

The Woman Engineer



The journal will be going exclusively online from Summer 2024.

If you would like to receive a printed copy after this time please email: comms@wes.org.uk

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From the editor's desk

Here we are at the end of another year and, on this occasion, also at the end of an era as this is my last issue as editor of The Woman Engineer, before I hand the baton over to a new editor and a new publishing company.



Lynn Postle, FICME

I am disappointed to be saying goodbye to you, but I am sure you will be in good hands as WES embarks on a new direction for the journal. I have loved working with WES and helping the Society to develop *The Woman Engineer* over the past ten years. It has been rewarding to watch WES grow in stature into the vibrant and effective organisation that it is today, representing women engineers at all stages in their careers and working alongside men as allies. It is particularly fitting that this issue includes a contribution from past WES President Dawn Bonfield OBE, who I began working with in 2013 when I was appointed as Editor of *The Woman Engineer*, please refer to page 4.

It has been a privilege to meet and work with many inspiring women engineers during the past ten years. I have relished the opportunity to be a part of the WES world and will continue to be thankful that the Society is working hard to represent a dynamic group of women tackling the world's dilemmas. I would like to thank Dawn Childs and Elizabeth Donnelly for their support and encouragement and the steely determination they have – along with all WES Trustees, staff and the army of

volunteers – to ensure that WES meets your needs and continues to go from strength to strength.

I would also like to give a shout out to the teams of enthusiastic and hardworking women on the WES Apprentice, Early Careers and University Groups Boards – we can rest assured that the future is bright.

Also, to all those contributors over the years, I appreciate your loyalty and respect of deadlines – the bane of an editor's life. Special appreciation to the graphic designer Sam Jones and the publishing team for their diligence in designing, printing and distributing *The Woman Engineer* with patience, skill and expertise.

I am delighted to have been a part of this esteemed journal's development process and I know the next chapter will be exciting and successful, elevating *The Woman Engineer* to new heights. I look forward to meeting up with WES Members at events in the future. In the meantime, I wish you all a peaceful and joyous festive season and New Year. Here's to 2024 and to engineering a better future for us all.



President's Message

It is with a tinge of sadness and pride that I write my last message as President of WES.

It has been both a challenging and rewarding five years. I am sad to be stepping down from a role that I have been so privileged to sit in, truly treading in the footprints of giants when I consider some of my trailblazing and groundbreaking predecessors. But I am proud that WES has progressed and continued to grow under my stewardship – both as a Society in scale and structure and in outcomes as, during that period, the number of women in engineering and associated roles in the UK has grown from 12.5 to 16.5 per cent (with women in core engineering roles growing from 9.3 to 15.2 per cent). I know that is not all down to WES, but I am confident that we have played our part!

It was great to see some of you at the AGM and to be able to formally close out my final year in office. Many congratulations to Dr Katherine Critchley who, after many years as a volunteer and then Trustee, has now been successfully elected as your next President. I am so pleased to be handing over to Kathy who has already done so much for WES in various roles. I know you will give her the same level of support and help that you did for me. Congratulations also goes to our two new Trustees, Paula McMahon and Laura Shrieves, who were elected on to the Board; and thank you to our departing Trustee, Professor Elena Guara for her service over the past two years.

One aspect of my role as President that I have particularly enjoyed is being connected with so many amazing people – I hope that these connections endure; because although I am stepping down, I am still a Member of this remarkable Society and will no doubt see you at various events and get together in the coming months and years.

I remain in awe of the effort and work put in by our volunteers and Members – keep being fabulous!

Dawn Childs DBE FREng

WES Student Conference

1 December 2023 – Horizon, Leeds

www.wes.org.uk

The Young Woman Engineer of the Year Awards

7 December 2023 – IET London, Savoy Place

www.youngwomenengineer.theiet.org

don't miss

Caroline Haslett Lecture and WES Awards

13 December 2023 – The Geological Society, London

www.wes.org.uk

Check the WES website for events and updates at:

www.wes.org.uk/events/wes-events



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

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WES and Engineers in Business Fellowship

Twenty-five-year-old Space Engineer, Samrudhi Inamdar has won the WES and Engineers in Business Fellowship competition which was run to celebrate INWED 2023.

Her prize is mentorship by a Sainsbury Management Fellow (SMF). SMFs are distinguished engineers who were awarded a Sainsbury Management Fellows MBA scholarship to enable them to study at the world's leading international business schools. This has enabled the SMFs to use their combined business and engineering skills to further the economic growth of UK and global companies. Samrudhi will commence her mentorship with insights and support from SMF Sinéad O'Sullivan who is an Aerospace Engineer of note and now works with Professor Michael E Porter at the Institute of Strategy and Competitiveness (in complex systems).

Samrudhi has an impressive career already. She has a Bachelor of Electronics and Telecommunications Engineering from Savitribai Phule Pune University, India; a Masters in Astronautics and Space Engineering from Cranfield University and is currently working as a Project Engineer at ALTEN, UK on a Rolls-Royce aero engine project. Previously she worked with Tata Communications in India.

Samrudhi's passion for engineering is evident and she holds several voluntary roles, including Vice President - Internal Relations at the European Young Engineers. She is also a Chapter Director (UK) of the Global STEM Initiative and is associated with Space Generation Advisory Council (SGAC); UK Students for Exploration and Development of Space (UKSEDS). She also volunteers as a citizen scientist at NASA in the GLOBE programme, an initiative that researches the global environment.

In 2022, she was awarded the *Bright Sparks Award* which recognises the thirty young and most talented engineers in the UK. She was also chosen as a delegate at the 67th session of the *Commission on the Status of Women*, which was held in the UK and hosted by UN Women, as well as an ambassador for the *Women of Future Programme* to mentor and assist young schoolgirls as they prepare for their future careers.

On winning the award Samrudhi Inamdar said: "I am excited to have an SMF mentor, especially to be supported by someone so prominent as Sinéad O'Sullivan. I too am considering studying an MBA programme and I'm sure that this mentorship



will help me with that endeavour, as well as helping me to fully immerse myself in the UK aerospace industry. I am very grateful to WES and Engineers in Business Fellowship for this unique opportunity."

In addition to the SMF mentoring prize, she also won a free place at the *WES Annual Conference 2024*, sponsored by Engineers in Business Fellowship.

Revamp for The Woman Engineer

The WES journal is about to undergo a revamp.

The Woman Engineer has been produced quarterly since 1919 and is an important resource for research. It contains a wealth of information regarding not only women in engineering but also a wide variety of information for social history, gender studies and innovation in the UK since 1919. The early journals also contain technical papers by female engineers. The journals are all digitally archived with the IET and you can find all back issues going back to the beginning at <https://www.wes.org.uk/activities/news/woman-engineer/>

A survey in 2022 showed that *The Woman Engineer* was an important benefit of WES membership as a key tool to keep people up to date with the organisation, but Members also wanted more from it such as more in-depth articles, and technical papers. In response to the survey, WES has decided to redesign the journal and expand the number of pages from 12 to 24 and invited companies to tender for the editorial and design of the Journal.

We are delighted to announce that Warners Group Publications will be taking over the print and design of *The Woman Engineer* from 2024. We also have a new editorial board of WES Members and a new editor, Juliet Loisselle. As well as being a WES Member Juliet has recently served on the Board of Trustees for the IOR (Institute of Refrigeration), and is a

founding member of the Women in RACHP network. She also publishes and edits a variety of magazines, including the *ACR Journal*, *Heat Pumps Today* and *Modern Building Services*.

We hope that this new direction for *The Woman Engineer* will build on the fantastic work that has been done over the last decade by editor, Lynn Postle and will also help us move the journal online over the next year.

If you have any questions or comments, please email comms@wes.org.uk

Electric dreams - a **FESTIVAL** of **WOMANPOWER**

Next year marks the centenary of the formation of the Electrical Association for Women, an offshoot of WES, and there are plans afoot to celebrate this milestone, and bring the messages of the EAW up to the present day. Past President of WES, Dawn Bonfield OBE explains how we can all get involved.

Plans for 2024

Many exciting plans for celebrating the centenary in 2024 are coming together, and more will be revealed in future editions of *The Woman Engineer*, but in brief, there will be three strands of celebration badged as History and Heritage; Communication, Outreach and Public Engagement; and Campaigns and Action. Or put another way – Past, Present and Future.

One aspect that requires immediate help is linked to the Blue Plaque campaign, where we would like to commemorate up to ten of the prominent women who were involved in the organisation of the EAW, and we are seeking local WES members to champion one of these women and work towards the successful erection of a blue plaque. The women we have identified who don't have a current 'champion' are listed in the table below, along with their location. If you feel that you could take on the organisation of this activity, or work alongside others towards a successful blue plaque, then please let me know on dawnbonfield@btinternet.com

GENERATING A NEW WORLD

The EAW grew out of a necessity a hundred years ago.

In the early 1920s, electricity was just beginning to be introduced to the homes of the UK, and in 1924 Mrs Mabel Matthews – a British electrical engineer - had an idea to 'popularise the domestic use of electricity' to get women to use it more readily. But when Mrs Matthews presented her idea to the Institution of Electrical Engineers (IEE) in a paper entitled '*The Development of Women's Interest in the Domestic Use of Electricity*' to fulfil the requirement for associate membership of the Institution, it was rejected. Undaunted, she submitted it to the Electrical Development Association, which also refused it.

She next submitted her paper to WES, of which she was already a Member, and got the enthusiastic response she sought. On 12 November 1924, Katharine, Lady Parsons – wife of Sir Charles Parsons, the industrialist and inventor of the steam turbine engine – convened in her home a special meeting of WES Members, prominent electrical engineers and representatives of women's groups to form this Women's Electrical Association (WEA).

WEA held its first council meeting on 16 December 1924 and appointed Caroline Haslett – the Secretary of WES – its Director, a position she held until 1956. On 30 April 1925, to avoid confusion with the initials of the Workers' Educational Association, the name of the organisation was changed to the Electrical Association for Women (EAW), and it retained this name until the organisation closed in 1986.

The Association shared office space with WES at 20 Regent Street in London, and Haslett used her growing influence and the Association's strapline of 'emancipation from drudgery' to transform women's role of domesticity through modern technology. The EAW acted as a vehicle for the education of lay women about electricity and as an advisory body to the industry on matters of policy, asserting the need for safe and practical appliances in the home to reduce the burden of women's domestic work. Essentially, it brought engineers and housewives together, acting as a liaison between (mostly male) engineers who did not understand what women wanted and housewives who could not follow the technical language.

CAMPAIGNS, COMMITTEES AND CONSULTANCY

The EAW devised and carried out numerous campaigns, the first of which in 1928 aimed to provide more socket outlets in homes. Campaigns included the design and performance of domestic electrical equipment, post-war reconstruction, air pollution and home planning. In 1933 the EAW, together with prominent engineers, produced a report on '*The Design and Performance of Domestic Electrical Appliances*'. In 1933 Haslett secured a large grant from the Central Electricity Board to carry out a large-scale programme to educate women to make the best use of electricity in the home. The EAW grew rapidly and branches were soon established in Glasgow, Birmingham and Manchester. Such was their appeal that by 1933 the

Name	Location
Margaret Moir OBE	Gorgie
Elizabeth Kennedy	Camberwell
Mabel Matthews	Wakefield, Yorkshire
Margaret	Plumstead, Kent
Gertrude Entwistle	Swinton, Greater Manchester
Maysie	Hawarden, Flintshire
Anne Gillespie Shaw CBE	Uddingston, Scotland
Marjorie Bell	Edmonton, Middlesex
May Maple	Gateshead
Veronica Milligan	Pontypridd, South Wales
Verena Holmes	Kent
Maria Watkins	Various
Eleanor Shelley-Rolls	Monmouth

EAW was accepted as the primary communicator and educational establishment with regard to electricity and its domestic applications. Electrical safety was another important facet of the programme, and in the 1950s and 1960s the EAW produced teatowels, dusters and pinnies (aprons) to explain the principles of electricity and electrical safety to women. Three of these designs have been digitised and are available today as teatowels.

In 1935 the All Electric House was commissioned by the Bristol branch of the Association and featured all kinds of electrical appliances and gadgets from an electric cooker, refrigerator and fires in every room to drying cupboards, electric clocks and food warmers. Amongst other things, the 'EAW Electrical Housecraft' course was given at most domestic science and technical colleges in the country.

The EAW continued to flourish after Haslett's death in 1957, but by the mid-1980s it was no longer attracting new members and was voluntarily dissolved in 1986. Its work in encouraging women to use electricity in domestic settings had been accomplished, and its pivotal influence in getting women out of the home and into the workplace had been achieved.



WES Careers

Are you looking for your next career move?

The WES jobs board is the perfect place to find your next career move!
 Upload your CV and allow recruiters to search it. For employers the new board offers more opportunities for promotion and highlights to assist in your search for an exceptional candidate. View the jobs board at <https://jobs.wes.org.uk>

This year we also launched the WES Careers newsletter. The newsletter aims to not only highlight key jobs coming up, but also to offer careers advice and provide up to date information about the world of work within the engineering industry. Would you like to sign up for future editions of the careers newsletter? Contact us to sign up.



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Bias against race, age and gender still preventing returners to STEM industries

Recruitment bias against race, age and gender continues to prevent STEM professionals who have had a career break return to employment, according to a new survey by STEM Returners.



The *STEM Returners Index 2023*, published in *National Inclusion Week*, showed women trying to return to the engineering industry after a career break are more likely to experience recruitment bias than men. Nearly a quarter (24 per cent) of women said they felt they have personally experienced bias in recruitment processes due to their gender compared to nine per cent of men.

In the survey, professionals from minority ethnic backgrounds represented a large proportion (39 per cent) of candidates attempting to return to work in 2023. They were twice as likely as all other ethnic groups (34 per cent versus average of 17 per cent) to feel they have experienced bias in a recruitment process related to race or ethnicity.

Both men (29 per cent) and women (25 per cent) said they felt they have personally experienced bias in recruitment processes due to their age. As a result, 30 per cent of returners say their personal confidence has been affected by the recruitment challenges they face, and their low confidence remains a barrier.

The Index asked more than one thousand STEM professionals on a career break a range of questions to understand their experiences of trying to re-enter the STEM sector.

However, the latest results show some progress. In 2022, 29 per cent of women said they felt bias due to their gender (five per cent more than this year) and overall, 38 per cent of returners felt they had experienced bias in a recruitment process, compared to 33 per cent this year. In 2022, 65 per cent of participants said they found the process of getting back to work difficult or very difficult, but this year it was just over half (51 per cent) of participants.

Natalie Desty, Founder and Director of STEM Returners (pictured), said that while progress should be celebrated, there was still a lot of work to be done, especially in helping returners who are residents in the UK and eligible to work, transfer their valuable skills and experience they acquired internationally. "For the first year since we launched the *STEM Returners Index*, we have seen that candidates are finding it slightly easier to return to work than they were this time last year," she said. "This is positive news but there are still too many people finding it an uphill battle.



"There are skills gaps across the engineering, tech and green jobs sectors – these gaps are growing, and the UK needs a diverse, agile and innovative STEM workforce more than ever. This talented and committed group of professionals are ready to help fill those roles. But they are still facing recruitment bias against their race, age, gender, and a perceived lack of experience.

"Women and professionals from minority ethnic backgrounds still face a significant disadvantage when attempting to return. People from minority ethnic backgrounds were 50 per cent more likely than white British candidates to say they were finding the process of returning 'very difficult'. This has to change. Additionally, we are seeing people who have moved to the UK from overseas are finding it difficult to transfer their international skills and experience to UK positions.

"Industry leaders need to do more to update recruitment practices and challenge unconscious bias to give returners a fair chance to rejoin the industry they are passionate about."

In the survey, only a small proportion (12 per cent) of career breakers stop working out of personal choice. Caring for others (both children and other family members) was the primary reason for a career break for 44 per cent of respondents. Thirty-six per cent of women said they feel they have personally experienced bias in recruitment processes due to childcare responsibilities compared to eight per cent of men, according to the results.

Despite 86 per cent of respondents having career breaks lasting less than five years, 38 per cent of candidates felt they have received bias related to lack of recent experience, signalling there is a perception that a break leads to a deterioration of skills.

Helping professionals return

When asked if they would have preferred to return to work through a supported returners programme, 40 per cent of returners said yes. Despite the clear need for structured return to work programmes, only 21 per cent had seen one, and only 16 per cent had returned to work via this route – underlining the need for more STEM employers to think seriously about diversifying their approach to recruitment.

Partnering with STEM organisations to run paid, short-term returner programmes, STEM Returners has supported and mentored more than four hundred returners back into permanent roles. STEM Returners is also part of the STEM ReCharge programme, which is funded by the Government's Equality Hub, which is delivering free of charge return to work career coaching, job skills training and sector specific upskilling and mentoring designed to support parents and carers in the midlands and the north of England.

Elizabeth Chikwanha-Mavengano (pictured) had 14 years of engineering experience in Zimbabwe and South Africa including studying for a Masters in Civil Engineering, before moving to the UK in 2023. She applied for several structural engineering roles but found it challenging to get an interview. She discovered STEM Returners and completed a programme with Amey Consulting after which she accepted a permanent role as a project manager, based in Sheffield.



She said: "I had lots of mining experience but there are no mines in the UK; I had a senior role in South Africa but without the UK experience, companies did not want to employ me, so I opted for junior roles, but I wasn't familiar with some of the software, so I didn't get anywhere. But the STEM Returners programme has boosted my confidence and made me realise that I have a wide range of skills and experience that brings value to my employer. I had the opportunity to be accepted in the industry without viewing my previous experience as a drawback. The focus was on providing me the opportunity to showcase my abilities and values as a professional in a different role."

WES is a partner of STEM Returners and encourages the work being undertaken to encourage more people to return to a career in STEM. For more information visit: www.stemreturners.com

New five-year strategy to enable engineering and technology to thrive

Not-for-profit organisation EngineeringUK has announced a new strategy period – which will set the direction of the organisation over the next five years.

With a core purpose of driving change so more young people choose engineering and technology careers, EngineeringUK's refreshed vision is for the UK to have the diverse workforce needed for engineering and technology to thrive and to drive economic prosperity, improve sustainability and achieve net zero.

Engineering and tech are critically important for the UK, with huge opportunities and responsibilities over the coming years, but the sector continues to face significant workforce challenges.

Dr Hilary Leever, Chief Executive of EngineeringUK, explains: "For engineering and technology to really thrive, we urgently need more people and more diversity in our workforce. Our new strategy provides us, and importantly all our partners, with a renewed focus on what we're trying to achieve, and clarity on how we're going to get there.

"We're determined to achieve our mission of enabling more young people from all backgrounds to be inspired, informed and progress into engineering and technology. But this will only be possible by working in partnership – we all have a part to play in this."

EngineeringUK's strategy from 2023 to 2028 consists of four key strands of activity including:

- **Research and evidence** – establishing the composition of the current engineering and technology workforce, future workforce needs and how to address them.

- **Leadership** – leading efforts to grow the collective impact of all engineering and technology inspiration and careers activities with young people of school age.
- **Activities for schools** – expanding its activities to encourage more, and more diverse, young people into engineering, technician and tech roles.
- **Advocacy** – providing advocacy and support to address policy and delivery challenges in STEM and careers education and workforce planning for engineering and tech.

Ed Almond, Chief Executive of the Institution of Engineering and Technology (IET) and EngineeringUK Trustee, said: "With clear aims across research evidence, leadership, activities for schools and advocacy, this new strategy ensures it is providing an in-depth and multifaceted approach to inspire the next generation of engineers to deliver the solutions required by society.

"The demand for engineers is only increasing, so the work that EngineeringUK does – along with all engineering PEIs across the UK – is critical. We need to promote the range of science, engineering and technology careers to young people from all different backgrounds. We also need to show society its impact and importance in tackling world challenges, and advocate for policy and education in engineering. It's a collective effort so collaboration is key in driving real change. We look forward to continuing our work with EngineeringUK to engineer a better world together."

New website provides access to advice and solutions to close skills gap

UK engineering and manufacturing sector charity, Enginuity, has launched a new website to provide employers with greater access to advice and tools to help close skills gaps.

Enginuity.org now features three new skills solutions for UK engineering and manufacturing employers – Role Explorer, Skills Comparator and Enspire City.

Role Explorer provides breakdowns of the activities, knowledge and skills required for virtually any job role across the engineering and manufacturing sectors.

This free searchable database allows engineering and manufacturing SMEs and human resources teams within large employers to download these activity, knowledge and skills breakdowns; helping them to better manage appraisals and recruitment.

Once they have searched for a role, users are also able to discover similar roles with matching skills and those in high demand based on current job ad trends.

Skills Comparator matches engineering and manufacturing skills across job roles for smarter recruitment, upskilling and reskilling.

Employers can choose the engineering skills they seek from a menu. Once selected Skills Comparator then finds roles from across the UK's engineering and manufacturing sectors with skills that match their needs. This can help SMEs and human resources teams within large employers identify a wider range of recruitment options and help them to consider roles that they may not have considered a close match before.

Businesses can also select existing employee skills to see roles they could move into with the help of upskilling or reskilling.

For companies looking to help people transition into other employment this function allows them to discover roles with matching skills that are in high demand right now.

Enspire City was designed for engineering and manufacturing employers looking for interactive resources and games to make their STEM outreach more engaging.

Young people can explore a virtual city split into zones themed around cars, space, vertical farming, and planes; interacting with characters to learn about engineering careers, accessing videos from real-life engineers, and testing their problem-solving skills in engineering-themed games.

For employers engaging in STEM outreach, Enspire City is free and simple to use. It contains accurate information created by industry experts and is supported by facilitator resources.

It also builds on Enginuity's award-winning Skills Miner, which engages young people with engineering skills through gameplay and exploration.

Updated guide published on how to become a professionally registered engineer or technician

The latest edition of the *Guide to Professional Registration* has been published. A free, comprehensive guide to professional registration and the professional engineering community, the Engineering Council has updated its annual guidance for 2023-2024.

Professional registration identifies an individual as a competent and committed engineering professional, and the guide provides a useful overview of the process of becoming professionally registered with the Engineering Council and the institutions that can support achieving this internationally recognised mark of quality.

The *Guide to Professional Registration* is designed to help everyone from school leavers, careers advisors and STEM ambassadors, through to employers and HR professionals, to navigate the organisations and resources available to support and develop engineering talent.

The first step to professional registration is joining a professional engineering institution (PEI) licensed by the Engineering Council, or a Professional Affiliate (PA) with a registration agreement.

To download a copy, visit www.engc.org.uk

New President of WES named

Dr Katherine Critchley was elected as President of WES in October 2023.

She will be the 55th President of WES and has a longstanding relationship with the Society, having served formerly as a WES Trustee, Chair of the Events Directors' Committee and Head Judge of the Karen Burt Memorial Award. Dr Critchley is also a member of the Wales Cluster and chaired the Wales Centenary celebrations in 2019 at the Senedd in the Welsh capital, Cardiff.

Having begun her career as an apprentice, Dr Critchley became a global subject matter expert and was recognised as one of 50 current and former apprentices in the *WES Top 50 Women in Engineering* during its centenary. Dr Critchley has established women engineer communities in her workplace and worked with local schools and colleges to promote engineering, ensuring that practical advice on engineering apprenticeships was available to all.

In October 2022 Dr Critchley was awarded WES' highest honour, the *Isabel Hardwich Medal*, for her contributions to the Society over a sustained period. Her citation stated: 'Dr Katherine Critchley is generous with both her time and expertise. Her skills, knowledge, willingness to help others, and dedication to WES make her an excellent winner of the *Isabel Hardwich Medal*.'

Dr Critchley takes over the role from Dawn Childs FREng, who has served in the role for the past five years. We thank Dawn for her hard work, dedication and tremendous efforts in helping to shape the Society into the organisation we are today.



New Members

WES welcomes the following new Members:

Fara Jasmine Abdul Jamel, Iwonosa Aghedo, Rubesha Ahmed, Rebecca Allitt, Becky Anderson, Esther Anderson, Lottie Billson, Chantal Bouvet, Dawn Brady, Marcia Brock, Eleni Chatzilakou, Mila Crook, Eva Dewsbury, Sarah Dominic, Zawadi Dorcas, Coleen Everitt, Amy Farrell, Scarlett Ford, Federica Franceschini, Alicia Freeman, Zeinab Ghannam, Antonia Girard-Smith, Philippa Glover, Hannah Elizabeth Goddard, Anushka Gopeechund, Esme Griffiths-Nowicki, Alice Shiyu Han, Rhianne Hart, Katie Hobbs, Sarah Huskie, Merail Jameel, Francesca Jones, Eva Kalogiannaki, Sarabjit Kaur, Julie MacManus, Michael Mcmillan, Hannah McMullan, Lina Mikalkene, Adeyinka Morohunkola, Burcu Nerkes Kacaroglu, Hajarat Oyinkansola Olasinde, Viviani Onishi, Yvonne Raleigh, Theodora Richer, Sritama Sarkar, Larisa Schelkin, Logeswari M Shanmugam, Mya Sharda, Tami Shogbola, Kritika Singh, Rachel Skeoch, Jenny Thompson, Gelareh Tofighi, Rebecca Wade, Sehrish Wakil, Julia Wallace, Lowri Webb, Melissa Windley, Victoria Zaripova.

Discounted training from IMechE

WES is pleased to announce that for the rest of the year, all WES Members are able to access the IMechE training courses at their member prices.

The *IMechE Learning and Development Training* catalogue features a comprehensive range of professional development solutions, programmes, and offers. With 175 years of IMechE heritage and access to the greatest talents in mechanical engineering, the Institute has been able to create the most extensive series of technical and personal development courses to shape the future of their sector.

From leadership and management, through to project management and operational excellence, delegates can take advantage of online and face-to-face training sessions.

To find out more about the training visit www.imeche.org

To take up the WES Members discounted rate, email comms@wes.org.uk for details.

WES Annual Conference 2024

SAVE THE DATE

Join us at the WES Annual Conference, taking place on 29 and 30 April 2024 and be part of a dynamic gathering of trailblazing women engineers and allies.



Discover the latest trends, share experiences, and build connections that will shape the future of engineering. The conference offers the perfect opportunity to network with like-minded people and make a difference in your professional world.

Together, let's celebrate diversity, innovation, and empowerment in the world of engineering.

Refer to our website and socials for more updates coming soon.

Partner News

WES is delighted to welcome our new Partners:

Event Partner: CNH Industrial.

Company Partners: Environmental Resources Management, Govia Thameslink, Synoptix, RED Engineering, ISS Facilities, Hydro Aluminum UK, Caterpillar, Hays, T.EN, Ricardo, Vodafone, Military of Defence - Defence and Equipment.

Recruitment Partner: Hays.

Education Partners: University of Exeter, University of Leeds, Northumbria University.

Not for Profit Partners: Institute of Mechanical Engineers (IMechE).

SME Partners: Lewis Hubbard Engineering, AJ Executives.

Start Up: Archangel Lightworks.

We are also grateful to our renewing Partners which include:

McLaren Racing, RNLI, Johnson Controls, Transport for London, Digital Catapult, FST, AXIAH, FM Global, Coventry University, University of Warwick, DP Squared, Malvern Panalytical, Newcastle University, Kingston University, University of Bristol, Cadent Gas, Metis Consultants, Novanta.

Thank you to our event sponsors:

Lottie Tour 2023 – GKN Automotive, Fugro, Fraser Nash and Safran Group.

Student Conference – JLR, Mercedes AMG HPP, CNH Industrial and Automatic Weapons Establishment.

For Partnership and Sponsorship enquiries, please contact: partners@wes.org.uk

WES Apprentice Board

Winter 2023 Update

Since the WES Apprentice Board refresh at the beginning of summer, the board has been working hard on many projects and initiatives that we are excited to share with you.

PODCAST

The WES Apprentice Board podcast has been given a new life, with new board hosts Rasta, Lily, Saffah and Iona, the team have been working on the next series. The first podcast episode is due to be released soon and will feature an introduction from the new hosts, so you can learn a bit more about their roles, passions, and interests before listening to their interviews with inspiring women across the engineering industry. You can find the previous episodes and subscribe to be the first to hear our new ones on Spotify; just search for: 'Women's Engineering Society Apprenticeship Podcast'.

SHARING

I'm sure you will have seen on the WES APB social media pages that the communications team has been busy, sharing an introduction to the board members and inspiring more women into engineering apprenticeships by telling you our favourite parts of our apprenticeships so far! We have also recently shared our 'Summer Refresh' initiative, with board members taking to the social media platforms to share and celebrate some of the fun things that they have been up to over the summer. Taking time away from

work and study is so important to unwind, relax and look after your mental health. Heading back to work after our summer breaks, we are refreshed and more motivated than ever! We've added some of our fun summer pictures (see below), but check out our recent posts on LinkedIn @WES Apprenticeship Board and Instagram @wesapb to find out more. We would love to hear about what you have been up to this summer to help you reset, tag us with #APBSummerTimesHappyMinds so we don't miss it!

QUESTION OF THE QUARTER

This quarter we're asking for your feedback!

We'd like to know what you'd like to gain from the Apprenticeship Board and what you would like to see from us in the future?

We'd love to hear your ideas, please share your responses, and tag our social media pages which are linked below.

Instagram: @wesapb

LinkedIn: WES Apprenticeship Board

X: wesapb



INWED23 – Impact Report now available

As reported in the last issue of *The Woman Engineer*, this year our International Women in Engineering Day campaign was the biggest yet. We have now published the INWED 2023 Impact Report, detailing a breakdown of the success of the event.

With the theme of #makesafetyseen women engineers around the globe shared their stories to showcase the amazing contributions they are making to engineering. With a potential reach of 782 million this is an inspiring campaign that gets better every year. The following is a flavour of the day:

Top Tweets From:

RNLI, UK Space Agency, Met Office, Royal Navy, Huawei, Williams Racing, GCHQ, Royal Academy of Engineering, Network Rail, RAF, Jessica Ashley (Miss England), Mercedes AMG Petronas F1 Team, McLaren Racing, Iberdrola Renewables, The IET, Professor Dame Angela McLean, Royal Aeronautical Society, Jaguar Land Rover, Jaguar Racing, Dyson, UK Home Office, British Science Association, Qatar Airways, Vice President of Economic Affairs and Digital Transformation Government of Spain

Top Tweets Languages:

English, Arabic, Turkish, Spanish and French.

Comments from women engineers

“Everyone has the right to feel safe anywhere and anytime. This year’s [INWED] theme ensures the importance of safety, which has to be a visible element of any engineering process. As a woman engineer supporting Health, Safety, Security & Environment (HSSE) and sustainability, it indeed means encouraging to prioritize employees’ safety and well-being and implement safety measures to eliminate any expected risks. We can provide a safer and more sustainable workplace for all by ensuring safety.”

Amna Al-Ali, Energy Transition and Sustainability Engineer, Kent



“Make Safety Seen is not just about having the best protocols, procedures or policies, it’s a personal ability to be engaged and interested in our surroundings and environment. Only an inclusive environment, where individuals are encouraged and empowered to talk about their concerns, can make safety visible, felt and embedded. Safety is not just a task, it’s a personal and collective responsibility.”

Magdalena Krusinowska, Network Rail

“At school, we never really had conversations about future careers, and I hadn’t even considered becoming an engineer. I think it’s a real shame that women are still a minority in the engineering industry, but days like INWED can really help us to celebrate the successes and contributions of women in the sector. My message to girls who enjoy science and maths is to consider engineering as a career and to follow your passion.” **Olivia Huntly, Senior Asset Engineer, National Rail**

SPONSORS

We would like to thank our INWED sponsors, whose contributions and support is greatly appreciated by WES and women engineers the world over.

Power Engineering – Sponsor of WE50 Awards Ball – Lead sponsor of INWED23

INWED23 Sponsors – Amazon, AMG Petronas F1 Team, Boeing, Cranfield University, Cytiva, GCHQ, IOR RACHP, McLaren F1 Team, Onyx Insight, Opito, Royal Academy of Engineering, Royal Air Force, Spectris, The Sterling Choice.

We look forward to INWED 24 on 23 June 2024. The full 2023 Impact Report can be downloaded from the WES website: <https://www.inwed.org.uk/impact/impact-reports/>



Recognition for first WES President

The first president of WES (1919), Rachel Mary Parsons has been honoured with a commemorative blue plaque in her hometown of Newcastle.

Born in 1885, Rachel Parsons went on to become a pioneer in the male dominated world of engineering and was one of the first three women to study Mechanical Sciences at Cambridge University.

As the daughter of Charles Parsons, inventor of the compound steam engine and the Turbinia (Discovery Museum), she became director of her father's Heaton Works, CA Parsons, replacing her brother who went to fight in the First World War.

After the war there was a huge push to expel women from the workforce, but she responded by setting up the Women's Engineering Society with her mother and became our first President.

In 1919 she became one of the first three women to be admitted to the Royal Institution of Naval Architects and a year later founded Atalanta Ltd, an all-female engineering company.

The plaque in her memory was unveiled on 24 October at 6 Windsor Terrace, Newcastle, now part of Newcastle University's halls of residence.

Unveiling it was the Lord Mayor of Newcastle, Cllr Veronica Dunn, who said: "Rachel Parsons was a remarkable woman. In a male dominated profession, she fought for women to follow their dreams and did more than just about any other person to encourage women into engineering. She went on to employ women engineers and fight for fairer employment rights for women. I am proud that she lived in Newcastle for at least part of her life.

"She attended Newcastle High School for Girls and later worked in a prominent role at her father's Heaton factory. She was a trailblazer in every sense of the word, and I am delighted we are honouring her considerable contribution today."

Rachel Parsons was nominated for the plaque by Common Room, a group which celebrates the region's industrial past and present.

Liz Mayes, Chief Executive of the Common Room, said: "The Common Room uses our unique heritage to inspire the next generation of innovators and engineers. Through our *Graft and Glory* exhibition, education workshops and public engagement activities, we are telling the stories of how engineers and innovators from the North East impact the world in the past, present, and future.

"Our *Inspiring Pioneers Commemorative Plaque Scheme* aims to highlight the remarkable women who went unnoticed or underappreciated during their lifetime, their fantastic work still stands the test of time, and we must know more about them.

"Rachel Parsons was a pre-eminent thinker, creator, and innovator, who did not take no for an answer. Having achieved many firsts during her career, she was a true



trailblazer both in engineering and feminism. The Common Room is hugely proud to be able to give these women a platform from which they can shine."

In later life Rachel was elected to London County Council and stood for election in 1923 when there were only two female MPs. Tragically she died on 2 July 1956 at Newmarket at the hands of a former employee who was convicted of her manslaughter.

Now her contribution to women's rights and women in engineering has been further recognised.



Caroline Haslett Lecture and Awards 2023

13 December 2023, 6.30pm
The Geological Society, London

This WES annual event celebrates the winners of the Karen Burt Memorial Award for the best female newly chartered engineer, Men as Allies Award and the Amy Johnson Inspiration Award.

Held in December every year, we invite our Members and supporters to join us for a guest lecturer as well as to help us celebrate the award winners.

This year we are delighted to announce that the *Caroline Haslett Lecture* will be given Dame Dawn Childs, our immediate Past President.

We will again be hosting the event at the Geological Society in London, and the lecture and awards will be followed by a drinks reception, where there will be ample opportunity to chat with other attendees, the recipients of the awards, WES staff and Dawn Childs.

To book visit www.wes.org.uk



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