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WES Annual Report 2018-2019
Yearly report from WES Trustees on the activities of the Society for the year ended 31 March 2019. Centre pull-out
Clearly, we are having a fantastic year, we are celebrating our past whilst still ensuring that we accommodate the needs of the world as it is now and is going to be in the coming years. Actually in many respects the needs of pioneering women engineers a hundred years ago and those of today's trailblazers are similar – a level of respect and a fair playing field being the main objectives.

We have always appreciated the power of an engineering mind to solve the world’s problems, this was true in the past when we brought energy and technical abilities to societies and it is never more prominent than at this very moment, when technological change is rapid. It will be engineers who improve people’s lives and strive to help us live in a more sustainable manner. To say an "engineer’s time has come" is condescending, in fact it has always been an engineer’s time, it’s just that with the help of WES and other like-minded bodies, more people are recognising this now.

This fantastic Centenary year is just the start of the next phase for us all, thank you for your governance, desire, ambition, enthusiasm, hard work and commitment – it is very much appreciated.

Best wishes for your end of year celebrations and here’s to 2020.

Next issue contribution deadline – 10 January 2020

Lynn Postle, FICME

From the editor’s desk

Good governance, desire, ambition, enthusiasm, hard work and commitment are all required to drive an organisation such as the Women’s Engineering Society forward but it is PEOPLE who really make the difference. Individuals and collective groups help to shape WES into a Society that, whilst steeped in history and tradition, is very much a modern day body that represents the current and future needs of women (and the wider engineering professions).

I cannot believe that it is nearly a year since I became the President of WES! The time has simply flown by with the frenetic run of the usual annual WES events, conferences and awards as well as the fabulous Centenary events that have been held this year. At the AGM we said goodbye to some long serving Trustees who have held various roles over the years – Petra and Rosend thank you so much for your dedication and continued support over a very long period. In fact Petra was the President in 1998 so really has been instrumental in the Society for decades! I would also like to thank our other departing Council Members and Trustees. Without their commitment, and that of other key volunteers, the Society simply would not exist.

We do need to look to the future now and figure out how to properly complete the transition from a purely volunteer led and run Society into one that has a well-functioning governance set up that is meaningful and supports our Members. Consequently we held a Council workshop at the start of October to try and develop a set-up that would deliver for WES into our next century. By far the overwhelming feedback from the staff, Trustees and Council Members was that we needed to focus on delivering support to our Members. Thus I hope that our newly proposed Council set up with clear outcomes and figure to properly complete the transition from a purely volunteer led and run Society into one that has a well-functioning governance set up that is meaningful and supports our Members. Consequently we held a Council workshop at the start of October to try and develop a set-up that would deliver for WES into our next century. By far the overwhelming feedback from the staff, Trustees and Council Members was that we needed to focus on delivering support to our Members. Thus I hope that our newly proposed Council set up with clear outcomes and functions that would help to put the ‘woman engineer’ back at the centre of our purpose and ensure that we truly do support our Members to achieve their career aspirations!

Dawn Childs MA MDA BEng CEng FICE FIMEcHE FRAeS FWES

President’s Message

The Woman Engineer is published by the Women’s Engineering Society. It is distributed free of charge to members of the Society and to selected professional women engineers, scientists and women undergraduates.

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The views expressed in this journal are not necessarily the views of the Society.
WES Awards 2019

WES is delighted to be able to honour our members who work tirelessly to promote the value of membership and to instigate activities to promote both WES and women in engineering. Their efforts ensure that WES is able to support its members and encourage those women working in engineering, students of engineering and returners to thrive in their careers.

It is to be noted that it was a particularly difficult decision to narrow down the field this year and the internal awards panel had a tough time deciding on the recipients of the 2019 WES Awards. We are thrilled to have such dedicated members to choose from and are delighted to report that Petra Gratton is the recipient of this year’s Isabel Hardwich Award. In addition Gillian Skinner Awards will be given to both Holly Goodwin and Caroline Carslaw.

Petra was presented with the Isabel Hardwich Award at the AGM in October and said she was surprised and delighted to receive the honour.

Isabel Hardwich Award

Petra Gratton

The Isabel Hardwich Award is for a Member of WES who has made a positive impact on the Society over a sustained period of time, and this is certainly true of Petra Gratton. Petra joined WES in 1990 and her first formal role came two years’ later when she was appointed Chair of the London Branch. She has sat on the Editorial Board for many years, assisted with the organisation of conferences and was elected Vice President in 1997 then President in 1998, when her presidential aim was to set up a mentoring scheme. This vision turned into WES’ cross-sector mentoring scheme, MentorSET, which is still going strong today and has made hundreds of pairings, providing support to mentees and personal development to mentors.

In 1999 Petra delivered a speech to the Campaign Promoting Engineering (CPE) National Congress entitled ‘Let’s talk about sex!’ which, as reported in The Woman Engineer, “caused a bit of a stir” and “woke them all up”. Petra re-joined Council as a Trustee in 2017 and has played an active role as a Trustee for the last two years. She is seen by all as rational and fair, and the support she gave behind the scenes in the running of WES in 2018 was particularly greatly appreciated by the staff.

Gillian Skinner Award

Holly Goodwin and Caroline Carslaw

Holly Goodwin and Caroline Carslaw are founding Members of the WES Young Members’ Board and both remained on the board for three years. Holly played an active role in a variety of projects and Caroline held the position of Vice Chair.

Holly’s most notable work was on the Essay Competition and WES Centenary Draw an Engineer Competition, where her dedicated promotional work resulted in a substantial increase in entries, enabling us to reach more children. This in turn resulted in an increased amount of labour to administer the competition for Holly. Holly’s hard work, wonderful humour and support of WES is greatly appreciated.

Caroline has provided invaluable support to the Chairs Jo Douglas-Harris and latterly Sophie Hutchins and she should be commended for the work she put into gathering stories for The Woman Engineer and e.newsletter on the activities of the YMB. This was fundamental in making the WES YMB highly regarded within WES and to the success of the YMB activities where public engagement has been crucial. Caroline also played a major role in the administration of the competitions run by WES and came up with the idea and artwork for the Draw an Engineer Competition which featured a woman dressed in old attire looking in a mirror. Her hard work, tenacity and support of WES has been invaluable.

Highly Commended

Such was the calibre of nominees for this year’s awards that the following individuals have been Highly Commended in the Gillian Skinner Award category.

- Jennifer Glover, who since being elected the first Chair of the University Groups Board in September 2018, and shortly after becoming Student Liaison Officer, has single-handedly managed the ongoing administration of the WES Student Groups, and worked hard to tidy up records, amend the website and endeavour with Jo Douglas-Harris to re-write the terms of reference, making valid recommendations from the perspective of the Student Groups as well as WES.

- Kati Gastrow ran all the preparation meetings for the Centenary from the early planning stages until the start of this year, keeping everyone up to date with the plans and ensuring that the overall map of events was communicated.

- Caroline Graham was the brains behind the Scottish WES100 National Essay Competition. She was responsible for the majority of the organisation and personally gave a substantial amount of time to the competition and sourced the prizes.

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Centenary Trail Project Update

The Centenary Project is progressing well. We have held another productive Wikithon as part of the Heritage Open Days Festival at the LSE Women’s Library, which resulted in some new entries of women engineers finding their way onto Wikipedia. There are a few more Wikithons planned for the early part of 2020, including Newcastle, Swansea and Belfast. If there is one near you please come along and help to make Wikipedia less sexist and raise the profile of our women engineers of the past. Dates will be available in the next edition of The Woman Engineer and on the website.

Also, as part of Heritage Open Days the Centenary Trail, Helen Close, Centenary Trail Project Officer went along to the Lloyds Register, London, which holds 250 years of marine and engineering science material. The archivists there are beginning to discover the “hidden women” of the dockyards, ships and seas. Other HOD events which had a WES Centenary Trail presence were the Electrifying Women’s Creative Writing Workshop at Armley Mills, Leeds, and the Heritage Regeneration Project at Wentworth Woodhouse, Rotherham.
The WES YMB organised their fourth #WESLottieTour for Tomorrow’s Engineers Week in November. #WESLottieTour uses Lottie Dolls to show the variety of exciting careers available in engineering. The theme of the tour this year was #ThenAndNow, to celebrate the WES centenary and show how much engineering has changed over the past 100 years.

In addition to the tour, the YMB also worked with Arklu, the producers of Lottie, to create a poster aimed at primary age students. The poster is double sided, with one side showcasing the kind of photographs posted by engineers during Tomorrow’s Engineers week, and the other side celebrates female engineers from history. WES members can pick up copies of the poster at WES events to take to any outreach activities they take part in, and the poster will also be available to download from the WES website.

Next year, we will be offering the opportunity to sponsor the #WESLottieTour. If you’d be interested in this email: partners@wes.org.uk

YMB WES 100 Violets Project gets underway

Earlier this year, the Young Members’ Board was awarded a £30,000 Royal Academy of Engineering Ingenious grant to deliver a Public Engagement Project for the WES Centenary. The WES 100 Violets Project challenges engineers to design and create an exhibit that celebrates and showcases an aspect of their work or research that they feel is important to communicate to the public.

Applications opened in June. Following the application deadline in September, the YMB reviewed the applications, all of which were of a very high standard, and selected the top eight exhibit ideas to progress through the project. These eight teams will now receive up to £1,500 to turn their ideas into reality.

On 12 October, the YMB held the first of two training days for the teams in London. The day was led by Science Made Simple, a science communication training company. It was a very engaging day and deemed a great success. Even the YMB members organising the day left feeling more confident in their STEM communication skills.

The second training day will be held in January. Following that, the YMB is organising a large central showcase for 21 March, where the teams will have an opportunity to showcase their exhibits to the public for the first time.

WES London Cluster

After an amazing Centenary year in 2019 it’s time for the WES London Cluster to reflect on what exciting events can be organised in 2020. The WES London Cluster Committee is looking to launch initiatives that will help individuals in their career and aspirations.

Suggestions are welcome at: weslondoncluster@gmail.com
Making it happen

The strength of WES is in the loyalty of a team of volunteers who give many hours of their time to ensure the organisation can achieve its objective of supporting women at all levels in their careers in engineering. One activity which relies on the dedication and commitment of our Member volunteers is our conference and events programme, which is only made possible because of our hardworking volunteers.

One such example is this year’s Centenary Conference, held at the RAF Museum in London in March. WES is particularly indebted to Sally Sudworth and Jo Douglas-Harris for the work they undertook to plan the conference, which took two years. It is due to their hard work that the conference was such a success and offered so much guidance and advice to so many people.

Sally Sudworth, who is also a WES Trustee and Honorary Secretary along with providing the impetus for the Centenary Conference told The Woman Engineer that for her volunteering gives a very definite “payback” in her professional life. “The personal development that I get out of the involvement with WES complements my work life. It’s a win/win for me as it offers me a more rounded development plan which is why the team at work support me in this – I reach a much wider spectrum of people. My involvement with WES also enables me to pursue the things I am interested in and passionate about such as sustainability and climate change, which filters back to work. There is a definite payback for being involved with WES.”

Jo Douglas-Harris echoes that sentiment: “Volunteering with WES has so many benefits; I’ve found an incredible network of women, developed skills that have helped me secure the job I wanted and succeed in my role, and I love being able to give back to a group that has given me such amazing opportunities,” she enthused.

It is encouraging to note that many of our Members who are volunteering hall from all parts of the wider engineering discipline and are either starting out on their career path, established in their companies or are retired and still actively engaged with fellow WES Members.

Why volunteer?

In future issues of The Woman Engineer we will be featuring our volunteers and looking at the inspiration behind their activities.

One thing that does connect all of them is a passion for their profession and for WES. They are eager to encourage more women and men to get involved at all levels and continue to shape our Society. However, this is also matched with enthusiasm, team working skills and commitment. WES is very appreciative of their efforts and would like to thank all our volunteers for their hard work and support.

We have a new volunteering handbook which is currently being sent out to volunteers, to highlight the activities you can get involved with, and to encourage you to get involved. Volunteers don’t have to commit to organising a large event, they can “dip in” when possible and donate as much time as is possible for them. We are grateful for all support. A copy of the volunteers handbook is available to download on the Members area of the website.

The following are just some of the events held recently that have been made possible by those of you keen to drive initiatives and appreciate the benefits of networking.

- 24 January: The Changemakers event launched the Centenary and was organised by Jan Peters.
- 15 March: WES Centenary Conference, organised by Sally Sudworth and Jo Douglas-Harris.
- 15 May: Wales Centenary Conference, organised by Katherine Critchley and Milada Williams.
- 20 June: Transforming the Future, organised by WES Bath Student Group and Cluster Co-ordinator Nicola Grahamslaw.
- 23 June: WES Members’ lunch organised by Grazyna Whapshott.
- 11 July: Celebrating 100 years of WES (Merseyside and Wirral), organised by Cluster Co-ordinators Elaine Meskhi and Rosi Readioff.
- 23 July: Siemens and WES joint celebratory event, Newcastle, organised by Jo Douglas-Harris.
- 9 September: WES London Cluster – Finance Education Event with St James Place, organised by Cluster Co-ordinator Carolina Escudero.

WES CEO recognised as one of the 100 MOST INFLUENTIAL WOMEN IN ENGINEERING

WES CEO Elizabeth Donnelly praises the Membership as she is announced as one of the top 100 Most Influential Women in the Engineering Sector.

The list was produced by board appointments firm Inclusive Boards in partnership with the Financial Times. Inclusive Boards will also be publishing extensive research into engineering in the UK as well as the results of their diversity survey of the UK’s top 500 engineering companies by revenue.

Elizabeth said: “I am delighted to be listed in the Women in Engineering 100 for 2019, I consider this as recognition of the hard work and dedication of my team and the active Members of WES. It is vital that we celebrate women’s achievements in engineering. Awards like this help to encourage females to work to their potential and go on to achieve the careers they deserve. There is a plethora of talent in the WIE 100 this year and I am honoured to be alongside such amazing women.”

Past President and former WES CEO, Dawn Bonfield, was also featured in the WIE 100 alongside senior leaders from top engineering companies such as Amey, Arup, BAE Systems, and Laing O’Rourke.
Breaking the Mould

Each WES conference is designed with you, our members, in mind. You always tell us that you enjoy the development sessions that we feature and earlier this year at the WES Centenary Conference we did just that. The title of the session was ‘Breaking the mould: how to be true to yourself and be successful in business’.

It was a taster experiential session that first involved a creative problem solving technique to ‘wake up’ the right-hand side of the brain. Delegates were asked to draw a sketch or write a short poem. This technique has been scientifically proven to provide a greater range of solutions to problems rather than relying on logic alone i.e. the left-hand side of the brain.

Sally Sudworth BSc CEng CEnv FICE FWES MCIWEM, the facilitator for the session, then invited everyone to close their eyes and took them on an imaginary journey to the future, to a tropical island, where they enjoyed the feel of warm sunshine on their faces whilst reflecting on their recent successes. Participants used their experience to describe their life and/or business goals and identified a first step to turn their ambitions into reality. This was a taster session that gave people an introduction to some different and fun techniques that they might try themselves.

Sally also introduced delegates to vision boards and shared one that she had created for herself (pictured above right), and she recommended this tried and tested technique for tapping into the subconscious, which helps to understand what’s truly important to individuals. Instructions are reproduced with the kind permission of Dr Sam Collins from Aspire.

Being an active member of the Society can also provide many other types of development opportunities. Sally was Chair of the planning committee for the WES Centenary Conference, which took two years of careful planning, and was also Chair for the conference on the day. We encourage members to take up opportunities that can help with career development such as positions on Council or as a member of the Board as a Trustee.

For more information contact Sally, email: sally.sudworth@btinternet.com

Resources
1. Creating a Vision Board (Dr Sam Collins of Aspire).
Follow the steps on this link to create your own vision board. Set your life goals and achieve your optimum work life balance! https://lifelabs.psychologies.co.uk/users/596-dr-sam-collins/posts/262-how-to-kick-start-your-dreams-in-just-one-hour

Karen Burt Memorial Award

Mandy Lester of Atkins has been selected as the winner of the Karen Burt Memorial Award for this year.

Mandy was nominated by the Institution of Chemical Engineers (iChemE) for the Award which is presented in recognition of the best newly chartered woman engineer. Now in its 21st year, this prestigious title recognises the candidate’s excellence and potential in the practice of engineering. It highlights the importance of having Chartered status, as well as offering recognition to contributions made by the candidate to the promotion of the engineering profession.

Mandy won the Award for her commitment to engineering, addressing sustainability in the water industry and inspiring current and future engineers. She has led numerous water treatment projects since joining Atkins in 2015 and is currently designing a sustainable process for a water treatment system to supply safe, clean drinking water to a growing population in the water-stressed South East of England. It will be the UK’s first new open water supply reservoir in 30 years. Mandy was presented with her Award at the Caroline Haslett Lecture and Awards Evening, held on 30 October in London. Mandy is pictured at the event with Chair of the judging panel, Sally Sudworth.

A more detailed report will be published in the next issue of The Woman Engineer.

OBITUARY

Penny Owen

It is with regret that we report the death of Penny Owen.

Penny was a Senior Development Engineer at Molins Ltd and became a member of WES in April 1981, becoming Vice Chair of the London Branch in June 1981.

In 1982 she arranged a Career Convention at County Hall with 25 schools attending. She maintained and updated the WES careers stand for many years when getting suitable inspiring pictures was very difficult. This asset was used by many groups including the Verena Holmes Lectures and careers events.

In 1983 Penny was Chair of London Branch and helped with a number of events including Young Women Technician of the Year 1983 when she was on the adjudicating committee. She was also WES representative to the Caroline Haslett Memorial Trust and organised the Verena Holmes Lecture Tour in 1984.

She was a London Branch Representative to Council and also served on Council in her own right.

In later years Penny worked in schools and colleges in Greenwich, specialising in computing and mathematics.

Penny and her partner retired to Broadstairs. Our condolences are extended to her family and friends.
Meet the Top 100 Historical Women in Engineering

The 100 Years of Women in Engineering campaign has identified the top 100 women engineers who have been influential in the UK in all engineering fields, who lived at some time between 1919 and 2019, and who are no longer with us.

The list also includes a number of former WES Presidents, including the pilot and engineer Amy Johnson and the founder of the Electrical Association for Women, Mabel Matthews plus illustrious women from the Second World War period such as Beatrice Shilling, who developed the valve that prevented Merlin engines stalling when diving; and Hilda Lyon, who developed the ‘Lyon Shape’ used for the airship R101.

Among more recent examples are Baroness Platt of Writtle, who has been a champion of Women in Science and Engineering, and whose work contributed to the establishment of the WISE campaign in 1982; and Elizabeth Killick, the first female fellow of the Royal Academy of Engineering, who died in August 2019.

The list coincides with publication of a book charting the early years of WES. Magnificent Women and their Revolutionary Machines by Henrietta Heald tells the stories of these pioneering women and their influence on the engineering landscape during a discouraging time for women in this male-dominated profession, when – in spite of their tremendous work in munitions factories during the First World War – a successful attempt was made to outlaw the employment of female engineers.

Prominent physicist Jess Wade describes ‘Magnificent Women’ as a: “remarkable tribute to the pioneers who paved the way for modern Britain”, serving as a reminder of: “how far women have come, and a source of inspiration for how far we still need to go”.

Speaking about the campaign, Dawn Bonfield, chair of the panel that chose the 100 Women, and Past President of WES said: “It has been inspiring to learn more about these magnificent women who were pioneers in their field and had to contend with not only a legal system which prevented their participation, but an engineering profession which made it very difficult for women to succeed in the workplace. Despite these hostile conditions, many women did thrive, and that makes their stories even more compelling.”

Whilst the project is a Magnificent Women one, the judges included WES members and the Society’s archives were used to gather the information. The aim is also to add the details of many of these women engineers to a map of the UK and feature them all on Wikipedia as part of the WES Centenary Trail.

To learn more visit: www.magnificentwomen.co.uk/top-100-women.html