

UK Electronics Skills Foundation

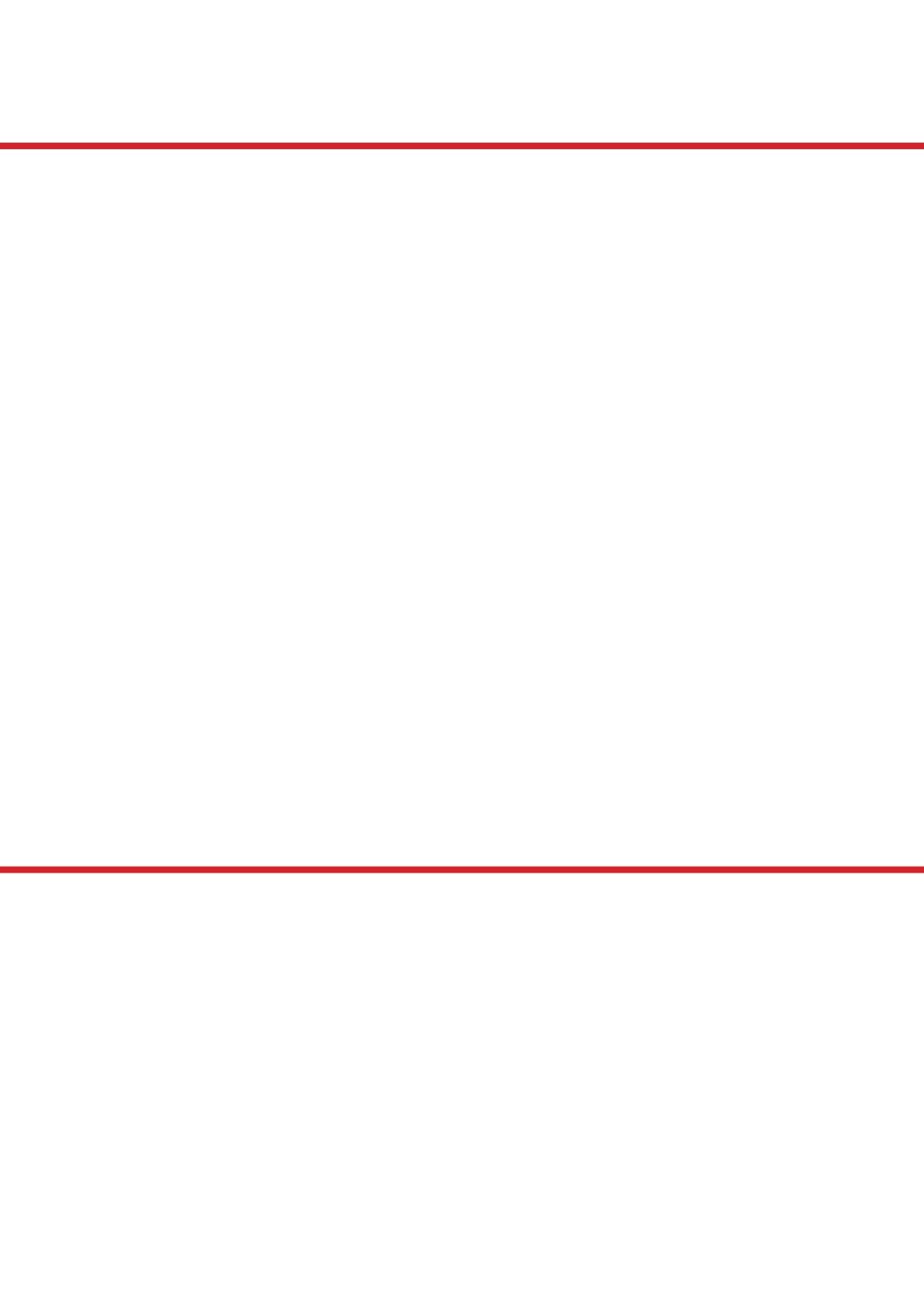
The UKESF

Celebrating 5 Years of Graduating Scholars

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SCHOLARSHIPS AT A GLANCE

7

years the Scholarship Scheme has been in existence

1,522

number of students making applications

367

scholarships awarded

41

number of female students awarded scholarships

41

different companies sponsoring scholars

172

students completed scholarships and graduated

“UKESF now bigger and better” (*New Electronics*)

2010–11

5 universities

118 applications

6 companies

22 scholarships

2016–17

18 universities

287 applications

30 companies

62 scholarships

INTRODUCTION



Stew Edmondson, CEO, UKESF

This booklet celebrates the fifth anniversary of the graduation of the first cohort of UKESF scholars. I would like to start by paying tribute to those who had the vision to create the UKESF, and especially to Dr Wendy Daniell for all her hard work in establishing the Scholarship Scheme. Also, I must offer thanks to Derek Boyd of the NMI for his unstinting support and sage advice to help grow the scheme.

Back in 2012, just eight scholars graduated, having been the first students selected for scholarships two years previously. Fast forward to 2017 and this summer there will be almost 50 scholars graduating, which shows how much the scheme has grown and expanded over the last five years. We have now supported close to 400 students. Importantly, we know that 80% of those who have completed our scholarship programme are now working in the Electronics/Technology sector and a further 12% are studying for PhDs. This demonstrates the true value of our scheme in providing work-ready, highly capable graduates.

Today, capable, employable, Electronics graduates are in ever greater demand and the skills shortage has become more acute; therefore, our scholars have never been more critical to the UK's economy. With the continuing support of forward-thinking companies, we will be working hard to expand the scheme still further; to help even more students in the next five years.

A handwritten signature in black ink, consisting of stylized initials 'SE' followed by a surname 'Edmondson'.



Indro Mukerjee, Chair, UKESF Steering Board

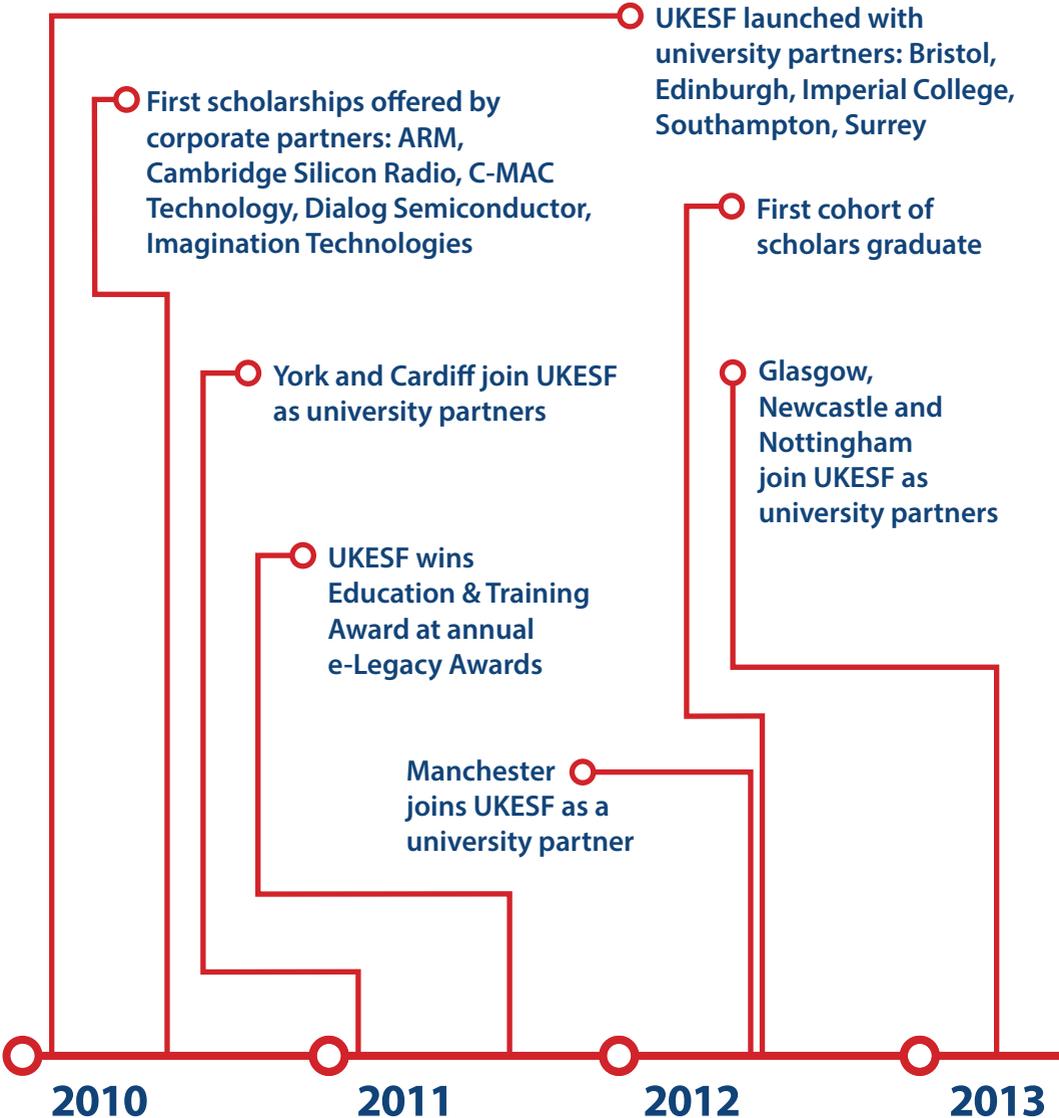
It took a lot of hard work and collaboration to get the UKESF off the ground and the Scholarship Scheme launched in 2010. As the UKESF's founding Chairman, I was delighted to work with people across the industry to start something practical, something worthwhile and something real, and – we hoped – lasting. Therefore, I'm delighted that we are now celebrating the fifth anniversary of our first graduates. Something which started as a hope has been turned into reality.

Since its launch, the Scholarship Scheme has grown considerably, and we have been able to help an increasing number of students. It is very pleasing to me that so many of those who have graduated from the scheme are now working in UK industry.

I said at the time of the UKESF's launch that the Foundation had set itself realistic goals, yet to achieve them more private enterprises need to support it. Despite the growth and the success of the Scholarship Scheme, this is still true. We need more forward-looking electronics companies to sign up to the UKESF's scheme and help address what is a national concern of strategic importance.



SCHOLARSHIP TIMELINE



Leeds and
Sheffield join
UKESF as
university partners

UKESF supports
four female scholars
to attend WES
Student Conference

Record number of
scholarships awarded

Cambridge
joins UKESF as a
university partner

Heriot-Watt
and Lancaster
join UKESF as
university partners

UKESF partners
with Skills 4 UK to
create award for
female scholars

Bath and
Loughborough
join UKESF as
university partners

2014

2015

2016

'ENGAGEMENT AND AMBITION' – A VIEW FROM A UNIVERSITY

The University of Southampton was one of the founding partners of the UKESF and since then their students have accounted for almost a quarter (23%) of all scholarships awarded. We asked Joyce Lewis (Senior Fellow for Partnerships and Business Development at Southampton) for her view about the scheme; she said:

"The high numbers of scholarships awarded to students from Southampton reflects the very special culture that has been created over the last five years. There is a huge amount of interest and excitement here around all aspects of student life – both within the courses and around the more social side of the Department. There are very high engagement levels for all the events and activities and we have worked very hard to raise our students' awareness and aspirations of their potential. This infuses everything, from the open days and summer schools before they even apply to university, to the buy-in for company involvement in the course, to the quality of their project work and initiatives like the UKESF Scholarship Scheme beyond their degrees. I think 'engagement and ambition' are key parts of the whole atmosphere of the Department, which all the academic staff encourage so well."

SCHOLAR DESTINATIONS

There are some that believe the UK is not producing high-quality Electronics graduates who are ready and able to make a difference to businesses. We strongly argue that this view is misinformed – certainly, there are not enough graduates, but the quality is definitely there. The data below is compelling; it shows that high-achieving Electronics graduates, who are UKESF Scholars, are joining companies in the sector. For instance, we currently know the destinations of all 32 scholars who graduated in 2016: **63%** were made offers of graduate employment by their sponsors, and in total **75%** are working in the Electronics/Technology sector; a further five are studying for a PhD.

125 students completed the UKESF Scholarship Scheme and graduated between 2012 and 2016. Of those, we know the destinations of 120:

- **50%** are working for a UKESF Sponsor Company
- **80%** are working in the Electronics/Technology sector
- **12%** are studying for a PhD

SCHOLAR OF THE YEAR AWARD

Each year the UKESF recognises the outstanding achievement of a scholar who has made a significant contribution to their sponsoring employer through their work placement, as well as actively promoted Electronics to young people or encouraged the study of STEM subjects in schools. The winner is selected by a panel of professionals in the Electronics sector and is announced at the NMI Gala Dinner and Industry Awards, with the prize generously supported by Neil Dickins and IC Resources.

UKESF SCHOLAR OF THE YEAR

Year	Scholar	University	Sponsor Company	Destination
2011	Adam Malpass	Southampton	Dialog Semiconductor	Analogue Design Engineer at Dialog Semiconductor, Tokyo
2012	Rares-Mihai Popa	Edinburgh	Qualcomm (formerly CSR)	Test Development Engineer at Qualcomm
2013	Ashley Robinson	Southampton	Qualcomm (formerly CSR)	Electronics Engineer at Cambridge Design Partnership
2014	Robert Eynon	York	Dialog Semiconductor	Graduate Engineer at ARM Norway AS (Top-level Integration Team in Media Processing Group)
2015	Josh Oldfield	Southampton	ARM	Graduate Engineer at ARM
2016	Joanna Taylor	Bristol	Imagination Technologies	Product engineering at Graphcore (Silicon Team)

'GREATLY EXCEEDED EXPECTATIONS'

The Scholar Workshop is a key part of the UKESF programme, developing scholars' work-ready skills with professional and personal development sessions and opportunities to network with speakers from the Electronics sector. We asked Darren Race (Managing Director, Think Eleven Ltd), who has been Lead Facilitator for all our workshops, for his views.



Darren Race

Having been involved in the development of the UKESF Scholar Workshop from its inception, it has always been of paramount importance that the content focuses and meets the requirements defined by industry. Since the very first workshop at the University of Surrey back in September 2011 the programme has evolved based on a combination of scholar feedback and partner and stakeholder review in order to maintain pace and relevance for the sector.

Securing contribution from experienced and expert speakers has been vitally important to ensure the quality and appeal of the programme to both scholars and their sponsoring companies. The newly acquired skills and knowledge is then applied through a work-based team project, which is then judged by an industry panel.

There is no doubt that the UKESF programme and Scholar Workshop attracts the very best undergraduate talent. It has been a privilege to support the programme, meet some exceptionally talented young engineers and support the programme to go from strength to strength.

UKESF SCHOLAR WORKSHOP

Feedback from the UKESF Scholar Workshop is always overwhelmingly positive; the below is just a selection from the most recent workshop, held at the University of York in 2016.

“The week has been amazing! I was hesitant before coming and didn’t think it would be anywhere near as engaging and informative as it has been. All in all the course is a great asset to have and will help me grow in the workplace. Thank you all for your hard work to make this amazing week.”

Ben, University of Southampton
Sponsor Company: Plextek

“It was interesting, informative and engaging. The interactive activities were particularly fun. Exceeded my expectations, definitely a highlight of the UKESF Scholarship.”

Dominic, University of Leeds
Sponsor Company: ARM

“Thank you for putting on this workshop, it was very worthwhile and taught us a lot of skills not touched on the degree courses.”

Eliza, University of Southampton
Sponsor Company: Swindon Silicon Systems

“I just wanted to say thank you for organising such an incredibly useful workshop. Not only have I learnt a lot more than I imagined I would, but after hearing about how steep the decline in interest in Electronics is from the younger generation, I have been inspired to try and make a difference myself. Thank you for organising an amazing week at York!”

Simon, Imperial College London
Sponsor Company: ARM

'WHERE ARE THE QUEUES FOR THE LOOS?' – GENDER & DIVERSITY

At the UKESF we recognise that trying to get more girls involved with Electronics is a key part of tackling the skills challenge. We asked Lynn Tomkins (Chair, Skills 4 Ltd), founding Trustee and Director of the UKESF, for her views.



Lynn Tomkins

I was delighted to see our first female winner of the UKESF Scholar of the Year Joanna Taylor talk [at the NMI Gala Dinner and Industry Awards] so positively on how exciting her career is; this message is really powerful in terms of encouraging more girls to consider a career as an engineer.

At 8% the UK has the lowest proportion of female professional engineers than any other European country, so there is still a long way to go.

The UKESF is more than playing its part in promoting a better gender balance in the sector, working with a range of partners to tackle the issue. The research shows very clearly that mixed gender teams outperform single gender teams and a fairer, more balanced, economy drives a fairer, more balanced, society where everyone benefits.

41/367 (11%) UKESF scholars, past and present, are female

Extract from Guest Blog: 'Where are the Queues for the Loos?'

*Emma Curati-Alasonatti,
UKESF Scholar 2014–17, University of Southampton
Sponsor Company: ARM*

I met an Engineer once who said that the best thing about being a woman in an engineering environment was that she never had to queue for the toilets. I rather like that response. It's a silly answer to the silly question, "What's it like being a female engineer?" The text book response is, of course, two-fold: a) I've never been a 'male engineer' so I wouldn't be able to give you a balanced comparison, and b) you would never ask a 'male engineer' the opposing question.

The best thing about being an Engineer is the same, regardless of gender. The problem solving, the creativity, that feeling you get when you see an idea that existed only in your mind, however long ago, as a tangible entity that functions exactly as you designed it.

We need to expose girls to positive images when they are young in order to break the cycle of the existing state of affairs so that, one day, I can look forward to having to queue for the toilet!

Extract from *New Electronics* Interview with UKESF Scholar of the Year 2016

*Joanna Taylor, UKESF Scholar 2013–17, University of Bristol
Sponsor Company: Imagination Technologies*

"I walked into the wrong lecture the other day and I knew immediately it was the wrong one because most of the people in the room were female," she lamented. "My course is so small as well, there aren't many people and there are so many more jobs available for engineering than other degrees, so we need to try to bring some of those people over to engineering. We could if we targeted women a bit more."

(Thanks to Peggy Lee at New Electronics for permission to reprint this.)



UKESF SPONSOR COMPANIES



We appreciate the support of all the companies that have sponsored scholars through our Scholarship Scheme:

Allegro Microsystems	IT Dev
API Technologies	Leonardo Edinburgh
Aptina	Leonardo Luton
ARM	Meggitt Avionics
Atmel	Micron Technology
AVL Powertrain	National Instruments
AWE	Nujira
BEKO Research & Development Centre	Nvidia
BluWireless	Plextek
Broadcom Europe	Publitek
Cadence Design Systems	Qualcomm Technologies
Calnex Solutions	Renesas Electronics Europe
Cambridge Consultants	Samsung Cambridge Solution Centre
Cirrus Logic	Socionext
CommAgility	STFC
Dialog Semiconductor	STMicroelectronics
EDA Solutions	Swindon Silicon Systems
Embecosm	Thales
Ericsson TV	UltraSoc
Frazer-Nash Consultancy	vivaMOS
Imagination Technologies	XMOS
Infineon Technologies	





UK Electronics Skills Foundation

1,000,000+ related jobs



The UK has the 6th largest Electronics industry in the world

£98 billion annual turnover



21% of all UK Engineering graduates studied Electrical & Electronic Engineering



Top technology trends all depend on Electronics:

Internet of Things, autonomous vehicles, augmented reality, wearables, renewables

78.5% of UK Engineering graduates go into employment



11% of Engineering graduates go onto further study



The Electronics sector contributes 6% to the UK GDP

235 postgraduates achieved a doctorate in Electronics or Electrical Engineering in 2014

23% of the overall total for Engineering & Technology



Over 90% of smart phones contain Electronics designed in the UK



£26,644 is the mean starting salary for Electrical & Electronic Engineering graduates



14 of the world's top 20 semiconductor companies have a design and/or manufacturing site in the UK



84% of female engineers are very happy with their career choice



61% of employers in the Electronics sector are currently recruiting engineering and technology staff

69% say lack of available candidates is a problem when recruiting graduates

Find out more at www.ukesf.org All figures correct as of Summer 2016.

Sources: Engineering UK2016 Report, ESCO Report, The IET Skills Survey 2015, Top 10 Strategic Technology Trends 2016.