

# Strathclyde People

SPRING 2009

**INTRODUCING OUR NEW PRINCIPAL**  
Professor Jim McDonald shares his vision

**FIGHTING BACK**  
Strathclyde responds to the recession

**HOMECOMING SCOTLAND**  
Are you coming home in 2009?



## The winds of change

Strathclyde pioneers a  
new age of renewable energy

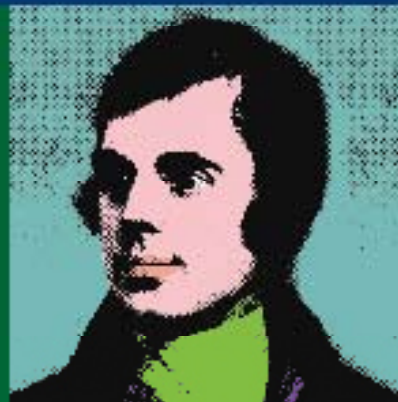


University of  
**Strathclyde**  
Glasgow

# Homecoming Scotland

2009

[homecomingscotland2009.com](http://homecomingscotland2009.com)



## Join our Celebrations

2009, Scotland's year of Homecoming, marks the 250th anniversary of the birth of our national poet, Robert Burns. We're celebrating Burns and some of Scotland's great contributions to the world: whisky, golf, great minds and innovations and our rich culture and heritage, with a programme of over 300 events across Scotland. So whether you're a Scot or you simply love Scotland there's a multitude of events and experiences to choose from throughout 2009. **Spread the word and join the celebrations!**

Register for programme updates: [homecomingscotland2009.com](http://homecomingscotland2009.com)



# contents

Welcome to the spring issue of *Strathclyde People* – and what a positive issue it is! There is a real spirit of renewal here at Strathclyde, as our new Principal, Professor Jim McDonald, outlines a bold and transformational vision for the University.



Readers of *Strathclyde People* will be particularly interested to hear that Jim is a lifelong Strathclyder, having been part of our community for the best part of three decades. Jim shares with many of our alumni a strong belief in both our distinguished history and laying the groundwork for our future success. In a special instalment of Question Time, Jim outlines his vision to turn Strathclyde into Scotland's own MIT.

Jim's plans centre on Strathclyde's international reputation for research, and this issue reveals the sizeable contribution our academics are making to solving the challenges of tomorrow's world. Fittingly for the spring issue, a green theme runs through these pages. Our cover feature explores the innovative wind and marine turbines being designed and built by our engineers, while also exploring the potential of fusion power as a source of renewable energy. Turn the page to read alumnus Graeme Waddell's views on sustainable energy, and discover the Strathclyder who helped pioneer the use of wind energy in 'It all started here'.

At the time of writing, Scotland is enjoying its year of Homecoming, and we'd be delighted to welcome you back to Strathclyde in 2009. Do get in touch to share your stories or arrange a visit.

*Rose-Marie Barbeau*

ROSE-MARIE BARBEAU EDITOR

**COVER FEATURE >>**  
"THESE ARE VERY EXCITING PROJECTS," SAYS PROFESSOR BILL LEITHEAD. HEAR HOW STRATHCLYDE IS SPEARHEADING THE DRIVE FOR RENEWABLE ENERGY. (P16)



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"WE ALL NEED TO MAKE SURE THAT SCOTS HOME AND ABROAD GET THE MESSAGE" (P12)



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## The view from here



## Graeme Waddell wants to bring business sense to the green energy debate. And with the launch of Energen Biogas, he is putting his money where his mouth is

"If you stopped someone in the street today and asked them what 'AD' means, they would probably say 'anno domini' – or give you a blank look. But if you ask the same question in two or three years' time, I believe the story will be very different. AD (or anaerobic digestion) is already big on the Continent and could make a valuable contribution to the demand for renewable energy here.

So what is AD? The short answer is that it's a process by which micro-organisms break down biodegradable material and generate energy. Or to put it another way, it's a relatively simple way of turning organic food residues into heat and electricity. I'm involved in a family business called Energen Biogas that plans to develop this technology across Scotland. We've received support from the Scottish Government to establish a site at Cumbernauld and it is our intention to roll out more sites nationally.

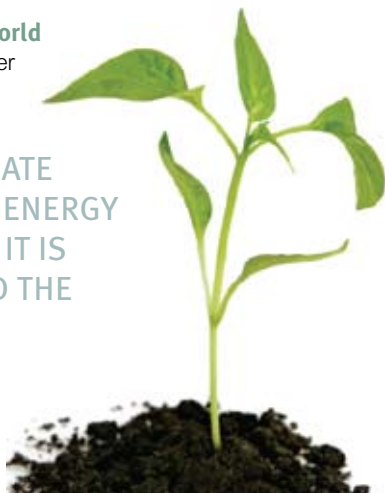
But the concept doesn't stop there. The idea at Cumbernauld is that we will open a Research & Development facility to develop sustainable crop-growing initiatives for a glasshouse environment. The electricity we generate from the anaerobic digestion can be supplied to the National Grid while the heat generated by the process will enable us to grow a range of salad and food products wherever we site our glasshouses. Say, for instance, that we were to grow crops of peppers in the glasshouses and supply them to the supermarkets. These would be Scottish-grown peppers, produced using natural, renewable energy with almost zero footprint in terms of transport – particularly compared to peppers imported from overseas.

But if AD is so fantastic, you may wonder why more people aren't involved in the UK. There are probably two reasons. Firstly, there haven't been enough financial incentives to take the plunge – although the Government's green agenda has now changed that. Secondly, planning can be a complex process although in our experience North Lanarkshire Council has been very good to work with on this. In the current climate, there are now far stronger financial incentives and moves towards greater flexibility in the planning process. This technology is not new and the UK has been left trailing by many countries in terms of latching on to what it delivers. We intend to change this.

### We live in a competitive world

The vast majority of my career to date has been spent at

I MAY FEEL PASSIONATE ABOUT RENEWABLE ENERGY BUT I ALSO BELIEVE IT IS ESSENTIAL TO BUILD THE BUSINESS CASE



## BIOGRAPHY

Graeme Waddell is a member of the Scottish Enterprise Board and a Director of Energen Biogas. He is a former Business Director of Rolls-Royce Aero Repair and Overhaul, responsible for leading 1,000 people at the company's East Kilbride plant. He is also a Fellow of the Royal Aeronautical Society and holds an MBA from the University of Strathclyde.

Rolls-Royce. I worked my way up from the shop floor to become a Director at East Kilbride. Because of the journey I've been on, I'm keen to encourage people to develop skills and to make the link between training and productivity. That's why I devote a lot of time to interests such as Scottish Enterprise and the Skills Committee of the Scottish Funding Council. However, I also come to renewable energy with a firm business perspective, which is why I like the research-led, practical focus of the University of Strathclyde, where I gained my MBA.

Some people are evangelical about green energy and that is admirable but we live in a competitive world. I may feel passionate about renewable energy but I also believe it is essential to build the business case for what we are doing.

The Scottish Government is very keen on forms of renewable energy to help replace nuclear energy. Yet when the Cockenzie and Torness nuclear power stations are decommissioned it will leave a huge gap in Scotland's energy supplies. At the same time, the Scottish Government is aiming for 31% of our energy to come from renewable sources by 2011 and 50% by 2020. I'm not sure if that is possible without nuclear power. If the nuclear power debate is focused on dealing with the waste, let's discuss it in the context of our overall energy needs. I don't know what the answers are but I would like to see a more open and transparent debate.

### West of Scotland boy

I left Rolls-Royce just under a year ago. Rolls-Royce was and still is a great global company. When people ask why I left, I explain that I'm a West of Scotland boy and always will be. My wife and I have lived in the same house for 25 years and I was born just up the road. When I was still at Rolls-Royce, my wife and I realised that if I didn't move with the job (perhaps to Canada or England), then I probably wouldn't be able to stay at Rolls-Royce. So I parted company with the job rather than the place. This is where my family, my friends and my network are. It's where I belong. ■

DISCLAIMER: 'The view from here' is an opinion piece and therefore subjective by nature. The opinions expressed here are not necessarily the views of the University of Strathclyde and the University does not take responsibility for any errors or misleading statements.



## STRATHCLYDE PRINCIPALS GIVE TO UNIVERSITY

Strathclyde's new Principal, Professor Jim McDonald, and his predecessor, Professor Andrew Hamnett, have both made significant gifts to Strathclyde.

In making this commitment, the Principals are joining a growing community, including former Principals, Emeritus Professor Sir John Arbuthnott and Sir Graham Hills, by supporting Strathclyde in this way.

Professor McDonald, a three-time Strathclyde graduate, has made his donation to extend the Scholarships Fund to enable gifted students from the Western Isles to study at Strathclyde. Professor Hamnett's gift will go to the campaign for a new organ for the Barony, the venue for graduation ceremonies and other prestigious events on campus.

## REACHING OUT TO BUSINESS

The 2009 Strathclyde Expo event attracted hundreds of people from across Scotland. Held on 20 February in Glasgow's Royal Concert Hall, Expo '09 highlighted the many ways in which the University can help businesses grow.

The event, opened by Secretary of State for Scotland Jim Murphy, showcased the wide range of support, advice, research, consultancy and training opportunities offered to the business community by the University.

University staff were on hand to offer advice about technology licensing opportunities, funding for research projects and student and postgraduate placements to help solve specific business issues. The event also included an exhibition and a series of workshops on how businesses can gain support and advice from the University throughout and after the economic downturn.

"The University is committed to working with the business community and the Expo offered a great platform to showcase the kinds of support we can offer," said Alasdair Mackay, Head of the University's Business Development Service at Research and Innovation. "It was fantastic to see so many people at the event and the feedback we have received has been tremendous."



[WWW.STRATH.AC.UK/STRATHCLYDELINKS](http://WWW.STRATH.AC.UK/STRATHCLYDELINKS)



## EUREKA!

### NEXT GENERATION X-RAY

Strathclyde scientists have won a hat trick of awards for the creation of an infrared imaging system which they hope could one day replace dental x-rays.

Professor John Girkin and Dr Simon Poland of the University's Institute of Photonics are part of a team which won the overall Dentistry and Oral Health Innovations Award, the Best Diagnostic in Dentistry and Oral Health Award and the NHS Technology Innovation Award.

The judges said they were "highly impressed" by the potential of the technique, which uses infrared light to produce images similar to those produced by x-rays.

The team now aims to explore the potential medical applications.

It is hoped the new system could be adopted in paediatric dentistry, allowing orthodontists to take frequent x-rays of children's teeth without the complications of ionising radiation.

"One of the most important aspects of this work is that this has been, very definitely, a development between optical physicists and dentists," said John. "They have knowledge of what is needed; we have the toolbox, and we mixed and matched and put tools together. We couldn't have done it alone."



## STRATHCLYDE'S MALAWI SUPPORT STRENGTHENED

Strathclyde is the only university to have secured two grants in the latest round of Scottish Government funding for sustainable growth projects in Malawi. The grants, which amount to £320,897, fund two projects run by Strathclyde in partnership with the University of Malawi.

The first of these projects was launched by the Department of Electronic & Electrical Engineering in 2008, and generously supported by the Alumni Fund, which contributed £3,500. The project provides solar power and lighting to schools in rural Gambia, and also sees the opening of a malaria screening lab.

The second project provides computers and assistive software to blind and visually-impaired learners in primary schools and teacher training colleges across the African nation, as well as training staff at Montfort Teacher Training College to train others to use the technologies.

Solar energy is just one area of renewables in which Strathclyde's Faculty of Engineering has considerable expertise – and the support of the Alumni Fund is crucial in ensuring its continued success. Read more about engineering renewables in our cover feature on pp16-21.



David Snyder | Dreamstime.com

## IN BRIEF

### STRATHCLYDE ALUMNUS DELIVERS STONE LECTURE

One of Scotland's most acclaimed contemporary writers delivered the Alexander Stone Lecture in Rhetoric at the University in January. Award-winning author, Strathclyde alumnus (and Honorary graduate) Dr Andrew O'Hagan spoke on the universal messages in Robert Burns' poetry and how Burns' songs not only reflected the world in which he lived but also themes of humanity and brotherhood which still resonate today.

### FIGHTING MISCARRIAGES OF JUSTICE

Student journalists at Strathclyde have set up Scotland's first Innocence Project, a branch of a support network for prisoners claiming miscarriages of justice. Students in the Department of English Studies have established a group within the Innocence Network, an international organisation which campaigns for redress in cases of alleged wrongful conviction. They were inspired to get involved after studying, on their MSc course in Investigative Journalism, cases of people jailed for crimes they did not commit.

### UNDERSTANDING BRIDGING FINANCE

A study into the UK's little understood business-based property bridging finance market has been launched by the University in association with Munro Bridging Finance of Glasgow. Despite forming a significant part of the UK lending market, bridging finance is under-researched, and has been described as the 'unknown relative' of the sector.

## ONE TO WATCH

A crime novel by a Strathclyde alumnus launched this March to rave reviews, with one critic at the *Daily Mail* recommending: "If you read just one thriller this year, make it this one."

*Daisy Chain*, the first novel of Gary Moffat (also known as GJ Moffat) went straight into the *Herald's* top 10 books at number eight, and at the time of writing is book of the month at both Waterstones and Borders.

Gary is a former Strathclyde law student and partner in law firm Burness. His Strathclyde roots are clear in the book, which is set in Glasgow and features a Strathclyde alumnus as the main character.



## COULD WORMS HOLD THE KEY TO TREATING ARTHRITIS?

SCIENTISTS AT THE STRATHCLYDE INSTITUTE OF PHARMACY AND BIOMEDICAL SCIENCES EXPLORE NOVEL NEW ANTI-INFLAMMATORY DRUG

It sounds like the type of treatment favoured in medieval times, yet Strathclyde's research into a substance secreted by parasitic tropical worms is at the cutting edge of modern science.

Parasitic filarial nematode worms secrete a large molecule called ES-62, which has anti-inflammatory properties. Scientists at the Strathclyde Institute of Pharmacy and Biomedical Sciences and the University of Glasgow are working together to produce a synthetic derivative of ES-62.

The applications of ES-62-derived drugs are potentially enormous. The team believes it can provide effective treatment for diseases such as rheumatoid arthritis, and in future correct a whole range of other auto-immune inflammatory diseases. This can be achieved through 'fine-tuning' specific types of inflammation with cocktails of several ES-62-derived drugs.

William Harnett, Professor of Molecular Immunology at Strathclyde and overall leader of the ES-62 project, said: "We will be focusing on mechanisms of combating hyper-inflammation that have developed naturally and with apparent acceptance by humans during their co-evolution with parasites."

## ONE STEP CLOSER TO SCOTLAND'S FIRST SATELLITE

STRATHCLYDE ACADEMICS JOIN FORCES WITH CLYDE SPACE TO DEVELOP INNOVATIVE MICRO-SPACECRAFT

Think space engineering and it's generally the USA, Russia or France that spring to mind. Yet a new collaboration at the University of Strathclyde may be about to put Scotland on the map.

Academics in Strathclyde's Department of Mechanical Engineering are working with Glasgow space firm Clyde Space to develop advanced micro-spacecraft. There is a range of potential applications, including increasing mobile telecommunications capacity, but the team ultimately hopes to use the knowledge and skills from the partnership to build and launch Scotland's first satellite. The aim is to create flexible, low-cost, low-mass spacecraft that could be sold as a complete unit or as off-the-shelf components for other satellite developers.

The project is funded by a Knowledge Transfer Partnership from the Science and Technology Facilities Council. It's the latest in a series of awards for Strathclyde space research, with Professor Colin McInnes of the Department of Mechanical Engineering recently being awarded €2 million from the European Research Council to continue his pioneering space research.

"Scotland has become a major player in the space arena, and we'll be doing even more in the future," said Colin.

## STRATHCLYDE TO OPEN WIND ENERGY CENTRE

Thanks to a proposal hailed as "outstanding" by the Engineering and Physical Sciences Research Council (EPSRC), the University of Strathclyde has won funding for the creation of a Wind Energy Systems Centre.



Professor Bill Leithead





Professor Colin McInnes

In creating a centre for excellence in wind energy, Strathclyde is nurturing the engineers of tomorrow – engineers who will be crucial in helping the UK to meet its ambitious renewable energy targets.

The Wind Energy Systems Centre will bring together pioneering research and advanced training, addressing the skills shortage in the sector and developing the UK's global position in the field.

The £5 million EPSRC funding will create 50 PhD studentships, split into intakes of 10 each year for five years. Students will become technical experts as well as studying the broader social, political and economic contexts of wind power.

The Centre will draw on expertise from across the University, and will be based at the Department of Electronic & Electrical Engineering's internationally renowned Institute for Energy and Environment. Strathclyde has one of the largest academic centres of electrical power and energy expertise in Europe.

Professor Bill Leithead, Department of Electronic & Electrical Engineering, said: "Wind power has a pivotal role to play in the fight to tackle climate change and reduce CO<sub>2</sub> emissions. This funding will play a key role in generating the highly skilled professionals needed to meet the energy challenge."

## STRATHCLYDE ENTERPRISE CHALLENGE

TOGETHER CREATING SUSTAINABLE VENTURES

Organised by Strathclyde Entrepreneurial Network (SEN)

### ARE YOU A STRATHCLYDE ALUMNUS?

### DO YOU HAVE A BUSINESS IDEA OR ARE YOU ALREADY RUNNING A BUSINESS?

### WOULD YOU BENEFIT FROM ACCESS TO INVESTORS, ENTREPRENEURS AND BUSINESS EXPERTISE?

If so, this challenge is for you.

Now is your opportunity to work with SEN. The deadline for applications is 19 June 2009 and chosen candidates will be announced by 6 July 2009.

Three Challenges are open for applications:

#### Creation Challenge

Outstanding candidates will be given three months, £500 and access to SEN business support to:

- Create a comprehensive business plan
- Develop a presentation based on their business plan
- Deliver the presentation to top business tycoons

The Challenge Champion will be announced at the University's Enterprise Awards in November and will receive a customised programme of support from a qualified and experienced executive coach from the Centre for Executive Education in Strathclyde's world-leading business school.

#### Investment Challenge

Outstanding candidates will be given three months, £1,000 and access to SEN business support to:

- Create an investor-ready business plan
- Deliver a pitch to a panel of investors

The Challenge Champion will be announced at the University's Enterprise Awards in November – and will receive the Braveheart Ventures Investment Trophy.

#### Growth Challenge

Applications should be made online with a two-minute video outlining how engaging with the University could help grow the business. The Challenge Champion will receive a bespoke e-commerce package to the value of £2,000 provided by established SEN clients.

● READ MORE ABOUT STRATHCLYDE'S EXPERTISE IN RENEWABLE ENERGY IN OUR COVER FEATURE ON PP16-21

● FULL INFORMATION AND TERMS AND CONDITIONS CAN BE FOUND AT: [WWW.STRATH.AC.UK/ENTERPRISECHALLENGE](http://WWW.STRATH.AC.UK/ENTERPRISECHALLENGE)

## SCHOLARSHIP LAUNCH FROM PÖYRY

One of Scotland's most far-reaching scholarship schemes has been launched by global engineering and consultancy firm Pöyry.

The company has entered into a £140,000 initiative with the University of Strathclyde, University of Aberdeen, Robert Gordon University, University of Edinburgh, Heriot-Watt University and Banff and Buchan College to award a range of engineering and business management scholarships.

Steve Fogg, President Oil and Gas Europe at Pöyry, said: "There is a huge wealth of young talent in our universities and colleges throughout Scotland. If we are to ensure a vibrant and sustainable energy industry in the UK, it's vital we support these rising stars.

"Young people in the north east of Scotland are aware of the fantastic

opportunities that exist within the oil and gas sector but it's not something students in the Central Belt instantly consider. We were very keen to raise awareness of the great careers that exist within the industry to people throughout the whole of the country."

The university scholarships will be awarded between 2009 and 2013 to Strathclyde students who are studying for an MEng in Chemical Engineering. The Pöyry Engineering Scholarship will be open to third-year students who will receive £2,000 each year until they graduate.

Carl Schaschke, Head of the Department of Chemical and Process Engineering at the University, said: "We are delighted that Pöyry is providing students of chemical engineering at Strathclyde with scholarships. Investing in the Department through the scholarship

programme is a clear indication that the skills and competencies of our students and graduates are highly valued. This is an excellent partnership between the Department and Pöyry, which is a global expert in consulting and engineering in a wide range of industries."

With headquarters in Helsinki, Finland, Pöyry is a world leader in the energy sector and Europe's leading provider of energy-related management consulting services. Pöyry is active in hydropower, renewable energy, power and heat and oil and gas. It covers five industry sectors: Energy, Forest Industry, Transportation, Water & Environment and Construction Services.



## GOING FOR GOLD

Researchers at Strathclyde are investigating hydrodynamics in a project that could benefit the Great Britain team at the London 2012 Olympics.

Aimed to help competitors in rowing and canoeing, the Engineering and Physical Sciences Research Council-funded scheme is a collaborative effort between Strathclyde's Department of Naval Architecture & Marine Engineering (NA-ME) and the University of Southampton. It is based at the Acre Road Hydrodynamics Laboratory at Strathclyde.

The research team has already completed two key projects. The first applied innovative engineering techniques to examine the effect that the acceleration and deceleration of the hull has on the drag of rowing shells as a competitor rows. For the second project, the team used motion capture technology, similar

to that used in the film animation industry, to map out the motion of a canoe paddle used by a human athlete. They then designed and built a robot to replicate this motion, allowing in-depth study of the paddle performance and which should lead to improved paddle design.

"The margin between success and failure in many Olympic events is often very small," said Dr Sandy Day of NA-ME. "In Beijing, for example, there were 18 rowing crews within half a per cent of the speed of the gold medal-winning boats.

"These studies show that a science-based approach can offer the potential for performance increases in rowing and canoeing through improved design, just as it already has in track cycling. We are now seeking further funding to apply the ideas developed directly to the design of equipment for the 2012 games."

# YOU MADE IT HAPPEN.



## INSIDE RUSSIAN PRISONS

A Strathclyde academic is to lead the first-ever study into the role of distance in the punishment of women in Russia.

Dr Laura Piacentini, Reader at the Law School, is working alongside geography academics from the Universities of Oxford and Birmingham to assess the treatment of women prisoners in the modern Russian penal system. The research, which is funded by the Economic and Social Research Council, aims to determine whether sending women to prisons far from home is a continuing legacy of the Soviet era. The group will also examine the economic value of prisons in Russia and the effect which they have on the landscape surrounding them.

The study forms the latest phase of Laura's research into the prison system in contemporary Russia and how far jails have changed since the collapse of the USSR in the early 1990s. Laura previously found that while Russia as a nation had made huge strides in penal reform, the system remained under-resourced and many of the officers working within it had found it difficult to adapt to post-Soviet ideology.

## A TRANSFORMATIONAL GIFT FROM STRATHCLYDE ALUMNUS AND ENTREPRENEUR DR JIM HAY HELPS £8M CAMPAIGN FOR DRUG DISCOVERY INSTITUTE SAIL PAST ITS HALFWAY MARK

Dr Jim Hay describes his education at Strathclyde as having provided "a fantastic discipline of scientific analysis which could be applied anywhere". Indeed, after completing his BSc and PhD in Applied Chemistry, Jim went on to forge a highly successful career at BP, where he worked for 27 years. In 2002, he decided to pursue his ambition to run his own company, and JMH Group was born. Today, it's run as a private business with a turnover in excess of \$600 million.

So it was with interest that Jim read former classmate Dr Keith Beard's article in a previous issue of *Strathclyde People*, which explained Keith's motivations for giving something back to the University. The two men arranged to meet up and were reunited over a fishing trip some 36 years after they had first studied together.

Jim was keen to lend his support for the Strathclyde Institute of Pharmacy and Biomedical Sciences, and decided to make a substantial donation. The Institute's School of Pharmacy already enjoys an excellent reputation – ranked second in

the UK – and Jim's gift will help the Institute to deliver further success in years to come. "The project sounds very exciting and a major step forward for Strathclyde," says Jim. "It should bring long-lasting benefits to not only the University but also the community at large. It is probably overdue that I put back something into the country of my birth. I benefited from an excellent education, with Strathclyde giving me the platform that has allowed me to gain some success in the business world."

Jim, who is now based in Dubai, paid the University a visit with his wife and two daughters this April, to enjoy a trip down memory lane and explore the work of the Institute. The support of charitable trusts, foundations and generous alumni such as Jim has brought the Institute's fundraising total up to £4.2 million. However, there is still more to do.



RIGHT Strathclyde Principal, Professor Jim McDonald (left), welcomes Dr Jim Hay

IF YOU WOULD LIKE TO HELP, PLEASE CONTACT NUALA BOYLE AT [NUALA.BOYLE@STRATH.AC.UK](mailto:NUALA.BOYLE@STRATH.AC.UK) OR +44 (0)141 548 5917



Madam Zhang Wen Lan, Vice Governor, People's Government of Huadu District with Deputy Principal Professor Jim Love at an event promoting the scholarships

## HOPEWELL SCHOLARSHIP FUND LAUNCHED

Sir Gordon Wu, Chairman of the international firm Hopewell Holdings, has established a £500,000 scholarship endowment to enable more Chinese students to study at Strathclyde.

Students who have been educated at a high school in Sir Gordon's home district of Huadu, near Guangzhou, are eligible to apply for scholarships, with the first award to be made this year. The Hopewell Scholarship Fund will enable students to

study for four years at undergraduate level in any discipline, though a preference will be given to those interested in studying engineering.

Strathclyde awarded Sir Gordon an Honorary degree in Business Administration in 1994 for his outstanding work in business. His company, which is listed in Hong Kong, has a wide portfolio in areas including construction, property, hospitality and transport.



# Calling all **SCOTS** (home and away)

Now is the time  
to return home  
to Scotland, as  
celebrations kick off  
across the country

Scotland's international reach is legendary, with more than 28 million people across the globe claiming direct Scottish descent. This Scottish diaspora is made up of the engineers, scientists and educators – and indeed Scots from all walks of life – who emigrated in their thousands as Britain strengthened its empire. They made their mark on all areas of modern life, establishing the principles of the Enlightenment that endure to this day.

This mass emigration was balanced by an influx of Irish, Poles, Lithuanians, Jews and Italians in the 20th century, and Scotland continues to offer a warm welcome to people of all nationalities. It is this melting pot of cultures and influences that leads historians such as Strathclyde alumnus Professor Tom Devine to good-humouredly characterise Scotland “a mongrel nation”.

Homecoming Scotland 2009 celebrations are now in full swing across the country, and have captured the imagination both of Scots at home and so-called 'Affinity Scots' – people who feel a deep connection to Scotland and its people. Speaking at the launch, First Minister Alex Salmond said: “This is an invitation to connect with Scotland's past and future on a scale never seen before. Now we all need to make sure that Scots at home and abroad get the message.”

### Strathclyde's International Genealogy Festival

As a Scottish university with a large international population (currently 16% of its student body) Strathclyde is certainly playing its part in spreading the word. “The University of Strathclyde was one of the first to declare an event for Homecoming, back in 2006,” says Dr Bruce Durie,

Course Director of Genealogical Studies in the Centre for Lifelong Learning. “This has now come to its full flowering in the International Genealogy Festival to be held at Strathclyde from Tuesday 21 to Friday 24 July 2009 – happily sitting right between the Open Championship at Turnberry and The Clan and Family Gathering in Edinburgh.”

The Festival, which was conceived and created by Bruce, features exhibits, records and services from Family History Societies both home and abroad. It has won support from a number of national heritage bodies, including the General Register Office for Scotland and its spin-off, ScotlandsPeople, the National Archives of Scotland and the National Archives in England, where a great many Scottish-related records are kept.

“The Festival is designed to appeal to ‘Blood Scots’ – those with ancestral links back to the home country – and ‘Affinity Scots’, who feel an affinity with the nation and its culture,” says Bruce. “However, it will also be popular with locals who are interested in discovering how the Scots managed to spread themselves to every corner of the world – and ended up running much of it!”

In addition to launching the Festival, Strathclyde is the first university to offer a professional postgraduate qualification in genealogy, family history, heraldry and related subjects. Offered by the Centre for Lifelong Learning, the PGI (postgraduate instructional) courses are delivered via LearnOnline to a widely dispersed audience of students – more than half of them outwith Scotland.

With such a range of interesting activities springing to life in the Homecoming year, Scots and Affinity Scots around the world are taking the opportunity to rediscover their roots. ■

## WHAT'S ON?

WHEN: 21-24 July 2009

### Workshops

Visitors to the Festival can attend an inspirational series of genealogy workshops accompanied by ‘Ask the Expert’ sessions

### Go for a wander

Discover more about historic Glasgow and the Necropolis by joining one of the tours

### Whigmaleery

The main exhibition and fair (dubbed ‘The Whigmaleery’) takes place in the Assembly Hall at the Royal College. Heraldry will form the subject of one of the exhibitions, and there will also be an exhibition of Helen Tooker's Genealogical Art, which was recently donated to the University of Strathclyde.

### Lectures

The festival will feature a full programme of lectures, including Dr Marjory Harper on Scots in New Zealand, Dr David Dobson on the earliest Scots in America, Dr Eric Graham on the slave trade and lots, lots more

### A good Scottish knees-up

Celebrations include whisky tasting on 21 July, a comedy night on 22 July and a Ceilidh in the Barony Hall on 23 July

FOR MORE INFORMATION ON THE FESTIVAL, VISIT [WWW.STRATH.AC.UK/HOMECOMINGSCOTLAND](http://WWW.STRATH.AC.UK/HOMECOMINGSCOTLAND)

READ ABOUT THE HOMECOMING AT [WWW.HOMECOMINGSCOTLAND2009.COM](http://WWW.HOMECOMINGSCOTLAND2009.COM)

## DID YOU KNOW?

- 1 Scotland has the most comprehensive and most accessible set of records on the planet. Many of these are available online from [www.scotlandspeople.org.uk](http://www.scotlandspeople.org.uk) and [www.nas.gov.uk](http://www.nas.gov.uk)
- 2 Someone alive today could potentially have had over a million ancestors in 1560 – more than the population of Scotland at the time. Does that mean we're all related?
- 3 Up to one third of Scots who emigrated (or their children) are thought to have since returned home to Scotland.

## DR BRUCE DURIE

A genealogist with an international reputation, Dr Bruce Durie is best known for his two radio series for BBC Radio Scotland – *Digging Up Your Roots* and *A House With A Past*. Bruce's latest book, *Scottish Genealogy*, sold out twice at the *Who Do You Think You Are?* show in London at the end of February, and his talks there were delivered to capacity audiences.

## THE RECESSION:

# Strathclyde fights back

As the turbulent state of the world economy continues to dominate the headlines, Strathclyde is not wasting time fretting. Instead, it's sprung into action

**A**sked how the 'r' word is impacting on employment opportunities for Strathclyde's graduates, Barbara Graham, Director of the University's Careers Service is unfazed. "I've been here since 1974," says Barbara, "and I've seen recessions before. They are part of the natural economic cycle, though it seems that we may take longer to come out of this one."

In common with many economic commentators, Barbara believes that the endless media gloom has fed the fire. In fact, she says, graduate prospects have not been hit as hard as reports suggest. The Scottish branch of the Association of Graduate Recruiters recently met at Strathclyde and revealed that although figures are down, they are not disastrous. Its survey of 245 graduate recruiters showed a 5.4% drop in the number of vacancies available. "These figures are far from catastrophic," says Barbara. "In fact, the engineering sector is bucking the trend, with an expected 8.3% increase in available jobs – good news for one of Strathclyde's strongest faculties."

It's actually in student attitudes that Barbara is seeing the biggest impact of the recession. "Students are picking up so much doom and gloom in the media that some seem to be sticking their heads in the sand," she says. "My colleagues in university careers services across the UK are spotting the same trend – a defeatist attitude is preventing too many from taking advantage of the range of services we have set up to support them."

### A survival guide

Strathclyde's Careers Service has indeed been quick to react. Its seminar programme 'Surviving the Recession' advises job seekers on how to be creative in their job search and ensure their applications and interviews are a success. As part of the same programme, it's also working with the Students' Association to develop a series of panel sessions where employers and careers advisers are on hand to answer students' questions. It's a venture that has enjoyed the support of key graduate employers such as Enterprise-Rent-A-Car, Deloitte and JP Morgan. In the early summer, the Careers Service plans to run job search workshops for 2009 graduates.

"We're trying to help students understand the labour market and how to maximise the opportunities that are out there," says Barbara. "They need to learn to look outside the vacancy section of papers and think about how they can develop a more proactive job search strategy."

Taking its own advice, the Careers Service is itself working proactively to engage with a higher number of employers. It's systematically working through its substantial database of employers, updating its 3,000 key contacts and encouraging people to get in touch. "We have flushed out many more opportunities by making the first move instead of waiting for vacancies to come to us," says Barbara. "The message these companies are passing on to us is clear: 69% tell us the best thing a student can do to boost their

career prospects is to get relevant work experience, and to get it early.”

To that end, faculties across the University have set up a number of eight-week summer research internships within administrative and academic departments at the University. Of course, all this activity sits well with Strathclyde’s wider ethos as ‘the place of useful learning’ – an approach that has never been more valuable.

The University is currently working to create a framework of graduate attributes, which aims to answer the question ‘What do Strathclyde graduates offer employers and society?’ The framework has identified that Strathclyde students can expect their education to develop their ability to enquire and innovate, encourage an international outlook and boost collaboration skills. Personal skills such as confidence, self-awareness and integrity will also be nurtured during a student’s time at Strathclyde.

“There is not a culture of arrogance or complacency here,” says Barbara. “In fact, many of our students don’t realise just how good they are. We hope the framework will encourage them to know their own strengths and articulate those in their job applications.”

### Business support

Of course, on the other side of the coin is the Careers Service’s role in supporting employers themselves. The appointment of Hazel McAllister as Employer Engagement Adviser is an important step forward. Part of Hazel’s role will be concerned with promoting the University’s business services to employers.

Reaching out to small and medium-sized enterprises (SMEs) in particular is a priority, as this sector is not only more vulnerable to the effects of the credit crunch but is also harder to reach. The University’s relationship with Scottish Enterprise and Glasgow Chamber of Commerce is useful in this respect and the Strathclyde Links project team in Research & Innovation plans to provide business services to some 50 SMEs in the next three years. One successful example is that of Dumbarton-based Architectural Glazing Systems, which is working with the University on data capture systems to enable them to expand without over-stretching their resources. Another is the recruitment of a Research Technologist by the University’s Institute of Photonics, whose expertise can be utilised by fledgling life sciences companies.

By keeping one step ahead of the changing climate, the Careers Service is ensuring that it will be well prepared for the economic recovery. And how will the recovered jobs market look? “Competitive,” answers Barbara. “But our graduates are well-equipped to take it on.” □

## LIFELONG SUPPORT

Strathclyde’s Careers Service offers lifetime support to alumni through a vast range of services (see address below). Other useful resources include [www.strath.ac.uk/sen](http://www.strath.ac.uk/sen), [www.strath.ac.uk/s100](http://www.strath.ac.uk/s100) and the official University of Strathclyde group on LinkedIn.

[WWW.STRATH.AC.UK/CAREERS](http://WWW.STRATH.AC.UK/CAREERS)



# Question TIME

Taking the reins as Principal, lifelong Strathclyde **Professor Jim McDonald** shares his ambitious plans to position Strathclyde as an internationally leading technological university

**Q** How does it feel to be Principal?

**A** Very exciting. It's a real privilege because I'm a Strathclyde through and through. While I spent eight years in industry, throughout that time I was almost constantly a registered Masters and PhD postgraduate student at Strathclyde. There's been a virtually uninterrupted connection since I was 17.

**Q** What changes have you seen?

**A** I have seen Strathclyde move from being a relatively young university – albeit with a history dating back to 1796 – to one taken seriously nationally and internationally in terms of our academic outputs, our teaching programmes and the calibre of our students. In recent years Strathclyde has increasingly lived its strapline of 'useful learning', connecting research and education through knowledge transfer to make an impact on modern society. Reaffirming those core ambitions is something a new Principal should be thinking about, but hopefully it's all the more credible coming from someone



who's been in Strathclyde for most of his professional life. I take the stewardship responsibility very seriously.

**Q What have been the University's greatest achievements in recent years?**

**A** The position our Business School has attained in terms of international leadership is something in which I have great pride. Our Engineering Faculty is the biggest and best in Scotland for research power, and rates top five in the UK for some of its disciplines. The Science Faculty has gone through significant restructuring, with the emergence of the Strathclyde Institute of Pharmacy and Biomedical Sciences representing a major platform for achieving greater impact on the international research stage. In the social sciences area, both the Law School and English Studies department are performing at high levels of output, while education is a national leader. We have much to be confident about and aim for.

**Q Under your leadership, how will the University capitalise on its strengths?**

**A** Strathclyde needs to become an unambiguously recognised internationally leading technological university. This reflects the ambition of Sir Sam Curran, our first Principal. He, like me, wanted to see Strathclyde become Scotland's MIT. We clearly have strengths in engineering, science and business, but I expect us to also have strong, appropriate social sciences, arts and humanities.

**Q How is the Strathclyde community engaging with that vision?**

**A** It's clear that people are beginning to buy in not only to the technological university vision but also to what I call the 'one Strathclyde' approach to building on our opportunities. For example, it's of particular importance that Strathclyde's student body engages with this exciting direction of travel. I intend to communicate directly with students and I want to hear their voices. I'm genuinely looking forward to these discussions – they're often some of the most challenging and insightful parts of university life. Those students of course become alumni and, as a Strathclyder myself, I know how passionate we can be about the University and its future. I hope to draw on that enthusiasm to bring the alumni community behind what we are trying to do. Our alumni embody the University's values – they are energetic, enterprising and results-focused. They also represent constituencies the University must

## OUR ALUMNI EMBODY THE UNIVERSITY'S VALUES – THEY ARE ENERGETIC, ENTERPRISING AND RESULTS-FOCUSED

serve well if we are to succeed. They are employers, research partners, benefactors, parents of future students. As good friends – critical when they have to be – I believe they can help us ensure Strathclyde truly delivers to society.

**Q What are your priorities?**

**A** The recent Research Assessment Exercise saw Strathclyde marginally exceed its anticipated performance at four- and three-star level. However, the overall distribution of performance is not what I will require in taking this University forward. As a result, we'll be taking more strategic decisions about the focus of our investments to re-profile Strathclyde. We're developing an institutional strategy for pursuing research excellence, and while we will reflect on what we've achieved, it's important to look forward to what we're going to (and must) achieve over the coming years. It's time to grow our competitive edge. The successor to the RAE, the Research Excellence Framework, is well underway. It is crucial that we profile and position Strathclyde to produce high-quality research outputs well in advance of the next national assessment. We must pursue plans to further increase the quality of our student intake, enhance their education experience and offer them additional employability support. Our emerging strategy to produce the 'Strathclyde graduates for the 21st century' will be advantageous for all our students.

**Q How important is collaboration with other organisations?**

**A** Crucial – we already enjoy major partnerships with other high-quality universities. Our research pooling involvement in Scotland is significant and is enhancing greatly our ability to grow research and attract funding. Our global profile is expanding in China, India and Europe; recent highlights include research programmes involving CalTech, Stanford, MIT, Rice and Texas A&M in the US. Internationalisation is also fundamental to our success. That means higher quality programmes embedding internationalisation in our values. It means working with national and international partners that reflect our ambitions and developing relationships with universities and organisations that are both internationally leading and challenging. Even in these difficult economic times, Strathclyde is attracting valuable, strategic

collaborations with organisations that value innovation and high-calibre graduates. National and international governments recognise the strategic place for higher education in developing sustainable economic growth, and Strathclyde's 'useful learning' values are more relevant now than ever. We have recently been successful in attracting major funding in support of our Knowledge Exchange activities. Our reputation for effective working with business, industry and the public sector demonstrates our great potential for pursuing 'excellence with impact'. As one of our history professors recently expressed it to me, Strathclyde is offering 'applied Enlightenment'.

**Q Describe your leadership style.**

**A** I'd say it's communicative. I'm someone who builds high-quality teams and empowers them to deliver against well-defined objectives. People who work with me tend to stay with me because I'm a great believer in giving them opportunities to develop their careers. In addition to being Principal, I intend to maintain my research involvement, ensuring that staff are confident I understand what a research-led institution is all about.

**Q What is the best piece of advice you've been offered in your professional career?**

**A** When I was a young lecturer, a former Principal of this University told me to select the very best people, give them the plan and the resources they need, then keep your hands off them. I am also a great believer in the importance of personal integrity and transparency in all that you do.

**Q How do you relax outside work?**

**A** As I have spent most of my life in Glasgow, I have a big network of friends and family who will be enormously supportive for me going forward. My interests range from theatre and cinema to sport. I particularly enjoy football and golf and, with my wife, supporting my children's sports. My twin daughters are studying engineering at Strathclyde and play hockey for the University, and I have an 11-year-old son who's a sports fanatic. These interests quickly fill my weekends! ■

● E: CORPORATECOMMS@STRATH.AC.UK



# The future's green

As the Government presses towards its ambitious renewable energy targets, **Nicola More** meets the Strathclyde academics at the vanguard of the green revolution

**G**lasgow is known internationally as a city of engineering, its reputation dating back to the golden age of Clyde shipbuilding. At that time, Glasgow was at the centre of an exciting industry that was breaking new ground and building empires. Today, the city is once again pioneering modernity through its engineering prowess. With the UK Government aiming to produce 15% of its power from renewable sources by 2020, research and development is progressing rapidly on wind turbines and other green technologies. And the University of Strathclyde has been the most successful university in obtaining research funding from a new £1.1 billion fund to revolutionise energy production.

The Energy Technologies Institute (ETI) funding will drive research and development across the UK, with several of its projects focused on maximising the full potential of wind energy. Of the three new wind energy projects announced by ETI in January, Strathclyde is at the heart of two – Project Nova and Project Helm Wind. “These are very exciting projects to be involved in,” says Professor Bill Leithead of the Department of Electronic & Electrical Engineering. “With our partners, we will be designing very large offshore wind turbines,

which will be built and deployed in sufficient numbers to meet the ambitious offshore targets.”

#### A design challenge

These offshore targets aim to balance the need to develop wind technology with the need to address public concerns. “Many people object to locating wind farms on land,” says Bill. “The Government is focusing on offshore developments such as these to get around public acceptance issues, but it is then faced with a new set of challenges – all to do with cost. The immediate challenge in designing the technology lies in not only getting the cost of the wind turbines down, but also making the technology more reliable to keep operating costs to a minimum. Accessibility for maintenance in locations like the North Sea is very restricted, so operation and maintenance needs to be dealt with more proactively.”

Projects Nova and Helm Wind each take a different approach to solving these issues. Project Helm Wind is a feasibility study being conducted by Strathclyde alongside industrial partners E.ON Engineering, Rolls-Royce and BP Alternative Energy, which will deliver a concept design to overcome the issues of reliability and maintenance. Project Nova, on the other hand, involves the creation of a completely new type of wind turbine, featuring

**“IT’S A VERY RADICAL AND NOVEL DESIGN, ONE THAT HAS NEVER BEEN BUILT ON THIS SCALE BEFORE”**

a pair of large V-shaped rotors. Where conventional turbines rotate on a horizontal axis, the vertical axis of the Nova turbine is expected to deliver greater reliability and simpler access for maintenance. “It’s a very radical and novel design, one that has never been built on this scale before,” says Bill.

“There are big challenges associated with both projects. The turbines have to meet stringent Government requirements and yet they have to be novel, cost-effective and reliable. That’s where the University’s research and development capability is required, and that’s what makes this so exciting. This is not a paper study – we will be designing, building and deploying prototype machines by 2013.”

#### Tomorrow’s leaders

Strathclyde’s ETI funding comes just weeks after the Engineering and Physical Sciences Research Council



## SNAPSHOT

**1** At the EU summit in Brussels in December 2008, EU leaders agreed a target that by 2020, 20% of Europe's energy is to come from renewable sources

**2** UK targets are set at 15% (on grounds that the 20% figure is an average for the EU as a whole)

**3** The Department for Energy and Climate Change estimated in December 2008 that just 1.8% of Britain's energy currently comes from renewable sources

**4** As one of the most advanced technologies, it is hoped that wind turbines will deliver the majority of Britain's renewable energy by 2012



(EPSRC) awarded the University more than £5 million to establish a Doctoral Training Centre (DTC) in wind energy. This is no small achievement, given the competitive nature of higher education funding. "Of the 44 DTCs being funded by EPSRC, only three are at Scottish universities, so Strathclyde's success confirms the quality of our research efforts," says Bill. "This is a massive opportunity to create a really strong research base, covering all aspects of Wind Energy."

Emulating European models, Strathclyde's DTC funds PhD scholarships to run over four years, instead of the traditional three, with a strong training element to broaden students' appreciation of the context of their work. The EPSRC award will fund 50 studentships, split into five intakes of 10. Bill and his team are currently busy recruiting "the very best students", as well as creating and publicising the centre itself.

In the longer term, Bill has big ambitions for the DTC. "We have the DTC, the ETI-funded projects and I chair the Supergen Wind Consortium. When all those activities are added together it gives the University critical mass. My objective over the next few years is to consolidate our activities into the UK centre of excellence in wind energy."

### Making waves

However, the challenge of delivering the nation's renewable energy does not just lie in wind power. "For the Government to achieve its targets it needs to have a balanced energy portfolio – it can't put all its eggs in one basket," says Cameron Johnstone of the Energy Systems Research Unit (ESRU) in the Department of Mechanical Engineering. "Tidal power is in a strong position to contribute to that portfolio."

Indeed, the enormous potential of marine power is as yet untapped. "We know more about engineering

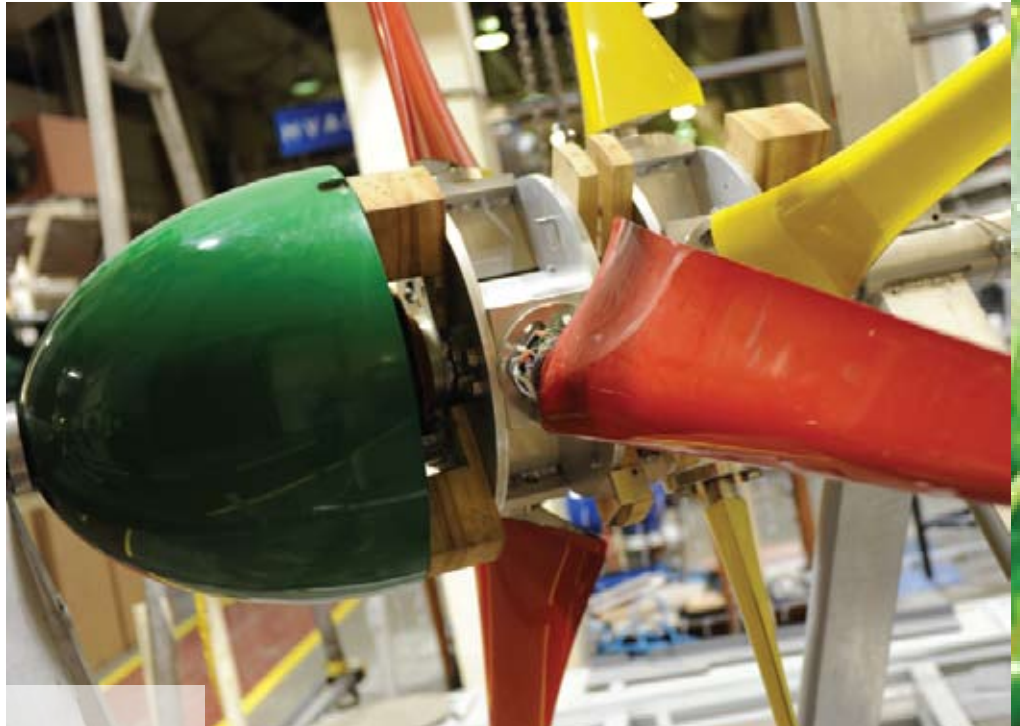
for outer space than we do about engineering for the wave and tidal environment," says Cameron. "Yet marine has phenomenal resource associated with it. One study suggests that the raw resource that exists in the seas is five times higher than our level of electricity demand, but the challenge lies in capturing and converting that resource and delivering that energy to the market place. With further research and development, by 2030 I'd imagine around 20% of our electricity will come from wet renewables."

There are several advantages to tidal energy that many other renewables cannot deliver, such as reliability. "We can never predict when it's going to be windy, but we can predict about 100 years in advance what the tidal condition will be," says Cameron. "Plus, tidal is the only renewable energy to provide firm power that doesn't involve a combustion process. This means it offers the holy grail – a predictable, secure and clean energy supply. Another advantage is that tidal energy is never simultaneous. It circulates around the mainland with a time lag between each site coming into full power production. What that means is that if we take three strategically located sites with a two-hour time lag between them, we can achieve an almost constant power delivery."

### Flying a kite

Despite these obvious strengths, traditional approaches to harnessing tidal energy have proved costly and inefficient. "Up until now, the approach has been to take a wind turbine and mount it underwater on the seabed," says Cameron. "Yet a wind turbine is designed to work in a very different environment, resulting in a number of maintenance problems."

Cameron and the ESRU research team hope to change all that, having designed and tested a second-generation technology



with the potential to revolutionise the tidal energy industry. Currently, marine turbines are elevated from the seabed on solid platforms. This allows them to operate at the optimal depth – away from both the boundary layer, where the water flows across the seabed and creates turbulence, and the surface, where wave interaction can cause structural failures. So, in a 30m water column, the technology should be positioned so the centre of the turbine is around 13m deep for highest energy flow velocity. The challenge facing engineers lies in elevating the turbine from the seabed without compromising its stability. Put simply, engineers must stop the turbines from toppling over. Creating a secure structural support for first generation technologies can account for 40% of project costs.

Instead of using a single rotor supported by a rigid structure Engineers at Strathclyde have developed dual, contra-rotating rotors supported by a lower cost

**“WE CAN NEVER PREDICT WHEN IT’S GOING TO BE WINDY, BUT WE CAN PREDICT ABOUT 100 YEARS IN ADVANCE WHAT THE TIDAL CONDITION WILL BE”**

CAMERON JOHNSTONE

flexible mooring system – something Cameron likens to a ship dropping its anchor. The technology is kept in position by a combination of the single point mooring and the contra-rotating rotors. By positioning two rotors together, each turning in opposite directions, the engineers can achieve a balancing of forces that lends the technology greater stability. It also increases the relative shaft speed, allowing engineers to eliminate the gearbox and operate the technology by direct drive into the generator. Since gearbox failures are the most common technical problem in turbines, this significantly reduces maintenance requirements.

Another innovation of the second-generation turbine is that its electrical components are sealed in resin but open to the water, so the sea provides a natural coolant. “It’s about keeping the design as simple

as possible and using the natural environment to best advantage,” says Cameron. “Our technology is durable and robust. As a result it costs 40% less than conventional technology.”

The Strathclyde turbine can be located anywhere where there is good tidal resource, and while conventional technology is limited to water no deeper than 30m, the second-generation solution can be deployed in any depth of water. “You simply increase the length of the mooring, like flying a kite,” says Cameron. “Our technology can be deployed and retrieved within minutes instead of hours, saving valuable time in the process.”

Cameron and his team have already tested their creation off the coast of Islay, and are now seeking funding to form a spin-off company. It is hoped that the commercial system could be up and running within two years, delivering a powerful new tool to the renewable energy industry.

# Fusion: the new renewable

It's carbon-free and provides potentially limitless energy, so why have most of us never heard of fusion energy? In the wake of a €900,000 grant, Strathclyde's Dr Allan Whiteford presents the case

**Q** In layman's terms, how does the fusion process work?

**A** There are two main types of nuclear process. Fission involves splitting a nucleus to release energy, whereas in fusion, energy is created by fusing two nuclei together. If you use elements that are heavier than iron, for example the uranium used in conventional nuclear power stations, you get fission. Fusion involves elements that are lighter than iron. Although both processes have nuclear energy at their core, in all other respects they are completely different.

**Q** What are the main advantages of fusion energy?

**A** Not only is fusion carbon-free, but it runs on deuterium and tritium (isotopes of hydrogen), which can be easily extracted from seawater – therefore it is potentially limitless. The fuel will last for millions of years.

**Q** Given its huge potential, why has it never been used as an energy source before?

**A** It's a very difficult process. Because nuclei repel each other, we need to work at a temperature of 100 million degrees to make them fuse. That's hotter than the sun. This brings further engineering challenges. When you have something that hot you can't just put it in a box! We use



**“FUSION IS POTENTIALLY LIMITLESS. THE FUEL WILL LAST FOR MILLIONS OF YEARS”**

DR ALLAN WHITEFORD

magnetic fields to confine the energy and plasma, but the plasma cools immediately if it escapes and the whole process stops.

**Q** So more research and development is required to move things forward?

**A** Yes. Fusion gets a bad name because scientists have been saying since the 1950s that it will be working within 30 years! None of the challenges are insurmountable – we could have fusion working much sooner, but that would require massive investment. The only way forward is to continue in multi-national collaborations. The creation of an international experimental reactor called ITER in the south of France is helping to push things forward.

**Q** What is the €900,000 European Commission grant for?

**A** We supply atomic data and modelling for the fusion programme to our worldwide partners. Atomic physics dictates how fast the plasma will cool through the emission of light, so we provide estimates of allowable impurities to allow the fusion reactions to be sustained. Atomic physics is also key to many fusion diagnostics – it allows you to look at the light coming from the plasma via a spectrometer and gain valuable

insight about what the plasma is doing. This work is an extension of the ADAS (Atomic Data and Analysis Structure) project, which was also started at Strathclyde, by Professor Hugh Summers. Strathclyde is the world leader in this area, and the grant enables us to maintain our expertise by funding two new researchers to work in fusion labs around Europe.

**Q** Are there any safety or health considerations in fusion plants?

**A** Not really – if the technology goes wrong the plasma cools almost instantly, so problems such as a meltdown or nuclear explosion don't apply. There are also no dangerous waste products. The only by-product from the fusion process is helium – we put seawater in and get helium balloons for children back out! Although the power station itself has a limited amount of radioactivity, decommissioning only takes 10-15 years and all the radioactive material is safe to recycle within 100 years.

**Q** Is it an area that is misunderstood?

**A** There is a sense that nuclear equals bad, but in most cases people – and that includes politicians, environmentalists and many researchers – simply aren't aware of fusion. I suppose we've been too busy researching it to publicise it. I don't think this area gets the attention it deserves, but I imagine every researcher feels that way! Fusion might be less demonstrated than wind and marine energy, but it has even bigger potential. We need to make it work.

# The mighty earthworm

Scientist and Strathclyde alumnus **Ron Gilchrist** presents the numerous benefits of vermiculture

It's appropriate that I'm writing this article in Darwin Year, because Darwin was one of the first scientists to understand the key role that the earthworm plays in a balanced ecosystem. I myself was first convinced in the aftermath of the 1992 Rio Earth Summit. As the world began to wake up to the impact of climate change, I set my course to investigating the leading technologies for processing organic waste. I decided to specialise in vermiculture – the use of worms to convert organic resources into a high value product. There were few people interested in the process in the UK, so I attended a conference in California, where I discovered that simply dusting wormcast over orchards increased yield by up to 50%. This was convincing indeed.

Now is the time to review our management of the global carbon economy, as well as the financial one. Composting initiatives are absolutely crucial in delivering a greener Scotland. Many studies suggest a correlation between disease and declining food quality. Trace elements like selenium – essential to cellular function – have declined in our food by as much as 90% compared to 50 years ago. We have widespread chemical farming to thank for that.

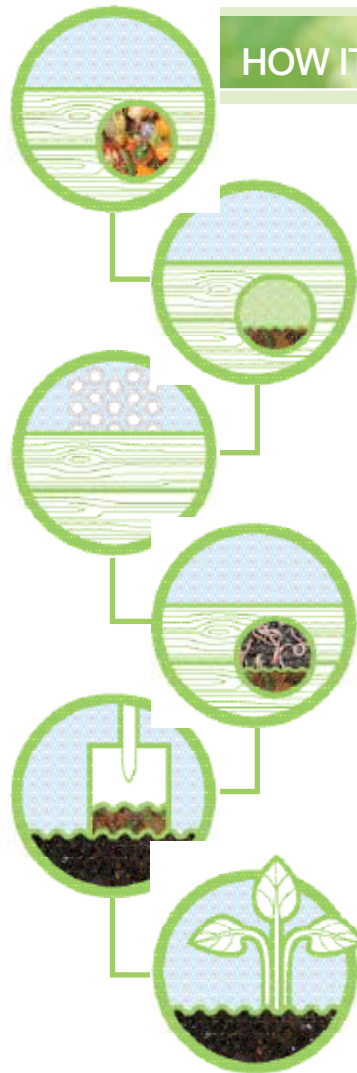
The key to soil fertility is the humus layer, which supports the soil microbes that are critical in enabling plants to uptake nutrients. Decades of chemical farming have stripped the humus out of the soil and these trace elements have disappeared. It's time we took the

avalanche of organic waste we produce and put it back into the soil where it belongs. The two-stage vermiculture process I've evolved is unique in Scotland, and uses hot (thermophilic) composting and basaltic rockdust minerals to produce a highly potent plant tonic. In America, wormcast sells for \$30,000 a tonne.

I have harnessed this process in my Waste to Food initiative, which operates on three key levels. At the domestic level, the village of Fairlie in Ayrshire operates doorstep wormeries, with households creating wormcast in locally-produced wooden wormeries. This project developed into a community food production, mini-allotment garden. Community-managed green spaces like these deliver considerable social benefit. Finally, there is the social enterprise, market garden model, which enables communities to be more self-sustaining. With the collapse of financial institutions it makes sense to get back to the local economy where we produce and retail our own products, creating local jobs.

The Waste to Food initiatives therefore work on a number of levels, including health, environmental, economic and social. And there's one more. The global food shortage is caused in part by deteriorating soil fertility. Because the Waste to Food process doesn't require expensive equipment or power, with effective knowledge transfer from Scotland it could help deliver sustainable food aid for future generations. ■

## HOW IT WORKS



**1** Organic resources are placed in wooden composting boxes

**2** In thermophilic composting, naturally occurring microbes allow for rapid decomposition of organic matter

**3** Basaltic rockdust is added to replace the missing essential trace elements in our food chain

**4** Precise animal husbandry facilitates the special litter worm species, which produces mineral-rich wormcast

**5** The humus soil layer is now rich in beneficial microbes, generating intensive soil fertility

**6** Plants are grown in narrow raised beds, using soil enriched by the super-fertiliser. The result is healthy plants and healthy people!

## WASTE TO FOOD

Ron is currently setting up a service to support sustainable food production across Scotland. His work is supported by Scottish Natural Heritage, the Climate Challenge Fund, UK Awards-for-All, Magnox North Sites and US Energy Solutions. Ron is developing his business with the help of the Strathclyde Entrepreneurial Network.

VISIT [WWW.TSSCOTLAND.ORG.UK](http://WWW.TSSCOTLAND.ORG.UK) AND EXPLORE THE FAIRLIE COMMUNITY GARDEN AT [WWW.ORGANICGROWERSFAIRLIE.CO.UK](http://WWW.ORGANICGROWERSFAIRLIE.CO.UK)



# asremember

## Ian Caldwell remembers his days as a Pharmacy student in 1950s Glasgow

“As the first of my family to go to college, I did not know what to expect. Friends who were two or three years ahead of me at school had regaled me with tales of their experiences, but I had no appreciation of the work level or of the individual foibles of the various lecturers. In those days, university was not necessarily a predictable outcome of secondary school, so it was quite an exciting time.

Although I had initially wanted to be an English teacher, my Highers qualifications suited me for either arts or science, and two of my schoolmates had applied to the Royal College of Science and Technology to study for a BSc in Pharmacy. I joined them, and was interviewed by Dr Frank Fish, who later became Professor and Head of the School of Pharmacy at the University of London. When Frank asked why I wanted to be a pharmacist, I said I hoped to help people – sounds bumptious, but it was naively honest. The fact that the syllabus did not include maths was a plus!

### Bop and beans

Thanks to the friendly staff and interesting work, I quickly felt comfortable at the Tech. The '50s was a vibrant time in Glasgow. It was a very busy, bustling city undergoing a dramatic expansion, as was the University. Student life centred around the solid steel, sandstone and concrete pile that was the Royal College Building, dating from 1903, which was at that time the largest single educational unit in Europe.

Social life was low key by present day standards. The weekly



ABOVE  
Under the microscope:  
The Royal College of Science and Technology pharmacy lab in 1959

showing of Tom & Jerry cartoons at lunchtime – entrance a penny with profits to charity – endured for years. There was no luxurious student union for us! The pre-war swimming pool area was floored over and snooker tables and card tables installed for the benefit of the males. The ladies had the use of the 'Muirhead' on the ground floor western corridor. Both of these were 'dry' in the alcoholic sense.

Feeding the students of the time revolved around the Refectory in the basement of the College building. To the chagrin of present-day food fascists, a remarkable number of alumni appear to have survived well on a diet not unrelated to pie and beans costing about a shilling (5p). This energy-rich food was essential to those who had to sprint between basement labs and fourth floor bacteriology practicals – there were no lifts then!

The '50s lot did like dancing – jive, bop and ballroom – and so the exam hall was the Saturday night venue. Sometimes there was the Clyde Valley Stompers and sometimes an imported band, but always live music. Then there was Charities Week. An entire separate article would be needed to do justice to this week of enjoyable madness, so let me leave that story for one of my peers in a future issue.

In 1959 the Tech finally got its own Student Union, which this year celebrates its 50th birthday. I recall the earth-shuddering movement of debris and the shattering impacts of pile drivers forming foundations while we putative pharmacists tried to peer down our trembling microscopes! The culmination of the academic year took the form of an all-night ball in the exam hall, with supper and breakfast in the basement.



I left the Tech very well prepared for entry into the profession. The philosophy behind the course was not so much to make it vocational as to provide students with the broad-based learning and technical grounding they needed to improve the profession, be it in hospital, community, industry or academia. My first love was the community side, and I ran my own business for a number of years, which was rewarding in all senses.

**Making our way**

Community pharmacy was a great career and it was also nice to see families growing up around you. Many young people in those families asked me about their careers and I was encouraged to see that a few of them went on to study pharmacy.

I took my time to go from Branch Secretary to Chairman of the Scottish Department and finally to President of the Royal Pharmaceutical Society. Throughout my career I maintained close links with Strathclyde – even returning after my retirement to study for an MPhil. I have long been interested in the education side of pharmacy. I was a member of the Society's Re-accreditation Team, which approved courses offered by various schools of pharmacy, including those of Strathclyde.

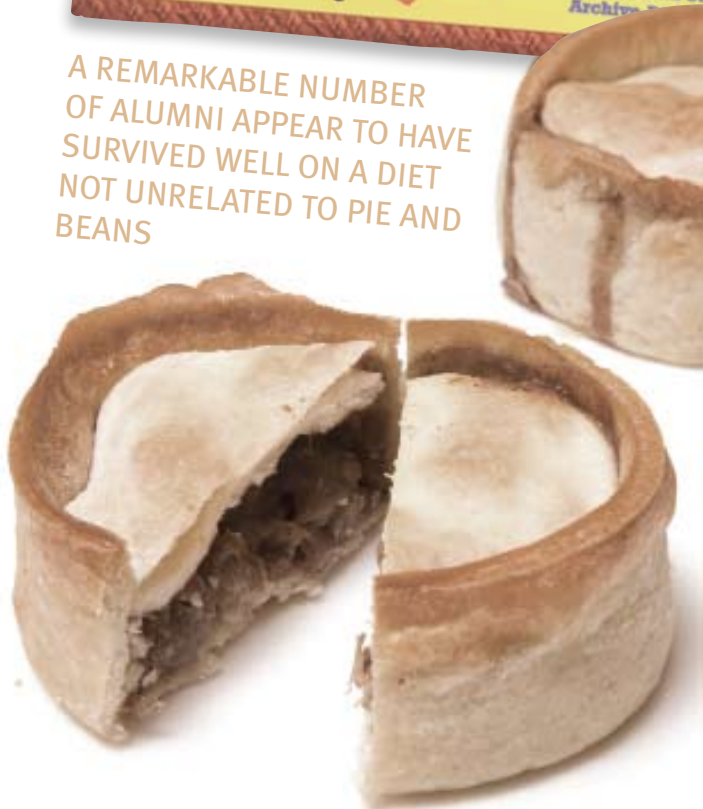
Strathclyde and its forebears can look back on a range of successes. Mrs Jean Kennedy, who qualified in 1914, went on to become the first female President of the Pharmaceutical Society of Great Britain, while the University can count many more eminent alumni who went on to work in a diverse range of fields across the globe. The muscle relaxant atracurium became the first

commercially successful drug to be investigated and developed by a UK school of pharmacy. The aforementioned Dr Fish established at Strathclyde the world's first forensic science degree.

The huge expansion of both campus and subjects is exceptional. Many of my fellow students of the late '50s will be coming home from locations around the world for our 50th reunion in September, and it's always satisfying to hear of their successes and share memories of the Tech. One of the highlights of my own career was to welcome the British Pharmaceutical Conference to Strathclyde's beautifully refurbished Barony Hall. Being able to say "welcome" to my peers in my own home city was really something.



A REMARKABLE NUMBER OF ALUMNI APPEAR TO HAVE SURVIVED WELL ON A DIET NOT UNRELATED TO PIE AND BEANS



# Dressed to thrill at the GA Fashion Show

Staff, students and graduates took to the catwalk to raise funds for the Malawi Millennium Project

**T**he 2008 Graduates Association (GA) Fashion Show proved a spectacular event, attracting more than 750 people and raising over £10,000 for the Malawi Millennium Project.

Staged on 26 November 2008 in the Barony Hall, the show launched new design duo Robert McFarlane and Ben Frost of Leapfrost, while young milliner Rebecca Anderson of Tantrums & Tiaras showed her fabulous range of fascinators. Glasgow's top boutiques also turned out in style, taking the opportunity to show off their latest collections at one of Scotland's biggest fashion shows.

A particular highlight of the evening was International Tartans, a specially designed range from Tartans for Africa featuring the colours of African national

flags and the Saltire. A number of big names played their part in the evening's success, including artist and sculptor Lex McFadyen, North Glasgow College, Saks and the Glasgow College of Nautical Studies Beauty Therapy department.

"The range of clothes provided by some of the UK's finest designers helped make for a spectacular evening," says Dr Rose Mary Harley of the University's Graduates Association, which organised the event. "We are very grateful to everyone who gave up their time to make this such a special event. We must also thank those individuals and businesses that made generous cash donations."

The GA Fashion Show is in aid of the Malawi Millennium Fund, which aims to improve health and education in the African nation.

## RECENT EVENTS

### Masquerade Ball in Greece

The Hellenic Alumni Branch held its first-ever Masquerade Ball on 20 February in the beautiful setting of the Pool Club in Paleo Faliro/Trokadero. The event was attended by former students who studied in Scotland and at the University's Greek centre, along with current students, professors and friends of the University. Find out more about the Hellenic Alumni Branch at [www.strath.ac.uk/alumni/groups/greece](http://www.strath.ac.uk/alumni/groups/greece)



### SUDS Burns Supper

Strathclyders packed out the Caledonian Club in London on 23 January to celebrate the 250th anniversary of the birth of Robert Burns. Harry Cowan (1969, Mechanical Engineering), Tom Brannan (1971, Business), Mark Stevens (2008, Civil Engineering) and Jennifer Morton (1969, Business) gave highly entertaining speeches. Find out more about Strathclyde University Down South at [www.strath.ac.uk/alumni/groups/suds](http://www.strath.ac.uk/alumni/groups/suds)

**LEFT** SUDS Chair Richard Brown with Toast to the Lassies speaker Mark Stevens

**FAR LEFT** Attendees of the Masquerade Ball



Joe Mulgrew



### Norwegian Class of '61-'62 Reunion

Twelve alumni, all of whom graduated from the Royal College of Science and Technology in 1961 and 1962, gathered in December for their third reunion of 2008. More reunions are coming up in 2009. If you're interested, please contact [alumni@strath.ac.uk](mailto:alumni@strath.ac.uk)

BELOW The Norwegian contingent reunited



## UPCOMING EVENTS



Strathclyde's London alumni will visit the House of Commons in July

### The Union's 50th Birthday Bash

Are you an Honorary Life Member of the Students' Association? Were you involved in the Union during your time at Strathclyde? If so, we would love you to help us celebrate our 50th year in style! From 6pm on Saturday 16 May we will be reminiscing at John Street, with tours of the building followed by a drinks reception in The Priory and speeches in Vertigo. Join us for a buffet in The Scene and dancing in the Barony Bar – just like old times! The building will be closed to current students so we don't all feel our age... To find out more, please email [lucy.alder@strath.ac.uk](mailto:lucy.alder@strath.ac.uk)

### SUDS Ceilidh

After a very popular St Andrew's ceilidh last year, our London alumni group is planning another for the evening of Friday 29 May. Kick off your weekend in style! For more information please email Lucy Alder at [lucy.alder@strath.ac.uk](mailto:lucy.alder@strath.ac.uk)

### Class of 1964 Reunion

1964 was the year in which the University of Strathclyde gained its Royal Charter. Everyone who graduated in this special year is invited to return to campus for a reunion on Friday 5 June. For more information please email [alumni@strath.ac.uk](mailto:alumni@strath.ac.uk)

### Japanese Annual Reunion

Following successful reunions in 2007 and 2008, another is planned for Saturday 4 July. A lunch for Strathclyde alumni in Tokyo will be held at Jyosui-kan at 1pm. For more information please email [alumni@strath.ac.uk](mailto:alumni@strath.ac.uk)

### SUDS Dinner at the House of Commons

A rare opportunity to visit the Lower House and enjoy the great company of other Strathclyders in London. The dinner will be held on Thursday 9 July. For more information please email Lucy Alder at [lucy.alder@strath.ac.uk](mailto:lucy.alder@strath.ac.uk)

### 1971 Electrical Engineering Reunion

The Electrical Engineering class of 1971 will celebrate their 38th anniversary at the Buchanan Arms in Drymen on Saturday 25 and Sunday 26 July. Spouses and partners are not invited! For information, please email Peter McLaren at [peter.maclaren@iee.org](mailto:peter.maclaren@iee.org)

### Malaysian Homecoming

A group of Malaysian alumni will visit Glasgow from 1 to 8 August. All alumni living in Malaysia are welcome. For more information please email Lucy Alder at [lucy.alder@strath.ac.uk](mailto:lucy.alder@strath.ac.uk)

### Alumni Golf Day

The Alumni Golf Challenge will take place at Ross Priory on the shore of Loch Lomond, on Sunday 6 September. Entry is open to alumni and their guests. For more information please email Lucy Alder at [lucy.alder@strath.ac.uk](mailto:lucy.alder@strath.ac.uk)

### 1959 Pharmacy Reunion

Betty Montgomery (née Graham) and Elspeth Walseth (née Fraser) are planning a 50th anniversary reunion from Sunday 6 to Thursday 10 September. The programme will include the Alumni Golf Day, visits to local attractions and a tour of the Strathclyde campus. For more information please email Betty Montgomery at [bettymontgomery2@tiscali.co.uk](mailto:bettymontgomery2@tiscali.co.uk)



*Fran Shepherd*  
 » FRANCES SHEPHERD  
 HEAD OF ALUMNI & DEVELOPMENT

## BE PART OF OUR WORLD

ALUMNI & DEVELOPMENT HELPS BUILD LONG-TERM RELATIONSHIPS WITH ALUMNI AND OTHERS IN ORDER TO CREATE A WIDE COMMUNITY THAT FEELS PART OF THE UNIVERSITY AND WILL WANT TO CHAMPION AND SUPPORT US. PLEASE CONTACT US IF YOU WOULD LIKE TO:

- Hear more about the University today
- Organise a reunion or a visit to the University
- Tell us about the University in your day
- Get back in touch with old friends
- Change or update your contact details
- Make a gift to the Alumni Fund
- Find out more about how to support specific aspects of the University's world-changing work.

### USEFUL CONTACTS

(SEE CONTACT DETAILS ON PAGE 32)

- Fran Shepherd Head of Alumni & Development
- Caroline Notman Alumni & Development Manager
- Lucy Alder Alumni Officer
- Jillian Fletcher Alumni Giving Officer
- Peg Rourke Alumni Assistant

## Calling all alumni

Last year, the Alumni & Development office used over 60,000 sheets of paper and almost 30,000 envelopes just to invite alumni to events.

We would much prefer to contact you by email – and the environment would appreciate it too!

Please let us know your email address by going to  
[www.strath.ac.uk/alumni/email](http://www.strath.ac.uk/alumni/email)

### 1940s

#### Ramsay, Greta (née Laurie)

(Diploma Primary Education 1947) sends best wishes to all her former student friends.

#### Rorke, John

(ARTC BSc Mechanical Engineering 1946) would be pleased to hear from any fellow student or member of staff from 1942 to 1951.

### 1950s

#### Burnett, Edward

(Diploma SSPE 1959) says 1956-1959 were great years to be a student in Glasgow. Edward loves hearing from anyone, especially classmates who shared those times.

#### Levin, David

(Hotel & Catering Management) is now entering his third term as a Visiting Professor (15 years) at Oxford Brooks University. 2009 will be his fourth anniversary of his opening of the Capital Hotel. He has a vineyard in The Loire Valley producing Sauvignon Blanc. The wine is called Le Vin de Levin!

#### Mowat, Thomas

(SSPE 1953) would like to get in touch with former classmates. Any photos from SSPE years 1950-1953 welcomed. Thomas has no email address yet.

#### Murphy, Bernard

(ARCST, BSc Electrical Engineering 1959) 2009 will be the 50th anniversary since graduation. Bernard is interested in hearing from fellow 1959 electrical engineering graduates. He can be contacted at [bernie.murphy@sympatico.ca](mailto:bernie.murphy@sympatico.ca)

#### Solley, Samuel

(Hotel & Catering Management 1959) says hello to anyone out there from his year 1956-1959!

#### Strang, Winnie (née Houston)

(BSc Pharmacy 1958) Winnie and Bob would very much like to hear from anyone who used to dance to The Clyde Valley Stompers!

### 1960s

#### Allan, William

(BSc Hons Mechanical Engineering 1965) would like to contact Civil Engineering graduate Chan Kam Soon from either Malaysia or Singapore and Wong Pon Ze WKS from Mauritius.

#### Beattie, Ian

(Diploma Physical Education 1961) has retired early after 20 years at the University of British Columbia and now lives in the beautiful Gulf Islands. Ian is always pleased to hear from old classmates.

#### Bolton, John

(BSc Hons Mechanical Engineering 1966) is now retired and living near Glasgow.

#### Gogia, Ram

(ARCST Electrical Engineering 1964) would like to get back in touch with anyone from his class and meet up if possible.

#### Lal, Moti

(PhD chemistry 1966) is alive and kicking and would love to hear from old friends – Bill Gaw, Willie Duncan, Jim Sheridan, Ian McLure etc. Moti can be contacted at [mlal@liverpool.ac.uk](mailto:mlal@liverpool.ac.uk)

#### MacLean, Norman

(Diploma Youth & Community 1966) sends belated good wishes to his surviving former Y2 classmates of 1966 and to the ladies of the 2G7 Summit 1966.

**1970s****Abubaker, Babiker**

(MSc Production Engineering & Management 1977) looks forward to getting in touch with old friends and former classmates of the years 1975 to end of 1976 and flatmates at Birbeck Court flats for years 74, 75 and 76.

**Campbell, Colin**

(BA Hons Politics 1970) Colin's fondest memories are of debates. He would love to hear from any surviving accomplices.

**Hamzah, Zainal**

(BSc Hons Mechanical Engineering 1975) wishes all the University 2nd team members (1973/1974) all the best.

**Jardine, Iain**

(BA Hotel & Catering 1978) says hello to all who remember him. He would love to hear how you are all getting on. Iain can be contacted at [iainjardine@lycos.co.uk](mailto:iainjardine@lycos.co.uk)

**McIntosh, Margaret (née McConnell)**

(BA Hons Geography 1976) is still in touch with Murto McPherson, David Cuthill, Alan Johnstone and has been in contact in recent years with Marion Roken, Margaret Conway and Sineta Roy. Any other Geography graduates from 1976 wanting to contact her should email [margaret-mcintosh@tiscali.co.uk](mailto:margaret-mcintosh@tiscali.co.uk)

**McQuillan, Robert**

(BSc Hons Mathematics 1973) is now settled in Melbourne, Australia. If anyone from that era would like to say hello, he can be contacted at [rmcq@cs.rmit.edu.au](mailto:rmcq@cs.rmit.edu.au)

**Mendelsohn, Philip**

(BSc Hons Civil Engineering 1974) would like to hear from anyone who remembers him.

**Murray, Gordon**

(BSc Architecture & Building Science 1976) has been Professor of Architecture and Head of School at Strathclyde since April 2007.

**Onafowokan, Olusesan**

(MSc & PhD Urban & Regional Planning 1972-76) says hi to all graduates of the above course and would like to hear from any of you. Olusesan can be contacted at [docasonafowokan@yahoo.com](mailto:docasonafowokan@yahoo.com) He would also like to get back in touch with his research supervisor Mr Roy Hunter.

**Sampson, Peter**

(BSc Hons Food Science 1976) says he has made it at last. He is now self employed and enjoying every day of it.

**Shah, Manjul**

(Diploma Accountancy 1977) would like to make contact with anyone from the Postgraduate Diploma in Accountancy during the 1976/77 academic year.

**Wallace, Craig**

(Diploma Primary Education 1973) would be pleased to hear from any member of the (F6) course group.

**1980s****Ab, Razak Ab Lah**

(MBA Business Administration 1987) would like to get back in touch with his classmates of MBA 1986. He can be contacted at [razakab@ums.edu.mu](mailto:razakab@ums.edu.mu)

**Burt, Arthur**

(BA Spanish & Marketing 1989) moved to Melbourne on Christmas Eve 2008. He is in the process of finding a job and would love to hear from fellow Strathclyders living in Melbourne.

**Chittlaporn, Wirat**

(Diploma Highway Engineering 1981) would like any classmates during 1980-81 to get in touch. Wirat (now know as Ittichai) can be contacted by email at [ittichai77@yahoo.com](mailto:ittichai77@yahoo.com)

**Cook, Alistair**

(PgDip Accounting 1982) Having been a chartered accountant in practice for 22 years, Alistair sensed the call to the ministry and began training in 2004. He became the Minister of Lylesland Church of Scotland in November 2008.

**Fernandes de Queiroz Nunes, Herta Maria**

(MLitt Literary Linguistics 1985) would love to hear from Joanna Plessas, Paul Maake, Sakina Mrani, Paul Docherty, Martin and others in the 1985 MLitt in Linguistics.

**Giami, Sunday**

(MSc Food Science & Microbiology 1983) would like to keep in touch with anyone from the above class.

**McKain, John**

(BSc Hons Naval Architecture 1980) says hello to all from the 1980 class. He hopes you are all doing fine and he would love to hear from you all.

**McLachlan, Susan**

(BA Joint Hons Spanish & Marketing 1987) would love to hear from anyone who shared those hazy days, especially Angela O'Hagan, Claire McCadden, Maria Keane and all from the Spanish Club.

**Morrison, William**

(BSc Applied Geology 1983) would like to hear from any of his colleagues from Applied Geology.

**Okon, Ene**

(MSc 1983 Public Health Engineering) wishes Eric Pang success in his endeavours. Please keep in touch.

**Salah, Motaz**

(BSc Environmental Engineering 1982) would like to hear from anyone who graduated in 1981 and 1982 from the Environmental Engineering Department.

**Schwartz, Margaret**

(Business School 1980) says hello to everyone. She is living in Northern Virginia with her husband and three sons and working as a marketing consultant, spending her spare time sailing and enjoying life with her family. Get in touch if you're travelling to Washington DC in the future.

**Storteig, Eskild**

(BEng Mechanical Engineering 1989) says if you need one or more FEA specialists please give him a call.

**Teo, Seng Ho**

(MSc Mechanical Engineering 1987) is looking to get in touch with flatmates at Birbeck Court from 1983-85 and classmates of Mechanical Engineering 1987 such as Garry Kerrigan, Michael Mak and Steve Leung.

**1990s****Anderson, Denise**

(BEng Hons Mechanical Engineering 1993) would like to get back in touch with friends she has lost contact with over the years. She can be contacted at [dee.anderson@hotmail.co.uk](mailto:dee.anderson@hotmail.co.uk)

**Chakraborty, Parna**

(MSc Pharmaceutical Analysis 1996) would like to get in touch with former classmates.

**Cottard-Larbi, Veronique (née Cottard/Mairesse)**

(Business School 1995) would like to get in touch with some of the people she knew at Strathclyde (if anybody remembers her!).



**Dellal, Mohamed**

(MPhil English Studies 1990)  
would like to get in touch with Jean Arasanayagam from Sri Lanka. She was at Strathclyde from 1985.

**Devereux, Richard**

(MBA Business Administration 1992) is based in Munich where he works as a legal counsel with Intel Corporation. He says hello to 1992 MBA'ers. What about a 20 year reunion?

**Dunn, Graeme**

(MSc Marketing 1995) is always happy to hear from friends.

**Fayoumi, Khaled**

(MBA Business Administration 1999) says Oilfield Service Industry is still adapting in times of turbulent change.

**French, John**

(MBA Business Administration 1992) Richard Devereux and John think it would be good to organise a 20 year reunion of the MBA year of 1992. Anyone interested in supporting and/or attending a reunion please get in touch with Alumni & Development at [alumni@strath.ac.uk](mailto:alumni@strath.ac.uk)

**Gallina, Matteo**

(Mechanical Engineering 1996) would like to get back in touch with students and night clubbers that shared with him the outstanding Strathclyde experience, especially the Turkish (Attila, Rabia) and Spanish connection. Matteo can be contacted at [m\\_gallina@libero.it](mailto:m_gallina@libero.it)

**Gray, Alisdair**

(BTech Chemical Engineering 1998) says hello to everyone. He is finally getting a chance to use his degree. It would be great to hear from anyone who remembers him. Alisdair can be contacted at [aagray@motherwell.ac.uk](mailto:aagray@motherwell.ac.uk)

## REWARDING WORK

IN HER LETTER TO GRAPEVINE, LAW SCHOOL ALUMNA HELEN McELHINNEY RECALLS HER INSPIRATIONAL DAYS AT STRATHCLYDE



I am completing my third year working in the humanitarian aid context of Sudan, having come out here spurred on by Professors Whitty and Poustie to ‘get out and do something’ about the human rights we discussed so avidly, but abstractly in the LLM. Wise advice. Working within conflict and extreme poverty is a humbling learning curve for any law graduate primed by University in the context of rule of law and the pursuit of justice.

My team is the operational monitoring arm of a 2004 Memorandum of Understanding signed with the Government, in which they agree to ensure the voluntary nature of population movements, their physical protection and provision of basic services such as water and health care. Monitoring this agreement involves travelling by convoy or helicopter around rural Darfur to monitor the freedom of movement of people trying to return home, or, as is often the case, being forced or induced to return prematurely or prohibited from returning by ongoing land occupation by other tribes. They sit with community leaders, women and elderly, often under trees or on mats in the market, establishing their needs and concerns in order to advocate to the authorities and international community. The work is demanding – often with limited tangible benefits to the people due to insecurity, lack of resources or politics – but nonetheless this is the reality of trying to secure those ‘human rights’ that I learned about in the Lord Hope and Stenhouse buildings. For those pursuing challenges and job satisfaction, albeit with a heavy dose of frustrating reality, I can’t imagine anything more rewarding.

HELEN McELHINNEY (LLB HONS LAW 2002)

**Hamad, Nizar**

(MBA Graduate Business School 1999) would like to hear from his classmates from the 1996 to 1999 Dubai class.

**Hashem, Saher**

(BA International Marketing 1993) says it has been a long journey since he left in 1993 but a great one. She would like to know the whereabouts of Dr Maureen Berry, and fellow students Adriana Kovac and Ann Souchon!

**Hooi, Ooi Aik**

(BArch Architectural Studies 1993) would like to get in touch with Anita Wong Yuen Tung (Architecture 1990 graduate).

**Kratsas, Vassilis**

(BSc Hons Electrical Power Engineering 1996) is looking to get in touch with a former classmate, Fahad from Saudi Arabia. He graduated in 1996 from Business School (International Marketing MSc). Vassilis is also looking for Drifa Sigurthadottir from Iceland.

**MacDermott, Alexander**

(MSc Forensic Science 1997) would love to hear from anyone from Forensic Science 1997 class.

**Mattsson, Tord**

(MSc Marketing 1995) would absolutely love to hear from anyone who recalls his presence. He is now working as a management consultant and can be contacted at [tordmattsson@hotmail.com](mailto:tordmattsson@hotmail.com)

**McGillivray, Brian**

(BEng Hons Mechanical Engineering 1991) would be glad to hear from anyone who remembers him!

**McIntyre, Derek**

(MBA Business Administration 1990) says hi to everyone who remembers him.

**Miller, Yasmin**

(BEng Hons Engineering & Business & Euro Studies 1994) says "Any old EBMES' students around? Graduated 1994... our 15 year anniversary is this year!"

**Moran, Paul**

(BSc Hons Chemistry 1995) says hello to the graduates of chemistry 1994/1995. Do keep in touch as he would love to hear from anyone who remembers him.

**Muhunzi, Abbas**

(MSc Finance 1999) is delighted to have made so many friends at Strathclyde. He remembers Professor Davis and Professor Inyangete for their efforts that contributed to him earning his second degree. Abbas wants all Strathclyders in Zanzibar to form an Alumnus branch.

**Nair, Prakas**

(MBA Business Administration 1993) sends his best wishes to his classmates and would be delighted to hear from anyone who remembers him. He can be contacted at [prakasnair@hotmail.com](mailto:prakasnair@hotmail.com)

**Ozturk, Ayse**

(PhD Architecture and Building Science 1995) would like to get back in touch with friends and misses the time she had in the Department of Architecture.

**Patton, Stephen**

(BEng Electronic & Electrical Engineering 1994) would love to hear from old friends who studied with him and graduated in 1992 and 1994

**Paul, James**

(BA Hons English 1999) says it is now nine long years since the class of '99 graduated. He would love to hear from anyone who remembers him, especially Greig, Brian and Colin!

**Rusliansyah, Ramlan**

(MSc Geotechnical Engineering 1995) says enjoy life. Be generous!

**Rwegumisa, Severin**

(MSc Highway Engineering 1991) would like to know of the whereabouts of his classmate George Okello, 1989-1991.

**Smith, Paul**

(BEng Hons Mechanical Engineering 1997) started in the Mechanical Engineering class of 1992 with Stewart Yellowlees, Kevin Sutherland, David Sudden, Sarah Smith and others. He took a year out in 1995 due to illness but returned to complete the course. Paul would love to hear from anyone from that year.

**Stevenson, Ruth**

(Certificate Secondary Education 1997) says hello to all PGCE Drama graduates of 1997. She has happy memories of Piaf and The Taming of the Shrew. Ruth is still working in education in Glasgow City.

**Todheri, Sofia**

(Certificate Environmental Education 1997) says hello to all Strathclyde people.

**Tsang, Yee Wah, Annie**

(MBA Business Administration 1994) says hi to all classmates. How are you all? Feel free to contact Annie at [annie\\_tsang2003@yahoo.com.hk](mailto:annie_tsang2003@yahoo.com.hk)

**2000s****Afzal, Tanveer**

(BA Geography & Sociology 2003) is looking for work. Maybe some of his classmates could give him some advice? Tanveer can be contacted at [tanveerafzal2003@hotmail.com](mailto:tanveerafzal2003@hotmail.com)

**Ahluwalia, Anurag**

(MSc Computer & Internet Technology 2006) says Strathclyde was an amazing experience for him. He made so many friends in his department

but also in various sections of the University. He has lost touch with a lot of his friends but would like to say hello and best wishes to everyone. Anurag can be contacted through the Alumni & Development Office at [alumni@strath.ac.uk](mailto:alumni@strath.ac.uk)

**Ali, Asma**

(BSc Hons Software Engineering 2006) says hi to all classmates of 2006.

**Atkins, Elaine**

(EdD Education 2002) says hi to everyone who was on the EdD course in 2000. Elaine is now a professional writer with her first novel just published.

**Bahmanpour, Alireza**

(BA Hotel & Catering Management 2002) hopes all his dear friends are OK. He misses his classmates. He says hi to his good friends Shohreh, Mona, Farnosh, Arash, Yari, Nazanin, Parnis, Iman and all the others whose names he has forgotten.

**Bornemann, Sven**

(Business School) sends best wishes to all Internationals visiting Strathclyde in 2004/2005.

**Bovaird, Rosalyn**

(PGCE Secondary Education 2003) says hi to all from PGCE French & Geography 2003. Please keep in touch at [rosbov@hotmail.com](mailto:rosbov@hotmail.com)

**Brown-Jackson, Timothy**

(MSc Integrated Product Development 2002) would like to get in touch with anyone from DMEM and anyone who stayed in Andrew Ure Halls during his year at Strathclyde. He sends best wishes to the Rowing Club. Tim and his wife Louise will be moving back to Canada in 2008. He can be contacted at [timbrownjackson@yahoo.co.uk](mailto:timbrownjackson@yahoo.co.uk)

**Challe, Peter**

(MSc Finance 2005) says hi to all his classmates. He would like to hear from you all and others in the field of finance.

» **Eliazar, Mafuru Mjita**

(MSc Finance 2002) would like to hear from classmates in that intake at IFM. Mjita can be contacted through the Alumni & Development Office at [alumni@strath.ac.uk](mailto:alumni@strath.ac.uk)

**Goyal, Amit**

(MSc Business Administration 2007) hopes everyone is doing fine. He is missing the time spent at University – and apart from that he was planning to convert his MBM to MBA, so anyone who has already done this or planning to do so please get in touch. Cheers!

**Harlalka, Samir**

(MBA Business Administration 2000) says hello to everyone who attended Summer School at SBS in June 1999 – especially the Finance & Project Management Electives. Samir would be happy to hear from anyone and can be contacted at [harlalkas@gmail.com](mailto:harlalkas@gmail.com)

**Hidayat, Mohammad Noor**

(MSc Electrical Power Engineering with Business 2006) would like to say hello to all who remember him and to try and keep in touch with all the alumni of the University, especially the department of Electronic & Electrical Engineering.

**Hirji, Arsheed**

(MSc Finance 2006) says keep in touch. He is looking for shared ideas and friendship within the Strathclyde community

**Kay, Andrew**

(BEng Hons Electronic & Electrical Engineering 2000) would like to say hello to all EEE millennium graduates and hopes they are all doing well in life. Andrew is living in Orpington, Kent and working for a MOD Branch called DSTL. He can be contacted at [andkay25@hotmail.com](mailto:andkay25@hotmail.com)

**Khan, Arzak**

(MCM Communication Management 2006) says: "Hi MCMERS! Hope you are all fine and progressing in your careers and life. Keep in touch!"

**Lavery, Theresa**

(BSc Integrated Product Development 2002) asks: "Could Mike from DMEM Department class 01 contact Zurine Saenz from Basque country?"

**Matogo, Joctan**

(MSc Finance 2004) sends best wishes to all 2004 MSc graduates. The life we had during our studies was very remarkable. Keep in touch, the knowledge we gathered at Strathclyde is priceless. Keep going, the sky is the limit!

**Mughal, Jawed**

(Certificate Advanced Professional Studies 2002) says: "There is a difference between knowing the path and walking on it!"

**Nematzadeh, Farnoosh**

(BA Hotel & Hospitality Management 2002) says hello to Mis Nasim and Azadeh Samavat. Happy New Year to you all.

**Qureshi, Moin**

(MBA Business Administration 2008) would welcome a chat with anyone regarding professional friendship and developing strong relationships for long term benefits.

**Rafai, Fahad**

(MSc Electrical Power Engineering with Business 2007) says hi to all students who attended the above course between September 2006 and October 2007. Please keep in touch.

**Ramirez, Carlos**

(PhD Electronic & Electrical Engineering 2007) says hi to Phil Moore and the team at the EEE Department. He hopes to see you soon!

**Sekhon, Harsimran**

(MSc Business & Management 2007) says hello and hopes that you are all doing outstandingly in life. Keep it up.

**Singh, Gurbir**

(MSc International Marketing 2005) says hello and keep in touch.

**Singh, Onkar**

(MSc Business Management 2004) hopes all of his classmates are in the best of spirits and doing well in their chosen paths. It is four years since Onkar graduated. He is still in London and misses Glasgow.

**Stamboliyski, Pavel**

(MSc International Marketing 2002) says if you are in the LA area, get in touch with him.

**Stevenson, Benjamin**

(BSc Hons Product Design & Innovation 2006) After graduating, Benjamin moved to California to work with a company called Design Visionaries, where he obtained an 18-month internship. Ben, along with his boss, started writing a

new textbook on design which was published recently with Ben named as co-author, with a little blurb about the University of Strathclyde on the front page.

**Wang, Chu Chiao**

(MSc Tourism & Hospitality Management 2005) says hello to school mates.

**Wong, Chris Wai**

(BSc Hons Applied Chemistry 2001) says great to see you all again.

**Yeo, Woon Chee Peter**

(BEng Hons Manufacture & Management 2000) says hi to his pals of the 2000 DMEM class, under Mr Peter Ball and Jill. He would love to hear from any classmates.

**Yuan, Lili**

(MSc Pharmaceutical Analysis 2006) says hello to all her classmates and friends she met at Strathclyde. It was the unforgettable year to her during the MSc course. She would like to stay in touch with her friends.

Information for Grapevine has been submitted by alumni. The Alumni & Development Office makes every effort to reconfirm accuracy prior to publication, but this is not possible in every case. We apologise for any out-of-date information and ask that alumni please provide an update when their circumstances or contact information change.

An update form is available on the web at: [www.strath.ac.uk/alumni](http://www.strath.ac.uk/alumni)

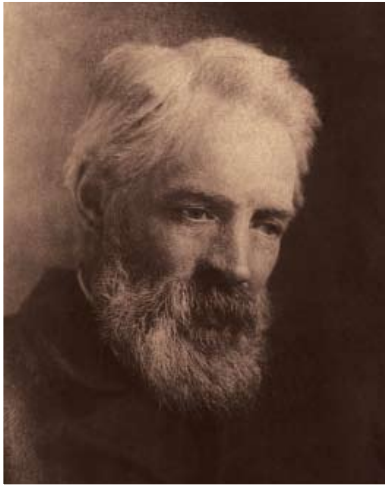
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GLASGOW G1 1XQ  
TEL: +44 (0)141 548 2773  
EMAIL: [ALUMNI@STRATH.AC.UK](mailto:ALUMNI@STRATH.AC.UK)





# It all started here



LEFT:  
James Blyth  
experimented  
by building  
a windmill in  
his garden

As Strathclyde researchers pioneer a new age of sustainable energy, they have a strong historical example to follow – that of **James Blyth**, a professor at Anderson's College

A few miles from Montrose, behind a whitewashed house in Marykirk, stands a quaint old windmill. To passers-by it's little more than a pretty feature of the Scottish countryside, yet in fact this windmill stands in a garden that once belonged to James Blyth – the man responsible for one of the earliest applications of wind power.

James Blyth built the windmill in his back garden around 1885, when he first began to experiment with wind energy. It was an interest that would endure throughout his lifetime, and one he shared with the local community through a series of popular lectures and demonstrations. By this time, Blyth had already established himself as a valued and popular lecturer at Anderson's College, now the University of Strathclyde.

Writing in Blyth's obituary, his colleague at Anderson's, Professor James Muir, paid tribute to: "the magnitude of the work done... the

## No.9. WIND POWER

mere physical exertion implied in such an amount of lecturing..." This hard work did not go unnoticed: "His students – gone forth from the classroom, and radiated over the country and to far corners of the world... all bear in the secret structure of their minds the impress of Professor Blyth's teaching, and will cherish through life, with reverence and affection, the memory of their teacher and friend."

That Blyth, a working schoolmaster, became a professor at all was an achievement in itself. As his obituary noted, to make this step in Scotland was at the time considered "a rare good fortune". Blyth's work ethic and down-to-earth nature were points of much admiration among his contemporaries, who were impressed by his willingness to roll his sleeves up.

Blyth was born in Marykirk in 1838 and attended the parish school and later Montrose Academy. His country upbringing brought a resourcefulness and talent for independent deduction that stood Blyth in good stead throughout his career. Blyth graduated with a BA from the University of Edinburgh in 1861 and completed his MA a decade later. He spent much of the early part of his career working as a tutor and teacher, before being appointed Professor of Natural Philosophy at Anderson's College in 1880, a position he held for the rest of his life.

Blyth's research concerned electrical problems such as the telephone and microphone and engineering applications. He believed passionately in the future of wind energy, a resolution that makes him one of the great pioneers of his age. In 1892, Blyth was awarded the

Brisbane Gold Medal from the Royal Society of Edinburgh for his work 'on the application of wind power to the production of electrical currents'. "He was," said his friend Dr James Colville, "a true man of science... one who by insight, patient toil, and mechanical ingenuity did much in his day to explain and illustrate many of the facts of physical science." Today, Strathclyde engineers continue the work pioneered by Blyth over a century ago. □



### Professor James Blyth 1838-1906

- 1838 born in Marykirk, Kincardineshire
- 1861 graduates BA from the University of Edinburgh
- 1871 graduates MA from the University of Edinburgh
- 1871-1880 works as a private tutor and teacher at Morrison's Academy in Crieff and George Watson's College in Edinburgh
- 1880 appointed Professor of Natural Philosophy at Anderson's College
- 1885 starts wind power experiments
- 1891 wins patent for wind energy experiments
- 1892 awarded Brisbane Gold Medal from the Royal Society of Edinburgh
- 1906 dies while still a Professor at Anderson's

## The last word

What started out as an engineering project put **Denis Kelleher** on track for a career in Formula 1. Denis explains how the Alumni Fund helped

**“** I've always been interested in motorsport. My family were heavily involved in rallying so it was a natural step for me to be interested in the Formula Student project. As well as joining one of the best engineering courses in the country, I joined the USM (University of Strathclyde Motorsport) team in my first year of university.

Joining the team was the beginning of a big learning curve for me, where we worked together to design, build, test and race our cars. I started out helping with the build, and then moved into engine design and finally I became Team Director for my last two years. I spent five years with the team and the whole experience was fantastic.

That's not to say it wasn't hard work. As Formula Student is entirely run by the students, we would spend 30-40 hours per week on our studies and then that amount and sometimes more on Formula Student. It's a major commitment for everyone involved, but the sense of achievement at the end makes it all worth it. We competed against 89 teams, from universities across the world, at both Silverstone and Hockenheim. Last year, we focused heavily on the design of our car, of which the Alumni Fund and our sponsors were hugely supportive. We finished seventh in the world in design (winning an award) and third in the UK, the best result in the team's history. Overall, we placed top five in the UK and 22nd in the world.

I graduated from Strathclyde with a Masters in Aeromechanical Engineering in June, and am now on the graduate programme at McLaren Racing. McLaren Racing only offered two places in the UK and both went to students at Strathclyde, which shows how well respected the degree at Strathclyde is. Strathclyde is very good at 'learn by application' and while

the degree teaches you everything you need to know, Formula Student gives you the chance to apply it to something 'real'. Currently, I am on a rotational programme with McLaren, and recently spent six weeks with the testing race team, where we tested in Jerez, Spain and Portimao, Portugal. It was incredibly hard work, long hours and lots of challenges... not too dissimilar to Formula Student, which was a bit surreal!

The USM team, past and present, were the most committed people I've ever worked with. It's unbelievable what everyone will do to achieve that one goal. Motorsport is a strange thing really – it's a passion, full of ups and downs. When you're at a low point, you think you'll never find a solution. But everyone pulls together, and the high points, such as our success at the competitions last year, are the moments you live for.

The Alumni Fund has been a big supporter of the team from the beginning

and without its support, and indeed that of all our sponsors, we wouldn't have had this incredible experience. I can't speak highly enough of the Formula Student project, it's one of the best things I've ever done. The team, the University, the sponsors – they all allowed us to do something we are truly passionate about. A huge thanks to everyone involved.

**”**

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