. Please contact us for further information on funding opportunities.

## Application Information

All enquiries about the Panasonic Trust and its activities should be made to:

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**The Panasonic Trust**  
*Supporting Professional Development*

# Training for a Sustainable and Renewable Future

Amongst the hundreds of students enrolling on full-time masters courses last October were five particular engineers. What made them stand out from the rest you may ask? Quite simply they had been identified as having a passion and understanding of the importance of sustainable development to the environment and the potential to make it to the top in industry. These individuals were the first recipients of the Panasonic Trust Fellowships, a scheme set up to promote the full time study of environmentally



Tamsin collecting data from the Photovoltaic roof for her project

related courses. In this article, two of the first awardees, who both studied the MSc course in Renewable Energy and the Environment at the University of Reading, talk about the course and reflect on their experiences during the last twelve months.

Physicist Matt Palmer, fulfilled an ambition from his pre-undergraduate days when he enrolled to study the renewable energy and the environment course. "My interest in renewable energy began when I met a micro-hydro engineer whilst teaching in Nepal on a year-out placement. I was impressed at how, with a little technical expertise, simple systems could be installed in order to provide power without degradation of the environment".



The Photovoltaic roof on the University of Reading's engineering department building.

"Having been very academic at school I chose to study a pure subject at university with no real idea of a future career. After completing my course, I did look into opportunities in renewable energy, but my lack of relevant work experience was a disadvantage in the job market. Following a series of temporary jobs, I ended up working for a consultancy in oil-field water injection. Although the projects I was involved in were interesting and varied, it was not the career I wanted. After three years in the oil industry, I decided the only way to get a foothold in the renewable energy field was to study a course and go on from there".

Another Fellowship awardee, Tamsin Tweddell, had her interest sparked in renewable energy whilst on summer voluntary work in the South of Spain. "I was working for Sunseed Desert Technology running their Appropriate Technology department, designing low cost solar cookers, experiencing living with solar heated water and solar generated electricity, and was taken by the idea of technology that is socially and environmentally responsible. This led me to think about renewable energy engineering as a suitable way of applying my physics degree. I chose the course at Reading as it has a good reputation and a wide breadth of content including topics entirely new to me such as energy policy and finance".

Hydro, Solar, Wind, Biomass and Energy and the Environment make up the core modules of the course. Each

is covered in depth from the evaluation of available resources and the design of equipment, through to the social and environmental impact of such technologies. Both awardees had their own particular interests when it came to the core modules. Matt was taken with the work on biomass. "I found this area particularly interesting as these simple technologies have been largely overlooked by the hi-tech developed world myself included! Ranging from the production of charcoal from sustainable woodland through to methane from sewage and farm waste, biomass will produce an increasing proportion of our requirement and should not be overlooked". Tamsin found the Energy and the Environment module of great interest. "This looked at the environmental impact of conventional electricity generation and transport and the alternatives. We undertook various assignments including comparing the emissions from ordinary and electric vehicles, and assessing



A modern wind farm

the pros and cons of wind farms. We also had to undertake a long project and present the findings in a seminar to the other course members. I studied 'Energy Efficiency of Domestic Appliances', which is likely to come under greater scrutiny in the future as we try to reduce our greenhouse gas emissions. Particularly interesting was the amount of power wasted by appliances such as television sets and video recorders in the stand-by mode".

The end of course project has allowed Matt and Tamsin to pursue a particular area of interest in the renewable energy field. Tamsin had absolutely no doubts as to what her end of course project was to be about. "My main interest throughout the course has been solar energy and it is the area I have focussed on for my dissertation. I am studying the photovoltaic roof that has recently been installed on the university's engineering building, and which feeds power into the building's main supply. This project has been supported by the DTI's development and demonstration fund and comes with a two year monitoring contract. I have been responsible for establishing the monitoring procedures, for analysing the data and for identifying problems. As well as studying the system's performance, my dissertation has included an environmental impact assessment. Since the objective of using renewable energy is to reduce the environmental impact of energy use, it is important to be aware of any negative impacts caused by the renewable energy system itself. During my work in Spain, I heard many people say that solar energy was no good as more energy was required to manufacture the solar panels than they could ever generate. Through my project, I have established that this is simply not true, but it is important to be aware of issues such as this".

With the course concluding, both Matt and Tamsin have their job searches well underway. As with any fledgling technology, opportunities are limited, but both remain optimistic. Matt summed up both of their thoughts "With the renewable energy industry growing in Europe, opportunities are increasing. But having studied this course, I feel better placed than before to find a rewarding career".