UKESF Impact Report 2024/25

Engaging, inspiring and supporting future Electronics Engineers

“The UKESF has positively influenced countless individuals to kick-start careers and accelerate success”
Professor Geoff Merrett
University of Southampton
As quoted in the Southern Daily Echo

Contents

The big numbers

In the 2024/25 academic year:

186
Schools received our resources

33
Primary and secondary events nationwide

120
Companies and universities collaborated with us

73
UKESF Scholarships Awarded

506
Participated in Girls into Electronics

This year saw me achieve a personal milestone at the UKESF. I've now had the privilege to lead the organisation for 10 years.

During this time, we've grown from a niche 'cottage industry' to become a far more impactful organisation. This growth has continued apace in 204/25; we've delivered even more activities right across the country, including for the first time in primary schools.

Importantly, the need to create a future talent pipeline for our sector has been recognised by the Government. As we look ahead to 2025/26, the rhetoric from the semiconductor strategy is now being supported with some very welcome funding enabling us to deliver a meaningful skills programme.

What an exciting – and fundamentally transformative – year for the UKESF.

For 15 years, the team has been building and delivering the type of well-thought-out and impactful skills programmes outlined in this report. Their commitment and hard work has delivered clear benefits to a whole generation of young people.

This achievement has been recognised by industry and Government, in the form of a £4.75 million pound grant to deliver the UKESF's bespoke Semiconductor: Skills, Talent and Education Programme.

I am honoured to be part of the ongoing adventure, and awed by the work of Stew and the team... as you read this report, I'm sure you will be too!

Stewart Edmondson
CEO & Director
UKESF

Neil Dickins
Chair of Trustees & Director, UKESF
Founder / Director
IC Resources

Our year in pictures

August 2024
UKESF Scholar Workshop takes place in York

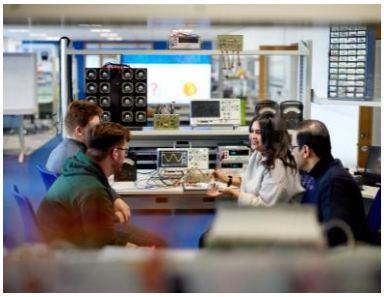
September 2024
UKESF launched Work-readiness Report

October 2024
Record number of Scholarship applications

November 2024
UKESF at the Global Semiconductor Conference

December 2024
Scholar of the Year awarded at the TechWorks Gala

January 2024
UKESF contributes to UK Semiconductor Workforce Study

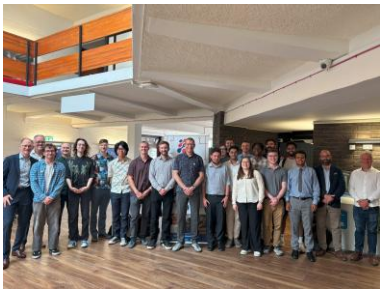


February 2024
Bangor University joins the UKESF Scholarship Scheme

March 2024
UKESF team visit Taiwan

April 2024
Primary Electronics is piloted at STEM events

May 2024
UKESF announces Semiconductor: STEP



June 2024
Graduating Scholars come together at UKESF@VF25

July 2024
Over 500 attend Girls into Electronics events

Working together across the UK

With thanks to...

...And every organisation and individual who supported us to inspire and upskill the next generation of Electronics Engineers in 2024-25.

Our University Partners

Our Reach

Since 2010, we have supported:

- Over 900 Schools
- 30 Partner Universities
- More than 100 companies from across the industry

We have enabled the development of future Electronics Engineers

UKESF Scholarships

73 bright and capable undergraduates have received UKESF Scholarships

Our industry-focused, award-winning UKESF Scholarship Scheme works collaboratively with employers and universities to tackle the skills shortage in Electronics.

Scholars are supported through their undergraduate degree by an employer, and benefit from relevant work experience and 'wrap around' support from the UKESF.

This year, we received a record number of applications from over 492 undergraduates, and opportunities were offered by 37 Engineering and Technology employers. 21% of new Scholarship awards were made to female students.

The Scheme helps to address the skills shortage in Electronics by providing an effective pipeline for graduate recruitment and improving retention in the industry - 91% of those who have completed their studies go on to work in the Electronics and Technology industry.

UKESF Scholarships

56 Scholars attended our Professional Development Course to develop their non-technical skills, as well as tools for their career

"I thought it was an invaluable experience"

We created a **Network of Early Career Professionals** and convened the first meeting.

Bringing together those involved in developing young engineers to share best practice from across the industry.

30 undergraduates attended UKESF@VF25

An exclusive programme of talks and activities designed to support graduating UKESF Scholars with their transition into the workplace.

Sponsored by IC Resources and Mathys and Squire

We have inspired the next generation of female engineers

Girls into Electronics

A record **506** girls participated in interactive events, hosted by 15 of our partner universities across the UK

Sponsored by Apple

The series of one day events gives female secondary school students the chance to hear from women who have gone on to study Electronics and work in the sector. The pupils are given a tour of an Engineering department, participate in interactive Electronics activities, and attend an Electronics lecture. They are also given a microcontroller kit and a guide of follow-on activities to take home, so that they can further develop their interest. This year:

- 80% of participants felt more enthused about Electronics after attending
- 56% of participants who weren't considering a career in Electronics have now been inspired to
- 96% of participants rated the Girls into Electronics day as 'Good' or 'Excellent'
- 41% of participants were from an ethnic minority, and 16% will be first in their immediate family to study at University

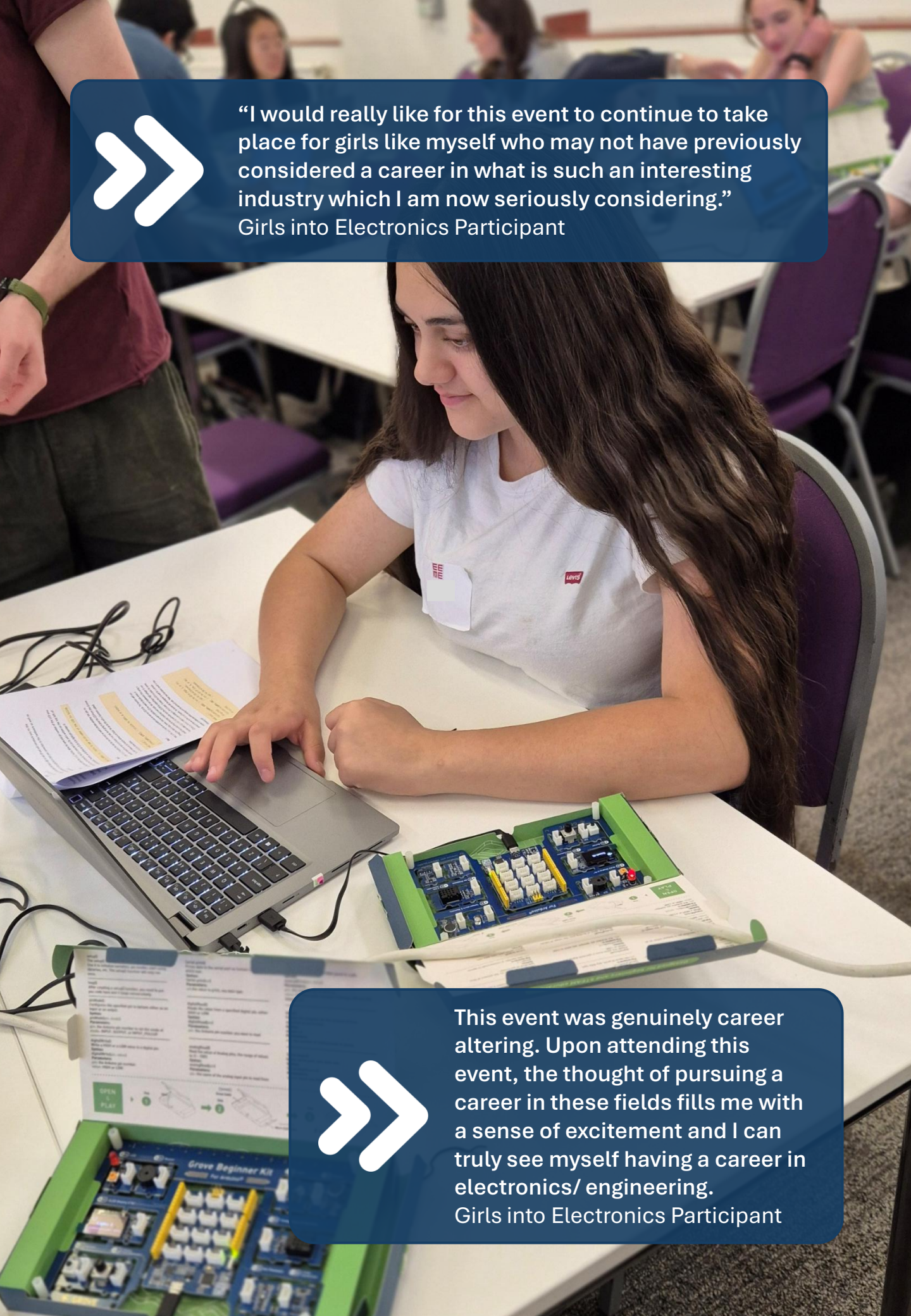
Renesas Award for Female Students

6 outstanding students recognised by Award

Sponsored by Renesas

This Award supports young women into their first year of university with a valuable summer placement at Renesas, and a bursary to support their studies.

Running for six years (2018-2024) the programme provided a unique opportunity for 27 young women to gain meaningful experience and insight into a rewarding career in Electronics.



“I would really like for this event to continue to take place for girls like myself who may not have previously considered a career in what is such an interesting industry which I am now seriously considering.”
Girls into Electronics Participant

This event was genuinely career altering. Upon attending this event, the thought of pursuing a career in these fields fills me with a sense of excitement and I can truly see myself having a career in electronics/ engineering.
Girls into Electronics Participant

We are supporting the UK's National semiconductor strategy

Semiconductor: Skills, Talent and Education Programme

Funded by UK Government

We launched a major new initiative, Semiconductor: Skills, Talent and Education Programme, with funding from UK Government, to start to create a future skills pipeline for the UK's semiconductor sector.

The programme aims to equip more young people, undergraduates and early career engineers with the skills to thrive in the industry.

The Programme

Semiconductor Skills in Schools

Hands-on resources and support to teach core Electronics concepts and skills, as part of the curriculum for 15-18-year-olds.

In the 2025-26 academic year, we will offer our Electronics Everywhere resources, careers forums and online teacher support to 120 schools.

Semiconductor Skills for Physics Graduates

This feasibility study explores how to upskill and inspire physics graduates to pursue a career in the semiconductor industry.

This project was kicked off at a workshop in July, attended by representatives from industry and academia (pictured).

Semiconductor Talent Award

The Award aims to help address underrepresentation and improve social mobility in the semiconductor industry. 300 aspiring Electronics engineers will benefit from a bursary, mentoring, and skills development.

The deadline to apply for the Award was in July 2025 and we awarded provisional Awards to over 300 applicants. Final awards to be offered in September 2025, when successful candidates will be invited to regional induction events.

Semiconductor Skills Development Course

In-depth chip design courses that build upon the underpinning knowledge and theoretical understanding gained at university, preparing participants for a career in the semiconductor industry.

Online and Residential development courses will take place in Autumn 2025.

Partners

Aston University Birmingham

CATAPULT Compound Semiconductor Applications

TechWorks

IOP Institute of Physics

University of Sheffield

UKRI Science and Technology Facilities Council

With support from:

DOULOS

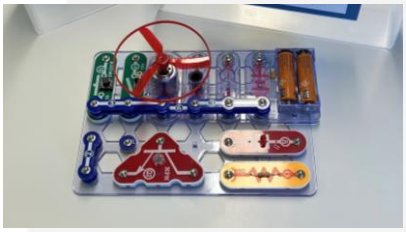
We have engaged school children with interactive resources to develop their interest in Electronics

Primary Electronics

We have piloted our Snap Circuits resource with **164** primary pupils

The UKESF with the support of industry volunteers, will be delivering workshops – in the classroom – to explain the basics of Electronics circuits, giving children the hands on opportunity to build a circuit with 'snap circuits' to control an LED using a light control sensor.

To date, we have visited STEM fairs and primary schools to pilot the activities, ahead of rolling the programme out in 2025/26.



Insight into Electronics

560 Microcontrollers have been given to individuals and Schools

An opportunity to participate in self-paced, interactive Electronics and programming activities using a microcontroller. This resource is available to individuals to use at home, and teachers to use with their KS4/S4 pupils. To date, 2,694 Microcontrollers have been given to schools and individuals.

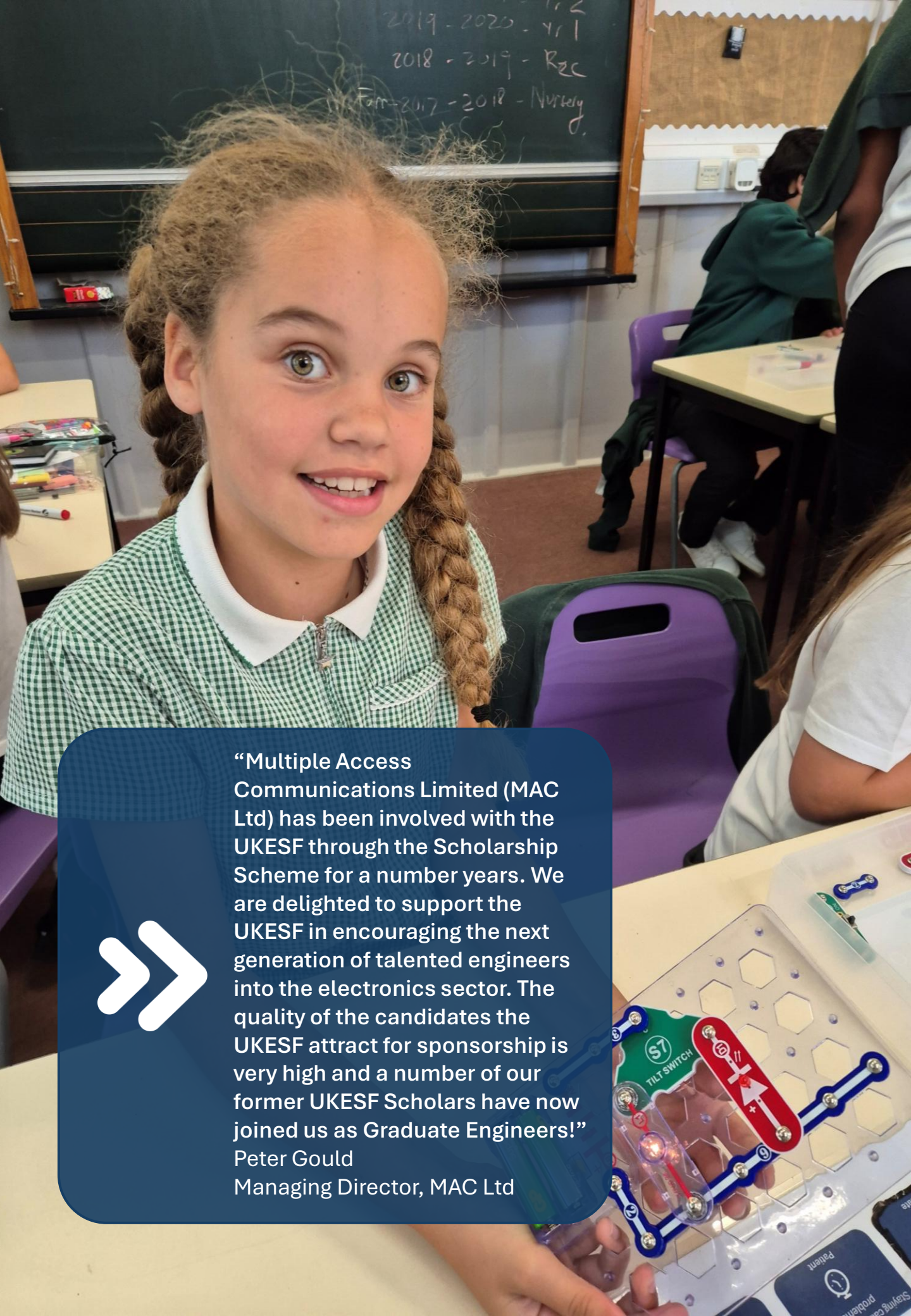
Spark their Imagination, Power their Future

294 pupils attended Electronics events in Wales

Spark their Imagination was designed to promote Electronics and support young people to develop the skills needed by the UK's semiconductor sector. It comprised a range of activities to help teachers to deliver engaging Electronics education, and encourage pupils aged between 15 and 19 to develop their interest.

- 45 schools received resources
- 294 pupils attended Electronics events throughout Wales
- 24 young people received the SPARC Award, giving them access to financial and career support

"It has been an amazing experience overall. Having benefited from the bursaries, it allowed me to pursue my education further without being limited by financial restrictions. The mentoring sessions were insightful and very informative, it opened my eyes to other opportunities and ways to develop myself."
Abdul Hannan, Sparc Award recipient



“Multiple Access Communications Limited (MAC Ltd) has been involved with the UKESF through the Scholarship Scheme for a number years. We are delighted to support the UKESF in encouraging the next generation of talented engineers into the electronics sector. The quality of the candidates the UKESF attract for sponsorship is very high and a number of our former UKESF Scholars have now joined us as Graduate Engineers!”

Peter Gould
Managing Director, MAC Ltd

We are championing skills in Electronics

Presenting solutions to improve the Electronics skills pipeline

Stewart Edmondson, CEO, spoke at the NMI Conference in Glasgow, Global Semiconductor Conference in Malta, as well as iMAPS, techUK, Technology Scotland and CS Connected events.

UK-GRAFT

The UKESF joined a consortium led by Paragraf for an Innovate UK funded programme that explored the barriers to real-world uptake of the use of graphene in the semiconductor industry.

Working with Paragraf, the UKESF successfully:

- Identified the knowledge gaps and training needs for new hires;
- Collaborated with local colleges and universities to develop targeted learning resources;
- Developed a replicable, scalable training model.

Taiwan ‘Reconnaissance’ Visit

A small UKESF team visited Taiwan, paving the way for possible student exchange visits to broaden our knowledge and understanding of semiconductors, demonstrate the global nature of the industry, and help inspire the next generation of graduates.

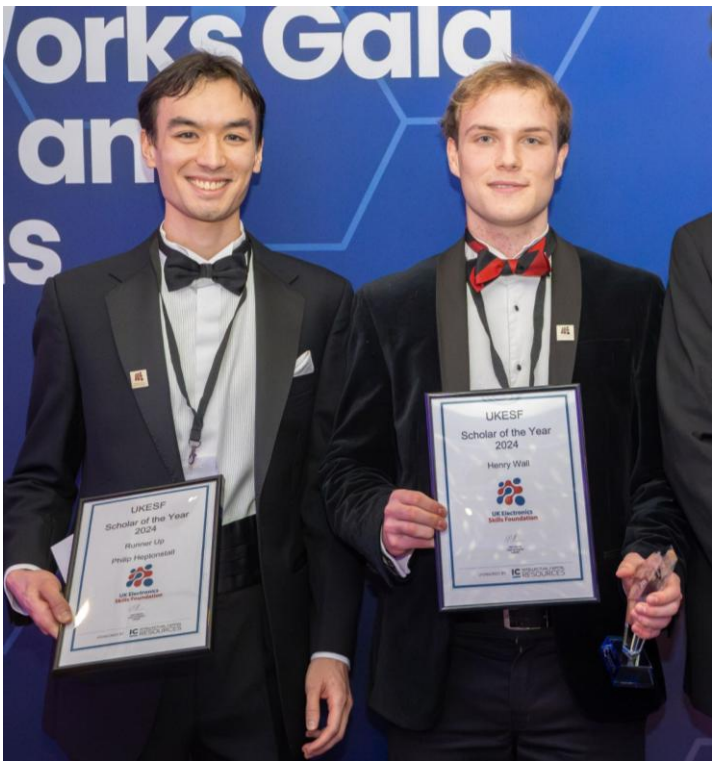
Derek Boyd, Owain Issac and Dr Joe A. Smith visited semiconductor design and manufacturing facilities and universities in and around the country’s capital Taipei.

We have celebrated our Scholars' successes

Scholar of the Year

The UKESF Scholar of the Year Award recognises:

- Exceptional academic performance
- Outstanding contribution to their sponsor company
- Participation in outreach and raising awareness of Electronics with young people.



2024 Winner
Henry Wall
University of Cambridge
Multiple Access Communications Ltd

2024 Runner up
Philip Mengersen
The University of Edinburgh
AMD

UKESF Scholars win BrightSparks Awards

Hamza Farah, Kenville Haynes, Philip Mengersen, Nandni Jamnadas, Hazel Pumphrey, Al Rawshan, Nathan Richardson, Henry Wall and Ethan Wilkinson received BrightSparks Awards in 2024.

To date, 33 of our UKESF Scholars have been awarded BrightSparks.

We are engaging, inspiring and supporting future Electronics Engineers

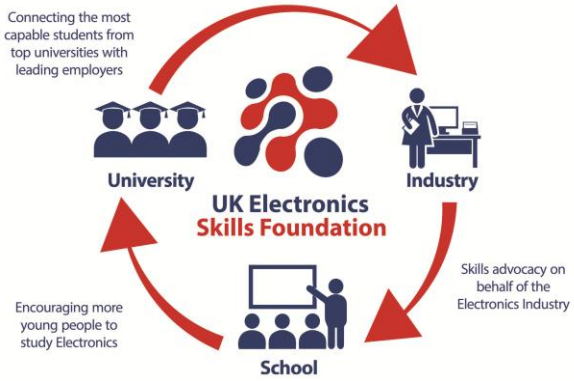
About Us

We are the voice for skills in the Electronics Industry.

Through engagement with Schools, Universities and Industry, it is our mission to encourage more young people to study Electronics and to pursue careers in the sector.

We are an independent charity working to address the skills gap in the UK Electronics sector through raising awareness, promoting interest in young people, supporting the development of those who choose electronics, and building relationships to ensure a thriving sector.

This can only be achieved by working collaboratively, and to date, we have worked with more than 90 employers from across the industry, 29 of the UK's leading universities, and over 800 schools.



Why What We Do is Important

The UK has a long heritage of technological innovation and has a world-class Electronics sector. It has the potential to grow and innovate to provide solutions to some of the biggest challenges facing society today. However, the demand for capable, employable Electronics Engineers and designers is currently outstripping supply.

Together we can tackle the skills shortage in Electronics

There are many ways you can help us to deliver greater impact, including:

- **Getting involved in our activities.** Explore **'What we do'** to find out more about our work and ways you can get involved through outreach, funding and volunteering.
- **Donating.** As a registered education charity, we are eligible to receive donations. Our work aims to provide practical, direct and engaging support to young people to help improve their awareness of Electronics and provide opportunities for skills development.
- **Supporting us as your Charity of the Year.** If your organisation appoints a Charity of the Year, consider choosing the UKESF and we will work with you to identify how we can use the funds you raise, or the time you can give, to support the next generation of Electronics engineers.

If you are able to help us to invest in the future of Electronics, get in touch at info@ukesf.org.

UK Electronics Skills Foundation

Find out how you can get involved in our work:

ukesf.org
01285 862381
info@ukesf.org

North End House
Ashton Keynes
Wiltshire, SN6 6QR

Registered charity number: SC043940