

The Woman Engineer



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From the editor's desk

We start 2023 with a real sense of optimism as noted by all that we celebrate in this issue. The pages are packed full of inspiration from women engineers of all ages and at all stages in their careers, and indeed inspiration from our male colleagues as allies.



Lynn Postle, FICME

It's always thrilling to congratulate the recipients of the *WES Awards* and the *IET Young Woman Engineer of the Year Award* winners. This marks the start of another year of ambassador roles for some remarkable professionals who are a credit to engineering.

The annual *Caroline Haslett Lecture* was again well received and saw Dr Bola Olabisi give an impassioned presentation about celebrating inclusivity and ingenious solutions. She spoke with great affection about encouraging women to develop creative ideas, products and services to improve society.

The *WES Student Conference* in November also enabled participants to benefit from the energy of a collective group of allies, offering practical advice

and motivating tales of the journeys they have taken to succeed in their careers. Look out for updates on the *WES Annual Conference*, to be held in Birmingham on 28 April. It promises to be another fabulous opportunity to learn from our peers and support each other for the collective benefit of us all.

We are delighted to be able to come together again for our events and continue to encourage all our Members and stakeholders to give us feedback. Remember this is your society and your input will shape WES into the future.

There is plenty to motivate in this issue, so happy reading.

Next issue: Summer 2023, contribution deadline – 10 April 2023



President's Message

I hope that you have all had a good start to 2023 and have an exciting year in prospect. Maybe you have made some career facing resolutions? I always try and reflect on what I set out to achieve in the previous year and compare it to what I did actually achieve. One thing that I can almost guarantee is that the year will have turned out somewhat differently to what I had imagined! It is interesting that sometimes the most brilliant achievements are those that we never set out to secure.

So, if like me, you are considering what challenges you should set yourself for 2023 and maybe lamenting things that you thought you would have done in 2022 but did not get around to or were not able to complete, please do not be too hard on yourself and consider the positive or maybe unplanned things that you were able to do. I am a firm believer in making the most of the hand that you are dealt, often you will find that in pursuing different pathways as they present themselves to you, you might go further and faster than you ever dreamed of. Very few people follow the career path they envisaged, and often those we consider to be the highest achievers feel like they have followed a career path by luck rather than judgement.

One thing that is very clear to me is that engineering is the key to unlocking so many of the world's issues and as women engineers, we have incredibly exciting prospects. Only by exploring and keeping an open mind will you discover a pathway that you may never even have considered before.

So, whatever you have planned for 2023, please embrace the many opportunities through WES or other conferences and events to discover new things and meet new people. Never be afraid of trying something different or changing tack on your career – it might be the best thing you ever do!

Best wishes for an amazing 2023 and I look forward to catching up with you all at our events throughout the year.

Dawn Childs DBE FREng

don't miss

WES Annual Conference

28 April 2023, Birmingham
www.wes.org.uk

International Women in Engineering Day

23 June 2023 – Globally
www.inwed.org.uk

Check the WES website for events and updates at:
www.wes.org.uk/events/wes-events



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@The Woman Engineer 2023

Recognition at the highest level for our own ENGINEERING CHAMPION

WES President, Dawn Childs DBE FREng has been awarded a Damehood in the New Year's Honours list for her services to engineering.

Dame Dawn has been President of WES since 2018. After being named as one of the *Top 50 Most Influential Women Engineers in the UK* in 2016 by the *Daily Telegraph* and WES, Dame Dawn was invited to become a Fellow of the Women's Engineering Society, and then joined the WES Council in October 2017. She was elected President a year later. Throughout her presidency Dame Dawn has directed the transformation of WES from a small charity run by its volunteers to an aspirational and ambitious organisation, determined to support women in engineering to fulfil their potential and to support the engineering industry to be more inclusive.



Dame Dawn says she is delighted but it will take some time to get used to. "I was absolutely thrilled and surprised in equal measure to receive this honour," she says. "I am so grateful for this support and the recognition for my endeavours over the years; I feel privileged to have been able to work with so many amazing people in the charities that I help. Thank you to whoever drove the application for me and to all those who supported it – I am still pinching myself just in case it is all a dream!"

Reacting to the news WES Chief Executive Officer, Elizabeth Donnelly said: "I am absolutely thrilled that Dame Dawn has been recognised in this way. Dame Dawn has been huge support to me and the Society during some turbulent times, and on a personal note she has been a constant support in my role as CEO offering me mentorship, advice and encouragement. I could not think of a more deserving recipient".

A DISTINGUISHED CAREER

Dame Dawn began her career in the Royal Air Force and during her 23 years' service she was the first female officer to hold many of her appointments. Most notably, she was the first female Senior Engineering Officer on 216 Squadron and the first female Officer Commanding Engineering Wing at RAF Waddington where she was responsible for the operational maintenance and logistics of Intelligence, Surveillance, Target Acquisition and Reconnaissance aircraft. Since leaving the RAF Dame Dawn has gone on to hold posts at Gatwick Airport, Group Engineering Director for Merlin Entertainments plc and UK Change Director at National Grid, culminating in her current role as CEO Operations at Pure Data Centre, an expert global data centre company.

During her career Dame Dawn has received numerous accolades, including being awarded the *Barrie Smart Memorial Award* for her

Dame Dawn has an MBA from Cranfield University, an MA in Defence Studies from Kings College London and a BEng in Mechanical Engineering from Bath University.

She is also a Fellow of the Institute of Mechanical Engineers, the Institute of Civil Engineers, the Royal Aeronautical Society and WES and is the Deputy Chair of World Skills UK.

significant contribution to the RAF community. She won the *CBI and Real Business First Women Award in Tourism & Leisure* in 2013 for being the first female Head of Engineering at Gatwick Airport. In 2014 she was bestowed with an honorary Doctor of Science by Staffordshire University in recognition of her notable contribution to mechanical and aeronautical engineering.

INSPIRING FUTURE GENERATIONS

She also works to inspire children and young adults to pursue STEM subjects and was further recognised in 2015 when she won the *Institution of Mechanical Engineers' Alistair Graham-Bryce Award* for her significant contributions to campaigning for the promotion of engineering to children, students, young adults and particularly women.

In 2020 Dame Dawn was awarded Fellowship of the Royal Academy of Engineering and in 2022 she received an Honorary Doctor of Science from Kingston University. In 2022 WES also awarded her with our highest honour the *Isabel Hardwich Medal*.

The Women's Engineering Society is absolutely delighted that Dame Dawn has been recognised in this incredibly fitting way and we are looking forward to working with her in the coming year.

Three young women engineers have been recognised at the Institution of Engineering and Technology's (IET) Young Woman Engineer of the Year Awards for their work in engineering.



An **EXCITING WORLD** of engineering for girls and women

IET Young Woman Engineer of the Year

Ama Frimpong (33) is Head of Product Development at 52 North Health. Frimpong manages the company's engineering teams in the development of NeutroCheck®, which is a low-cost, portable device that helps identify people living with cancer who are at risk of neutropenic sepsis – a life-threatening medical emergency occurring in immunosuppressed chemotherapy patients.

On winning, she said: "Wow! I feel truly honoured to be named the IET's 2022 *Young Woman Engineer of the Year*, joining a line-up of incredible women who have come before me. As someone who has a passion for all things STEM, it's amazing to have my work in medicine and healthcare recognised by leaders from across the industry.

"Growing up I didn't see any women engineers that looked like me, but thanks to the YWE awards, girls growing up today will see that there is a place in the exciting



world of engineering for them. I want to use this platform to make a difference and encourage and inspire the engineers of tomorrow to change the world."

IET Mary George Memorial Prize for Apprentices

Lauren Smith (22) is a Trainee Medical Engineer at United Lincolnshire Hospitals Trust. She is part of a team that ensures the proper function of medical devices within the healthcare setting and works to support the needs of clinical staff by repairing and managing the devices they rely on daily to diagnose, treat and monitor patients.

Women's Engineering Society (WES) Prize

Eneni Bambara-Abban (29) is a Robotics Engineer and the founder of two organisations, the Techover Foundation and Anime and Chill. The Techover Foundation

is an international NGO that focuses on encouraging, educating and supporting individuals from underserved communities into technology. Anime and Chill is a safe and inclusive community of people interested in anime and/or gaming to come together and network irrespective of gender, sexual orientation or race.

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 Finalists Constance Rudman and Veena Kumari were both highly commended. All winners and finalists will play an ambassadorial role for the engineering and technology professions in the forthcoming months, promoting engineering careers to more girls and young people.

Gender Diversity Ambassador Award

Now in its fourth year, the *Gender Diversity Ambassador Award*, which recognises an individual's hard work in achieving gender equality within the engineering industry, was awarded to Lynn Tomkins. This lifetime achievement award aims to showcase innovation and good practice to compliment the YWE Awards, by recognising the support and encouragement of women in STEM careers.

For more than 30 years, Tomkins has championed equality and worked to ensure everyone has the opportunity to fulfil their true potential. Operating in the skills environment in senior roles for most of her career has seen her work closely with government, industry and key stakeholders at the highest level. As Co-Founder, Director and then latterly Chair of Trustees of the UK Electronics Skills Foundation (UKESF), Tomkins has supported the UKESF in developing a leading industrial scholarship programme, building greater connections between universities and industry.

The IET's *Young Woman Engineer of the Year Awards* celebrate women working in modern engineering – and aim to help change the perception that engineering is predominantly a career for men by banishing outdated engineering stereotypes of hard hats and dirty overalls.

As well as highlighting the talent of women engineers, the awards seek to find role models who can help address the UK science and engineering skills crisis by promoting engineering careers to more girls and women. Just 16.5 per cent of those working in engineering occupations are women.

Dr Laura Norton, Head of Equality, Diversity and Inclusion at the IET, said: "Engineers must develop products and services for everyone, but with women making up just 16.5 per cent of the sector's workforce, how can we ensure diversity of thought and innovation in order to create the right solutions for everyone? Awards like this are crucial for raising the profile of women within engineering and providing real-life role models to younger generations to encourage greater diversity within the industry.

"I'd like to congratulate our fantastic winners and finalists of this year's awards. They are a real credit to the engineering profession and make excellent role models to young girls who might be thinking about a career in engineering and technology.

"It's vital we champion engineering careers to the next generation – it's a diverse, creative and exciting career, which offers the opportunity to change lives, or even the world."

The winners were announced at the *IET Young Woman Engineer of the Year Awards* ceremony on 1 December at IET London: Savoy Place.

This year's YWE Awards were sponsored by Alstom, Boeing, Capgemini Engineering, Collins Aerospace, Frazer-Nash Consultancy, GCHQ, Leonardo, MBDA, Northrop Grumman, Ofcom, Rolls Royce, Royal Air Force, Royal Mail, RS Components Grass Roots, Teledyne and Thales.

www.theiet.org/ywe

WES is delighted to congratulate all the winners of the *Young Woman Engineer of the Year Awards*. We are particularly excited to welcome Eneni Bambara-Abban as the *WES Prize* winner and we are looking forward to working with Eneni in the coming year as she works as a WES Ambassador to promote the values of a career in engineering for everyone, especially encouraging more girls and women to enter the profession.



A busy time for our ARCHIVE

We have received several items into our archive collection lately, writes WES Heritage Officer Helen Close.

We received a newspaper cutting of Rachel Parsons “founding” the Women’s Engineering Society in Feb 1919. It’s not clear which newspaper this was from but the same photograph with different text was published in the *Daily Mirror* on 17 February 1919.

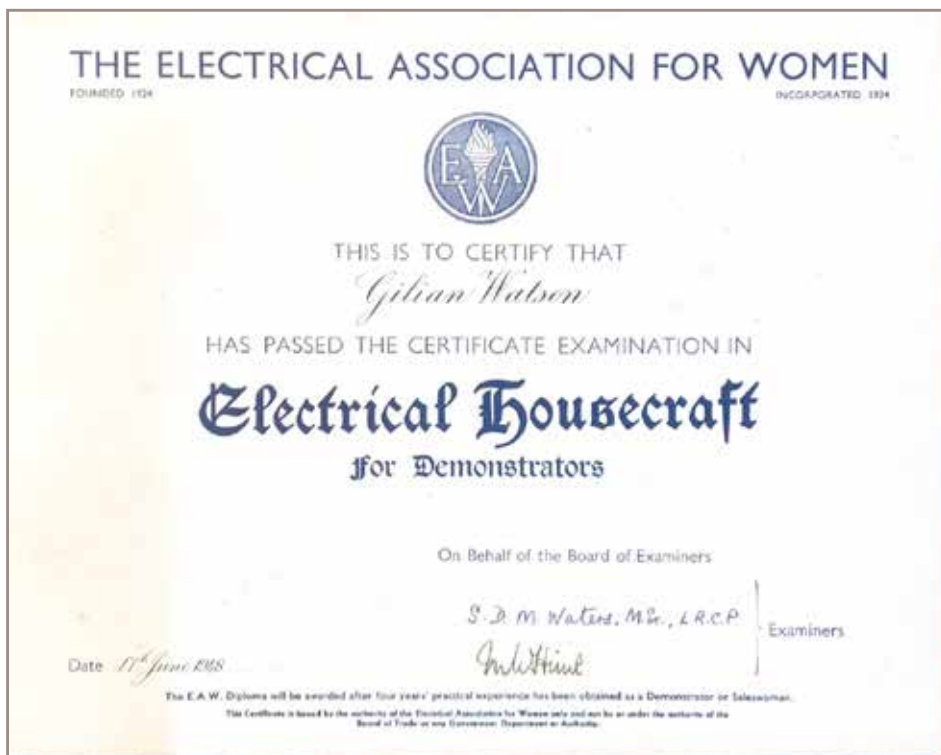
Previously unseen images (we believe) of Caroline Haslett (below right) and Laura Annie Willson (below left) from a US press agency. These surfaced on Ebay.



Photo courtesy of A MacDonald Private Collection

An EAW Certificate and letter sent to a Miss Gillian Watson of Esher, Surrey in 1948, anonymously sent to us at WES from her probate estate executors. If anyone knows more about Miss Watson, we’d be delighted to hear more of her story.

Sticking with the EAW theme we were also gifted a tea towel, produced by the EAW showing the wiring of a plug. This tea towel was donated by the family of the late Dilys Davies, from Haverfordwest, who had been a member of the EAW and had been a plotter with the Royal Observer Corps during the Second World War. There’ll be a lot more news on the EAW in the coming year as we look to celebrate one hundred years since it was formed in 1924 by Dame Caroline Haslett.



We have also been able to establish the provenance of a portrait of Claudia Parsons, painted by Margaret Palmer, which has been on loan from WES to Loughborough University since 2001. The portrait is to be glazed and hung in the Claudia Parsons Hall of Residence and displayed annually at the *Claudia Parsons Memorial Lecture*. The portrait was given to WES in 2001 by the family of Claudia Parsons.

EMPOWERING WOMEN is focus of Caroline Haslett Lecture and WES Awards presentation

On 18 January WES entertained members and supporters to our annual Caroline Haslett Lecture, where we announced the winners of the WES Awards for this year.

The Caroline Haslett Lecture and Awards Presentation was held at the Geological Society in London, with over 60 attendees. We were delighted to be joined by Dr Bola Olabisi the founder of the Global Women Inventors & Innovators Network. The network puts the spotlight on the development of invaluable inventions and innovations from individuals, the workplace and the business environment with a special focus on empowering women.

Dr Olabisi gave an inspirational presentation to those in the audience and was happy to network with attendees.



KAREN BURT MEMORIAL AWARD

The Karen Burt Memorial Award was won by Dr Emma Walton for her work in miniaturising the functions of an entire medical laboratory with her 'lab-on-a-chip'. Her strong contribution to engineering coupled with a clear passion for her subject, make Emma an inspiration for other female engineers to make a real difference in the world with the work they do.

Emma was nominated for the award – which is given annually to the best new female Chartered Engineer – by the Institute of Physics.

The Karen Burt Award recognises the importance of Chartered status, the winner's own contributions to excellent practice and highlights engineering to others. Nominations are made by professional engineering institutions (PEIs), who may nominate one newly Chartered Engineer per year.



Dr Emma Walton with Dr Bola Olabisi

AMY JOHNSON INSPIRATION AWARD

The Amy Johnson Inspiration Award, which honours an individual who has made a truly remarkable achievement in furthering diversity within engineering, was given to Natasha Kelly from Intel Corporation. Natasha has been a great advocate for diversity, ensuring representation at all levels, challenging leaders and sponsors to step up; she initiated and led the Fireside Chat with Intel CEO Pat Gelsinger on WIN, gaining over 1,200 views. What she has done for women engineers at Intel is the gold standard for women engineers across the UK, and she is a well-deserved winner of the Amy Johnson Inspiration Award.



MEN AS ALLIES AWARD

The Men as Allies Award was won by Stephen Gill from World Refrigeration Day. Stephen Gill has been a Men as Allies runner-up in 2019, 2020, and 2021. Each nomination stands on its own merit, each being different from the previous year which is remarkable in itself. One example of his work is a prize fund of \$500.00 he donated to encourage women engineers across Africa to make videos of themselves working that can be used to encourage other women to consider engineering.



It was a great night of celebration with some inspirational talks and lots of connections being made between people passionate about supporting women in engineering to reach their potential. WES would like to thank everyone involved and we thank you all for your continued support and encouragement.

Apprentice Board

Exploring pathways to technical leadership

In November, members of the Apprentice Board attended the WES Student Conference, an annual event bringing together students, academics and early mid-career engineers to explore pathways to technical leadership.

The Student Conference was an exciting opportunity to build a professional network and listen to individuals' different experiences of working within a STEM environment. The event also provided the opportunity for the Apprentice Board to meet and build relationships with their newest members of the board. As a board, there was vast discussion regarding the importance and motivation to continually promote women in STEM and plans to implement in the future.

One of the board's projects was the podcast series 'Engineers in Conversation' which has featured, most recently, interviews with inspiring women such as: Roni Savage, Pasha Khan and our very own Apprentice Board Chair Natasha Dunkinson. This series aims to inspire the future generations of engineers and provide an insight into the lives of successful women in engineering. The podcast can be found on Spotify using the search: 'Women's Engineering Society Apprentice Podcast'.

On 10 February, the Apprentice Board hosted the event 'The Power of Networking' at the National Grid. The aim of the event was to give female apprentices in engineering a chance to network and meet other professionals from different companies and industries. The event comprised various activities and an inspirational speaker from one of National Grid's female leaders who began her career as an apprentice.



Members of the WES Apprentice Board at the Student Conference with WES CEO Elizabeth Donnelly

Early Careers Board

chit-chats podcast



Listen to the chit-chats podcast to hear a group of friends chat about their experiences, offering advice and solidarity on how to thrive in male-dominated fields.

Join Juliette, Becky and Steph of the WES Early Careers Board as we discuss all things engineering and early careers, both in and outside of the workplace. Episodes are released on Mondays on Spotify – check out our episodes so far where we have covered settling into a new job, and how to talk to friends and family about our jobs in engineering.

We tackle a new theme every month. Our upcoming episodes for February will cover our best projects – where we discuss what makes a good project and some of our favourites so far at work and university. In March we will consider how to support each other at work in line with IWD.

Stay tuned for our bonus episodes which will feature guest interviews and topics such as 'you know you're an engineer when...'. For updates on episodes check the WES ECB social media channels: @wesecb on Instagram @WESECB1919 on Twitter



New Members

WES welcomes the following new Members:

Sherifat Adeleye, Katherine Ardern-Jones, Mercedes Ascaso Til, Maria Badia, Eleanor Ball, Mukuli Boral, Lizzie Boyes, Andrea Catlow, Prisca Chinonso Uwaelue, Carolina Coll, Victoria Cope, Lucia Corsini, Philippa Davies, Jessica Dimond, Ann Donaghey, Eloise Eimer, Dimitra Georgiadou, Yulia Getachew, Claire Gordon, Kevin Hannaford, Dylan Hanson, Kai Chi Hsieh, Ruth Hobson, Justyna Igielinska, Rowena Innocent, Lauretta Irekpita Uwak, Ornella Iuorio, Eva Jacobs, Caroline Jay, Shabna Jobraj Hayes, Eiman Kanjo, Harri Key, Tahmina Khaled, Alalea Kia, Guneet Kohli, Rumisa Kosar, Hannah Lawrence, Xhonina Metaj, Jessica McCafferty, Aline Miller, Sophie Morse, Amber Nelson, Leonor Neto, Sosanna Ni Dhubhain, Amber O'Connor, Emily Passey, Heulwen Peters, Hannah Reddaway, Sally Russell, Clara Ryan, Catriona Scallon, Sheena Shabana, Lidija Siller, Aayushi Soni, Alex Struselis, Sarah Teliani, Sophia Tetteh, Carolina Toczycka, Belen Usobiaga, Farah Villa Lopez, Nicola Watson, Vanessa Watson, Georgina Wharton, Ebony Whitlam, Shuya Zhong

New Fellow

WES welcomes a new Fellow:
Mathini Sellathurai

New Associate Fellow

WES welcomes a new Associate Fellow:
David Owens

Partner News

WES is delighted to welcome our new Partners:

Company Partners: Zurich Engineering, Smiths Group, Vestas Wind Systems.

Education Partners: University of Leicester.

SME: Muddy Machines and Dynamon.

We are also grateful to our renewing Partners which include: National Grid, DP World, Leonardo UK Ltd, Ramboll UK Limited, Mott MacDonald, Scottish Southern Energy (SSE), Konecranes, AstraZeneca, Airbus, Thames Water, FCDO Services, YASA Limited, Burns & McDonnell, Glasgow Caledonian University, Aston University, University of Edinburgh, The Royce Institute, University of Surrey, Imperial College London, Sushy, GCHQ, Metis Consultants, Alexander Associates, Firstco Limited, NMITE, SME Graduate Enterprise. Partnership and Sponsorship enquiries, contact: partners@wes.org.uk

WES Annual Conference **A SAFE AND SECURE** working environment for all

27 and 28 April 2023
Millennium Point, Birmingham

The WES Annual Conference brings together women and allies from across all disciplines for a two-day conference on 27 and 28 April at the Millennium Point in Birmingham. The event will showcase the inspiring role models and demonstrate how organisations are striving to improve diversity and empower women in engineering. We are delighted that the event will be held over two days this year.

SAFETY AND SECURITY

This year the theme will focus on **safety and security**. We are looking forward to two full days of keynotes, workshops and interactive sessions all focused on women in engineering.

The full programme will be available shortly, in the meantime confirmed speakers include:

- ❑ Alison Baptiste CBE, Director of Public and Security Services at the Infrastructure and Projects Authority.
- ❑ Kerry Evans, A55 DBFO Operations Manager, CIHT Cymru Wales Regional Representative and Trustee, Principal Highways Lead.
- ❑ Dr Manisha Morai, Non-Executive Director, Energy Industries Council – discussing cyber security best practices.
- ❑ Amy Sadro, Eversheds Sutherland, Vice Secretary of the Health and Safety Lawyers' Association and committee member of the Women in Health and Safety Network.

Workshops will also be held covering 'Building your career' and more.

In addition to learning opportunities, the conference is a great opportunity for networking both with other engineers and also with key industry partners in the profession.

Registration: (includes catering): Member – £149.00; Non Member – £199.00; Student (Friday only) – £95.00.

To book your place and pay by credit card use the following link:
<https://form.jotform.com/230523137510342>
To pay via invoice: <https://form.jotform.com/230523024000331>

More details will be available shortly, in the meantime if you are interested in speaking or have an idea for a session, email candi.colbourn@wes.org.uk

TWE – Get involved

The Woman Engineer will become an online publication from Summer 2024. Also, we are seeking members for an Editorial Board, for more information on what's involved and how to join or if you still wish to receive a printed copy of the journal, contact: comms@wes.org.uk



Early Careers Board

Happy to offer advice and support, the WES Early Careers Board continues its series of Engineering Agony Aunt columns for The Woman Engineer readers.

Engineering Agony Aunt How to negotiate a salary

Question: "How do I negotiate my salary?"

What a question! We all know negotiating salary isn't easy, and it can be even more of a challenge for women.

Statistically, women are:

- Paid less (gender pay gap).
- Less likely to ask for more money.
- More likely to stay at a lower-paid job.

The reason for the above may vary, but some of this can come from confidence and apprehension of rocking the boat. In this article, the Engineering Agony Aunt helps answer the question to make you more comfortable discussing salary and asking for more.

Make clear what you want early

Don't wait until you are ready for the promotion or pay rise to bring it up – mention to your manager well in advance that this is something you are aiming for. An ECB member says: "I mentioned to my manager when I took my current role that I would be looking for a promotion in a year's time. This meant I could direct my quarterly reviews in the lead-up to this, and that my manager could discuss this with his higher-ups to line up the approvals"

Make your case compared to your past self, rather than to others

Even if you know a colleague who does a similar role to you is on higher pay – you'll do better by showing how you have improved since your current pay or role was assigned to you, rather than how you compare to them. It's highly unlikely that you'll be doing the same role and have the same skillset and experience as your colleague, and you'll end up making your case on their strengths, rather than on your own – it will be difficult for your manager to justify a pay-rise or promotion on this.

Engineering competencies

Competencies such as those outlined in Chartership by many institutions can be good guidelines for showing how you have developed. Also, if you frame your argument via these, even if you don't get the pay-rise or promotion you are after, you can use that work towards gaining chartership.

Learn to be assertive

Negotiating salary demands being assertive and knowing and communicating what you want, doing this requires:

- You to stop apologising – we have all done it and said things like "sorry for asking", and "sorry to bother you" – this steals from your accomplishments and makes you feel like you're doing something you should not be doing. There is no need to make apologies for your request.
- Practice! Proactivity makes perfect, proactively being assertive when the stakes are low e.g., with friends/ close colleagues allows you to be more comfortable asking for what you want. It also allows you to obtain honest feedback.

Make a plan B

Getting your salary increase might not happen (especially the first time). Developing a plan B also helps you get the most out of the discussions. Things to think about when strategising a plan B:

- Is there anything that you'd like apart from pay, e.g., flexible working, remote working, sabbatical, volunteering days, working abroad?
- Can the conversation be revisited again, and if so, when?
- Are there any roles (internally or externally) that have the pay you desire that there's an opportunity to move to?

Nominations sought for **WE50** Awards

Founded by WES and in association with The Guardian newspaper, the Top 50 Women in Engineering Awards for 2023 will celebrate the women engineers who are engaged in safety and security and who **#MakeSafetySeen**.

These amazing women work to keep us safe, wherever we are, whether at work or leisure, at home or online. Following in the footsteps of our first Secretary, Dame Caroline Haslett, who invented the three-pin safety plug to protect children from electric shocks, the 2023 WE50 winners will be women who are protecting the public through their work, often unseen and unknown.

Nominations are open to those women engineers who are working in safety and security, including cybersecurity, particularly if they also support sustainability and/or combat climate change, and support other women to do the same.

Fittingly, nominations opened on *International Day of Women and Girls in Science*, on 11 February.

For information on how to nominate, including criteria and hints and tips visit: <https://www.wes.org.uk/WE50>

#MakeSafetySeen



Cluster News

Dorset's **WOMEN IN TECHNOLOGY** *join forces to launch a new support group*

Dorset's finest female engineers, IT experts and tech professionals have launched a new group to showcase the work they do and give women a stronger voice in the world of technology.

The new group, Women in Tech Dorset, launched at BAE Systems Digital Intelligence's cutting-edge STEP Centre in Christchurch, as part of the regular South Coast Cluster Women4.0 events.

More than 50 people attended to hear the honest and inspiring stories of women who work in a field still dominated by men.

The event, inspired by Prima's Global Director of Engineering, Seemin Suleri and organised by WES's South Coast Cluster co-ordinator, Sharon Jones, was supported by Dorset Digital Skills Partnership, and brought together women at all stages of their careers to share experiences and barriers.

Seemin Suleri said: "Our Women in Tech Dorset launch was a fantastic event with a real sense of community.

"I was incredibly proud to be a part of a panel with these inspirational women who are making things happen every day.

"We very much look forward to holding more Women in Tech Dorset events and hope to see more people join us."

And, Ed Taylor, Head of Business Operations at BAE Systems Digital Intelligence, said: "It was a privilege for BAE Systems Digital Intelligence to support the launch of the inspiring Women in Tech network in Dorset, and meet so many women in the community and hear shared experiences first hand.

"As a business, we are committed to supporting and promoting women in STEM roles, and value networks such as WIT Dorset that have a shared mission to support diversity and inclusion across industry."

At the launch event, networking breakouts were arranged so attendees could explore what they would like to gain from the new group.

They also discussed how to promote the diverse opportunities that exist in local companies like JPMorgan, Ageas, BAE Systems and digital agencies.



(l-r): Sharon Jones, WES Cluster Co-ordinator; Katharine Welch, Digital Dorset; Rachel Berenson-Perkins, Centre VR; Nikki Drury, BAE Systems Digital Intelligence; Seemin Suleri, Prima Assicurazioni; Penny Syddall, Digital Dorset

There was also a panel discussion about how women in the tech industry could support each other and help make sure their voices are heard.

Dorset Digital Skills Partnership steering group member, Dorset Council's Penny Syddall, said: "The Digital Skills Partnership was delighted to support this launch event of Women in Tech Dorset.

"Our partnership, which includes both Dorset councils and the education and business sectors, was formed to make sure we have the skills needed in the workforce to support the local economy.

"By bringing very talented and experienced women together we can not only highlight the great skills we already have in the county but also promote Dorset as a place to do business and where everyone can succeed in STEM."

The Women in Tech Dorset network will host monthly online webinars, and quarterly events across Dorset, with the first webinar planned for 8 March, *International Women's Day*.

Anyone who would like to attend can book their place at: <https://www.eventbrite.co.uk/e/witd-for-international-womens-day-tickets-541546358737>.

ENGINEERS GALLERY to open at Science Museum

A major new gallery exploring how engineers change the world will open at the Science Museum in London on 23 June 2023.

Human stories are at the heart of the Engineers gallery, which challenges common misconceptions of what engineers do and offers a fresh perspective on the breadth and diversity of these important roles

Marking the 10th anniversary of the Queen Elizabeth Prize for Engineering (QEPrize), the gallery will showcase previous winners of the prize, alongside some of the most exciting engineering innovations of recent years

The opening of Engineers marks a decade of transformation of the Science Museum's public spaces: joining award-winning permanent galleries and located adjacent to Technicians: The David Sainsbury Gallery, which opened in November 2022.

Entry to the Engineers gallery is free. For more information or to book free museum entrance tickets, visit: sciencemuseum.org.uk

Celebrate students' STEM skills

WES members involved in education are urged to encourage your class to develop their STEM skills by entering a project for The Big Bang Competition.

Whether your students work in teams or on their own, taking part in the UK's top STEM competition lets young people meet and be recognised by real scientists and engineers.

If you've entered a project in the past or into another competition – you can enter your project again this year for the chance to win big by just updating from your last entry.

Find out how to submit your entry at: https://www.youtube.com/watch?v=QGRnTL_sVBg

Entries close on 30 March 5pm – don't miss out!

Enter The Big Bang Competition here: <https://www.thebigbang.org.uk/the-big-bang-competition/>



Appointment of new ENGINEERING COUNCIL Chair

The Engineering Council has announced a new Chair of its Board of Trustees. Prof John Chudley CEng FIMarEST will take up the role in June 2023 at the Engineering Council's Annual General Meeting (AGM), at which Professor Chris Atkin CEng FRAeS FREng formally completes his term as Chair.

Nominated by the Institute of Marine Engineering, Science and Technology (IMarEST), Chudley has served on the Engineering Council's Board of Trustees since 2017 and chairs the Registration Standards Committee. He was appointed as Vice-Chair of the Engineering Council in 2021, including supporting the implementation of the Engineering Council's 2025 Strategy. www.engc.org.uk

Survey highlights job change drivers for engineers

STEM talent partner, Matchtech and The Engineer has recently conducted a survey to determine 'What Makes a Top Employer'. The findings of the survey have shown that employers need to be aware of the concerning extent to which engineers are considering leaving the profession.

Looking five years out, ten per cent are certain that they will quit (half planning to retire) with a further 20 per cent uncertain as to whether they will stay in an engineering role – the latter cohort spanning all age groups.

With the profession potentially haemorrhaging workers, this will further compound the issues of low take-up of young people in engineering/STEM skills (notably amongst women), heightening the skills gap and talent shortages – albeit numbers are improving.

The top three drivers of job change for employed engineers in the UK – beyond that of increased pay – were being offered shares in the company, the quality of the working environment and health and wellbeing benefits.

For more information on the survey visit: <https://www.matchtech.com>



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From A levels to engineering. Exploring the gender gap in higher education

A new report which explores how many more girls would need to study mathematics and/or physics at A level to increase the numbers of women studying engineering in higher education to the same level as men.

engineeringuk.com/alevels



115,000 more girls need to study maths or physics

A Levels to **BRIDGE GENDER GAP** in higher education

A new research report, released by charity EngineeringUK, reveals the staggering increase needed in the number of girls studying maths and/or physics at A level, to reach equal numbers of male and female students studying engineering and technology degrees.

With the current conversion rate from A Level to undergraduate study, around 150,000 girls would need to study A levels in maths or physics (or both), to reach the same number of male undergraduates. This is a significant increase of around 115,000 girls compared to current numbers.

The report, which follows *International Day of Women and Girls in Science*, reveals that 23 per cent of male students who studied A levels in maths or physics, or both, went on to study engineering and technology in higher education. However, just eight per cent of female students who took the same subject(s) went on to study engineering and technology degrees.

This translates to a stark gender divide, with only 18 per cent of those studying undergraduate degrees in engineering and technology being female, compared to 57 per cent for all degree subjects combined.

Dr Claudia Mollidor, Head of Research and Evaluation at EngineeringUK, said: "The gender disparity within undergraduate degrees in engineering and technology is really concerning. Given that A levels in maths and physics are often a prerequisite for such degrees, we need to do more to make sure these subjects are attractive and accessible to girls at school. Particularly given we know girls perform as well as boys, or even outperform them, in these subjects.

"Cultivating this interest and appetite at an early stage will be crucial, so that when it comes to selecting GCSEs and A levels, girls are informed and

inspired to choose subjects that will allow them to progress into engineering and tech careers."

The report, which is based on Higher Education Statistics Agency (HESA) data, reveals that of the first-year undergraduates in engineering and technology who had studied both maths and physics at A level, only 22 per cent were female students. However, when looking at these subjects separately, the figures jump to 50 per cent of female students having taken maths only and 31 per cent physics only. This highlights the importance of continuing to move away from the preferred prerequisites for these courses being A levels in both subjects and widening the entry qualifications accepted – to address gender imbalances.

"With the UK challenged to meet Net Zero by 2050, there is an urgent need for more young people to enter into engineering and technology careers. However, at present just 16.5 per cent of the engineering workforce are female," says Mollidor.

"It's clear the UK will struggle to get on top of its acute skills shortage if it fails to increase the number of women entering into engineering-related careers. The first step to addressing this is to increase girls' interest and engagement with science and maths at school."

More encouragingly, for students with A levels in both maths and physics, engineering and technology is the top higher education study subject of choice. However, there is still a gender imbalance here with 39 per cent of male students choosing the subject versus 29 per cent of female students.

The report – 'From A levels to engineering: Exploring the gender gap in higher education' is available to from www.engineeringuk.com



Students who studied maths and/or physics at A level who went on to become **engineering and technology undergraduates:**



engineeringuk.com/alevels