MP becomes WES patron

MEG MUNN MP has kindly agreed to become a WES patron.

Meg will be working with WES to help ensure that more female students from science, technology, engineering and maths (STEM) subjects go on to careers in the professions after graduating. Currently less than half of STEM graduates do so. WES will also be working with Meg to increase gender diversity, and to launch a new awareness day to celebrate Women in Engineering in June 2014. This will be WES’ 55th anniversary.

Meg said: “I am delighted to become a WES patron and I am looking forward to working with WES to address some of the issues facing women in STEM. We know that new innovations that will help us all to live longer and improve our quality of life will come from the next generation of scientists, technologists and engineers. Yet, we know that there are job vacancies in these fields, where women continue to be under-represented. WES will play a vital role in ensuring that these issues are addressed as they are important for us all.”

Dawn Bonfield, WES Vice-President, said: “We know that more women are needed in engineering to increase the diversity of thinking that is necessary to solve the global engineering challenges we face. One of the challenges is to get the message over to the younger generation of girls that engineering is a great career to follow.”

The photo shows (left to right): Milada Williams, Meg Munn MP, and Dawn Bonfield

Engineering institutions sign up to diversity

IN A WELCOME MOVE, professional engineering institutions have joined forces to promote diversity among their members and registrants, and they signed a Diversity in Engineering concordat at the Royal Academy of Engineering on 7 May to confirm their aims.

The one-page document includes three objectives: all institutions signing will have an action plan in place to:

- Communicate commitment to equality and inclusion principles
- Increase diversity amongst those in professional membership and registration
- Monitor and measure progress.

A resource guide has also been developed to support institutions working towards the concordat and other organisations who wish to increase diversity. The Engineering Council and the following eight institutions have signed up: Royal Academy of Engineering, Institution of Engineering and Technology, Institution of Chemical Engineers, Institution of Mechanical Engineers, Institute of Physics, Chartered Institution of Building Services Engineers, Institution of Civil Engineers and Royal Aeronautical Society.

Professor Dame Wendy Hall DBE FRS FREng, Dean of the Faculty of Physical Sciences and Engineering at the University of Southampton, welcomed Presidents and other institutional representatives to the signing ceremony.

Dame Wendy said: “Signnature is just the first step. We will now support the signatories in taking the next steps: defining and implementing action plans; and using the collective strength of this community wherever we can. We also hope to provide this support under the umbrella of the Professional Engineering Forum and would wish to link with and to capitalise on the Engineering Council’s on-going work on the value of professional registration.”

The Academy will be encouraging all 36 professional engineering institutions to sign up to the concordat in due course. To find out more visit http://www.roseng.org.uk/about/diversity/resources/eng_detr_concordat.htm

The president’s message

This is my last President’s message. What shall I say as my second term of office is coming to an end? First and foremost, that it has been a great privilege to follow in the footsteps of so many eminent women engineers that have led the Society before me. My successor, Dr Carol Marsh, nominated by Council as President Elect, will take on the challenge of steering the Society at the AGM on 4 October. She will have the difficult task of keeping WES aloft at the time when our activities increase and resources dwindle.

Our financial situation has been, and still is, extremely precarious since interest rates plummeted resulting in reduced income from the protected, ring fenced legacies to nearly zero. We have raised membership fees this year ever so slightly – trying to keep WES membership affordable whilst remedying a long hiatus since the last increase was implemented many years ago.

Do ask your employers to sponsor you, to become our company members to show their commitment to gender agenda and their support for women engineers?

We are a very active organisation as our successful conferences, events, collaboration with other STEM organisations and individuals show. The WES student conference was amazing! We had recouping positive feedback but we need to have sustainable support to make sure they can continue. Almost everything in WES runs on volunteer energy and that becomes depleted in the long term. It needs an input from fresh volunteers and much greater, funded ‘back office’ administrative support for all the activities we do, and those we could do, if we only had the resources.

WES is what we, members, make it.

There is no-one else out there to do things for us. Use your initiative and we shall give you space and... continues on page 2
Inside this issue

What has changed over the past 11 years?

This is the last issue of the Woman Engineer that I will edit. I have greatly enjoyed producing the journal for the past 11 years and am leaving it in good hands (see page 8 for details of our new editor).

Looking back over the past 11 years, has there been any changes in opportunities for women engineers? It is definitely now easier for women to combine work and family life, owing to legislation on flexible working and childcare plus employers’ recognition that they do not wish to lose skilled staff. Women still have to make sacrifices, however, and jump through hoops to ensure that they maintain their professional standing whilst taking time off for maternity leave. The geneticist Linda Partridge, speaking on Radio 4’s The Life Scientific, said that she advised her students to start a family as soon as possible as it was easier to have children whilst studying for a PhD rather than later when you were establishing your professional reputation.

Women scientists – and occasionally engineers – are appearing more regularly on radio and TV programmes. In academic circles some engineering departments are now headed by women and there are 2 or 3 female Vice-Chancellors who are scientists and engineers. There are a few women on the boards of manufacturing companies (see page 8).

However progress is still slow. Also rather depressingly the number of girls studying engineering has not increased significantly despite the best efforts of WES, WISE and other organisations. A hopeful move is the commitment by the professional engineering institutions to promote diversity but getting female engineers into schools – to interact with children as young as possible – is crucial. The Voices project (see page 6) will provide another vital tool in this area.

In signing off I would like to thank all the WES members who have been so helpful and supportive, and, in particular, the members of my wonderful Editorial Board.

Pat Battams – editor

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Pat Battams – editor

The president’s message cont...
WHAT ARE YOU UP TO THIS SUMMER?

we’re sure you don’t need our help having fun this summer – we’re praying for better weather and more sun - so we’re leaving you with some advice on how to make the best of it, career-wise. stay cool and hydrated, and we’ll talk again at the next edition of in:genius. have fun!
In this competitive job market, employers are looking for graduates with valuable work experience. It may seem daunting to find such opportunities, but the undertaking will develop professional skills and hone your abilities. You will gain insight into industry operations, develop transferable skills, acquire an amazing section for your resume - maybe even glean a firm job offer post graduation! And what better time to start than this summer? Here are some methods we found useful while looking for our own summer placements:

SEARCH ENGINES + JOB SITES
Most of us are already well-acquainted with the megapower that is the internet - now, make it work for you. There are many job search engines out there, and most allow you to upload your resume where it can be viewed directly by thousands of employers. It’s time to brush up on your resume, and get it out there. Here are some sites to start you off:

http://www.thebigchoice.com/
http://www.monster.com
http://www.prospects.co.uk/
http://www.indeed.co.uk/
http://targetjobs.co.uk/
http://www.ratemypayment.co.uk/
http://www.gradcracker.com/
http://www.simplyhired.co.uk/

UNIVERSITY CAREERS SERVICE
The university careers service was made especially to provide information and guidance to guide you toward your ideal work experience or graduate job. Beyond merely searching for opportunities, they provide complementary services such as assistance with applications, and resumes, and preparing you for interviews and assessments.

SPEAK WITH YOUR LECTURERS
Your lecturers and university departments have strong ties with industry. Speak with your lecturers and personal tutors, and let them know that you are looking for work experience. You can never tell whom they know - so just ask! Also, if you are particularly interested in something your lecturers are doing, this is the best way to find a foothold in that field.

CONTACT AN EMPLOYER
Sometimes, finding work experience is as simple as picking up the telephone and calling companies. It may be daunting, but employers will appreciate your confidence and initiative. This is a chance to sell yourself, and may just get you the job.

... AND THEN CONTACT MORE
Don’t put all your eggs in one basket. You might not get a quick call back, or that call may never come - so give yourself a better chance of landing that work experience you want by spreading your wings and contacting several organisations.

USE SOCIAL MEDIA TO YOUR ADVANTAGE
It’s a part of our daily lives - don’t deny it - and they can be a fantastic way for getting new contacts and creating opportunities. Some companies use social media as advertising tools; other specialised sites like LinkedIn actually include search engines to look for jobs or relevant organisation contacts. We all spend a fair amount of time online - use it wisely!

TRADITIONAL MEDIA
We are all a little tech-obsessed, and that means many of us overlook traditional sources like the newspapers, magazines, and even the yellow pages. It is always useful to keep a broad outlook on what’s available, so it might be worth your while to flip through once in a while.

The short of the long, really, is that you just need to be proactive. It’s no longer sufficient to rely on good results - what matters now is who you know, and what you do with that knowledge. Good luck with finding your dream jobs!
Great STEM Ambassadors

Elizabeth would eventually like STEM Ambassador registration to be introduced into the induction process for all new Peter Brett employees. “Other than working in a STEM career, the most important qualities for any STEM Ambassador are a passion for your job and a desire to pass that on to future generations – the requirements aren’t any more complex than that.”

Elizabeth’s passion for educating students and teachers about the types of STEM careers available has led her to a new opportunity – helping to develop the employability skills students will need to get jobs. Elizabeth is collaborating with Oxford and Cherwell Valley College (OCVC) and Reading College to design the curriculum for a new University Technical College for 14-19 year olds, due to open in Reading in 2013.

Champion of the Elite Engineering Programme invited to number 10

ELITE ENGINEERING Programme Champion, Emma Shires was invited to number 10 Downing Street to share her experience of engineering. Emma from Huddersfield, was invited to speak to other young people in her role as Champion of the Elite Engineering Programme which aims to encourage young disadvantaged people to consider careers in engineering.

The students were given a private tour of number 10 before being let loose on policy officials and industry specialists. Elite Engineering Programme Manager Kate Bellingham explains why Emma’s attendance was so significant; “It’s important for young people to have role models they can relate to. Having recently studied engineering and embraced her role as Champion of the Elite Engineering Programme, Emma’s a great example of young British engineering talent.”

Speaking after her visit, Emma said; “I became a Champion of the Elite Engineering Programme because I hoped to inspire other young people like me, from very normal backgrounds. Being asked to speak at number 10 was a great honour; I’m delighted I was given this opportunity to share my experiences with other young people.”

Emma studied aerospace engineering to Masters Level at the University of Liverpool. After graduating in June 2012 she became a sports engineer at the International Tennis Federation. She became a Champion of the Elite Engineering Programme in January.

The Elite Engineering Programme aims to boost the number of talented young people from disadvantaged backgrounds who consider pursuing careers in engineering. The initiative aims to reassert the UK’s status as a world leader in engineering.

The Programme was launched to businesses at the end of January in conjunction with LEGO(r) Education UK & Ireland, and programme manager Kate Bellingham in partnership with the principal funder, the Helsington Foundation, and the Royal Academy of Engineering. It will be launched to schools later on this year and aims to reach out to young people in state schools from the age of 12 by establishing the profession as a credible career path from school right through to university and even into internships. It is the first engineering educational programme to take young people on that journey.

Emma (on right) with the Princess Royal

A YOUNG SOFTWARE ENGINEER, and a civil engineer who is helping to influence the curriculum, were named among the UK’s most motivational people in science and technology, and have made a trip to the famous Large Hadron Collider at CERN, Switzerland, as part of their prize.

Laura Harvey is a software engineer apprentice at BT Martlesham and won the Most Inspirational Technician award, whilst Elizabeth Orchard, an assistant civil engineer for Peter Brett Associates, won the Most Dedicated STEM Ambassador award from STEMNET.

“When I heard what STEM Ambassadors were, I was really keen to get involved and take up opportunities to raise the profile of apprenticeships amongst students making career choices,” says Laura. “It can be difficult to get careers advice if you’re not sure of the specific job you want to do – it’s good for young people to realise there are alternatives to going to university.

“I feel that it’s important for people working as technicians to visit schools and let students know what these jobs involve. As a software engineer, I’m constantly learning and refreshing my knowledge – it’s the perfect job for someone who doesn’t want to be stuck doing the same thing every single day.”

Elizabeth’s employer is dedicated to engaging with the local community but previously didn’t have a structured approach or programme in place. “Over the past two years I have developed a STEM Ambassador group within the organisation that now has over thirty employees involved around the country,” said Elizabeth.
THE VOICES PROJECT was launched at the Royal Academy of Engineering on 20 March. This project allows women engineers to offer insight and advice to teenage girls into how they made their career decisions. It is funded by the Royal Academy of Engineering and was conceived following conversations with women undergraduates about their courses and career options during a recent study, SET to Lead, and at the WES Annual Student Conference.

WES has developed an engaging poster and supporting website as part of the project.

At the launch the schools and individuals invited heard early career women engineers Yewande Akinola, Neruja Srikantharajah and Gemma Whatling describe their current roles.

Yewande Akinola, environmental services engineer at Arup, told the girls: “I’m proud of my contribution to the sustainable regeneration of Central Saint Giles, London, one of the first city centre projects with a site-wide biomass heating system, extensive green roofs, and recycling of rainwater and grey water.

“I’m really interested in water and sanitation for underdeveloped and developing countries, have travelled to Ghana to look into developing mechanised systems, and recently went over to Mozambique to work with Water Aid.”

Neruja Srikantharajah, lead process engineer at Sellafield Sites, said:

“I love being part of a big team and gaining experience across different parts of the business. Every piece of work I get involved in is different. This requires me to adapt and step outside my comfort zone. It’s not always easy but once the job is done you feel a real sense of achievement.”

Medical engineer Gemma Whatling described her work at the Arthritis Research UK Biomechanics and Bioengineering Centre at Cardiff University investigating how movement and forces in joints are affected by osteoarthritis.

“I’ve always loved to find out how things work, even while at school I was designing and making things and thinking of ways to improve them. I love working with surgeons and physiotherapists in Wales to help understand more about the impact of surgery on a patient. It’s lots of fun and gives great insights into what you can do with an engineering degree.”

The WES poster design was based on work with girls in years 7 to 10 and undergraduate engineers from Cardiff, Aston, UCL and Sheffield Hallam universities. They found that a big passion of teenage girls is baking and cupcakes.

Their concerns focused on climate change,
poverty and sustainability. Knowledge of what engineers do was limited in year 7 to fixing things such as cars and domestic goods, but in year 9 and 10 had expanded to be wider and included design and making things, but remained vague.

Milada Williams, WES President said: “Engineering course titles, content and the style of delivery are evolving to meet the demands of industry – it’s great to see the experiences of early career women and students being shared in this way.”

From left to right: Gemma Whatling, Yewande Akinola and Neruja Srikantharajah

Engineering their way to a brighter future: STEM Day in Action

WILLIAM HULME’S GRAMMAR SCHOOL students put their science, technology, engineering and maths skills to the test in a one-day challenge set by educational charity, the Smallpeice Trust and sponsored by KYOCERA Document Solutions UK Ltd. The STEM day-long event was intended to enhance each student’s aptitude for lateral thinking, design and engineering.

Year 9 students focused on the Sustainable Island Project, working in small teams to develop electricity from a renewable source and help to sustain the island’s water supply.

They designed and built a wind turbine to produce the maximum possible amount of energy. They were also challenged to design and make a dam system to prevent water leaving the island and joining the sea.

Steve Trutch, service support manager, from KYOCERA Document Solutions, said: “Working with the Smallpeice Trust continues our existing educational activity with Young Enterprise and Henley Business College and our work to create an apprentice scheme for our industry. As well as being educational, we hope to show that engineering is fun and offers a great career. It’s definitely the sort of day I would have loved to have been involved in when I was at school.”

Education Officer for The Smallpeice Trust, Megan Hubbard thanked KYOCERA Document Solutions for their support and said: “The migration towards low carbon energy and a more sustainable way of life requires technological change, which is why it is important that we enthuse young people to consider engineering as a viable future career.

The STEM Day at William Hulme’s Grammar School was run by the independent educational charity, the Smallpeice Trust, as part of an on-going programme of courses designed to help young people learn and develop skills in engineering, design, technology and manufacturing.

For more information about the Smallpeice Trust visit www.smtpoepeiust.org.uk.

Encouraging girls at the Big Bang Fair

WES PUBLISHED specific guidelines on how young girls should be treated by companies and exhibitors at the Big Bang UK Science and Engineering Fair on 14-17 March.

‘Positive Connections’ advised exhibitors the best ways to encourage girls’ interest on their stands without alienating them or giving the impression that STEM is for boys.

There are as many girls as boys attending the Big Bang. WES advised exhibitors to ‘encourage all girls to have a go at the challenges on their stand – not just the confident ones’, and ‘ensure that everyone has a chance to succeed’. Another important piece of advice is to pass on the real life benefits of the business or service, as this is something that the girls will be drawn to.

With the global challenges facing us today, traditional engineering roles will change, and girls will have a vital role to play. Getting this information across to them is key, so another piece of advice to exhibitors is to bring along some of the younger female role models, who can explain first-hand what a great career choice engineering is.

Girls are encouraged to have a go at the Big Bang Fair

However, one of the most important pieces of advice to exhibitors was to ensure that opportunities are available to the girls which will allow them to maintain their interest in STEM after the exhibition has finished, through corporate open days, online apps, competitions, and social media.
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The UK lags behind Europe for

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on boards.

However, EEF’s analysis sug-
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the underlying issue of the need
to increase the pipeline of
women with engineering and
other skills choosing to work in
manufacturing. Furthermore,
since 2008 the number of female
engineers has gone up just 1% to
6%. This leaves a huge disparity
compared to the rest of Europe
with 18% in Spain, 20% in Italy
and 26% in Sweden.

To boost female engineer
numbers at all levels, EEF pro-
poses a national campaign to
increase the number of women
studying STEM topics to profes-
sional level, as well as promoting
apprenticeships.

To achieve this careers advice
must focus on promoting science
and engineering options at a
much earlier stage at school.
Manufacturers also need to get
more apprentices and graduates
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PUPILS FROM WIMBLEDON High School experienced an innovative “blow your own trumpet week”. This came about amid fears that girls may be missing out on top jobs in later life by failing to push themselves in the same way as boys.

Heather Hanbury, the school’s headmistress, said that women found it harder to “self-promote because they have this view that there will be a backlash from their peers.”

As part of a week-long series of activities, girls at the single-sex school were asked to write down personal achievements, such as passing music exams or making new friends, on postcards which were then put up around the school. They were also asked to reflect on individual achievements in each subject during lessons and acting out plays depicting success and failure in drama classes.

Mrs Hanbury said girls needed to be shown how to celebrate success without exaggerating their achievements. “Women in general are known for finding it harder to trumpet their achievements and accomplishments than men, and teenage girls are particularly prone to fear of being perceived as being arrogant, immodest or boastful.

“Within the world of work, women do find it hard to self-promote because they have this view that being seen as too confident or vain will actually make people dislike them.”

She continued, “Men have been shown to get over that. They don’t care if people don’t like them because they want this job or this pay rise.”

Mrs Hanbury said the latest initiative was also designed to enable girls to celebrate the success of others amid concerns many are too quick to put down their peers. “We need to help the girls to congratulate and feel happy for each other.”

STACEY CLIFFORD from Sheffield won both the Engineering prize and the Overall Winner prize in the prestigious Duke of Gloucester’s Young Achievers Scheme.

The shortlisted candidates joined over 200 senior industry figures and HRH The Duke of Gloucester at the awards evening at the Royal Institute of British Architects on 13 March, where the winners were announced. The finalists were judged by an esteemed panel of industry experts through a rigorous process of presentations and interviews earlier in the year.

Stacey, a graduate engineer at Kier, blew the judges away with her talent and commitment to the industry. She is a registered STEM, ICE and Construction Ambassador and has been actively involved with international development charity ‘Engineers Without Borders UK’ for a number of years.

The judges commented: “Stacey stood out in the end for a number of reasons: her brilliant communications skills, passion and understanding of the industry and drive to get things done on site, and lastly the new ideas that she has brought to bread and butter construction. Every site should have a Stacey, she’s like a breath of fresh air.”

The awards had 4 categories: Architecture, Engineering, Surveying and Project Management. There were female winners in three of the categories, each being a great example of how the future of the construction workforce could include more women.

Winners will each receive a unique package of support through the Trust and development opportunities via a one year mentoring programme to help make an even greater impact in their future careers.

Construction Youth Trust Director, Christine Townerly commented: “I am particularly delighted to see so many women triumph tonight and it is really heartening to see that young women are seeing the potential in construction as a career.”

For further information access www.constructyouyouth.org.
The Engineering Construction Industry Training Board (ECITB) is delighted to announce that Shirley Watson has joined its board of directors as an independent non-executive director and chair of its Audit Committee.

Shirley is a chartered civil engineer with over 30 years of diverse management and technical experience gained with contractors, consultants and regulators including executive positions at WSP Group, Wimpey and NHBC. In recent years she has designed and delivered transformational business change projects within the construction industry and she brings this experience of strategy development and project implementation to the ECITB.

She holds non-executive directorships with East Thames Group, a major social landlord, where she also chairs the boards of their two commercial companies and is a member of the group’s Risk and Audit Committee. Also, she works with Constructing Equality Ltd, a construction-specific diversity training and consultancy organisation, who are piloting ‘BE Fair’, the Built Environment Fairness, Inclusion and Respect accredited framework, which is being developed by the Construction Industry Training Board (CITB).

Shirley is a member of the Construction Industry Council Diversity Panel, whose recruitment and retention initiatives raise the profile of the career opportunities in construction.

Shirley says: “The ECITB plays a crucial role in ensuring that the UK can meet its energy and water demands and that it is globally competitive in the processing and manufacturing sectors. I am delighted to have been appointed to the board of the ECITB. I will use my business improvement expertise combined with my knowledge, enthusiasm and commitment for engineering construction to enable the ECITB to maximise the value from its resources and to raise the profile of the organisation.”

An engineering student from the University of Bath has secured a fellowship grant of up to $50,000, aimed at supporting her ambition to pursue an academic career.

The fellowship has been awarded through the Schlumberger Foundation, a non-profit entity that supports science and technology education. The Foundation’s flagship programme, ‘Faculty for the Future’, was launched to award fellowships to women from developing nations of official statistics of female scientists and engineers by developing Lu as a positive role model.

Lu, originally from Shang Lu city in northwest China, has been studying at Bath since 2009. She was one of the first students from the North China Electric Power University (NCEPU) to take part in an innovative 2+2 programme, which allowed undergraduates to do two years study in China followed by two years in Bath.

Lu said: “I feel extremely fortunate to receive this prestigious award in this international competition, which will definitely help me to realise my ambitions in life. On top of my academic studies, I also work as a teaching assistant, laboratory demonstrator and a resident tutor, which helps me pay my way and also provides valuable work experience.”

The fellowship will allow Lu’s time to be entirely focused on her PhD research, and give her opportunities to promote advanced engineering, sciences and technology to others.

According to a new TUC analysis, more than two in five women workers over 50 want to work fewer hours in their current job.

While the recession has been characterised by rising underemployment – people doing part-time jobs but wanting full-time work or more hours in their current job – the TUC analysis of official statistics shows that too many hours is also a big issue, particularly for older women.

Around two in five women aged 50-64 say they want fewer hours in their current job. This rate falls for women aged 60-64, three in ten of whom want fewer hours.

The TUC believes the desire to work fewer hours is greater for women over 50 as many have to balance work with looking after grandchildren, parents or children of their own.

The analysis is the latest in a series of reports for the TUC’s Age Immaterial campaign which focuses on issues facing women over 50 at work.

TUC General Secretary Frances O’Grady said: “The need to work fewer hours is particularly acute for the millions of women over 50 who have to balance work with multiple caring responsibilities. Providing more part-time work will help these women to look after loved ones while continuing their careers. Employers would also benefit by holding on to talented and experienced staff.”
Members’ news

Memories of Rosemary

Hilda Blount writes:

I WAS SORRY to learn that Rosemary West had died. Although I don’t know a lot about Rosemary’s career, I know that while her children were small, she promoted the WES Midland Branch in 1960. I joined then. There was a meeting at the old Engineering Centre in Central Birmingham. They did us proud. Madeline Nobbs was president at the time, and May Maple and Isabel Hardwich spoke. Rosemary became the first chairman of the branch.

After a very few years, she moved north with her family. After my spell with the law, I met her again when she was President at Keble College at the WES conference. She led the society with grace and efficiency, and was up there in the development of computers.

Engineering is for everyone

MANY THANKS for an enjoyable afternoon at the Royal Academy of Engineering. The students really got a lot out of it and were excited to take what they had learnt back to school.

Sophie Simpson
Arts Programme Manager
St Catherine’s Catholic School for Girls, Kent

CareerWISE Review

AS PART OF THE new CareerWISE Scotland project (hosted by the Scottish Resource Centre for Women in Science Engineering and Technology), the WISETECH team at Sheffield Hallam University has been asked to carry out a short review of the extent and impact of previous and current work to promote science, technology, engineering, maths (STEM) including built environment subjects at further and higher education to girls in Scotland.

One of our first tasks is to identify the recent (from 2008) and current initiatives and projects with a focus on girls, women and entry to STEM subjects and careers within Scotland.

We are interested particularly in schemes linked to work experience, employer links and employer engagement (but we do not wish to rule out schemes that do not fit these three strands) and designed to improve progression beyond 16.

We will be carrying out on-line searches and approaching a wide range of organisations directly as well as drawing on the experience of UK wide schemes, but we know from our own work that contacts within STEM who already have an interest in this area are invaluable for local, regional and Scotland specific knowledge.

If you know of any initiatives or projects that fit the description, please email details or contacts to me.

Pat Morton
p.m.morton@shu.ac.uk

Engineering Inspiration 2013

The 9th WES Student Conference for undergraduate women engineering and technology students will be on 18–16 November at Aston University. Jaguar Land Rover and EDF Energy have kindly agreed to be headline sponsors Engineering Inspiration 2013.

Participating in this conference will enable you to meet professional engineers in a relaxed environment to ask those questions you feel you can’t on open days. Plus:

• meet other women students
• gain confidence
• find out what you can do with your degree
• ask questions – technical and personal
• certificate of attendance

Speakers (male and female) are booked from a range of sectors and backgrounds to ensure a diverse programme of interest to all students.

Workshops include Preparation for Assessment Centres, Mentoring and Coaching, Packaging your Personality - how to present a professional image while retaining who you are and Enhanced Presentation Skills.

For further inspiration see http://conference.wes.org.uk/eng-inspiration.

YOUR Letters...

Keep us informed of the latest news in your area – email: editor@wes.org.uk or write to: the Women’s Engineering Society, c/o IET, Michael Faraday House, Six Hills Way, Stevenage SG1 2AY
ACCORDING TO AN article in the magazine Practical Farm Ideas, GM crops fail to address the real problem, which is the deteriorating quality of farmland soils, and so can at best be only a short-term answer.

A new farming system that’s better for wildlife, environment and farmers is cover cropping. Under this system farmers grow a mixture of plants including vetches, radish, clovers, sunflowers and others that draw up goodness for their next crop.

This cover crop is squashed down before the cash crop is planted, and the mulch created helps the wheat, oil seed rape, or maize to grow, as moisture is retained and the biology of the soil improved. It means the cash crop will thrive with less fertilizer and spraying. As plants grow throughout the year, bare soil is prevented from being washed and blown away.

This sytem has been tried out in North Dakota where farmers have been cover cropping for 20 years. It has reduced costs, provided higher yields and provides birds and insects with a huge boost of feed, and habitat.

SMALL-SCALE PUMPED storage has the potential to help end Britain’s reliance on fossil fuels for electricity generation.

The Quarry Battery Company has been awarded a grant by the Department of Energy & Climate Change to learn more from operators in other countries around the world.

The company is very close to the planning decision on what is thought to be the first small-scale commercial electricity pumped storage scheme to be built in the UK.

Pumped storage uses low cost off peak electricity to pump water from a lower to an upper reservoir. At times of peak demand the water is allowed to flow back downhill through a turbine to re-generate electricity. The technology was thought only to be viable when used on a large scale, such as the 1800MW facility at Dinorwig in north Wales.

However, QBC is confident that much smaller scale pumped storage is commercially viable. Its proposed scheme uses two old slate quarries – one at higher altitude than the other – at Glyn Rhonwy and would output around five percent of the electricity of nearby Dinorwig.

Greater pumped storage capacity would resolve a central problem with renewables – that their generation ability is weather and time-dependent, and therefore intermittent. Pumped storage sites would absorb power from wind turbines and other renewable sources, then release it back into the electricity grid at times when there is no wind, sun or tide.

The Quarry Battery Company was founded from ideas originating at the Centre For Alternative Technology near Machynlleth.

Photo above shows lower reservoir at Glyn Rhonwy.

The theme for the conference is KW-Leadership, SE-Future (Korean Woman’s Leadership in Science & Engineering and Future). Through this international conference, we aim to spread and exchange the achievements of information, energy & environment and space technologies, basic science, and convergence technology. We also try to strengthen the global position of women scientists and engineers and build proper foundation for collaboration and partnership between the domestic and foreign scientists and engineers.

Please check for more details on http://www.hjen.or.kr/

2013 APNN in Taipei, Taiwan

INWES is happy to announce the 2013 Asia and Pacific Nations Network Meeting (APNN), which is co-organised by TWiST and KWSE and scheduled to be held on the 14 September in Taipei, Taiwan. This event will be held in conjunction to ICOnWiST hosted by the Project of Mainstreaming Gender in Science and Technology and TWiST.

APNN is the official Asia Pacific network of INWES, as proposed at the regional meeting in Busan, Korea in 2009 and established in Adelaide, Australia during ICWES15 in 2011. The second APNN Meeting was held in Kuala Lumpur, Malaysia in 2010 co-hosted by KWSE and IEM prior to the 2012 WiSET meeting. For more information, please visit www.2011apnn.org.tw