Corporate Members Profile

Around ten percent of WES members are actually sponsored by their employers. WES Corporate Members are not only a vital source of sponsorship but over the years have also provided council members, speakers for conference and various forms of other support for our projects and activities, too numerous to mention. The Society is eternally grateful for all the support we receive from our Corporate Members, active and passive. Thank you all!

In this issue we begin a series of profiles on our Corporate members, starting with Arup. Arup have supported WES over the years through their corporate membership and donations towards the Lady Finniston awards. Deirdre O’Neill, a member of council from Arup, spoke to a selection of her colleagues to give us a better idea of what Arup and its WES members do.

Arup is a global firm who provide engineering design, planning and project management services in all areas of the built environment. We provide the engineering and related consultancy services necessary to every stage of the project, from inception to completion and after. Formed in 1946, the firm now has over 700 staff based in 70 offices in 32 countries. Some of our more recent projects in the UK include the Angel of the North, the City of Manchester Stadium, Tate Modern and the Swiss Re building.

Arup also take an active role encouraging young people into engineering careers through schemes such as our Pre-University Trainee Scheme (which sponsors students through university) and providing work experience for school pupils.

For more information on Arup please log on to: www.arup.com.

Contact
If your employer would be interested in the benefits of Corporate Membership, then contact the Company Members Team for an information package either via the WES office or by email to: claire.rees@btinternet.com.

WES Members in Arup

Deborah Lazarus
“I have worked in Arup for nearly thirty years (!). I am currently in Arup Research and Development where I lead the small team of structural engineers who provide specialist advice on existing buildings. This can range from historic buildings to those only recently completed but where defects have been identified, and can cover leaking basements, fire damage and settlement problems. The team provide advice internally and also undertakes external commissions, which may include research projects. Within the wider Structures Team I look after the structural specifications and technical guidance notes which we issue internally.

I am a member of Council at the Institution of Structural Engineers, and also chairman of the IStructE Educational Trust. I am a Supervising Civil Engineer for the ICE training scheme and also carry out professional reviews for the ICE, so there is quite a strong institutional involvement overall.”

Caroline Marklew
“I joined Arup as a Building Services Engineer after graduating from Cardiff University in 1997 with a degree in Mechanical Engineering. I joined without really knowing what a Building Services Engineer was and I was a little sceptical, as I had always envisaged myself using my degree to work in the renewable energy sector and not in sizing pipes and radiators. I was pleasantly surprised however, as I found that the majority of my work was essentially in researching or designing low energy buildings.

I spent my first year with Arup working in London in Arup Research & Development, followed by 18 months with Arup Associates, a multidisciplinary design team which included architects as well as engineers. I then transferred to Arup’s Sheffield office, to be nearer the Peak District and good mountain biking terrain, where I have worked on various projects including stadiums, museums, offices and schools, with a number of different architectural practices.

Joanne Iddon
“I joined Arup ten years ago as a structural engineer and spent my first few years working as a design engineer. As part of training for chartership with the ICE and IStructE, I spent some time seconded to Tarmac construction (now Carillion) working on site. My role there was much more project management orientated and on my return to Arup I undertook a secondment to our Project Management Group – and stayed!

I now spend my time managing building projects on behalf of our clients – often based in their offices. I organise the design and construction teams, make sure we don’t overspend and ensure the team delivers the project on time. The most interesting part of my job is the huge number of people I get to work with and the diversity of their backgrounds – from the electrician on site to the lawyer sorting out the contracts. Working in house for different clients allows you to understand their organisations and working cultures and see the different ways they use and fund their buildings. However, I still see myself as an engineer at heart and enjoy acting as a mentor for our graduates working towards chartered status.”
Resource Centre website is up & running

The website for UK Resource Centre for Women in SET – www.setwomenresource.org.uk – was launched early last month. The Centre itself, based at the University of Bradford, will be launched on September 16.

The Resource Centre is a significant step towards progressing the government’s strategy to increase the participation and progression of women in all SET sectors.

The website aims to provide informed solutions to employers whilst at the same time giving access to mentoring and networks for women and girls entering or already participating in SET learning or work. Role models and real case studies show how women can achieve worthwhile and satisfying careers in SET.

At the launch Pat Langford, deputy director and head of Promoting Science, Engineering and Technology for Women, at the DTI said: “There is a strong demand from employers for high quality SET educated individuals. We cannot afford to leave women, who make up 50% of the workforce, out of the UK’s SET future. The Department of Trade and Industry sees the new Resource Centre website as a key channel of communication allowing the Centre to achieve their objective of working with SET employers to help them tackle the barriers to recruiting, retaining and progressing women in their organisations.”

Know your place

Job stereotyping is being targeted by a joint campaign from the Equal Opportunities Commission and JIVE (Joint Interventions) partners who are running the new Resource Centre. Know Your Place has its own dedicated website – www.knowyourplace.org.uk – and a series of posters and an advice leaflet informing women about the opportunities open to them in information technology, engineering, construction and plumbing.

The posters highlight the benefits offered by working in these industries including an interesting and varied day, the chance to think creatively and good rates of pay.

This project is supported by the EU European Social Fund which is also supporting the EOIC’s investigation into segregation and modern apprenticeships. This investigation has shown that gender stereotyping about different occupations is damaging this country’s industrial competitiveness by contributing to skill shortages and the gender pay gap. The most extreme skill shortages are in plumbing and construction followed by engineering.

Over the past 10 years no significant increase has taken place in the number of women coming into these areas – 1 per cent of the construction workforce is female and 8 per cent of engineering.

Chancellor’s cash boost for science and engineering

Despite the Chancellor’s Spending Review being bad news for some areas of the civil service, the outcomes for science and innovation are very positive.

There is a real commitment to boost this country’s science and engineering base and a recognition of its importance to the economy as well as society as a whole.

There will be an additional £1 billion funding over the Spending Review period and over the longer ten-year period investment in the public science base will increase at least in line with the rate of growth for the economy.

There is a new target to increase UK R&D investment as a proportion of national income from 1.9% currently to 2.5% by 2014.

The government intends to undertake an annual review and biennial

Conference latest

All the details of the seminars and industrial visits at the WES Conference at the Whitehall College, Bishop’s Stortford on October 1 - 3, see page 4.
From the editor...

A government policy to put science and engineering at the heart of this country’s wealth creation seems almost too good to be true. Yet that is what the Chancellor has promised in his recent Spending Review. And it’s not just a ‘pie in the sky’ promise as there is guaranteed extra funding plus annual reviews against specific targets to measure progress.

If the seriousness of this intent is doubted, we just have to look at the progress of government policy on recruiting and retaining more women engineers and scientists. The new Women’s Resource Centre will be opened next month and its website is already online. These initiatives, however, may take some time to bear fruit in the shape of a more visible presence of women in science and technology workplaces.

WES members are already playing an active role in encouraging young people, particularly girls, to consider a career in engineering as the profile of Claire Machin on page 5 shows. Claire has come to her present job of trying to persuade young people to study engineering via a career as a design development engineer in the automotive industry and a life-changing spell in Nigeria. She is particularly keen on her present role since, as a girl, she was discouraged from becoming an engineer.

Traumatic life-changing events were experienced by two WES members who suffered disabilities following serious accidents. How they coped and how their employers reacted is described on pages 6 and 7. In future issues we hope to cover how other members have coped with life-change events.

Conference now is only just a month away. On page 4 all the seminars are described. Book now to avoid the disappointment of discovering that your chosen seminar(s) are full.

INWES

Sue Bird reports on the latest developments

A very important item with which to start. The 13th Conference of Women Engineers and Scientists (ICWES 13) will be held between Sunday August 28 and Wednesday August 31, 2005 in Seoul, South Korea. The Association of Korean Women Scientists and Engineers (KWSE) have released their first circular, and this can be seen on www.icwes13.org. There will be some bursaries available from the ICWES UK fund. I went to a conference in South Korea last November which was very well organised by KWSE and was well supported, so we are all confident that this ICWES will be very successful.

INWES is moving ahead now, and an executive director has been appointed. Kitty Didion has worked as director for AWIS (Association of Women In Science) in USA for 14 years, and so brings a wealth of experience to INWES. Both Pam Wain and I have met Kitty, and are very pleased that she is joining us.

I write this two weeks before going to Kenya for an INWES board meeting, and a conference organised by the African Women in Science and Engineering (AWSE). During the conference, I shall be talking at a workshop entitled ‘Experiences with creating and sustaining Associations of Women in Science and Engineering’, basing my presentation on WES and what I have learned from it about organisations. I am sure this will be of use to some at the conference, but I also expect to learn important things from the others there.

The first newsletter from INWES has been produced, and can be seen on the INWES website www.inwes.org. Remember that WES is a member of INWES, and so all WES members are part of this organisation. If you have something to contribute or would like to discuss it further, you can look on the website, or contact me through WES.

...Cont from page 1

detailed assessment of progress towards goals. There are six broad ambitions against which progress will be judged:

✦ World-class research at the UK’s strongest centres of excellence.
✦ Greater responsiveness of the publicly-funded research base to the needs of the economy and public service.
✦ Increased business investment in R&D, and increased business engagement in drawing on the UK science base for ideas and talent.
✦ A strong supply of scientists, engineers and technologists; recommendations include improved salaries plus measures to support science teaching and to encourage school and HE students to study science.
✦ Sustainable and financially robust universities.
✦ Confidence and increased awareness across UK society in scientific research and its innovative applications.

Another area where the government recognises that it needs to do better is public engagement. A new grants scheme will enable citizens, the science community and policy-makers to engage in dialogue to establish and maintain public confidence in making better choices about critical new areas.

The Institute of Physics pointed out that the lack of physics teachers may hamper the government’s strategy as physics is crucial to engineering and other disciplines.

Dr Julia King, chief executive, said: “We support the government’s vision for British science and want to help achieve it. To this end, we must create a society at ease with science, engineering and technology, and one which welcomes scientific research and technological development. Education, education, education lies at the heart of this.”
Dear Editor

I’m currently researching aspects of women in engineering and would like to know if any WES members have any records or personal recollections of women’s experiences in engineering either during the world-wars or immediately post war.

I’m attempting to compare experiences of my own mechanical engineering apprenticeship (during the 1980s) with a historical perspective to see if things have improved, changed or otherwise.

If any members could spare the time to write to me about their own experiences, I would be very grateful.

Clare Cameron (tel: 07900 055 0567: email: Clare.Cameron@dunlop-aerospace.com)

Dear Editor

It occurred to me recently that many WES members will have an old mobile phone or printer cartridge tucked away in a drawer at home or at work. What they may not realise is that their unwanted items can benefit the Roy Castle Lung Cancer Foundation.

Old mobiles and empty printer cartridges can be recycled and the proceeds will be used to help fund vital research into the early detection, diagnosis and treatment of lung cancer as well as providing support for sufferers and their families. With 38,000 new cases of lung cancer being diagnosed each year and 80% of those diagnosed not surviving longer than 12 months, lung cancer is the biggest cancer killer in the UK. But that’s not all. Recycling is environmentally friendly too (mobile-phones and printer cartridges take hundreds of years to biodegrade). So you can help the Earth and support a very worthwhile cause too.

For details just call 08712 50 50 50, visit our website www.recyclingappeal.com/roycastle or simply drop your unwanted items in the post to: Roy Castle Recycling Appeal (EL), 31-37 Etna Road, Falkirk FK2 9EG

Your letters should be sent to: The Editor, The Woman Engineer, 22 Old Queen Street, London SW1H 9HP or via e-mail to editor@wes.org.uk

Congratulations to:

Julia King, who has been appointed as Principal of the Faculty of Engineering at Imperial College – a position she will take up later this year.

Julia has been chief executive of the Institute of Physics since September 2002. Before joining the Institute of Physics, she held a number of senior positions at Rolls Royce plc and prior to that spent 16 years as an academic researcher and lecturer. Her research interests include the mechanisms of metal fatigue and fracture, and aerospace and marine propulsion.

She is currently chairman of the Defence Science Advisory Council of the Ministry of Defence, and has been a member of the Council of the Engineering and Physical Sciences Research Council, and served on the Foresight Panels for Materials, Marine and Defence and Aerospace.

Julia received a CBE in the 1999 Birthday Honours list for services to materials engineering. Her leisure interests include people, growing orchids, collecting modern prints, gardening and walking.

Sir Richard Sykes, Rector of Imperial College, said: “We are very pleased to have attracted someone of Julia’s high calibre. Engineering is a key part of Imperial, and Julia’s experience and enthusiasm are crucial to build on Imperial’s world class reputation, and take it forward.”

Imperial’s Faculty of Engineering is the largest in the UK. It comprises ten departments, with over 1,000 staff, 3,800 students and a turnover of around £60 million. It is one of four faculties within the College.

Sharon Lane on the birth of her daughter Madeleine on May 2. The photo shows proud parents Sharon and Chris with Madeleine.

Sharon works as a senior engineer for Darchem Engineering in Stockton-on-Tees, where she carries out design work on thermal protection products and co-ordinates draughting and design resources. Before joining Darchem she spent four years on a modern apprenticeship with Tees Components Limited, a CNC machining and fabrication company. During this time she studied part-time at Teesside University and graduated in design engineering last summer.

Whilst she is on maternity leave, Sharon is keeping busy by studying for an MBA by distance learning with the University of Durham.

Sharon has been a WES member for six years and hopes to get more involved in WES activities during her maternity leave.
Keep us informed of your latest news by writing to:
The Woman Engineer,
22 Old Queen Street,
London SW1H 9HP
or via e-mail to
editor@wes.org.uk

New members
Susan Abraham, London
Joanne Balmer, Solihull
Guilhanim Bayrak, London
Clare Booker, Inverurie
Kim Harvey, Bristol
Vicki Johansen, Cardiff
Trish Marchant, North Shields
Lingfang Yao, Loughborough

Associate members
Laur Ducker, Rotherham
Hayley Jones, Barrow-in-Furness

Student members
Ellin Barklund, London
Frances Baxter, Sheffield
Nic Burton, Barrow-upon-Soar
Silan Celik, London
Anna Maria Fergus, Glasgow
Katherine Gregory, Derby
Ellen Grist, Bath
Laura Hall, Edinburgh
Teju Isola, London
Chantal Manço, Coventry
Jodie Miller, Nisnas, London
Charlotte Ratcliffe, Clitheroe
Feyi Thompson, London

Junior members
Eleanor Heath, London

Upgrade to member
Sharon Lane, Marton-in-Cleveland

Process engineer, Rosemary Harper, has won the UK Chemical Industry Young Person of the Year 2004 award. Rosemary, who works for Solvay Interox in Warrington and comes from New Zealand, is the first award winner from outside the UK.

Rosemary now becomes the official young ambassador for the chemical industry for the next twelve months. Her key task will be to work with the Chemical Industries Association to raise awareness of the contribution that the chemical industry can bring to local communities, as well as the exciting career opportunities it has to offer young people. She will also be invited to chair the chemical industry’s Young Persons’ Network.

The award was judged by a panel of industry experts who assessed the ability, enthusiasm and leadership skills of each of the regional finalists. All entrants presented work they have done with local communities and had to demonstrate an in-depth understanding of the issues and challenges faced by the industry worldwide.

An IEE scholarship scheme – the FUSE (Funding Undergraduates to Study Engineering) offers assistance to undergraduates on IEE-accredited BEng and MEng courses. Twenty FUSE scholarships, each with a value of £1,000 per year for the duration of the course, will be awarded annually. To encourage students from all backgrounds into the engineering profession and ensure the funding of those with high ability that require financial help, the scholarships will also be means tested.

In addition, students will automatically receive free student IEE membership for the duration of their course.

Dr Alf Roberts, IEE chief executive, comments: "It is no secret that there is a decline in the number of students enroling on engineering courses. The IEE FUSE Scholarship is addressing the need for an increased number of engineers to support UK industry.”

IEE FUSE scholarships will be available for the first time from October 2004. Further information is available on www.iee.org.uk.

JAN WARD, owner of a metalurgy company in Southampton, has been appointed to the Small Business Council (SBC), an advisory non-departmental public body, which represents the views of small businesses to government.

Jan, a mechanical engineer, started her own company in 1992 specialising in the supply of high alloys to niche markets in the Middle East. Prior to this she had worked for a large US steelmaker and for several medium sized international producers and distributors in the US, Europe and the Far East. Her company now has offices in the UK, Saudi Arabia, Iran and UAE.

Jan is Director for International Trade and Membership at Southampton and Fareham Chamber of Commerce, Business Representative for Southampton Partnership (LSP) and until last year sat on the DTI’s Export Clubs Advisory Panel. She was named International Businesswomen for 2001 at Women in Business International Conference.

Promoting equality of opportunity and good race relations is a legal obligation on all “public bodies” including higher education institutions under the General Duty of the Race Relations Amendment Act.

Good Talking – the HE communications equality and diversity toolkit aims to help PR and communications staff in higher education institutions to promote equality of opportunity. The toolkit has been produced by the Equality Challenge Unit (ECU) for the Higher Education Funding Council for England (HEFCE).

The toolkit – a booklet, and an online lexicon and collection of case studies – was written and designed to make it easy to use. The booklet’s use of boxed text, colour, checklists and tables should help readers to spot easily what they are looking for.

Since preferred terms change over time, a glossary is included on the website. Readers are invited to consult this, comment on it, and their views will be fed back into it, keeping it up-to-date and stimulating debate.

The toolkit can be seen at www.ecu.ac.uk/GoodTalking.

Comments and examples of good practice for the case studies page can be sent to comms@ecu.ac.uk.

At midday on August 31 an online seminar will provide free advice for engineers on professional indemnity insurance. Anyone wishing to join the seminar should visit www.insurancescentsa.com.

Commission will be chaired by Baroness Margaret Prosser, currently chair of the Women’s National Commission. As former deputy general secretary of the GMB union, Margaret has long been campaigning for equal pay and opportunities for women.

Full membership of the Commission will be announced in autumn. It will report to the government within 12 months on what the Government can do to reduce the pay gap and give women fair opportunities at work.

The DTI’s Women and Equality Unit has published an easy to understand guide to equal pay and the causes of the pay gap. It is available online at www.womenandequalityunit.gov.uk/
President’s message

Continued from page 1

Many members may be involved in helping to run charities or involved in running WES itself. Although these activities are undertaken on a voluntary basis, they do bestow on participants legal responsibilities. This article explains what this means.

A nyone who becomes responsible for controlling the management and administration of a charity becomes a charity trustee and acquires legal duties and responsibilities under the rules of the 1993 Charities Act.

Charity trustees cannot be under 18; an undischarged bankrupt; someone convicted of an offence involving dishonesty or deception; someone previously removed from trusteeship or under a disqualification order under the Company Directors Disqualification Act. Anyone convicted of serious offences against children is disqualified from trusteeship of children’s charities.

Charity trustees need to be prepared to take an active role in running the charity and to give time to the efficient running of the charity. Also, before agreeing to become a trustee it is important to consider whether there are any likely conflicts of interests.

Trustees are not usually entitled to receive any payment other than reasonable and necessary out-of-pocket expenses. Neither can they benefit financially by:

- taking a lease on the charity’s property
- borrowing money
- making contracts to do business with the charity
- being an employee of the charity.

If a trustee wishes to become an employee they must resign their trusteeship.

Principles to guide trustees

The Charity Commission recommends the following principles to guide charity trustees in their duties:

- The income and property of a charity must be applied for the purposes set out in its governing document.
- The income must be applied for its purposes within a reasonable period unless the trustees have an explicit power to accumulate it.
- Trustees need to bear in mind that their prime concern is the charity’s interests and they cannot let their personal views or prejudices affect their conduct.
- When trustees need to make a decision which affects the personal interests of a trustee, that person should not be present at any discussion or allowed to vote on the matter.
- Trustees need to co-operate with other charities and exchange information with them in order to avoid duplicating efforts.
- Charities should not use their resources to do what is already being done by the statutory services.
- Trustees are responsible for setting the strategic aims, objectives and direction of the charity. The identification and management of risk is important in helping to ensure strategic aims and objectives are achieved.

Liabilities

If trustees act prudently, lawfully and follow their governing document then any liabilities which they incur can be paid by the charity. If they act otherwise they may be personally responsible for liabilities.

Trustees can insulate themselves from the charity’s funds against personal liability whilst administering the charity if the charity’s assets are insufficient to indemnify them.

Financial responsibilities

Trustees are accountable for the solvency of the charity and the preservation of its endowments. They must exercise overall control over financial affairs. There are legal requirements for keeping and independent audit-
What’s going on at Conference

In the last issue we promised further details of the seminars which will be taking place at this year’s conference on October 2 - 3. When booking for Conference please indicate your preferred choice of seminars.

Conference kicks off on the afternoon of Friday October 1 with optional industrial visits. These will be to EADS Astrium, Stevenage (satellite and aerospace company); Millbrook Proving Ground, near Bedford (vehicle testing on road and off) and BAA at Stansted Airport (behind the scenes tour).

If you haven’t registered already, do so now. Booking forms can be obtained from the WES office or downloaded via our website (www.wes.org.uk/pdf/WES_2004_Conf_App_Form.pdf) or from the centrefold of the last issue of the Woman Engineer.

Saturday October 2, 14.00 – 15.30

Speechwriting by Pat Langford, head of DiverSETy team, Office of Science and Technology

Writing speeches for ministers is part of Pat’s work as a civil servant – and when she gets home, she writes fiction for pleasure. Useful tips from someone who really knows how to get points across.

Intellectual Property by Kate Moran

This seminar will outline different forms of intellectual property and then go on to discuss how patents in particular may be used as a business tool. It will cover the following: patents as a business asset (selling and licensing patents); protecting your products/market (patents as a defensive tool); patents as a marketing tool; and patents as an information resource.

As an ex-engineer, Kate is also willing to discuss the transition from chartered engineer to chartered patent attorney if this is of interest.

Project Management by Michelle Richmond, Ubinetics

This seminar will cover the role of the project manager plus key skills and techniques to managing the team to achieve success! Delegates will take part in active planning and setting up structures to get the best results to deliver project to time. The mystery of work breakdown structures, work package descriptions and milestones will be explained. Project management techniques are the ultimate transferable skill set between business sectors and industries.

Business Development Skills by Mike Chandler, Chandler Associates

Delegates will gain an understanding of how they can undertake business development (BD) using a personally developed model. This should appeal to those who are uncertain about this area of business.

There are many strands to BD, and the parameters affecting each situation need to be managed in detail. There is a need for any person engaging in BD to develop their own personalised model, honed over time, to ensure effectiveness. We will develop a model in delegates’ minds, showing how they could implement BD successfully.

Skills for a Portfolio Career by Diane Davy, Chandler Associates

The seminar aims to develop a skills inventory for a successful portfolio career. Using her own and delegates’ career experiences Diane will lead a discussion which will focus on the issues around portfolio working, before developing a generic check-list of skills and attributes to build a personalised skill base, to facilitate a successful portfolio career.

Sunday October 3, 09.00 – 10.30

Dealing with the Media by Julia Haythorn, JFH Training

In this media-dominated age there is more likelihood than ever that you will be called upon to present your views in the form of a television or radio interview. Whether to offer expert advice, give an opinion or promote your company, it is important to be able to perform well. This seminar will introduce basic media skills, including dealing with hostile interviewers, communicating your message, getting rid of bad habits and dealing with nerves. There will be an opportunity for some participants to take part in practice interviews.

Writing the “Killer” CV by Julie Winnard, Visteen UK Ltd

This seminar will cover: how to put the most important information in the right place; how to sell your skills; the difference between male and female CVs; how you can and should tailor each CV to the job being applied for; extra areas of information useful to employers; when to do a CV; screening job ads and how to target the “right” job; useful for internal moves as well as external.

Tapping into your Creativity by Hillary Taylor, Zumiya Consulting

This seminar is an interactive and fun investigation into a range of creativity and problem-solving techniques. Delegates will be able to try out mind maps, metaphors, storytelling, brainstorming, post-its and more. There’ll be a chance to map some preferences and thinking styles. And, after all the hard work, there’s a prize for the best ... Well, that would be telling!

Appointments to Public Bodies by Pam Wain, WES President

If you want your voice heard, you have to be standing in the right place when you shout. This seminar is about one set of opportunities to make a real difference. There will be expert advice about finding the right way to get started in the world of public appointments.

Brand “You” by Paula Mathews and Jenny Mitchell, BBC

A session that gives people the tools to recognise, explore and build self-confidence in the power of their own “brand”. The word brand is used to sum up the unique combination of individual strengths, values and preferences that we all bring to work. Women often downplay the strength of their brand, and many women don’t have a sense of themselves as “powerful”. Power might seem like a masculine concept – until you find confidence in your own power. This session introduces you to the source of your own power.

Sunday October 3, 10.45 – 12.15

Getting Your Message Across by Julia Haythorn, JFH Training

In a business environment we use our voice all the time and the importance of doing so effectively cannot be underestimated. When we listen to someone, less than 10% of our understanding is the words they speak, the rest comes from their body language, facial expressions and tone of voice. There is no mystique involved in being able to make clear and authoritative speeches or compelling presentations. All the skills necessary can be learnt and can be improved with practice. The seminar will consist of practical, participative exercises that will begin to alter and improve the way the delegates communicate to an audience.

Successful Graduate Job Applications by Olubunmi Ibiudun

This seminar, based on Olubunmi’s own experiences, will be most useful for undergraduates and graduates who are not sure or have not been to interviews. Topics covered will include completing application forms; preparing and practising for interviews; your approach and attitude; the impression you make; typical questions asked and handling difficult situations.

Money for Women by Caroline Anstee of Destini Fiona Price

An introduction to many different areas of personal finance for women, especially useful for those considering portfolio careers.

Getting Your Work into Print by Pat Battams, independent author and WES Journal Editor

Designed to help people write about their work or any other activities in a lively, understandable and relevant way for possible publication in company magazines, university or college newsletters, commercial engineering publications, general interest magazines, local newspapers etc. The workshop will cover identifying themes that would be of interest to editors, writing in a brief but lively way, editing your first draft, importance of including personal experiences – interviewing colleagues etc and identifying photos for illustration; plus some fun exercises.

Stress Management by Sasha Gallagher, Hydraglitch Sweeney Ltd

The stress management seminar will help the audience to identify potential causes and symptoms of stress in the workplace and within their lives. It will look at different ‘categories’ of people to determine if you are predisposed towards becoming easily stressed and provide some guidelines on how to manage stress levels. Audience participation will be encouraged (though not mandatory) and the session will end with a relaxation technique.
Karen Quigley reports on what happened at the last Council meeting

Council met on 26 June at 22 Old Queen Street. We were joined by Susan Andrews in her new role as WES Company Secretary and by two observers – Betty McCarthy (Conference Team Member and Essex Cluster Contact) and Petra Schruth from Shell.

In her Treasurer’s report Dorothy Hattfield explained that she had revised her estimates for income and expenditure taking into account ‘worst-case’ effects of recent changes – WES could make a loss this year but there are reserves set aside which would cover it.

WES has not yet found a new secretary to replace Catherine MacGillivray – the Society has been run entirely by volunteers so WES has saved money on salaries but volunteer expenses have risen. SEMTA withdrew sponsorship for the printing of the summer journal without prior warning giving rise to a bill that had not been anticipated in the budget.

The job of collecting membership subscriptions is nearing completion but it was noted that many members, who pay by standing order, are still paying the pre-2002 rates. This is leading to a substantial shortfall in revenue. If you pay your subs through your bank, please check your bank statement and make sure you are paying the correct amount (£40 for members or £32 for associate members and associates). If you are paying the wrong amount, please arrange to pay WES the outstanding amount and send a revised instruction to your bank so that you automatically pay the correct amount next year. Dorothy agreed to investigate the option of setting up a direct debit scheme.

Julie Winnard gave a verbal report on preparations for the conference. She was able to confirm several more speakers to run seminar sessions and was hoping to confirm a further industrial visit on the Friday afternoon to Millbrook proving ground.

The conference is shaping up to be a really great event – see page 4 for more in-depth information.

There are at least six bursaries for free conference places available to any WES member (irrespective of membership grade) who would like to come to conference but cannot afford to finance it themselves. Betty McCarthy is overseeing the bursary applications and has a small team to make the awards. It was noted that some senior members of Council and the Executive were unwaged and would be applying for funding to go to conference. Council agreed that conference places for these people should be paid out of the core WES expenses fund so that the bursaries can be set aside for non-Council members.

The speaker will be Dr Claire Davis, senior lecturer, Department of Materials Science and Metallurgy at the University of Birmingham. Sasha Gallagher gave an update of the Daphne Jackson lecture which will be held on Wednesday 17 November at the IEE HQ in London. The speaker will be Dr Claire Davis, senior lecturer, Department of Materials Science and Metallurgy at the University of Birmingham. Sasha is working with representatives from the Daphne Jackson Trust, the IEE and IoP to organise the event.

In preparation for the AGM, nominations for honorary officers and ordinary members of Council for the next term were discussed. A number of new Council members are required; if you would like to be involved in WES projects and in steering WES policy for the future please consider serving on Council. Any WES member (irrespective of membership grade) can become a Council member, please contact the WES office if you are interested.

“Many members who pay by standing order are still paying the pre-2002 rates. This is leading to a substantial shortfall”
Wind turbine wins Arctic trip

Commmending the winners of the Shell/Imperial College Green Design award Industry Minister Jacqui Smith said: “Today’s Green Design winners are helping to bring engineering into the 21st century and overhaul the antiquated view that engineering is a man’s job. They are inspiring other young women, and proving that there are no barriers to success – only outdated views of what women can achieve in the scientific and technological professions. We can no longer afford to ignore such talent.”

The 2004 Green Design Challenge winning team was Catriona Smart (The High School of Glasgow), Fiona McAllister (Stirling High School, Gemma MacKintosh (Brechin High School) and Hanna-Liza Strachan (Mackie Academy, Stonehaven). The runners-up were the winners of the Ireland regional heats.

At the awards ceremony at Imperial College London, attended by WES president Pam Wain, the girls were awarded a prize of a £1,000 week-long Earthwatch expedition to the Arctic Circle/Czech Republic to study sustainable energy solutions – an area which our interaction with schools tells us is of particular concern to this age group.”

All participants in the Challenge, as well as applicants who were not selected to take part, are eligible for one of twenty £4,000 Green Design scholarships to study engineering at Imperial College.

HIGHWAYS DESIGN engineer Jo Ingle has won first prize in International Graduates and Students Papers Competition run by the Institution of Civil Engineers (ICE).

In her winning paper Jo, who works in the Design Services Group at Warwickshire County Council, described her involvement in the ICE’s Henry Palmer Award which challenges engineering students and graduates to promote civil engineering in creative and practical ways to audiences in schools, colleges or universities. Together with two fellow graduates, she launched the ‘I Did That!’ challenge to four primary schools in Warwickshire. They introduced the concepts of civil engineering to youngsters who then designed projects they would like built in their school play areas. Contractors built the winning design at each school, including an ‘airport seating area’ constructed in a disused bike shed and a harbour and bridge built round an existing pirate ship.

The project was so successful that teachers’ packs have been produced relating civil engineering to a variety of disciplines such as maths, science and history. These have been sent to all Warwickshire primary schools.

Jo has recently taken on the role of ICE Midlands’ schools liaison officer. She said: “It’s really important to get the message across early to youngsters that civil engineering is all around them and can be fun. They’re all so enthusiastic when they get involved in projects and see their designs turn into reality.”

Jo will also have to find time to undertake her distance learning MBA over the next three years.

HELEN BALI, a principal engineer for Hyder Consulting, has won the construction category of the Women Of Achievement Awards organised by the Plymouth Chamber of Commerce.

Helen has been the lead engineer over the last four years of Hyder’s framework contract for South West Water’s AMP 3 investment programme, and was described by the judges as “a role model for women in engineering construction.”

She first joined Hyder Consulting 12 years ago as a sandwich year student. The judges commended her not only for her career achievements, but also for her support of graduate training and charity sporting events.
What Claire Machin loves most about her job is seeing her students achieve success and getting her hands dirty. "I love making things! If I am not teaching and people need to find me, one of the first places they look is in the workshop," said Claire.

Claire is curriculum development specialist for engineering at Newcastle-under-Lyme College. Her job involves increasing awareness of engineering amongst young people in her area through the launch of the GCSE in engineering course and activities such as engineering clubs, careers evenings and recently a successful design and technology week.

"The GCSE programme has taken off massively in the first 3 years," said Claire. "The first year, 8 students completed it, this year we are looking at 21 finishing and 120 starting in September from 8 local schools. These students will have the opportunity to use the college facilities to try everything from welding and turning to simulating electrical circuits and using pick and place robots to construct printed circuit boards.

"When students first start on the course it can be quite intimidating. Once they know what they are doing, it gives them a whole set of skills and real confidence."

"For me, it's about trying to give young people the kind of experiences I wish that I had when I was young. If they decide they don’t want to continue with engineering, that’s fine, but at least they have made an informed choice."

Claire’s early predilection for engineering was discouraged.

"When I was young I wanted to be a mechanic and spend my days fixing cars. I was told that girls did not do that, so I thought about becoming a librarian!"

After taking an ‘eclectic mix’ of A levels, Claire had no idea what she wanted to do. She rang Newcastle-under-Lyme College after seeing an advert for a foundation year in engineering and was accepted for this.

"The course was franchised to the college from Stafford University where we attended once a week. Angela Dean ran the course there. She was a fantastic role model, and a great lecturer," Claire recalls.

She gained an HND at Stafford University and then a degree in computer-aided engineering. Her first job was as a design development engineer for Standard Products, who design static and dynamic sealing systems for the automotive industry.

"It was my dream job but after two years I wanted to do something different. Volunteer Services Overseas was looking for engineers with two years’ experience. I applied in June 1999 and by September 21 I was in Nigeria, where I lectured in Federal Polytechnic Offa (for 9 months) and then for 2 years at the Federal Polytechnic Bida.

"My experiences taught me a lot about myself. Just getting through a day sometimes was an achievement."

"During my time there I taught technical drawing to a class of 80 students and fluid mechanics to a class of 120. It was so rewarding; education is so highly prized the students try so hard to do well. It is a pleasure to teach them. I also did a course for lecturers in computing, CAD and CNC machining. The Poly had a broken CNC machine which no-one really knew how to programme so I did a bit of that as well."

"My experiences taught me a lot about myself. Just getting though a day sometimes was an achievement – boiling water when you had electricity, then letting it cool before you filtered it so you could drink it."

"Trying to juggle a very demanding job with a distance-learning course in water engineering has also been a challenge. It has not been unusual for me to work 13-hour days and if you add 2 hours travelling, it does not leave much time for study."

"It was my dream job but after two years I wanted to do something different. Volunteer Services Overseas was looking for engineers with two years’ experience. I applied in June 1999 and by September 21 I was in Nigeria, where I lectured in Federal Polytechnic Offa (for 9 months) and then for 2 years at the Federal Polytechnic Bida."

"It also inspired me to start a diploma course in water engineering."

Upon returning to the UK, Claire visited Newcastle-under-Lyme College where she was asked to do some part-time work, and a year later was offered her present job. It’s not all been plain sailing though.

"The guys there are great," she said. "The time, effort and skill they put into making models is astounding, but so are the results. One of them asked if I was interested in a career in engineering!"
She spent nearly 12 weeks in Broomfield General Hospital, Chelmsford where she received excellent medical care and her husband was allowed to visit at all hours to help her learn to cope with simple tasks.

Five months after the accident she returned to her job as an industrial adviser with NEDO (National Economic Development Office). At the time she still had an external fixator in her left leg; was later in plaster for 2 months and was on crutches for her first 5 months at work.

"NEDO were wonderful," said Barbara. "They allowed me to start working initially for 2 days (Tue/Thu), then 3 days (Mon/ Wed/Fri), then 4 days. It was a year after my accident before I was able to return to work full-time.

"There was an understanding that if I ever became too tired at work I could go home.

"Commuting into London contributed to my tiredness. Before I returned to work I tried to undertake the journey by train and tube but could not manage the tube. I told them this and they agreed to pay for a taxi from the station."

Teresa Schofield was a front seat passenger in a colleague's company car when it was involved in an accident in July 1999. She suffered near fatal injuries – her pelvis was smashed and she had serious internal damage resulting in removal of her spleen and her lungs collapsing. She also suffered head injuries which caused damage to the frontal lobe and left side of her brain but this was not diagnosed until later. Whilst in hospital she contracted MRSA as a result of her wounds did not heal and fractures failed to mend.

Nine months before the accident she had left her job at Motorola, where she was European sourcing specialist dealing with suppliers of electronic car components, to work for an employer-linked organisation. She disliked the long hours culture at Motorola and had accepted a better paid job when the offer came to set up a research centre at Cranfield and at the same time study for a PhD. Her job title was higher education manager and her job involves getting universities and industry together to develop courses.

When she returned to work 5 months after accident, her brain injuries had not been diagnosed and pelvis had not mended.

"I was suffering pain and mental difficulties. I found it difficult to plan and organise things. When writing a report I could collate the information but could not visualise its structure. I got the impression I was regarded as a neurotic female."

After her brain injury was diagnosed, Teresa had a further 3 months off, then needed two further 3 month periods to implant and remove a plate from her pelvis. She still needs therapy and is undergoing a Headway course to learn coping strategies for brain injury. Her continuing medical treatment means that she has been unable to progress her career.

"It's challenging – I have lost prompts/triggers to remember things, but things tend to come to me as I am talking," she said.

"Most people meeting me for the first time would not know that there is anything wrong with me."

Her employer paid her full salary while she was off and overlooked when she needed to take days off but otherwise expected her to carry on as normal. This was despite countless letters from her consultant saying that adjustments needed to be made to the job that she did, that she needed to work part-time and needed admin support. At one point they claimed to have come up with a new job with a new manager but it soon became clear that the new mananger didn’t want her to do the job she expected to do.

“They just left me to get on with it. They know that I am competent but I would have so welcomed the occasional word of encouragement.”

Four WES members who returned to work after a lengthy period of sick leave, may need on-going therapy or require further treatment in hospital and you may also need adjustments to be made to your working conditions to enable you to carry out your job.

Legislation in this area, the Disability Discrimination Act, is still relatively new and often employers do not understand their legal obligations. Despite legislation most people would expect their employer to be reasonably supportive of their efforts to return to their job. However employers’ interpretations of being supportive differ and often they are ignorant or don’t bother to enquire about their employees’ difficulties.

Two WES members who returned to work after serious accidents have had very different experiences.

Barbara Stephens suffered severe injuries when her motorbike collided with a car in 1990. Her pelvis was fractured in 23 places, her left knee, tibia and fibula were broken and her left foot crushed.
Proposed new legislation

Legislation could be in force by 2006 which further extends the rights of disabled people to fair treatment. The majority of recommendations made during pre-legislative scrutiny of the draft Disability Discrimination Bill will be accepted, according to government minister Andrew Smith. These include:

- a positive duty on public bodies to promote equality of opportunity for disabled people,
- extending the Disability Discrimination Act (DDA) to cover almost all activities of the public sector, including such functions as issuing licences,
- bringing within the scope of the DDA more people diagnosed with the progressive conditions of HIV, MS and cancer and removing ‘clinically well recognised’ from the definition in respect of mental illnesses,
- ending the exemption of the use of transport vehicles from the DDA duties on service providers,
- ensuring reciprocity with other EU states when it comes to the adjustments, handicap grants, Blue Badge Parking scheme,
- ensuring that when renting property disabled people are entitled to have landlords make reasonable adjustments,
- bringing larger private members’ clubs within the scope of the DDA: to cover members as well as guests,
- giving disabled local councillors rights not to be discriminated against by their local authority including rights to reasonable adjustments,
- providing a formal mechanism for disabled people to ask questions of service providers and others who they believe have discriminated against them.

Who are experiencing problems because of a disability.

For a free DVD on disability awareness covering the needs of disabled students and the new DDA requirements see www.trainingzone.co.uk/item/128654/6806084626

Championing equality

Debbie Rees, a civil service union rep who advises and supports union members experiencing discrimination and harassment because of their sexual orientation, and Nola Ishmael, a nurse manager who has helped black and ethnic minority nurses to advance in the National Health Service, have over the past ten years helped black and ethnic minority nurses to advance in the National Health Service. They believe that they have been very positive. “In 1999 I moved to Cumbria to a new job as chief executive of a small economic development agency,” she said. “At the time I was still quite frail and walking with a stick. My new employer made adjustments to suit my needs – I was provided with an automatic car and a reserved place in the car park; also adjustments were made to the ladies’ toilets.”

In 1993 and 2003 she needed further surgery. In 1998 moved to a new job in London and now commutes from Cumbria on a weekly basis.

She believes that she has been well treated partly because she has always been very articulate about what she wants. She has convinced employers that she can do the job and then tells them what her needs are.

Many people that she advises are reluctant to talk to their employers about their disability or their needs.

“I tell them to calmly articulate what their needs are. It’s all about communication.

“Employers are often nervous talking to employees about their disabilities because they fear that they might cause them offence. Then they tend to make assumptions about what they can and can’t do without having discussed it.

“Staff working for you may also have concerns. Encourage them to ask you if they are worried about what you can and can’t do.

“My advice to those returning to work with a disability is: do communicate, try not to get upset and don’t try to hide it.”

* Barbara and Teresa would be happy to advise any WES members

Debbie organised and runs the helpline, available seven days a week, can be used by any trade unionist in Wales.

Nola Ishmael has over the past ten years helped black and ethnic minority nurses to advance in the National Health Service.

She summarises her contribution as “giving them the confidence to apply for more senior jobs”. As Nursing Officer at the Department of Health, she started a rigorous mentoring and work shadowing programme, under which nurses spent time with her to see how policies were developed and implemented and even attended ministerial meetings with her.

Nola’s other initiatives have included giving new life to the Mary Seacole Leadership Awards, designed to support black and minority ethnic nurses, midwives and health visitors in achieving their potential; and the setting up of networks, most recently an umbrella organisation – the Confederation of Black and Ethnic Nurses – to which the associations for nurses from different parts of the Caribbean and Africa are affiliated.

For further information see www.wainwrighttrust.org.uk.