

THE PANASONIC TRUST FELLOWSHIPS

These prestigious awards are currently tenable on the following full-time Masters courses:

Engineering for Sustainable Development at University of Cambridge.

Cranfield Manufacturing Masters' Courses at Cranfield University.

Water Pollution Control Technology/Water & Wastewater Engineering at Cranfield University.

Environmental Sustainability at the University of Edinburgh.

Geotechnical Engineering at Heriot-Watt University.

Environmental Diagnosis at Imperial College.

Renewable Energy Systems Technology at Loughborough University.

Water & Environmental Management at the University of Newcastle upon Tyne.

Renewable Energy & the Environment at the University of Reading.

Corrosion Science & Engineering at UMIST.

Engineering for Development at the University of Southampton.

Energy Systems & the Environment at the University of Strathclyde.

Water & Environmental Engineering at the University of Surrey.

Facilities Management at UWE Bristol.

Urban Design/Town & Country Planning at UWE Bristol.

Warwick Manufacturing Masters' Courses at the University of Warwick.

Virtual Manufacturing in Construction & Engineering at the University of Wolverhampton.

Congratulations

To the following Trust awardees who have recently completed their courses and successfully graduated:

Andrew Baldock	<i>MSc with Distinction</i> in Renewable Energy & the Environment from the University of Reading.
Adam Berthoud	<i>MSc with Distinction</i> in Engineering for Development from the University of Southampton.
Clare Hanmer	<i>MSc with Distinction</i> in Renewable Energy & the Environment from the University of Reading.
Peter Hansen	<i>MSc with Distinction</i> in Automotive Engineering Design, Manufacture & Management from the University of Hertfordshire.
Claire Mitcham	<i>MA with Distinction</i> in Urban Design from the University of the West of England, Bristol.
Neil Morris	MSc in Environmental Geotechnology from the Bolton Institute.
Warren Pope	MSc in Engineering & Manufacturing Management from Coventry University.
Mark Potter	MSc in EMC & RF Communications from the University of York.
David Stewart	<i>MSc with Distinction</i> in Computer Aided Engineering from the University of Strathclyde.
Dawn Ward-Craner	<i>MSc with Distinction</i> in Renewable Energy Systems Technology from Loughborough University.
John Yarnall	MSc in Surface Design & Engineering from the University of Nottingham.

Do you run a technology updating course?

The Panasonic Trust is always keen to expand the number of courses its supports through its Panasonic Trust Awards. Suitable courses should be part-time in nature and emphasise any aspect of new technology or engineering practice. Applicants need not be graduates but should have a recognised qualification in engineering or a closely allied subject. Contact us now 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 Royal Academy
of Engineering

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Panasonic Trust News

Going for Gold

Five Panasonic Trust Gold Medals were awarded to post-graduate students who undertook their Masters courses through Panasonic Trust Fellowships.

And, rather refreshingly, three of the gold medalists were women!

Claire Mitcham of the University of the West of England, Clare Hanmer of Reading University and Dawn Ward-Craner of Loughborough University who read Masters degrees in Urban Design, Renewable Energy and the Environment and Renewable Energy Systems Technology respectively, all achieved distinctions in their Masters courses which they undertook through Panasonic Trust Fellowships.

Not forgetting the men; Andrew Baldock, also of Reading University, and Adam Berthoud of Southampton University both received gold medals too for achieving distinctions in their Renewable Energy and the Environment MScs.

The Panasonic Trust Fellowships provide financial support to selected graduate engineers wishing to undertake full-time Masters courses and each has a financial value of £7,000.

The scheme was launched in 1998 and the number of applicants has more than doubled since then. Applicants undergo a stringent selection process and the results clearly show that the selection process works!

The funding enables the successful applicants to undertake their post-graduate degree in one of 17 accredited courses in 15 UK universities. Not only do they have to fulfill the requirements of their course, but the students are also required to submit progress reports throughout the duration of their Masters course to the Panasonic Trust.

Ian Bowbrick, Secretary of the Panasonic Trust says, "It is always gratifying to reward academic achievement and the Trust warmly welcomes the fact that three of these gold medal winners are women!"



Project Presentation Prize Launched

A Reading University student was the first person to benefit from a brand new award from the Panasonic Trust. The new award, the Panasonic Trust Project Presentation Prize of £1,000, has been instigated as part of the celebration of the twentieth year of the partnership.

The prestigious new prize went to MSc student, Ian Meikle, whose project in Renewable Energy and the Environment had, in the opinion of the judges, best fulfilled a series of stringent criteria.

Ian's project involved devising a way of evaluating the performance of energy saving buildings. Max Fordham LLP, who specialise in low energy building services, were looking for a post-occupancy energy performance evaluation methodology to allow them to quantify the performance of the buildings they design services for. Ian provided the answer!

He spent five months observing and analyzing the performance of a Hertfordshire-located commercial building designed to use minimal energy. A 'low energy' building that is also striving to be a 'zero-carbon' building, it employs an impressive array of renewable technologies including a wind turbine, photovoltaic cells (which directly convert

sunlight into electricity), a seasonal heat store and a biomass boiler to satisfy all of its energy needs.

In 2006, the EU 2006 Energy Performance of Buildings Directive will be introduced to shape the way in which the energy performance of buildings is evaluated. With this in mind, not only did Ian research the building's performance, he also looked at the directive itself and the planned UK measures to implement it, including the evaluation of buildings.

Finally, Ian used the results from the evaluation to improve the performance of the building he had studied.



This involved reducing the building's gas consumption by 50%, saving a further 42 tonnes of carbon dioxide and £3,000 pa! The higher than anticipated use of gas was actually due to an unforeseen requirement to heat the building 24/7 to satisfy security guards, so recommendations were made to provide local heating for the guards and to design security guard heating provisions into future buildings.

Since his MSc course, Ian has gone on to great things. He says,

"My reason for taking the MSc at Reading was to facilitate a career change. I had been working in IT for a city-based financial organisation when I took a general environmental course (part-time) with the Open University. From this I realised that energy, and in particular renewables generation, was the field I was most interested in so signed up for the Reading course.

During the MSc I realised I was becoming increasingly interested in the energy performance of buildings. The week after the course ended, I started work at BRE (Building Research Establishment) where I am now able to apply the academic knowledge I gained."

The 2004 recipient of the Sir Angus Paton Bursary was Benjamin Fredland of the University of Surrey. Ben explains why he became interested in environmental engineering and how the Sir Angus Paton Bursary has helped him.

"My parents are missionaries working in South Africa since 1981. My father is a medical doctor, my mother a social worker working with a children's home and AIDS



orphan care project. Both of them have also been involved in setting up and running community development projects in the rural community in which we live. Growing up surrounded by discussions of community development inspired me to become a civil engineer, always with the long-term aim of working to provide infrastructure to rural communities. I saw the effect that the provision of accessible clean water had on people's lives in our community and decided to enter that field. Up to when I was 16 I was home schooled. My mother taught me in primary school and my secondary schooling was by correspondence courses from the UK. I then moved to the UK to do my A-levels at boarding school.

For my undergraduate course I studied civil engineering at the University of Surrey, Guildford. I chose this university because of the involvement of several members of staff in water treatment and supply in

developing countries and the department's links with NGOs such as Oxfam.

As part of the Civil Engineering degree, I took a year's placement in South Africa, working for Partners in Development. While there, I was involved in the design, construction and operation of several rural water supply schemes, particularly the upgrade and extension of the Impilo/Esidumbini Community Water Supply.

While working in South Africa, I realised that I needed a deeper knowledge of water treatment processes, so chose to do the Water and Environmental Engineering MSc at the Centre of Environmental Engineering, University of Surrey.

Without the bursary I would not have been able to afford to do an MSc. The bursary covers my fees and a significant part of my living expenses for the year."

A Road to Progression

Continued professional development is something many want to engage in, but sometimes it may not seem feasible; family and work commitments can appear to preclude it. Addressing this, the Panasonic Trust Awards are aimed at assisting those who wish to undertake part-time courses to further their careers. Three recent awardees tell their stories and explain how the Panasonic Trust really made a difference.

Peter Hansen

With the support of the Panasonic Trust and my employer, Materials Engineering Research Laboratory (MERL), a leading materials R & D and consultancy company, I started a part-time MSc in Automotive Engineering Design, Manufacture and Management in September 1999. The course is based at the University of Hertfordshire with some of the modules



run by other specialist universities around the UK, and is designed around students who are working full-time. The subjects studied include the issues that face the global automotive

industry, in-depth technical design and manufacturing issues and managerial topics including corporate strategy, finance and project management.

Through studying for the MSc, my technical knowledge in automotive design and manufacturing has increased significantly and my people and project management skills have been honed too!

The course fees and time off work for study can be a significant factor in preventing small businesses such as MERL in sending students on higher degree courses. The financial support of the Panasonic Trust reduced the financial risk for MERL and enabled me to complete my studies in just over 3 years. Working full time and with a young family it was by no means easy, but I would recommend this type of study for anyone who wants to develop and broaden their skills after spending several years in industry.

Peter Hansen is Head of Testing Services, Materials Engineering Research Laboratory Limited, Hertford.

David Stewart

After leaving university I worked in the manufacturing industry for 5 years before deciding that I needed to refresh my skills and re-position their place in my career and workplace. As an engineer I have



always been profoundly interested in maintaining an understanding of technological and managerial developments and, as a result, I decided to continue my

education by enrolling on an MSc in Computer Aided Engineering Design at Strathclyde University.

Two big obstacles had to be considered before enrolling on this course however. These were time (as I was in full-time employment) and, more importantly, the overall cost as I would not qualify for a grant.

On seeking advice, I was introduced to the Panasonic Trust Awards Scheme and the funding I received from the Trust helped alleviate the financial pressure allowing me to focus more on my studies.

The course had a strong emphasis on the integration of varying technologies, the use of information technologies and on training people to better utilise data. I continue to use these skills in my ongoing activities with my current employer.

I have now completed my studies achieving a distinction, and feel this accomplishment reflects both an improvement in me and my work and can only be of benefit in my continuing career.

David Stewart is Project Engineer for Daily Disposable Contact Lens Manufacturer, Provis Ltd, Blantyre, Scotland.

John Yarnall

I have been engaged in surface engineering since 1984 and have provided technical services at both metallurgical and senior managerial level.

I am currently employed as a technical sales consultant with a leading global

provider of engineering and metal technology services based in the UK and have always been able to continue my professional development via in-house technical and managerial training to keep abreast of new technologies and management practices.



In the year 2000, I felt it necessary to increase my academic, professional knowledge of surface engineering beyond HND level. I also wanted to progress to

Chartered Engineer status to enhance my future employment prospects.

After researching the post-graduate opportunities for someone now 50 years old, I selected the University of Nottingham's IGDS MSc in Surface Design as the educational route for my professional development in surface engineering.

The main difficulty was that I could only pursue part-time study because of my employment commitments. Another difficulty was that my current employer was unable to provide financial support. Undeterred, I applied to the Mettis Aerospace Group (MAG) Ltd and to the Panasonic Trust for support. Both organisations provided funding, giving me the opportunity to successfully embark upon my MSc. Without such assistance I would not have been able to meet the necessary university course requirements.

Since gaining my Masters degree, I have been appointed to a new position with my current employer. This appointment offers the advancement and increased responsibility I have been seeking. I believe this change would not have come about without gaining my Masters degree. I will shortly be applying for Chartered Engineer registration, for professional membership with the IOM³ and have been encouraged to consider further study at PhD level.

My sincere thanks to the Academy and the Panasonic Trust.

John Yarnall is Technical Sales Consultant, Bodycote Heat Treatments (Aldridge Plant), Walsall, West Midlands.