



## Department Application Bronze and Silver Award



## **ATHENA SWAN BRONZE DEPARTMENT AWARDS**

Recognise that in addition to institution-wide policies, the department is working to promote gender equality and to identify and address challenges particular to the department and discipline.

## **ATHENA SWAN SILVER DEPARTMENT AWARDS**

In addition to the future planning required for Bronze department recognition, Silver department awards recognise that the department has taken action in response to previously identified challenges and can demonstrate the impact of the actions implemented.

Note: Not all institutions use the term 'department'. There are many equivalent academic groupings with different names, sizes and compositions. The definition of a 'department' can be found in the Athena SWAN awards handbook.

## **COMPLETING THE FORM**

**DO NOT ATTEMPT TO COMPLETE THIS APPLICATION FORM WITHOUT READING THE ATHENA SWAN AWARDS HANDBOOK.**

This form should be used for applications for Bronze and Silver department awards.

You should complete each section of the application applicable to the award level you are applying for.

Additional areas for Silver applications are highlighted throughout the form: 5.2, 5.4, 5.5(iv)

If you need to insert a landscape page in your application, please copy and paste the template page at the end of the document, as per the instructions on that page. Please do not insert any section breaks as to do so will disrupt the page numbers.

## **WORD COUNT**

The overall word limit for applications are shown in the following table.

There are no specific word limits for the individual sections and you may distribute words over each of the sections as appropriate. At the end of every section, please state how many words you have used in that section.

We have provided the following recommendations as a guide.

Department application	Silver	Words Used
<b>Word limit</b>	<b>12,000</b>	<b>12003</b>
<i>Recommended word count</i>		
1. Letter of endorsement	500	544
2. Description of the department	500	457
3. Self-assessment process	1,000	845
4. Picture of the department	2,000	2295
5. Supporting and advancing women's careers	6,500	6930
6. Case studies	1,000	805
7. Further information	500	127

<b>Name of institution</b>	Queen's University Belfast	
<b>Department</b>	School of Electronics, Electrical Engineering and Computer Science (EECS)	
<b>Focus of department</b>	<b>STEMM</b>	
<b>Date of application</b>	November 2019	
<b>Award Level</b>	<b>Silver Renewal</b>	
<b>Institution Athena SWAN award</b>	<b>Date:</b> December 2014	<b>Level:</b> Silver
<b>Contact for application</b> <small>Must be based in the department</small>	Professor Karen Rafferty	
<b>Email</b>	<a href="mailto:K.Rafferty@ee.qub.ac.uk">K.Rafferty@ee.qub.ac.uk</a>	
<b>Telephone</b>	028 90974280	
<b>Departmental website</b>	<a href="http://www.qub.ac.uk/schools/eeecs">www.qub.ac.uk/schools/eeecs</a>	

#### 1. LETTER OF ENDORSEMENT FROM THE HEAD OF DEPARTMENT

**Recommended word count: Bronze: 500 words | Silver: 500 words**

An accompanying letter of endorsement from the head of department should be included. If the head of department is soon to be succeeded, or has recently taken up the post, applicants should include an additional short statement from the incoming head.

Note: Please insert the endorsement letter **immediately after** this cover page.



**QUEEN'S  
UNIVERSITY  
BELFAST**

**School of Electronics, Electrical Engineering and  
Computer Science**

Queen's University Belfast  
Computer Science Building  
14-18 Malone Road  
Belfast BT9 5BN  
Tel +44 (0)28 9097 4620  
[www.qub.ac.uk/Schools/eeecs](http://www.qub.ac.uk/Schools/eeecs)

Dr Ruth Gilligan  
Associate Director,  
Equality Charters Advance HE  
Equality Challenge Unit  
First Floor, Westminster  
Tower 3 Albert Embankment  
London SE1 7SP

15<sup>th</sup> November 2019

Dear Dr Gilligan,

As Head of School, I am proud to provide my unwavering support to this application. It is my ambition that we will develop further initiatives and drive impact to apply for a Gold award by 2024.

I have witnessed first hand the changes and cultural shift that have evolved since I sat in my first Board of Examiners meeting as a new academic, a lone female with a quiet voice. It has been a pleasure to see us develop to being one of the first Engineering and Computer Science Schools in the UK to achieve Silver Athena SWAN. I have benefited personally. I am no longer afraid to say I am a mother first and an academic second. I am proud, rather than conscious, of saying I am a working mother who is able to successfully balance an academic career and family. I am passionate that everyone with primary caring responsibilities doesn't view it as a barrier to progression but rather an exceptional showcase of their talents to balance life and work.

I am delighted to lead the School as its first female Head with Ms Angela Allen as Deputy Head and Professor Maire O'Neil who leads our Global Research Institute. [REDACTED] and advocates of gender equality. We are visible role models to our female students and staff. Unconscious bias training is now a requirement for all our students and staff. Our actions have resulted in the University introducing unconscious bias training for staff and students.

Recent developments include delivery of a 2 year Teacher Upskilling Programme involving 115 teachers (64% female), equipping teachers to successfully deliver A-level computing programmes. This programme has resulted in a growth of 236% in the number of pupils taking an A-level in Computing in Northern Ireland between 2015 and 2019 of which 24% of students are currently female.

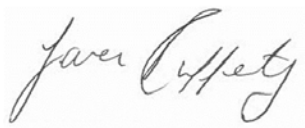
Regarding staff, 4 female research staff secured academic appointments within the School following the introduction of our 'Academic Apprenticeship Programme'. In 2018/19, following the introduction of a 'promotion ready' process, we had the most prolific promotions round with 94% success rate compared with an average of 44% in the previous three years. I am delighted that our investment in developing our professional and support staff has led to 22 professional and support staff moving into higher graded posts within the University during the reporting period. In 2018 we secured a major EPSRC grant to undertake gender equality research in STEM and I am co-investigator for

the project and look forward to proactively working to improve reactions to gender initiatives.

But we can do more; recruitment of female students and staff is our biggest challenge. I am personally leading what I hope will be significant change in how we promote our programmes to students (UG and PG) and how we recruit our staff. Our action plan focuses on tackling the loss of women at key transition points and I am confident it will address current challenges and will be used to inform decisions that will drive forward progress in line with the School's aspirations.

Finally, I confirm that the information presented in this application, including qualitative and quantitative data, is an accurate and true representation of our department.

Yours sincerely



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**Professor Karen Rafferty**  
**Head of School, EECS QUB**

**[Word Count: 544]**

Abbreviations used in the application:

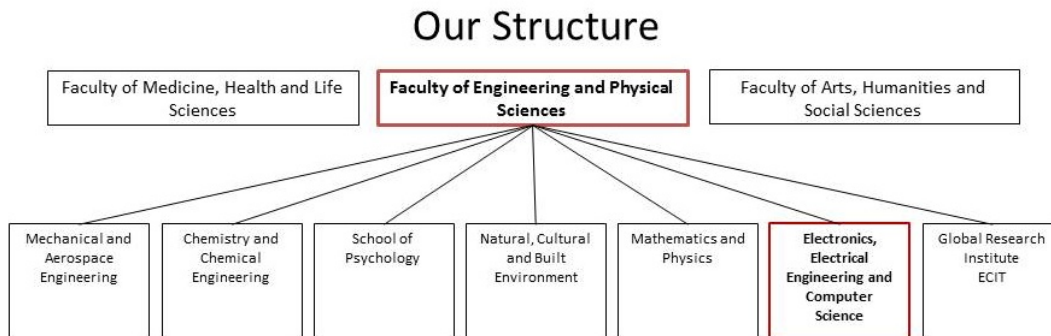
AoS	Advisor of Studies
AS	Athena SWAN
BCS	British Computer Society
BIC	Business Improvement Consultant
BIT	Business and Information Technology
CS	Computer Science
CSB	Computer Science Building
DE	Northern Ireland Department of Education
DfE	Department for the Economy
DHoS	Deputy Head of School
EDI	Equality, Diversity and Inclusion
EEE	Electronics and Electrical Engineering
EEECs	Electronics, Electrical Engineering and Computer Science
ELP	Emerging Leaders Programme
ENEI	Employers Network for Equality and Inclusion
EPS	Engineering and Physical Sciences Faculty
EPSRC	Engineering and Physical Sciences Research Council
FEB	Faculty Executive Board
GEI	Gender Equality Initiatives
HE	Higher Education
HESA	Higher Education Statistics Agency
HoS	Head of School
IET	The Institution of Engineering and Technology
liP	Investors in People
ILM	Institute of Leadership and Management
INI	Invest Northern Ireland
PGR	Postgraduate Research
PGT	Postgraduate Taught
PSS	Professional and Support Staff
QGI	Queen's Gender Initiative
QUB	Queen's University Belfast
RAE	Research Assessment Exercise
REF	Research Excellence Framework
SAT	Self-Assessment Team
SCN	SWAN-Champions Network
SCR	Substantial Change Review
SDP	Structured Development Plan
SENSE	Support for Equality Network in Science and Engineering
SESE	Software, Electronics and Systems Engineering
SLT	Senior Leadership Team
SSD	Software Systems Development
STEM	Sciences, Technology, Engineering and Mathematics
TAS	Time Allocation Schedule
TF	Teaching Fellowships
UB	Unconscious Bias
WRC	World Class Researcher

## 2. DESCRIPTION OF THE DEPARTMENT

Recommended word count: Bronze: 500 words | Silver: 500 words

Please provide a brief description of the department including any relevant contextual information. Present data on the total number of academic staff, professional and support staff and students by gender.

The School of Electronics, Electrical Engineering and Computer Science (EEECS) sits within 1 of 3 Faculties within Queen's University (Figure 1).



**Figure 1:** Structure of our School within our University Faculties

### Our Geographical Locations



**ECIT – Belfast Titanic**

**Ashby – Stranmillis Road**

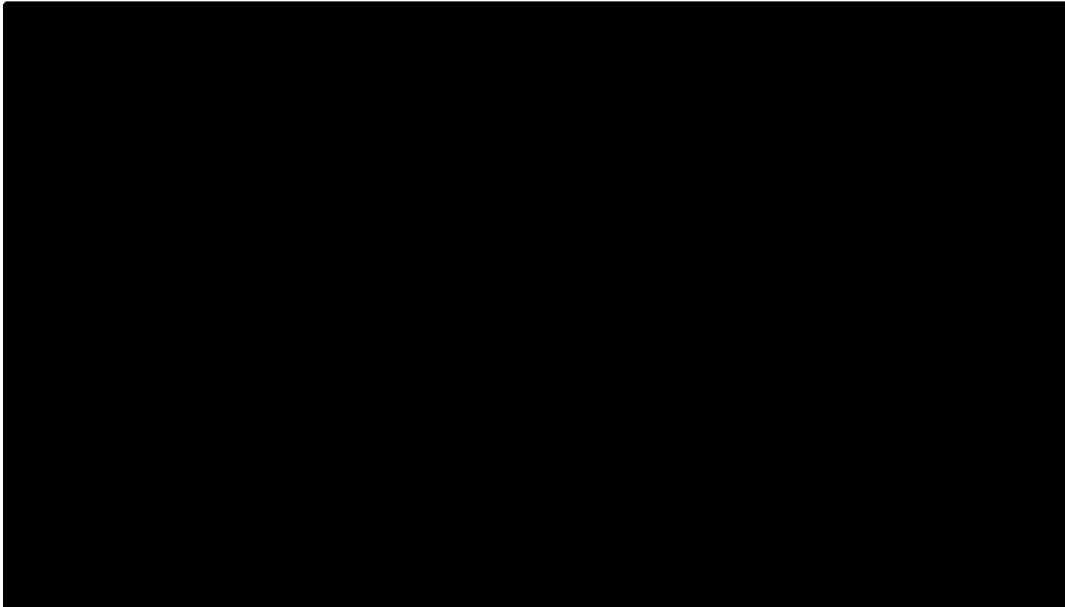
**CSB – Malone Road**

In 2018/19, females represented 23% of our total population (Figure 3), an increase of 2% from 2014/15.

Our School has the third largest student intake within our University, offering professionally accredited EEE and CS programmes across 19 pathways. Pathways for CS and EEE are presented separately within this report. The majority of our student intake comes from the Northern Ireland local education system. We are especially dependent on students that have undertaken STEM subjects at post-primary level.

We are a diverse School employing staff from 30+ nationalities across 3 locations. Since 2015 a key focus has been to promote and embed equality, diversity and inclusion (EDI) into our culture and we have introduced inclusion workshops (unconscious bias) into our mandatory induction programme for all students and staff (Section 5.6(i)).





**Figure 2:** School of EEECS Staff (Includes Academic, Professional and Support Staff)

We currently have 60 research staff (7F) and 89 academic staff (10F). Underrepresentation of women remains our key challenge (Figure 3).

The local technology sector has experienced a significant period of high-value growth, developing a global reputation for fin-tech and cyber-security amongst other areas of inward investment. Belfast is 1 of 5 UK cities where more than 10% of people work in digital technology. Constraining salary levels (Table 1) present a major challenge in recruiting PGR students and research/academic staff as we are operating in a city leading the way in skills provision, start-up activity and investment.

Graduate Salary Levels Private Sector vs EEECS			
Private Sector		EEECS	
Computing & IT	£27,495	PhD Maintenance Grant	£15,803
Engineering	£27,862		
Postgraduate Salary Levels Private Sector v EEECS (area of Cybersecurity)			
Median salary	£65,674	AC2 (mid-point 33)	£36,914
		AC3 (mid-point 41)	£46,718
		AC4 (mid-point 48)	£57,418

**Table 1:** Salary Levels (Source: graduate-jobs.com, summer 2019 & ITJobswatch.co.uk – NI Region)

Having experienced recruitment of female academic staff to be challenging we invested significantly in programmes to support female research staff wanting to pursue an academic career. **We are delighted at the impact of our Academic Apprenticeship Programme (Section 5.3(iii)) as 11 research staff (4F/7M) have transitioned into academic roles since 2016. 4 females have been appointed academics within EEECS.**

Our promotion success rate in 2016/17 was very disappointing (40%) leading us to introduce additional support including lobbying Faculty for a more holistic approach to Academic Standards. We introduced a 'promotion ready' process (Section 5.1(iii)). **We are delighted that the impact of this has resulted in 100% (F&M) success in 2017/18 and 100% (F)/91% (M) in 2018/19.** Since 2017, 3 females have been promoted, 2 to Senior Lecturer and 1 to Professor.

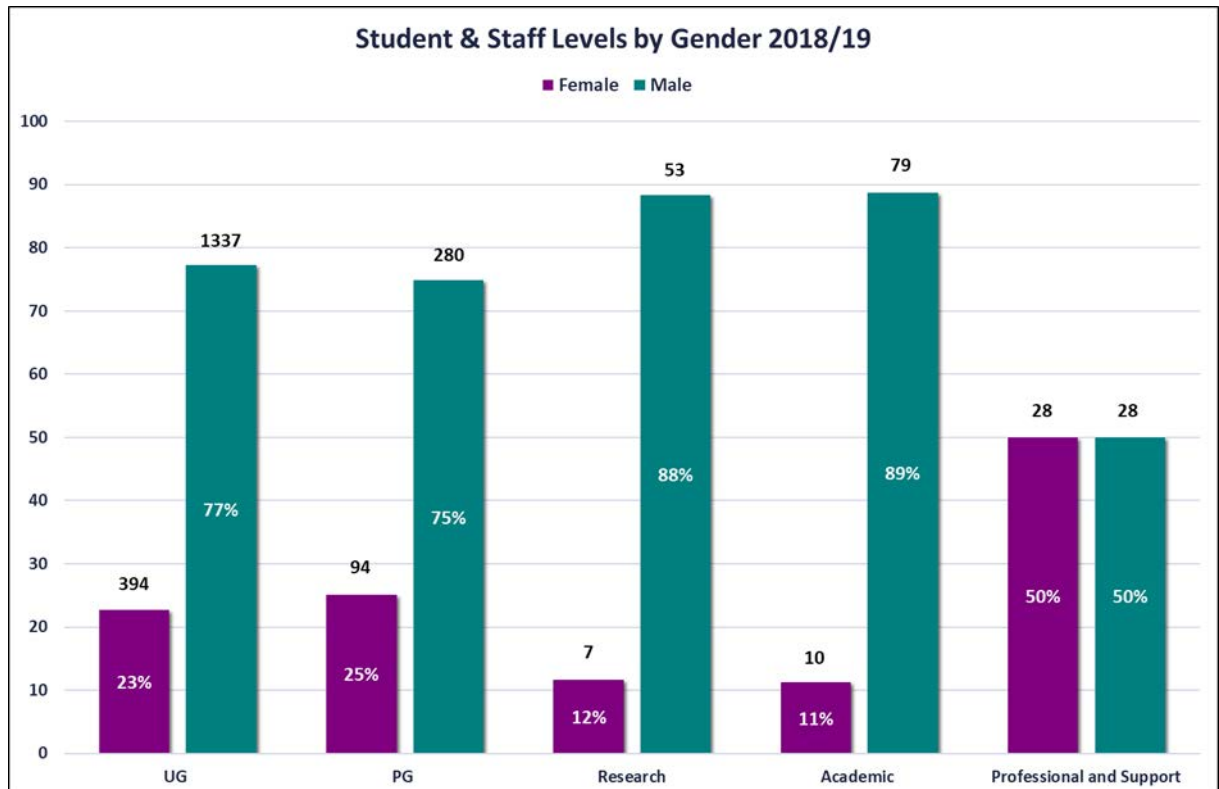




The impact of our promotion success rates in 2017/18 resulted in a significant increase in applications in 2018/19 (2017/18 4 applications, 2018/19 12 applications). This also impacted retention; in 2018/19 only 2 academics resigned, much fewer than previous years.



Currently we have 56 professional and support staff (PSS) of which 50% are female. We received Silver IIP accreditation in 2016 and continue to strongly support all staff in their career development. **The impact of this has been that since 2014, 22 have been upgraded (12F/10M)** (See Section 5.4(iii)).



**Figure 3:** Percentage of female and male students and staff as at end of 2018/19 academic year. Absolute numbers are given at the tops of the bars

[Word Count: 457]

### 3. THE SELF-ASSESSMENT PROCESS

Recommended word count: Bronze: 1000 words | Silver: 1000 words

Describe the self-assessment process. This should include:

- (i) a description of the self-assessment team

We received an Athena Swan (AS) Silver Award in 2011 and 2015.

Currently we have 2 AS Champions (Table 2). Professor Karen Rafferty, whose key responsibility as Head of School (HoS) includes AS Academic lead and Champion and our School Business Improvement Consultant, Mrs Lesley Moreland (School funded for over 16 years and Champion since 2012) who is responsible for improving work culture and providing tailored expertise on equality and diversity. Our SAT membership is reviewed

annually with calls for membership sent as required. We carried out a formal review in 2017 resulting in membership going from 8F/4M to 6F/5M. To further embed SWAN principles all Chairs of key student committees are members of our SAT with SWAN being a key part of their role and recognised through our Workload Allocation Model (WAM).

(ii) **An account of the self-assessment process**

We formally convene 3 times a year to monitor our action plan. Sub committees meet typically every other month to progress actions. Minutes are uploaded to our SharePoint site. Chairs of key committees are responsible for driving key themes.

Our action plan is informed by the following -

- SWAN statistics (annually)
- Results from formal staff/student surveys (University, School)
- Outcomes from staff/student focus group sessions
- Feedback from internal/external assessments (IIP/BCS/IET)
- Feedback from Student Consultative Committee Chair
- Best practice disseminated from specific SWAN related events.

The School carries out biennial staff and post-graduate surveys in December, with the next survey scheduled for December 2019. A University-wide survey was introduced in 2016 and repeated in 2019. IIP assessment and survey outcomes have been used to create a rolling 2 year people action plan to address areas for improvement. Regular focus groups are held with staff and students to gain further qualitative information from results. We need to rationalise our surveys to ensure survey fatigue does not set in. We also acknowledge we need to reintroduce our undergraduate survey as our previous survey in 2018/19 received a very low response.

Our Champions are members of our Senior Leadership Team (SLT) where SWAN is a standing item. A formal presentation is made annually to both SLT and School Board (all staff) to update on statistics and progress.

The AS structure and governance in place (Figure 4) provides excellent support to Champions, helping build strong personal relationships, ensuring a consistent approach and the dissemination of best practice. For example, we were informed of another School's Teaching Fellowship programme during discussions at the SWAN Champions Network (SCN) which we then successfully introduced. Annually SCN organises an Away Day where Schools present their beacon activities. We have led the delivery of unconscious bias training and our approach is being adopted by other Schools. SWAN activities are a standing agenda item on Faculty Executive Board meetings.

We led the formation of (and Chair) an EPS Faculty Network 'Support for Equality Network in Science and Engineering' (SENSE), whose mission is to contribute to making our Faculty better through connecting people to support collegiality, equality and inclusion. Since its launch SENSE has organised 7 events (including workshops on unconscious bias, family friendly policy sessions and social events). SENSE enabled an EPSRC funded national research project, led by EPS Faculty in partnership with Warwick and Glasgow Universities, seeking to understand the attitudes of academics towards gender equality initiatives (GEIs) and build training tools aimed at improving the perception of GEIs in Engineering and Physical Sciences. Our School hosted the launch of this "inclusion matters" project in June 2019 and is actively involved in the project, encouraging academics and PhDs to participate in research studies.



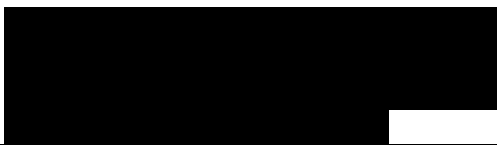
**Professor Karen Rafferty**  
[Redacted]  
HoS, Chair SAT, SWAN Champion,  
Chair SLT



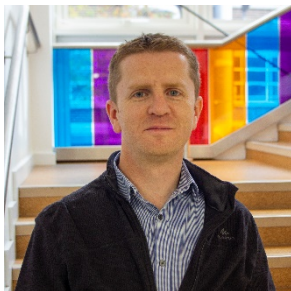
**Mrs Lesley Moreland**  
(School Business Improvement  
Consultant)  
SWAN Champion, Chair SENSE Network,  
Member SLT



**Mr Allister Lee**  
(School Manager)  
Chair Operations Group, Member SLT



**Dr Neil Anderson**  
[Redacted]  
Advisor of Studies



**Dr Darryl Stewart**  
[Redacted]  
Director of PGT, Member SLT



**Dr Hans Vandierendonck**  
[Redacted]  
Director of PGR, Member SLT





**Dr Russell Kane  
(Lecturer (Ed))**

**Chair of EECS Professional Advisory  
Board, Member CS Education Committee,  
Member Operations Group**



**Dr Zara Gibson  
(Research Fellow)**

**EPS Faculty Postdoc Society, Research  
Governance, Ethics and Integrity  
Committee**



**Miss Nuala Marley  
(Clerical Officer)**



**Mrs Yomna El-Saboni  
(PGR Student)**



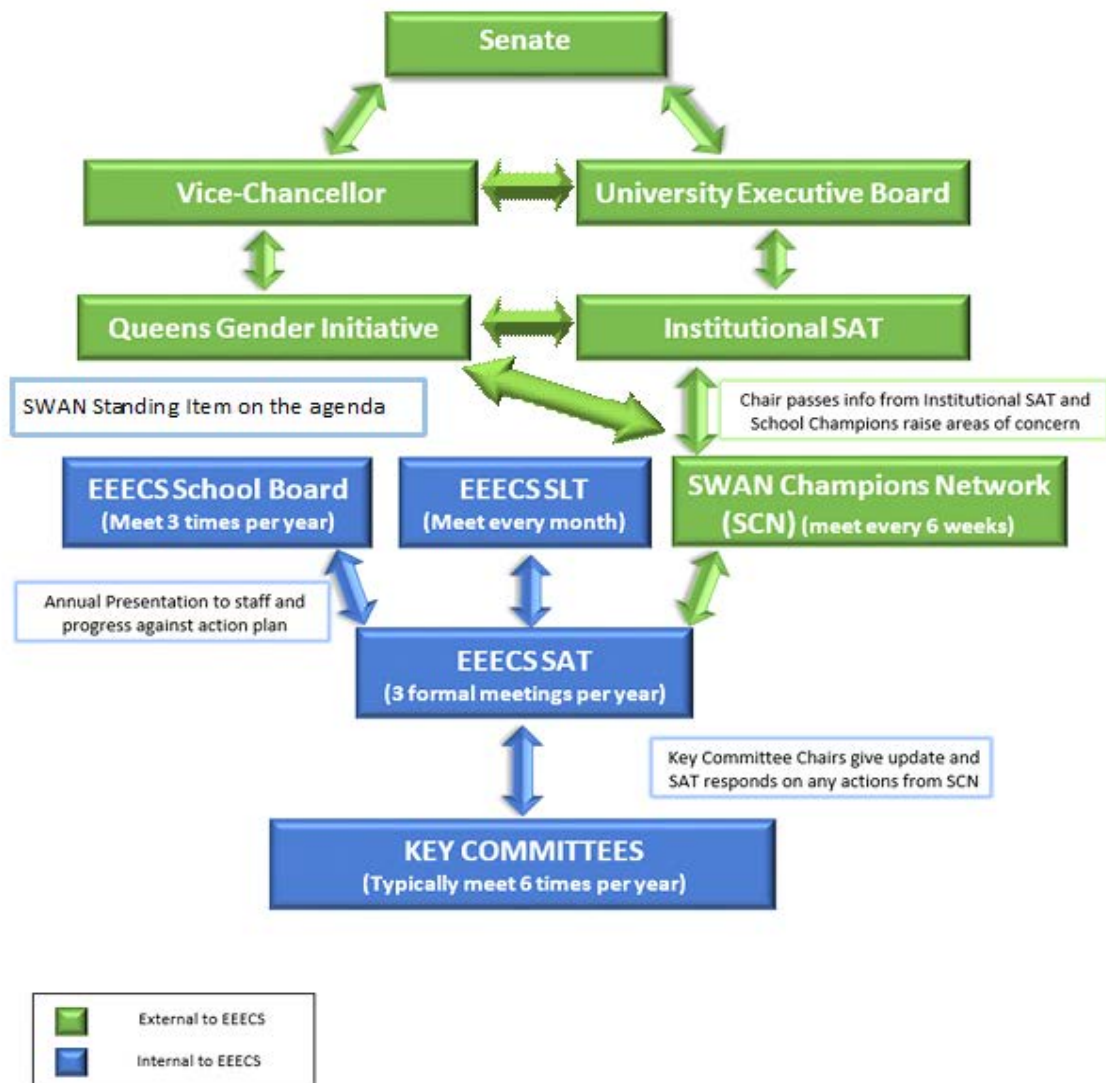
**Miss Chloe Thompson  
(UG student)**

**Studying Software and Electronic Systems Engineering currently in Stage 2**



**Table 2: SAT Members**

## SWAN Structure and Queen's Gender Initiative



**Figure 4:** Structure and Governance of SWAN within our University/School

Investment in key SWAN activities 2014-2019 has been significant (Table 3). In 2017 we made a case for Nuala Marley, now a member of our SAT, to focus 50% time to AS support.

Key SWAN investment including (but not limited to):		
<ul style="list-style-type: none"> <li>➤ Academic Apprenticeship Programme for Research Staff (previously Teaching Fellowships)</li> <li>➤ Financial support for Part-time PhD studies for Research Assistants and Part-time Course of Study for all Staff</li> <li>➤ Financial support for female specific development</li> <li>➤ Health and Wellbeing</li> <li>➤ Equality, Diversity and Inclusion Activities</li> </ul>		
Year	Expenditure	Key Investment
2014 / 15	£28,000	Engaged external consultant to assist with defining our student/staff female recruitment strategy
2015 / 16	£41,000	Teaching Fellowships pilot Unconscious Bias (Inclusion Workshops) pilot
2016 / 17	£69,000	Teaching Fellowships Full roll out of staff Unconscious Bias (Inclusion Workshops)
2017 / 18	£78,000	Academic Apprenticeships (replaced Teaching Fellowships) Women Leadership Programme Pilot Unconscious Bias (Inclusion Workshops) extended to include PhD Students
2018 / 19	£62,500	Academic Apprenticeships Women Leadership Programme rolled out Unconscious Bias (Inclusion Workshops) extended to include UG students

**Table 3:** SWAN budget expenditure 2014/15 through to 2018/19

(iii) plans for the future of the self-assessment team

Following our SAT review in 2017, key themes were replaced with pipeline challenges (Figures 5 & 6 illustrate the challenges) to be led by the Chairs of our key academic committees. Chairs lead on each challenge to drive actions forward. Staff have a tenure period of 3 years and students are replaced as necessary. AS is mandatory on all key committees' agenda. Although the actions of our SAT have had significant impact, we intend to further improve its efficacy by redefining roles and responsibilities and will introduce a SAT Annual Away Day.

Whilst we have increased our staff engagement with AS through using our inclusion workshops to raise awareness we acknowledge further work needs to be done. We will do this by providing wording for funding applications/reports and the use of statements to encourage female external speakers.



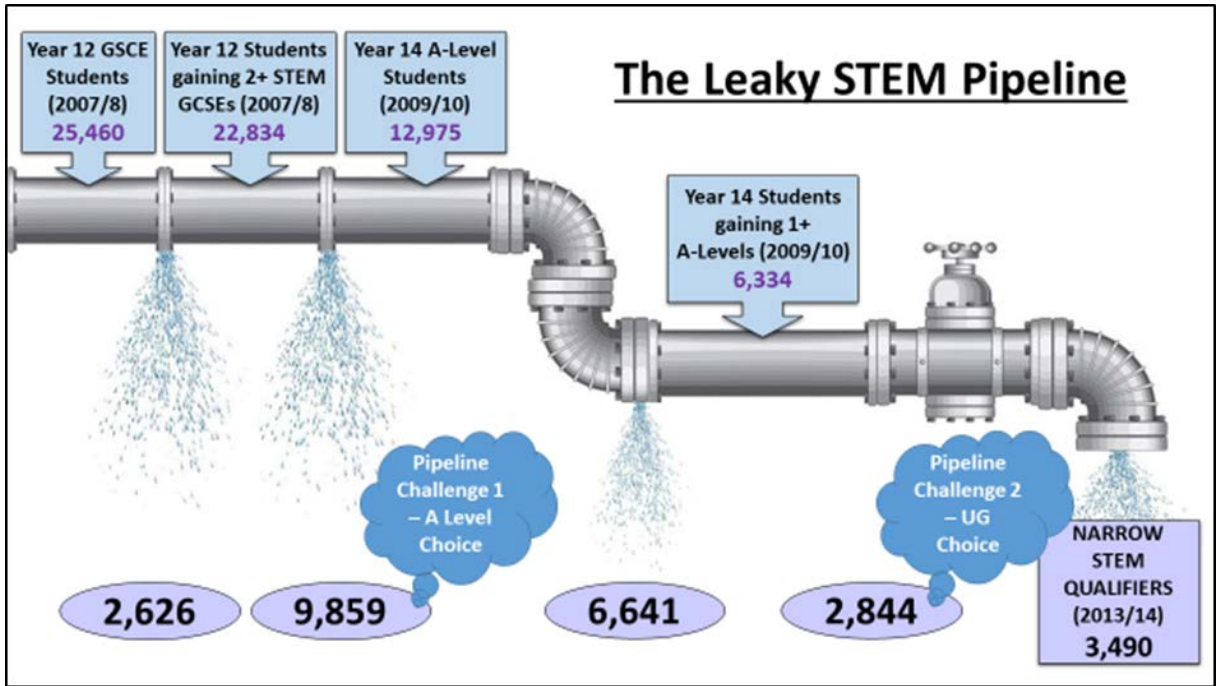


Figure 5: The Leaky STEM Pipeline (supplied by Matrix NI – based on Northern Ireland stats Male & Female)

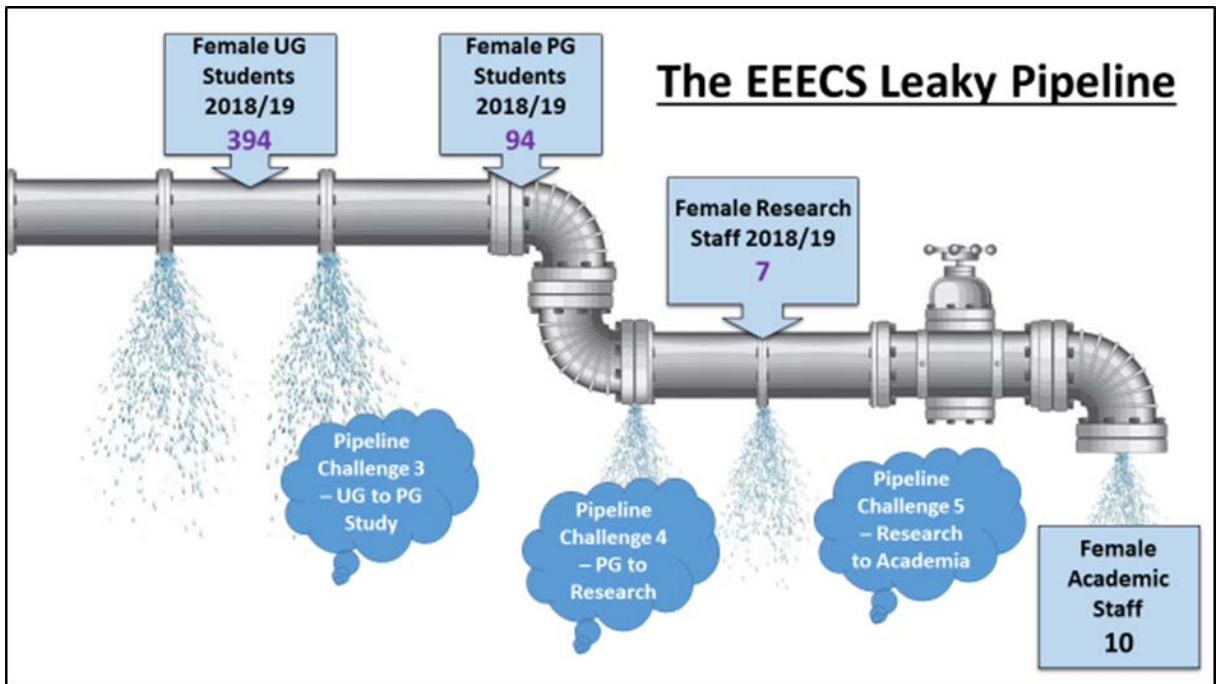


Figure 6: The EECS Leaky Pipeline - takes into consideration new student recruitment in each academic year



<b>Action 1.1</b>	<ul style="list-style-type: none"> <li>We will define roles and responsibilities for each SAT member</li> <li>We will introduce a SAT Annual Away Day</li> </ul>
<b>Action 1.4</b>	<ul style="list-style-type: none"> <li>We will provide staff with wording to be used in funding applications and other reports to communicate our commitment and success in relation to Athena SWAN and gender equality in EEECS</li> <li>We will prepare a welcome statement to be used to invite external speakers to encourage female representation</li> </ul>
<b>Action 4.1</b>	<ul style="list-style-type: none"> <li>We will carry out an audit of all staff and student surveys</li> <li>We will review how our UG School survey is carried out as it received very poor response in 18/19</li> <li>We will ensure all data for both staff and students is broken down by gender</li> </ul>
<b>Action 4.2</b>	<ul style="list-style-type: none"> <li>We will apply for reaccreditation of the Silver Investor in People Award to aid our EDI continuous journey of improvement</li> <li>We will apply for Athena SWAN Gold and act upon the feedback received</li> </ul>

[Word Count – 845]

#### 4. A PICTURE OF THE DEPARTMENT

Recommended word count: Bronze: 2000 words | Silver: 2000 words

##### 4.1. Student data

If courses in the categories below do not exist, please enter n/a.

(i) Numbers of men and women on access or foundation courses

- N/A

(ii) Numbers of undergraduate students by gender

Full- and part-time by programme. Provide data on course applications, offers, and acceptance rates, and degree attainment by gender.

##### UG population by programme (Full-Time):

- Since 2014/15, there has been an overall increase in the number of female students studying on all our undergraduate degree programmes demonstrating the impact of our outreach activities (Section 5.6(viii)). Impact activities include visits to all girl schools, our Teacher Training Programme and Women in Tech Events.
- In our Computer Science programme (CS), the percentage of females has remained at least 6% above the HESA average and by 2016/17 had risen to 7% higher (Figure 7).
- In our Business and Information Technology programme (BIT), the percentage of females has consistently exceeded the HESA average (by at least 20%). Whilst the percentage of females has dropped slightly in 2018/19, we remain significantly higher than the HESA average 39% vs 19% (Figure 8).





- The impact of our Teacher Training (74F/41M) and Upskilling Programme (Section 5.6(viii)) led to the implementation of a new A-level: Software Systems Development (equivalent to CS) within the NI curriculum of which 24% are currently female.
- In the case of the Electronics and Electrical Engineering degree programme (EEE), as a result of our outreach activities (in particular IET Faraday Challenge introduced in 2017 (Section 5.6(viii)), our numbers of females rose steadily from 2015–2018 (Figure 9). We acknowledge numbers have decreased over the last year and will address this via the Pathway programme. This programme will provide a route for young females (years 13/14) who require additional support to join our UG programmes.
- We acknowledge we need to review all student promotion material to ensure it is gender neutral and encourages female applicants. We will develop new material and redesign our website.

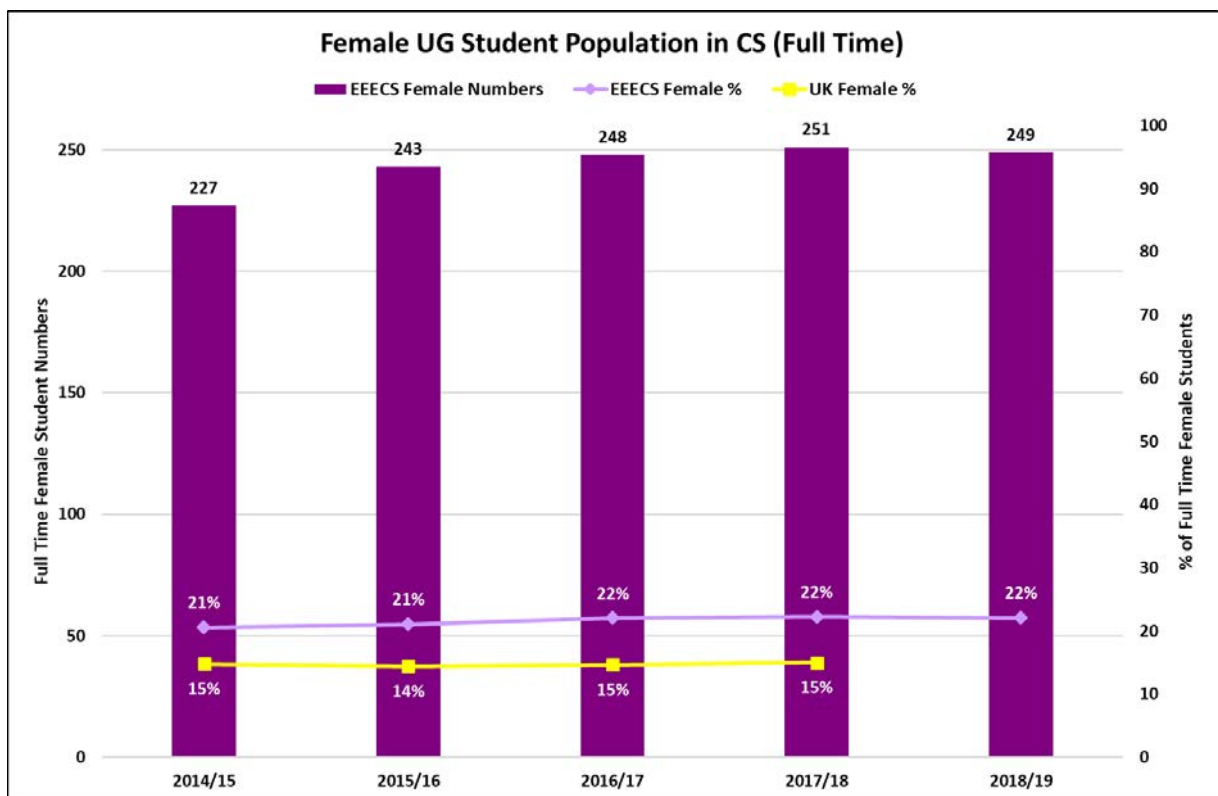
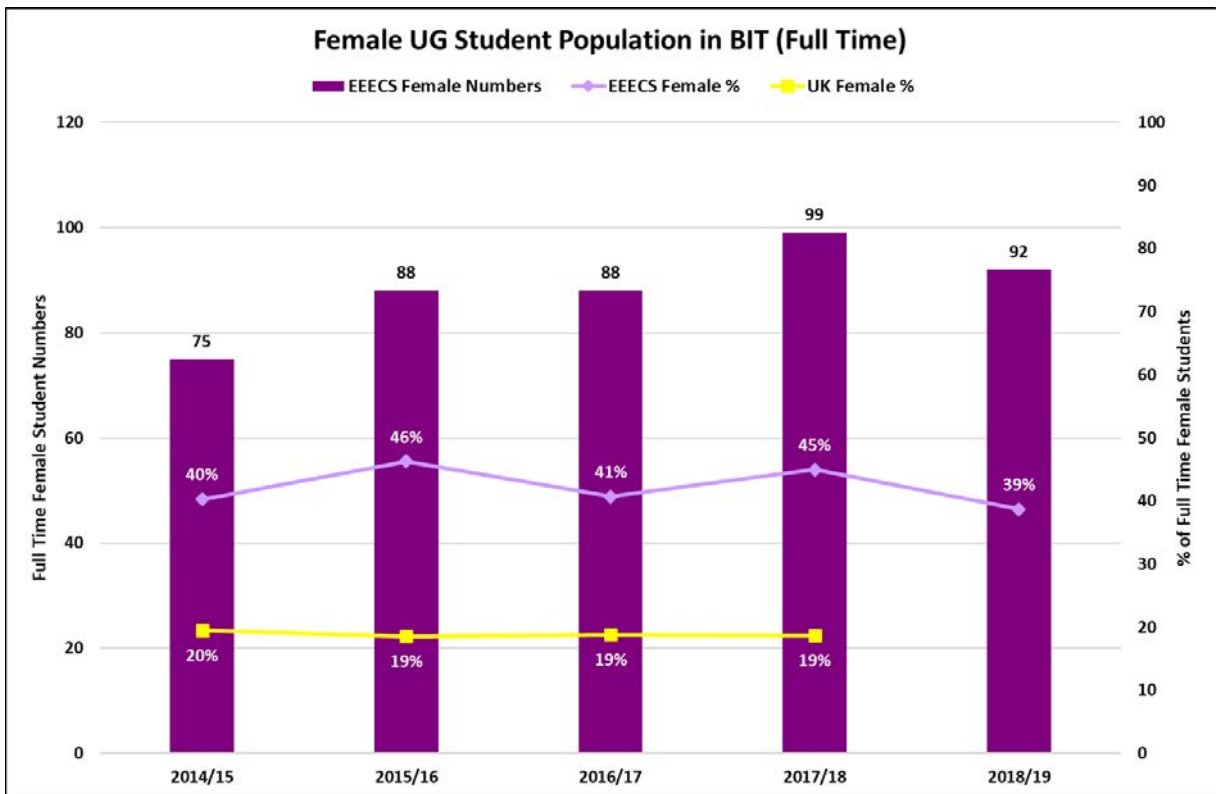
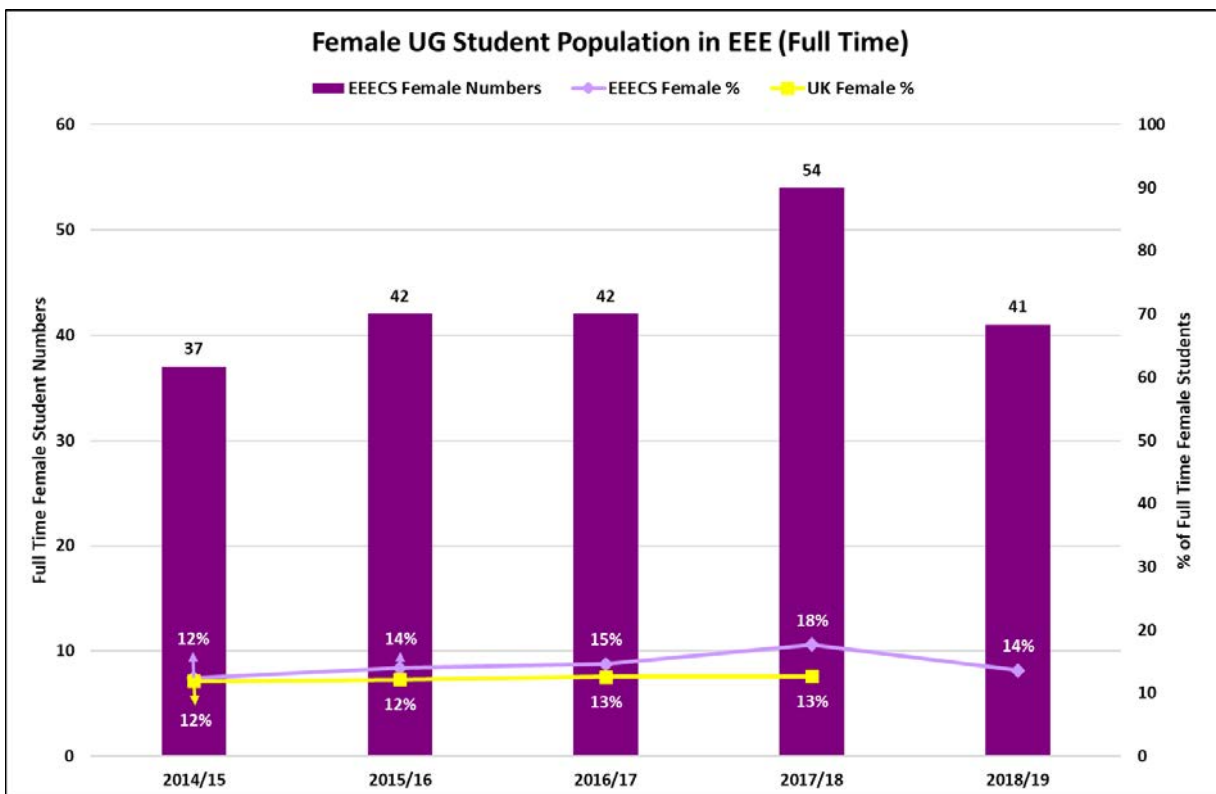


Figure 7: Number and % of full-time UG female students in Computer Science (CS). UK average comparison data (in yellow) obtained from HESA, subject code (I1) Computer Science



**Figure 8:** Number and % of full-time UG female students in Business and Information Technology (BIT). UK average comparison data (in yellow) obtained from HESA, subject code (I2) Information Systems.



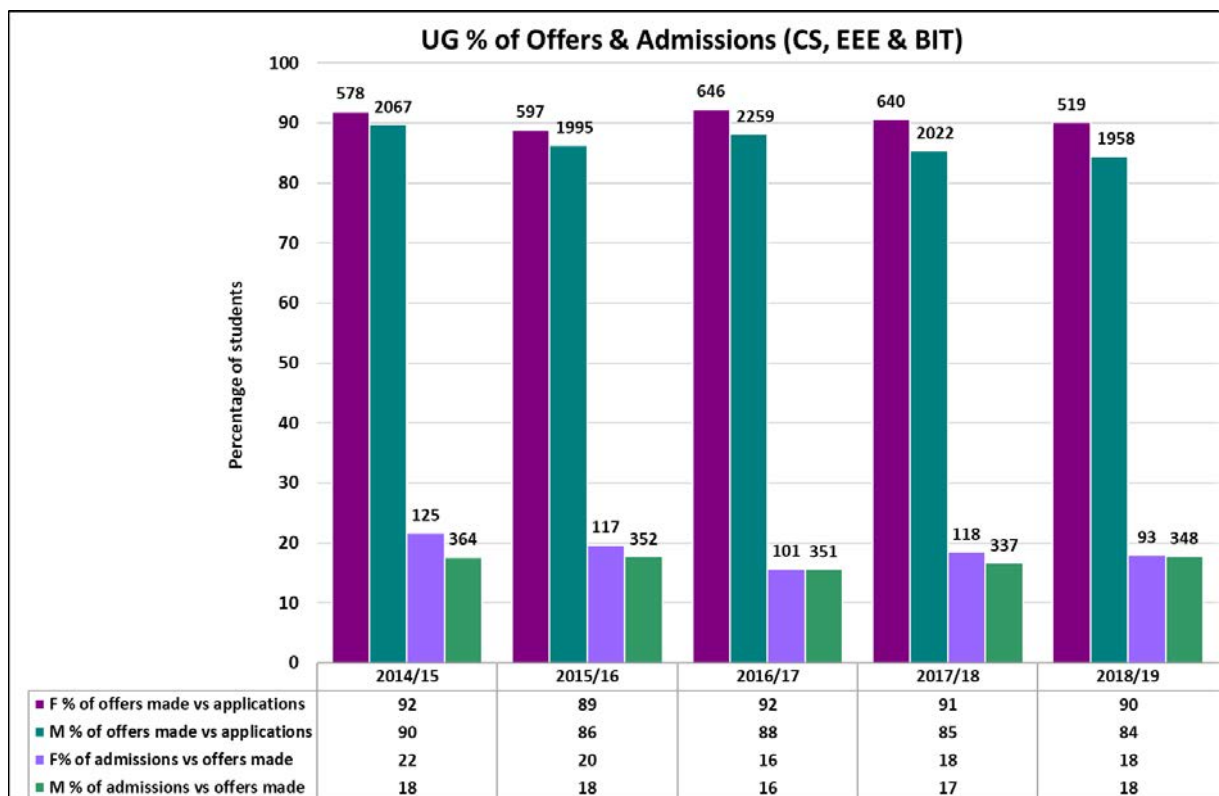
**Figure 9:** Number and % of full-time UG female students in Electronics and Electrical Engineering (EEE). UK average comparison data (in yellow) obtained from HESA, subject code (H6) Electronic & Electrical Engineering

### UG population by programme (Part-Time):

- N/A

### Course applications, offers, and acceptance rates:

- Between 2014-2019, 15,155 students applied for our 3 UG courses (CS, EEE & BIT). Offers were made to 13,281 with 2,306 accepted. The proportion of females receiving offers ranged from 89%-92%, similar to males at 84%-90%. The proportion of offers accepted by females was slightly higher than males at between 16%-22% and 16%-18%, respectively (Figure 10).

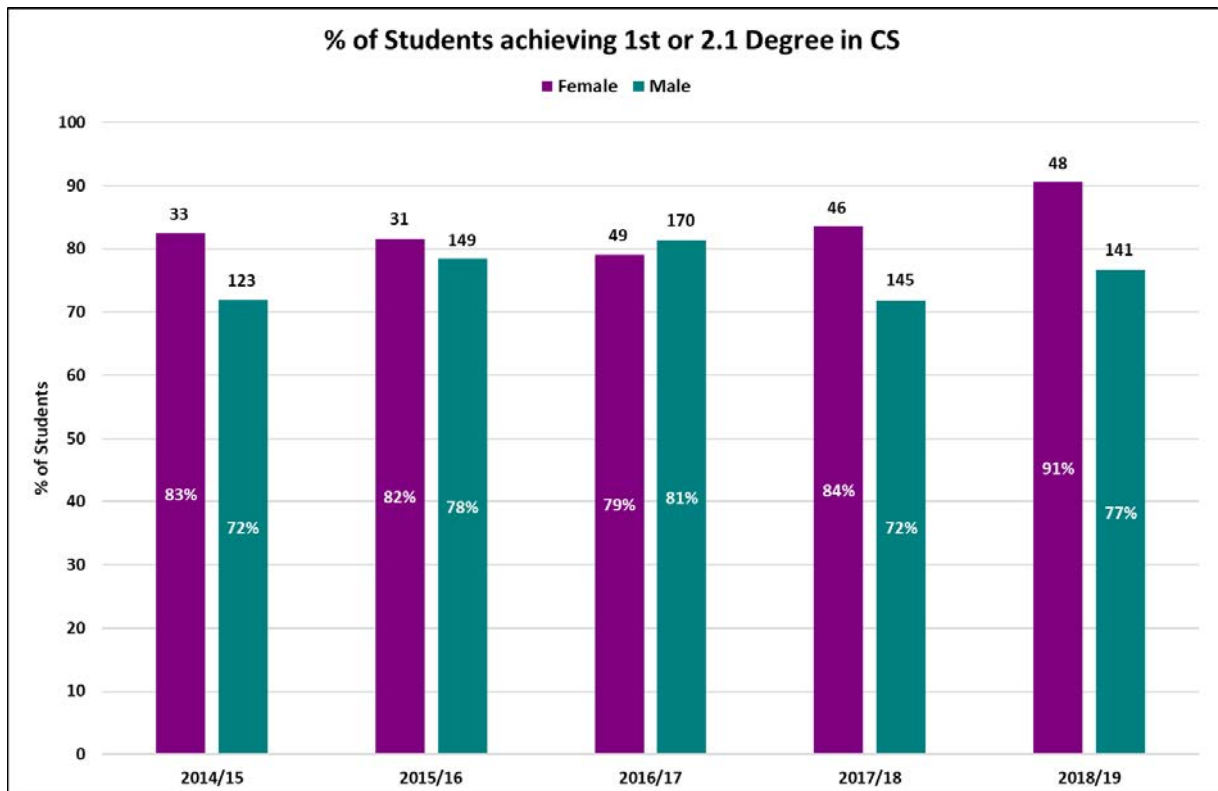


**Figure 10:** UG percentage of offers vs apps & admissions vs offers (total number of offers made and admissions given at the top of the bar)

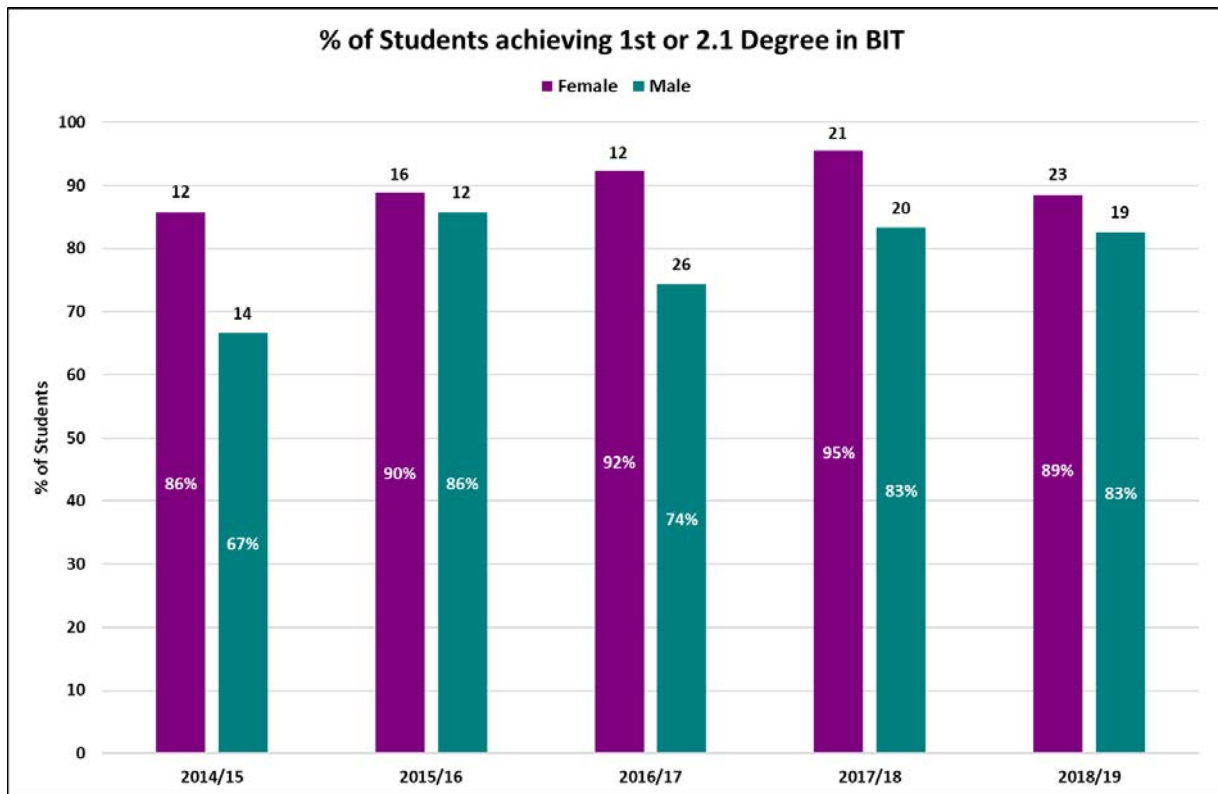
### Degree attainment:

- Across all UG degree programmes, the majority of our students graduate with first-class honours (1st) or upper second-class honours (2.1): 72%-91% of students CS, 50%-100% EEE and 67%-95% BIT.
- In CS, a higher percentage of females attained 1st or 2.1 Degrees in 4 out of 5 years. In each year the differences in percentage attainment is very small, at most it was 14% in 2018/19 (Figure 11).
- In BIT since 2014/15, the percentage of females attaining a 1st or 2.1 has consistently exceeded their male counterparts. In each year the differences in percentage attainment is very small (Figure 12).

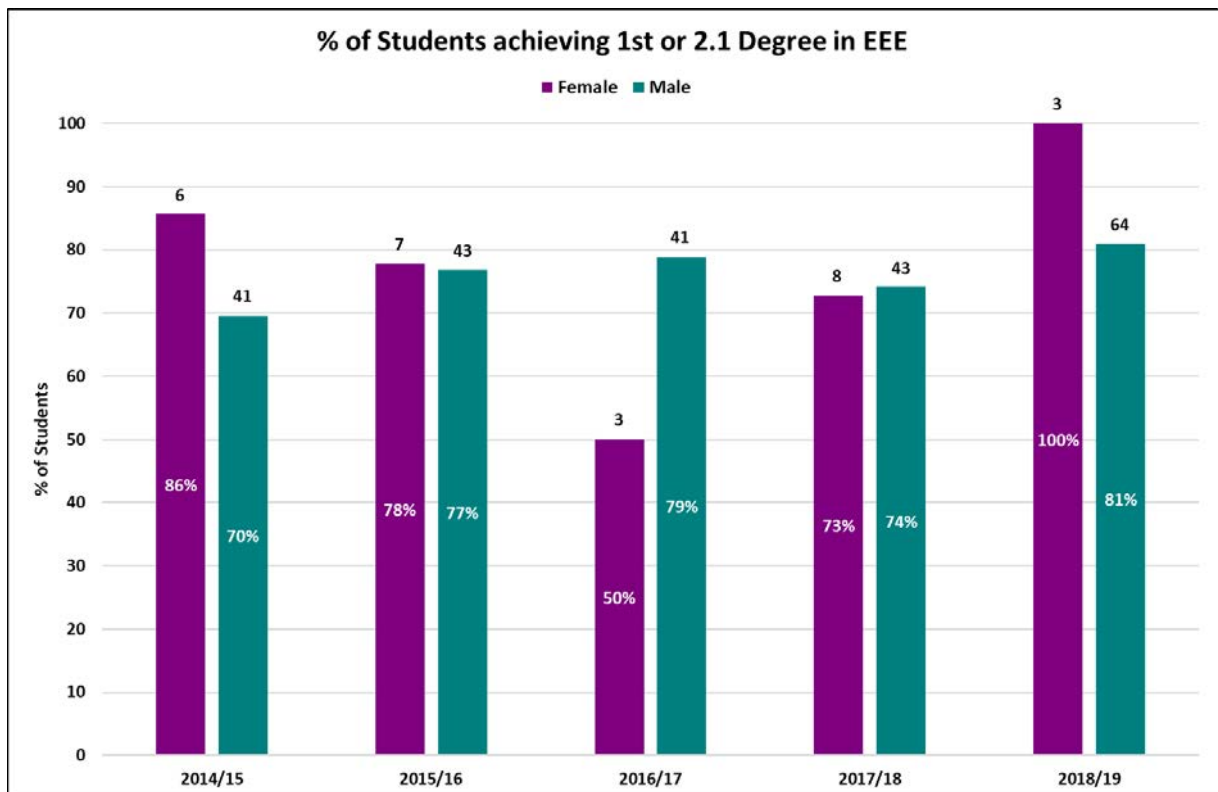
- In EEE, a higher percentage of females attained 1st or 2.1 Degrees in 3 out of 5 years. In 2016/17 the percentage of females attaining 1st or 2.1 was considerably lower than males (2016/17: 50%F vs 79%M). The differences are not considered significant given the relatively small female cohort numbers (Figure 13).
- Fewer than 5% of students graduate with third-class honours (3rd) in any given year or degree programme.



**Figure 11:** Percentage of UG students attaining a 1st or 2.1 Degree in Computer Science (CS) by gender



**Figure 12:** Percentage of UG students attaining a 1st or 2.1 Degree in Business and Information Technology (BIT) by gender.



**Figure 13:** Percentage of UG students attaining a 1st or 2.1 Degree in Electronics and Electrical Engineering (EEE) by gender

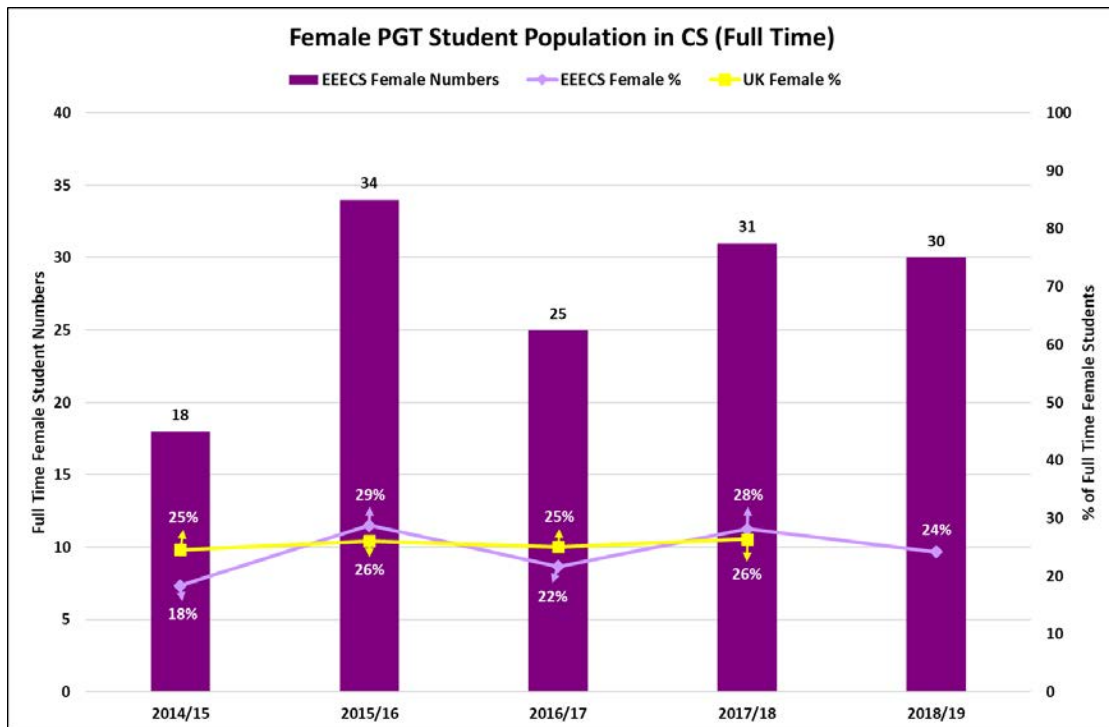
<b>Action 3.1</b>	<ul style="list-style-type: none"> <li>• We will ensure language used in all our student promotion material is gender neutral and encourages female applicants</li> <li>• We will develop new recruitment materials including case studies, videos of female students to communicate our attractive learning environment</li> <li>• We will use our website to promote the various student initiatives we have in place and female role models and focus groups will be used with existing students to seek feedback on proposed content</li> </ul>
<b>Action 3.3</b>	<ul style="list-style-type: none"> <li>• We will further develop the PATHWAY programme to provide a route for talented young people (in years 13 and 14) from Northern Ireland who have the ability to study at QUB but may require additional support and encouragement to reach their full potential who will benefit from a structured series of events designed to prepare them for the transition to UG study with us including admissions guidance, insight into life in EECS and a Summer School</li> </ul>

(iii) Numbers of men and women on postgraduate taught degrees

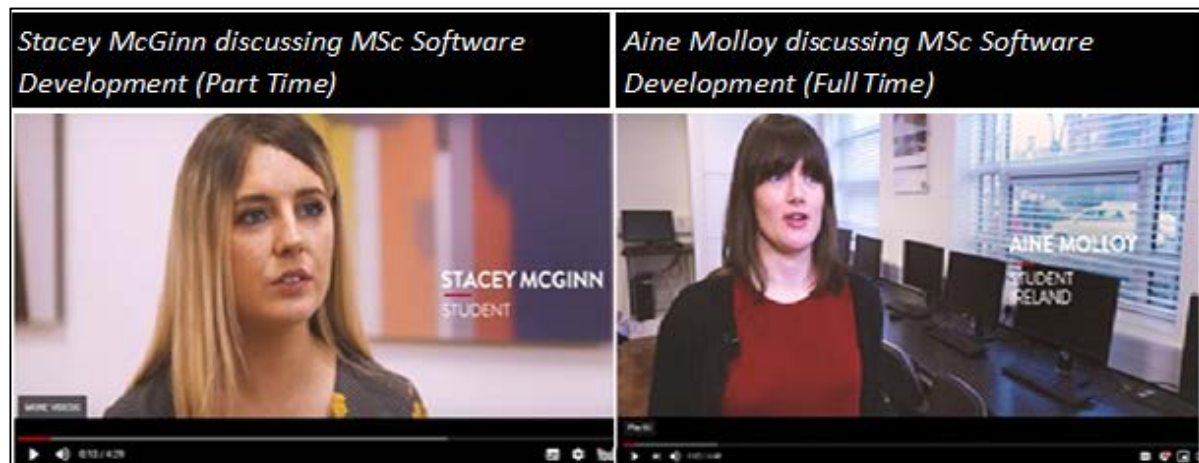
Full- and part-time. Provide data on course application, offers and acceptance rates and degree completion rates by gender.

**PGT population by programme (Full-Time):**

- The number of FT female PGT students studying CS degree programmes has increased from a low base of 18 in 2014/15 to an average of 30 females in 2015-2019 (Figure 14). The MSc in Software Development has been a popular option for females from non-computing UG disciplines. The School specifically targeted females in promoting this programme (and part-time variant introduced in 2017/18) using video clips from previous female students (Figure 15). **The impact has been that the numbers have increased in line with total numbers. This is pleasing as a significant number of females opted for the part-time variant which explains the dip in full-time numbers in 2016/17.**



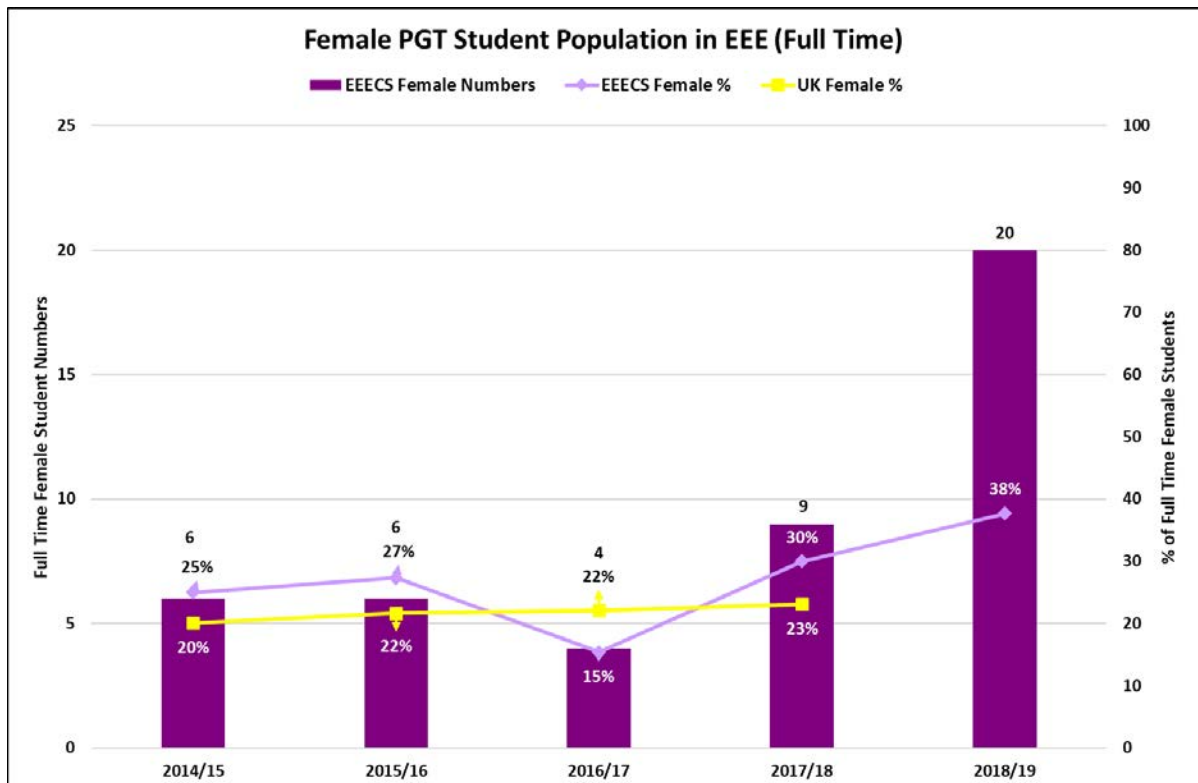
**Figure 14:** Number and % of full-time PGT female students in Computer Science (CS). UK average comparison data (in yellow) obtained from HESA, subject code subject code (11) Computer Science



**Figure 15:** Screenshot EEECS website promoting our MSc Software Development Full-Time and Part-Time courses

- In 2016/17 the fall in female PGT students was also reflected in a fall of male PGT students due to 2 MSc courses (which had very low numbers) being consolidated into a single MSc Electronics in 2016/17. The significant increase in female PGT students on EEE degree programmes since 2017/18 can be attributed to our decision, based on feedback from female students, to add professional internship options to our MSc Applied Cybersecurity and MSc Electronics and by adding an increased focus on employability. The MSc Electronics had 38% females on the course in 2018 (Figure 16).

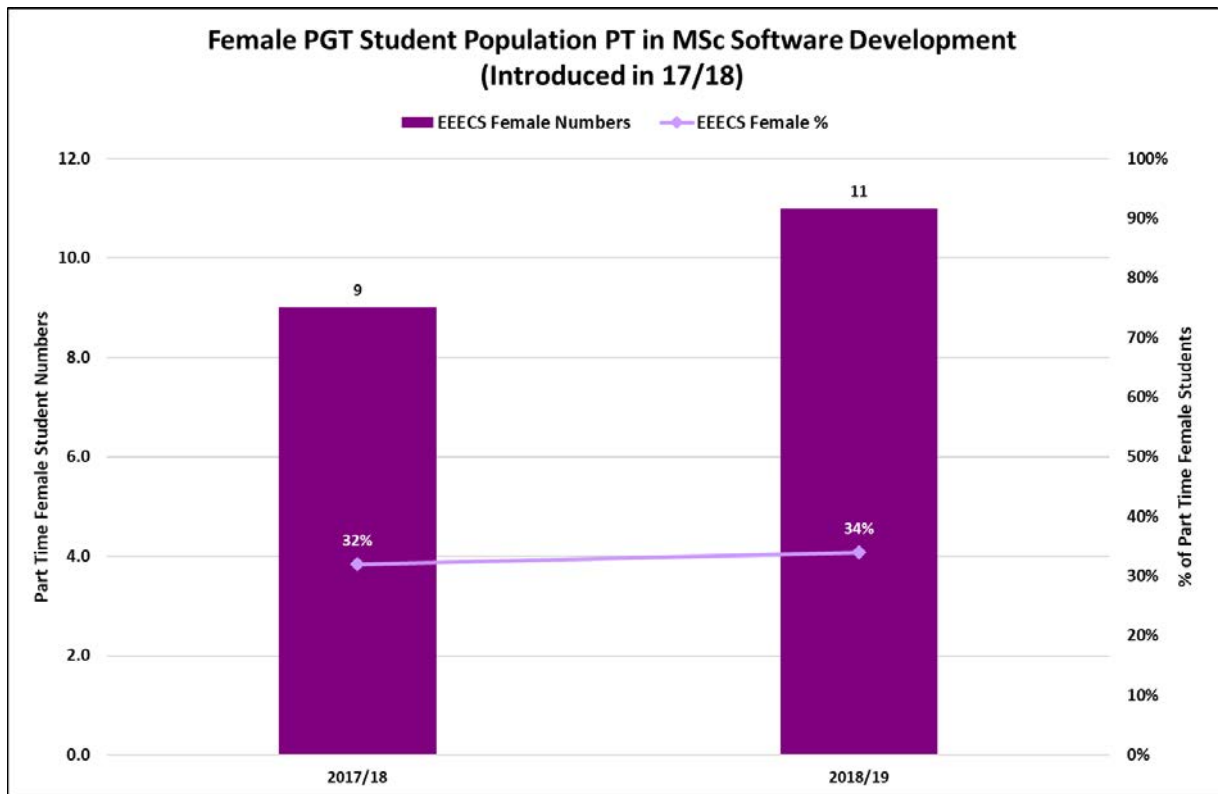




**Figure 16:** Number and % of full-time PGT female students in Electronics and Electrical Engineering (EEE). UK average comparison data (in yellow) obtained from HESA, subject code (H6) Electronic & Electrical Engineering. (Number at the bottom of the bar)

#### PGT population by programme (Part-Time):

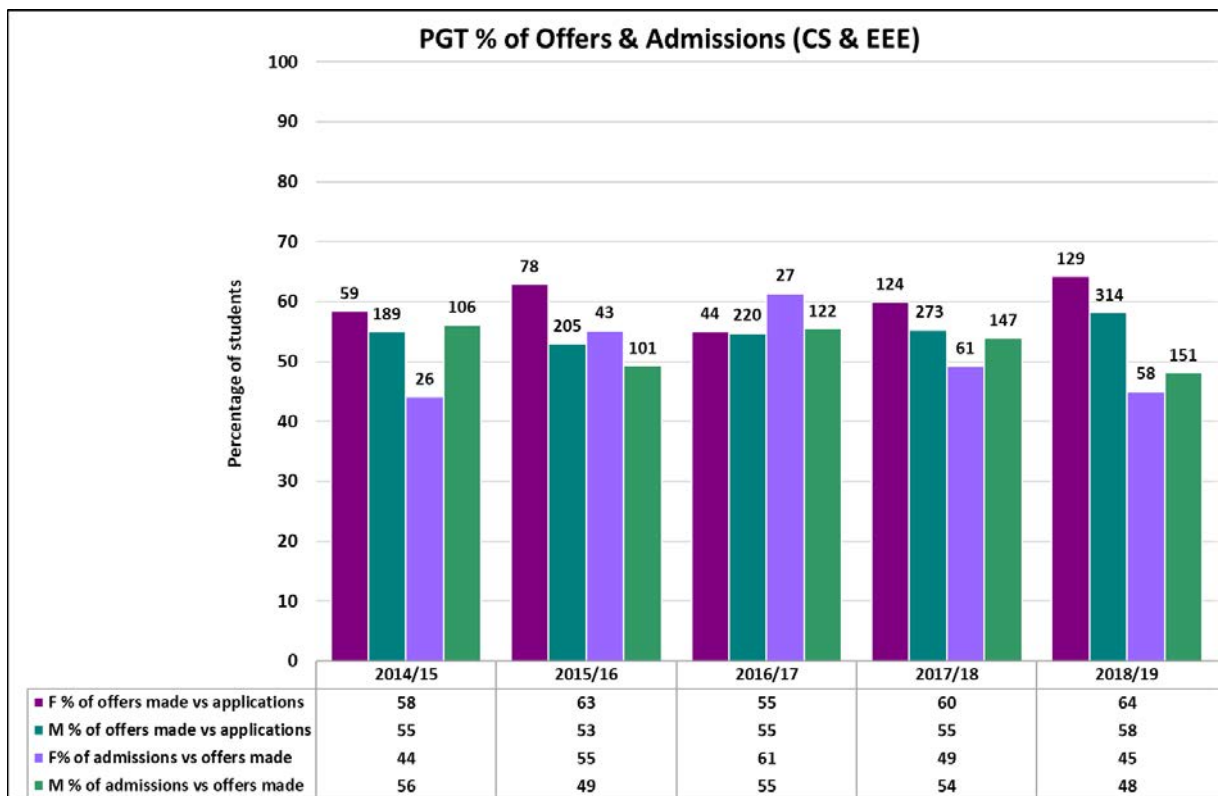
- In 2017/18 a new part-time variant of the MSc in Software Development was launched following feedback from female UG students (Figure 17). This pathway is flexibly delivered via evening classes and online study and has proved popular with female students and those with caring responsibilities. This has led to an overall increase in the number of female PGT students in CS.



**Figure 17:** Number and % of part-time PGT female students on MSc Software Development (Course Introduced in 2017/18)

**Course applications, offers, and acceptance rates:**

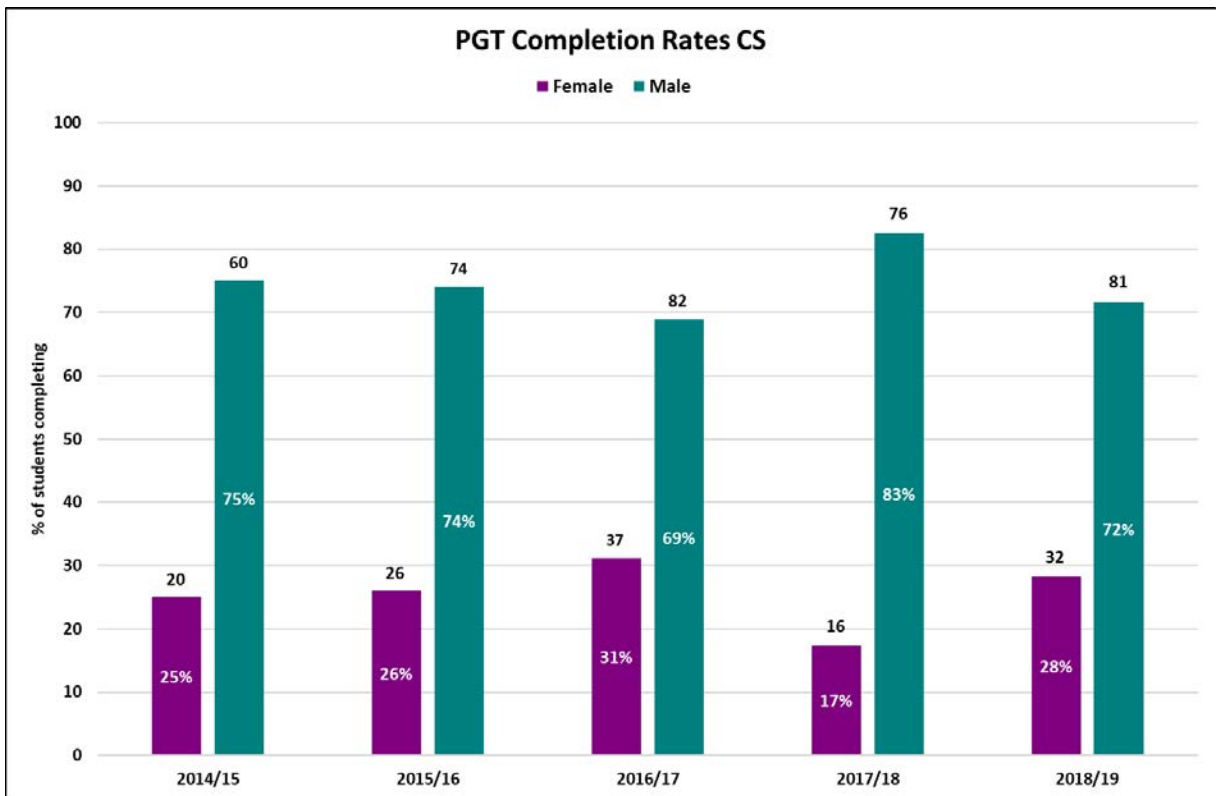
- Between 2014-2019, 2,880 students applied for our PGT courses (CS&EEE). Offers were made to 1635 with 842 accepted. The proportion of female applicants receiving offers ranged from 55%-64%, slightly higher than that of male applicants at 53%-58%. The proportion of offers accepted by female/male applicants was similar, 44%-61% and 49%-56%, respectively (Figure 18).



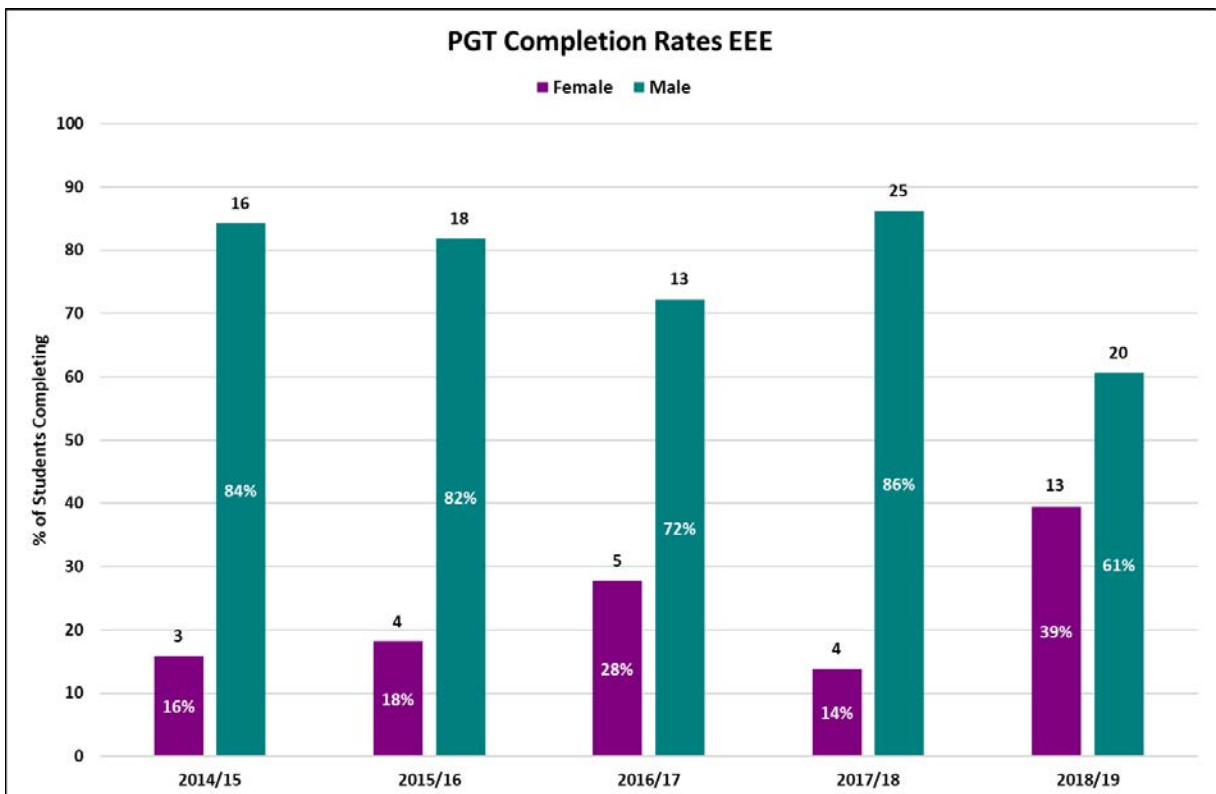
**Figure 18:** PGT percentage of offers vs apps & admissions vs offers (total number of offers made and admissions given at the top of the bar)

#### Degree completion rates:

- The percentage of students (F&M) completing in each academic year up to 2016/17 is in proportion to the corresponding intake year, and accordingly no gender bias has been noted. The dip in the proportion of female students completing relative to male students in 2017/18 can be attributed to the higher proportion of female students who opted to study on the new 2-3 year PGT courses and therefore were not eligible to complete until 2018 or 2019 (Figures 19 & 20). This is supported by the increased completion rates shown for 2018/19.
- The number of females completing PGT EEE degree programmes was very low until 2018/19, corresponding to the historical low intake up to that point. The intake has been increasing since 2017/18. The new 2 year pathways which include internships (resulting from female UG feedback) have been popular for female students resulting in an increase in completion rates in 2018/19.



**Figure 19:** Numbers of PGT students, both male and female, completing on PGT CS degree programmes



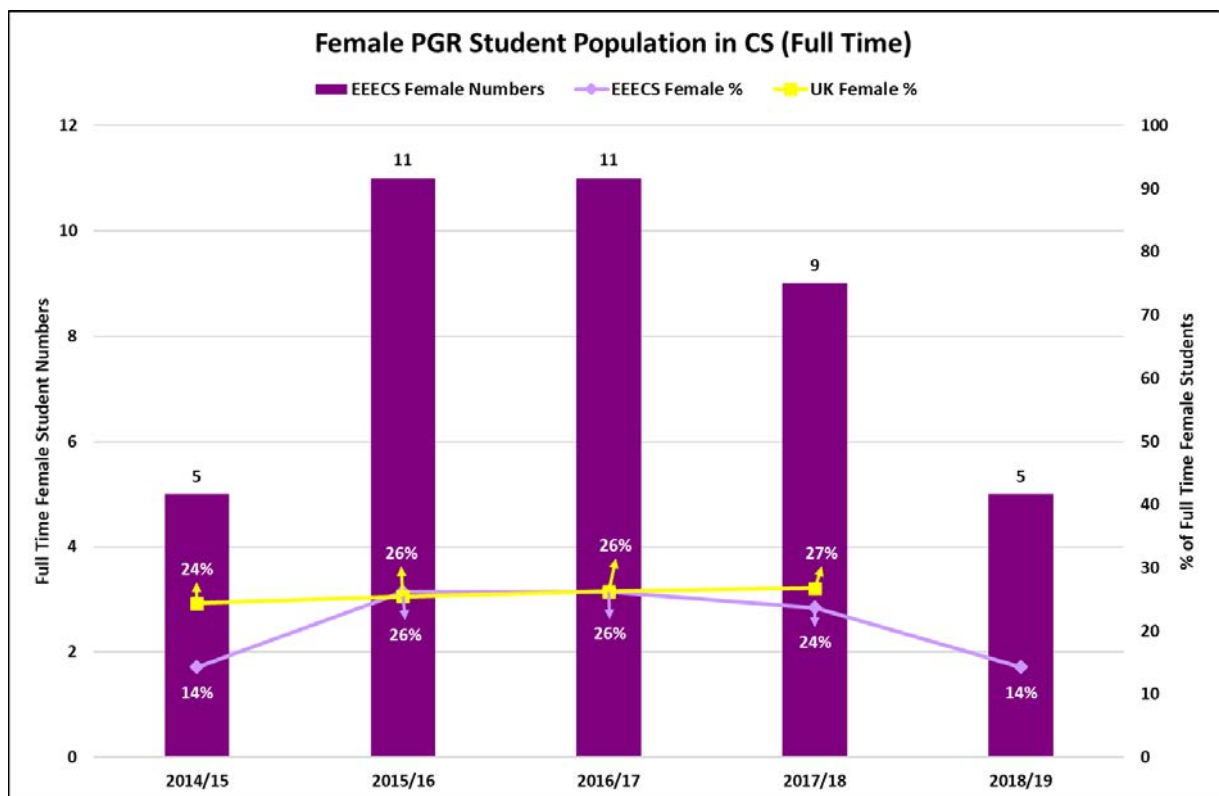
**Figure 20:** Numbers of PGT students, both male and female, completing on PGT EEE degree programmes

(iv) Numbers of men and women on postgraduate research degrees

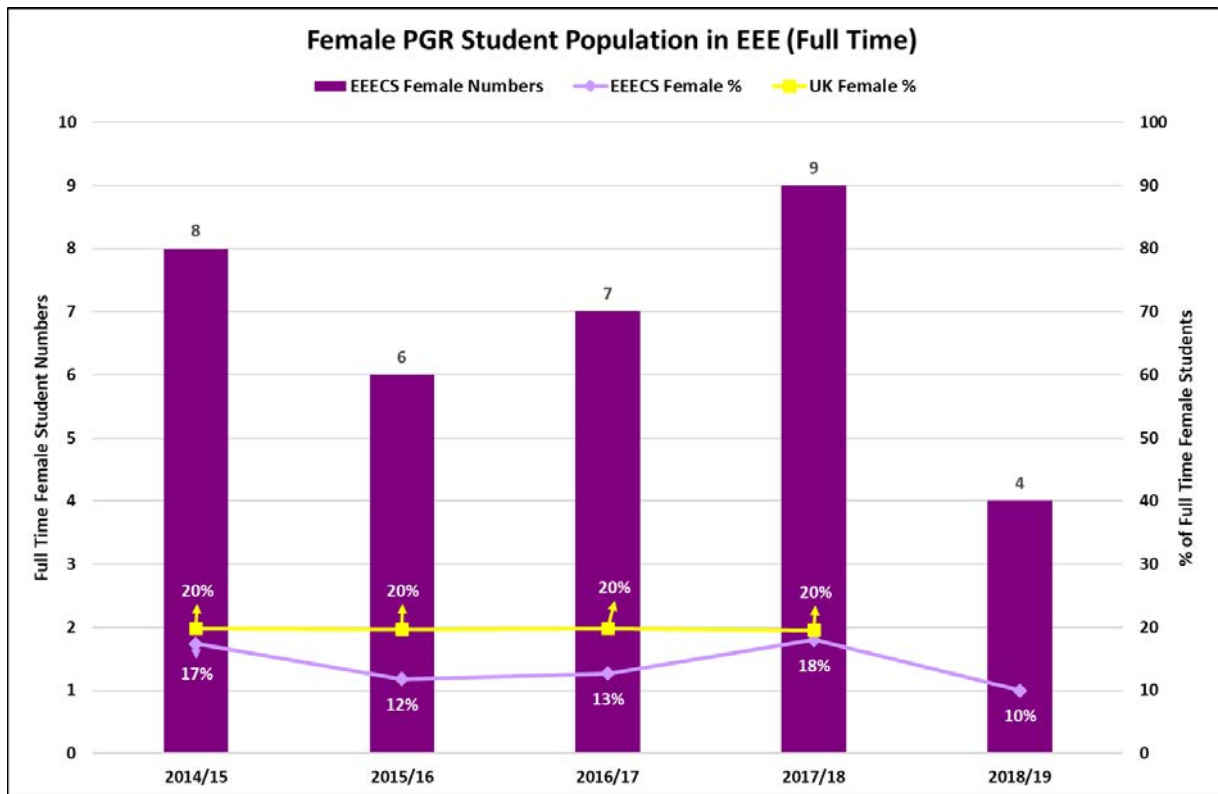
Full- and part-time. Provide data on course application, offers, acceptance and degree completion rates by gender.

**PGR population by programme (Full-Time):**

- The total number of students (F&M) is small, and this means that even a small variation in the number of female students has a marked effect on the percentage reported. The overall number of PGR students studying CS (full-time) declined in 2018/19 (Figure 21).
- The overall number of PGR students studying EEE (full-time) has decreased from academic year 2014/15 (Figure 22).
- The number of students studying CS and EEE full-time has declined. We attribute this to the current buoyant jobs market (Table 1, page 9). We will review our student promotion material including highlighting the flexibility of part-time delivery and our focus on training.



**Figure 21:** Number and % of full-time PGR female students in Computer Science (CS). UK average comparison data (in yellow) obtained from HESA, subject code (11)



**Figure 22:** Number and Percentage of full-time PGR female students in Electronics and Electrical Engineering (EEE). UK comparison data (in yellow) obtained from HESA, subject code (H6) Electronic & Electrical Engineering

#### PGR population by programme (Part-Time):

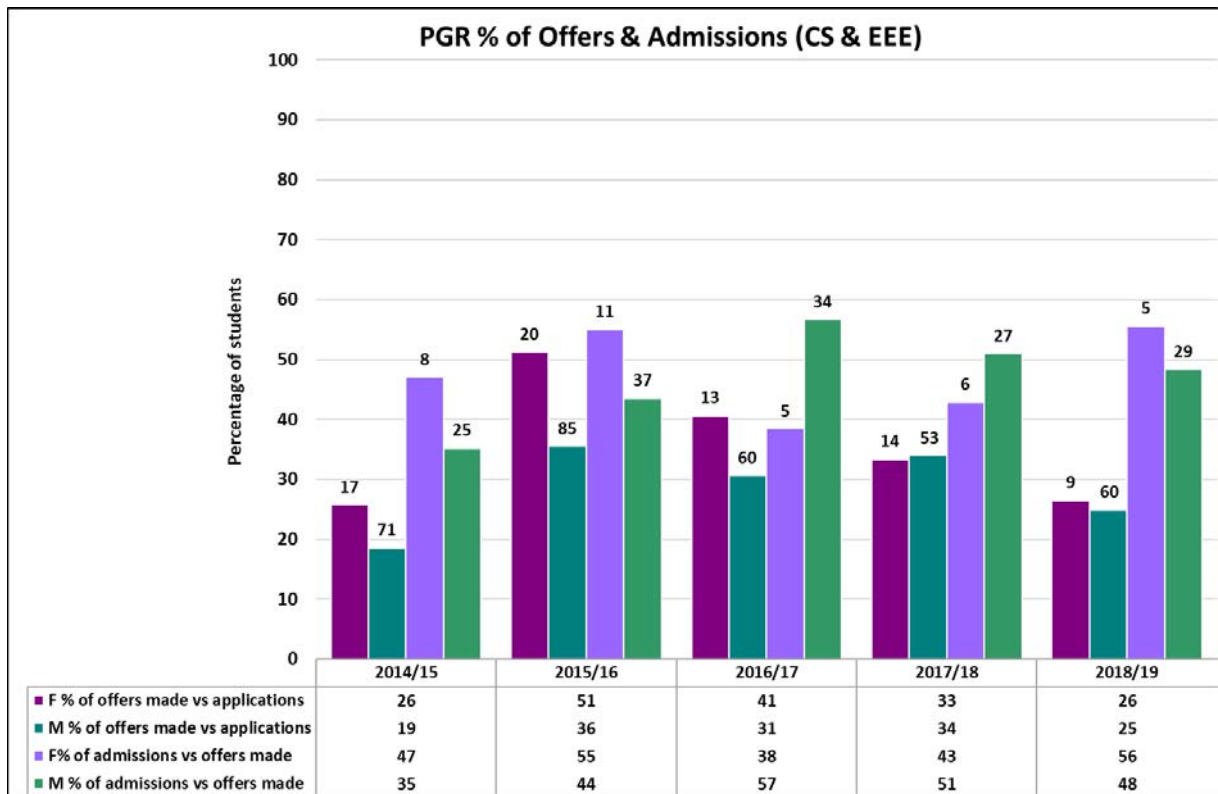
- The majority of our PGR students are full-time which is the normal mode of study. Fewer than 19% were registered as part-time in 2018/19 (Table 4) however the numbers are too small to infer any patterns. 6 of these students in 2018/19 are EEECS staff who were fully funded by ourselves.

Academic Year	CS		EEE	
	Female	Male	Female	Male
2014 - 2015	1	7	0	10
2015 - 2016	2	9	1	8
2016 - 2017	2	8	1	5
2017 - 2018	2	6	1	4
2018 - 2019	2	4	0	8
<b>Total</b>	<b>9 (21%)</b>	<b>34 (79%)</b>	<b>3 (8%)</b>	<b>35 (92%)</b>

**Table 4:** Part-Time PGR population on Computer Science and Electronics and Electrical Engineering degree programmes

#### Course applications, offers, and acceptance rates:

- Between 2014-2019, 1,428 students applied for PGR courses. Offers were made to 402 with 187 accepted. The proportion of females receiving offers ranged from 26%-51%, slightly higher than that of males at between 19%-36%. The proportion of offers accepted by female/male applicants was similar at 38%-56% and 35%-57%, respectively (Figure 23).



**Figure 23:** PGR percentage of offers vs apps & admissions vs offers (total number of offers made and admissions given at the top of the bar)

#### Degree completion rates:

- Since 2014 the average number of years taken for a female to complete a PGR degree has remained stable, (average range of 4.4-4.8 years). Their male counterparts achieved similar completion times (average range of 4.2-5.4 years).

#### (v) Progression pipeline between undergraduate and postgraduate student levels

Identify and comment on any issues in the pipeline between undergraduate and postgraduate degrees.

- We proactively engage with industries that offer excellent placement opportunities and employment prospects. **The impact of this engagement is that students graduating have extremely high employment rates. Over 85% find graduate-level (or higher) jobs within 6 months.**
- During this reporting period, the PhD Maintenance Grant has not exceeded £15.8k, while the average graduate salary levels in industry was reported as £28k. Our graduates have reported starting salaries of up-to £40k (GB) and \$140K (US). Postgraduate education therefore is a difficult sell.
- We organised a 'Doc for a Day' event which instilled some interest in PG study. Our latest PhD survey indicated the majority of students undertook a PhD as a result of encouragement from their supervisor. We will highlight the importance of this to our academic staff.



- We will develop activities to introduce UG students to research and further develop our UG Summer Internships.

<b>Action 3.2</b>	<ul style="list-style-type: none"> <li>• We will ensure language used in all our student promotion material is gender neutral and encourages female applicants</li> <li>• We will develop new recruitment materials including case studies, videos of female students to communicate our supportive PG female culture</li> <li>• We will use our website to promote the various student initiatives we have in place and female role models and focus groups will be used with existing students to seek feedback on proposed content</li> <li>• We will develop activities that introduce undergraduates to research during non-teaching time and to promote PG study</li> <li>• We will ensure final year project supervisors will encourage our UG students to consider postgraduate study in emerging areas of postgraduate research including our new PGT MSc in Applied Cyber Security and its PGR counterpart, the Centre for Secure Information Technologies (CSIT)</li> <li>• We will expand on our UG Summer Research Internships which run over the holiday period. The aim of the Scheme is to identify and develop researchers of the future</li> <li>• We will develop a marketing strategy for the new Part-Time MSc in Software Development which will be marketed towards female students that would benefit from the flexibility of part-time delivery</li> <li>• We will advertise part-time PGT and PGR study options as a more flexible mode of study</li> </ul>
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#### 4.2. Academic and research staff data

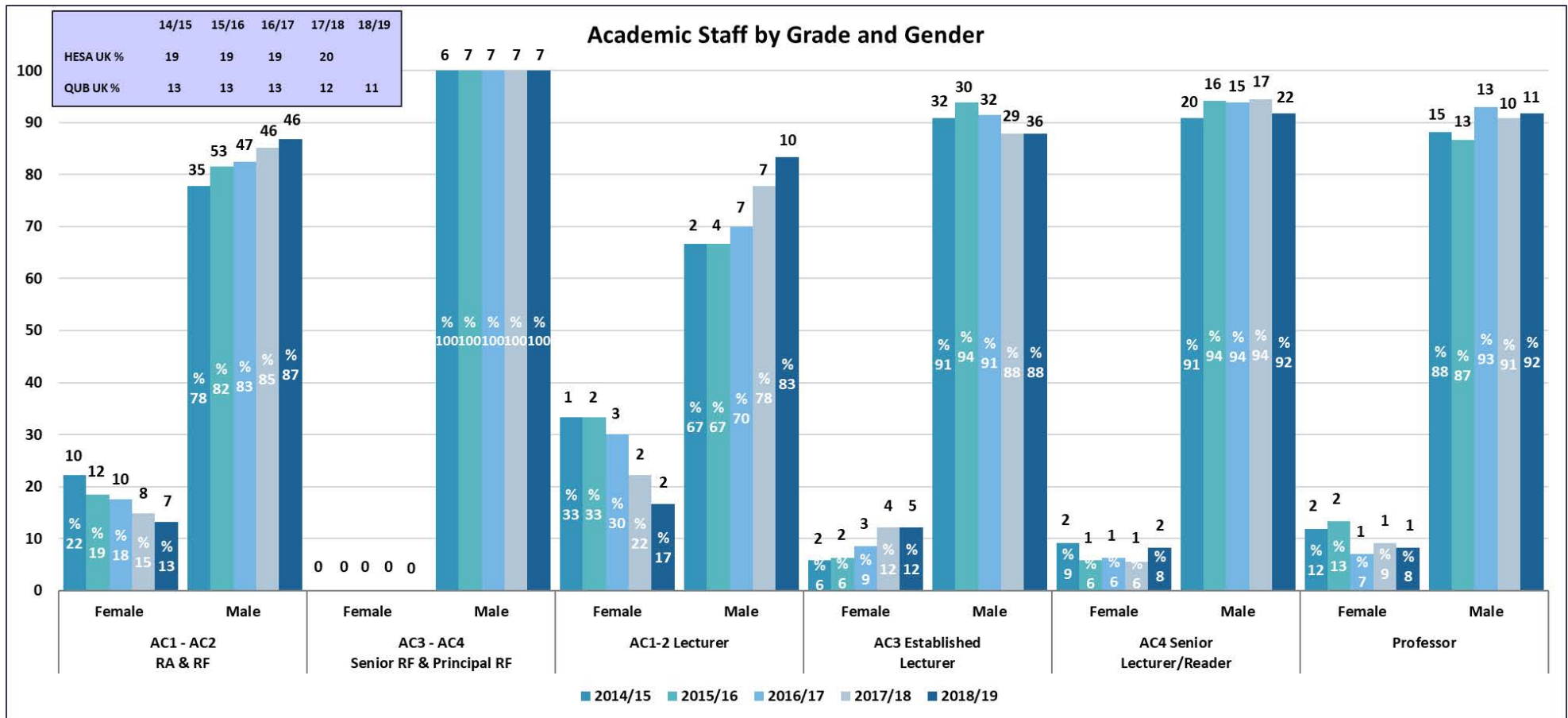
- (i) Academic staff by grade, contract function and gender: research-only, teaching and research or teaching-only

Look at the career pipeline and comment on and explain any differences between men and women. Identify any gender issues in the pipeline at particular grades/job type/academic contract type.

#### SILVER APPLICATIONS ONLY

Where relevant, comment on the transition of technical staff to academic roles.





**Figure 24:** Percentage of Academic Staff both Male and Female within our School (Absolute numbers are given at the top of the bars). HESA UK % vs EEECS % per year detailed in text box within graph

\*Figure 24 Includes Research&Teaching, Research Only and Teaching Only Staff

Year	AC1 & 2 RA & RF F/M	AC3 & 4 Senior & Principal RF F/M	AC 1-3 Lecturer F/M (Exc. Ed)	AC1 -3 Lecturer Ed F/M	Senior Lecturer F/M (Exc. ED)	Senior Lecturer Ed F/M	Professor F/M (Exc. Ed)	Professor Ed F/M	EEECS % F	HESA % F
2014/15	10 / 35	0 / 6	2 / 28	1 / 8	1 / 17	1 / 1	2 / 15	-	13	19
2015/16	12 / 53	0 / 7	3 / 26	1 / 8	1 / 15	0 / 1	2 / 13	-	13	19
2016/17	10 / 47	0 / 7	5 / 27	1 / 12	1 / 14	0 / 1	1 / 13	-	13	19
2017/18	8 / 46	0 / 7	5 / 25	1 / 11	1 / 16	0 / 1	1 / 10	-	12	20
2018/19	7 / 46	0 / 7	6 / 33	1 / 13	1 / 21	1 / 1	1 / 9	0 / 2	11	

**Table 5:** Number of Academic Staff both Male and Female within our School (shows the breakdown of Teaching & Research, Research Only and Teaching Only Staff)

#### Academic Staff:

- Currently 12% of our research staff and 11% of our academic staff are female. This remains our greatest challenge. **We are encouraged at the impact of our Academic Apprenticeship Programme which resulted in an increase of 4 female appointments at AC1-3 level since 2015.**
- In 2014/15 the University introduced a new category of teaching-only positions referred to as 'Education'. Currently we have 18 Academic (Education) staff comprising 14 Lecturers (1F/13M), 2 Senior Lecturers (1F/1M) and 2 Professors (2M). This is a positive development allowing for formal career progression for staff with teaching-only role. These staff are on the same salary scale as Research&Teaching academics and can progress through promotion in the same manner, albeit with different criteria.
- In 2018/19 Karen Rafferty, Senior Lecturer was appointed our first female HoS and Angela Allen, Senior Lecturer (Education) was appointed to DHoS. Both have been developed over recent years through leadership training (Aurora and Emerging Leaders (HoS) and EEECS Women's Leadership Programme (DHoS)) to enable them to take up these leadership roles.

#### Research Staff

- Currently, 100% of our research staff are full-time funded by specific research projects. The majority are on fixed term contracts. Currently 27% are in permanent research engineering posts (1F/15M). 4 are at AC3/4 Grade (all male). We acknowledge this needs to be addressed.



- We will introduce a PhD Teaching Apprenticeship Programme to encourage female PhDs into academia.
- We will develop new recruitment materials, ensuring language is gender neutral and use our website to promote our female role models and people initiatives.

### Analysis

- Our numbers of research staff have declined since 2014.
- Despite implementing many different strategies such as welcome statements focused on communicating our family friendly policies, checking for gender bias language etc. the number of applications from females remains low (**Section 5.1 (i)**).
- **In 2018/19 we had a total of 10 female academics. 4 are currently on probation. Since 2017 we are delighted that as a result of our “promotion ready” process 3 female staff have been promoted (2 to Senior Lecturer and 1 to Professor) (Section 5.1(iii)).**
- 4 out of 5 female applicants who have secured academic posts were internal research staff (Section 5.3 (iii)).

<b>Action 2.1</b>	<ul style="list-style-type: none"> <li>• We will ensure language used in all our recruitment is gender neutral and encourages female applicants by communicating our family friendly and flexible working practices</li> <li>• We will develop new recruitment materials including case studies, videos of female academics and research staff to communicate our supportive female environment</li> <li>• We will use our website to promote our female role models and our people initiatives. Focus groups will be used with existing staff to seek feedback on proposed content</li> </ul>
<b>Action 2.2</b>	<ul style="list-style-type: none"> <li>• We will introduce a PhD Teaching Apprenticeship Programme to encourage female PhDs to enter academia</li> </ul>

(ii) Academic and research staff by grade on fixed-term, open-ended/permanent and zero-hour contracts by gender

Comment on the proportions of men and women on these contracts. Comment on what is being done to ensure continuity of employment and to address any other issues, including redeployment schemes.

- Zero-hour contracts are not used.
- Research Engineers on permanent contracts support academic outputs including technology transfer activities. These engineers come mostly from industry therefore we would not attract them via fixed-term contracts.



- Fixed-term contracts are the norm for research staff (other than Research Engineers) who are contracted for the duration of specific projects. If funding is not extended our University operates a redeployment scheme.
- The only academic staff not on permanent contracts are 0.2 FTE Professors appointed through the World Class Researcher (WCR) Scheme. This allows flexibility to redirect WCRs according to strategic needs. This scheme strengthens international collaborations and our learning of best practice in dealing with diversity and inequality.

(iii) Academic leavers by grade and gender and full/part-time status

Comment on the reasons academic staff leave the department, any differences by gender and the mechanisms for collecting this data.

**Academic Staff:**

- Since 2014 we have had 31 academic leavers including 4 WCR contracts which ended (Table 6) (3F/28M). In 2015/16 a female Senior Lecturer retired and in 2016/17 a female Professor and her husband (a member of academic staff) relocated to another University. In 2017/18 a female lecturer resigned to commence a senior leadership position in a local IT private sector company.

Year	F / M (N)					%F Leavers	Reasons Include	Activity After Leaving
	AC1/2	AC3	AC4	Prof	Total			
2014 - 2019	0/3	1/10	1/6	1/9	3/28	11	End of Contract - (WCRs) Retirement Resignation Severance/Early Retirement Scheme Other	Working in higher Institution Working in private sector Retired Not Known

**Table 6: Academic leavers by gender and grade (in teaching & research positions)**

**Research-only staff:**

- As the majority of our research staff contracts are fixed-term a relatively high turnover is expected.
- Since 2014, 102 research staff have left (Table 7) (19F/83M). 37 contracts ended 2 retired, 59 resigned and 4 for other reasons. Of the 19 females who left, a total of 11 resigned as they received job offers prior to their contract ending, 4 left to work in the HE sector, 4 in the private sector, 1 commenced a full-time EEECS PhD and 2 for unknown reasons. 8 contracts ended.

Year	F / M (N)					%F Leavers	Reasons Include	Activities After Leaving Include
	AC1	AC2	AC3	AC4	Total			
2014 - 2019	7/14	12/60	0/9	0/0	19/83	23	Retirement Ill Health End of Contract Resignation Termination by Agreement Other	Working in higher Institution Working in a research Institute Working in private sector Working in another public sector org Not Known Registered as a student Retired

**Table 7: Research-only staff - Leavers by gender**

## Analysis

- Female researchers are leaving at a high rate (26% in 18/19) which is a concern as our female appointment numbers have dropped in the last 3 years. We attribute this to the buoyant employment market in the technology sector and the high salaries on offer (Table 1, page 9).
- As research staff approach the end of their contracts they actively seek alternative employment and often resign prior to their contract end date.
- We acknowledge we need to understand more fully the reasons for staff leaving.

**Action 2.10** • Our University is currently developing a staff exit strategy to include a revised survey and exit interview. We will consult and review this data and put appropriate actions in place where necessary

[Word Count – 2295]

## 5. SUPPORTING AND ADVANCING WOMEN'S CAREERS

Recommended word count: Bronze: 6000 words | Silver: 6500 words

### 5.1. Key career transition points: academic staff

#### (i) Recruitment

Break down data by gender and grade for applications to academic posts including shortlisted candidates, offer and acceptance rates. Comment on how the department's recruitment processes ensure that women (and men where there is an underrepresentation in numbers) are encouraged to apply.

#### Academic staff (Teaching & Research/Teaching only):

- All members of staff engaged in recruitment undertake an annual mandatory course on selection interviewing and Equality & Diversity training.
- Since 2014 we have tried varying recruitment strategies including advertising on female recruitment channels (WISE). Despite this, our female application rates remain very low and remains our biggest challenge.
- Recruitment of staff is extremely difficult due to rising well paid technology roles (Table 1, page 9) making our positions (including increasing our PhD pipeline) a very difficult 'sell'. According to a recent Computer Weekly Salary Survey 2017/18 UK and Ireland, the UK will have 800,000 unfilled technology jobs by 2020. The survey highlights the distinct areas of demand are our research areas (AI, Cybersecurity, Data Scientists).

## Analysis

- We have been unable to fill all our vacancies since 2014. Recruitment remains a key challenge, particularly our ability to recruit senior academics. The percentage of female applicants over the period has been between 8%-17% (Table 8).
- We have advertised a significant number of Chair posts since 2014 however only appointed 2 male Professors.
- In 2018/19 success rates, female application to appointment, have been slightly higher than males.
- Due to skills shortages, private sector salary levels are likely to continue rising. We need to work harder to both attract and retain staff and focus on culture, work-life balance, and the benefits we know surpass those offered by most private sector organisations.

Year	Post Title	Apps Received		Apps Shortlisted		Offers Made		Unnamed Posts Grade at Appointment	Appointed		Success Rates	
		% F (N)	% M (N)	% F (N)	% M (N)	% F (N)	% M (N)		% F (N)	% M (N)	% F	%M
2014 / 2015	Professor	0	100 (9)	0	0	0	0		0	0	0.0	0.0
	Recruitment Campaign	14 (11)	86 (68)	13 (1)	88 (7)	0	100 (3)	AC1-2	0	100 (2)		
								AC3	0	100 (1)		
	<b>Total</b>	<b>13 (11)</b>	<b>88 (77)</b>	<b>13 (1)</b>	<b>88 (7)</b>	<b>0</b>	<b>100 (3)</b>		<b>0</b>	<b>100 (3)</b>	<b>0.0</b>	<b>3.9</b>
2015 / 2016	Professor	13 (3)	88 (21)	0	100 (7)	0	100 (1)		0	100 (1)	0.0	4.8
	Lecturer (Education)	15 (5)	85 (28)	13 (1)	88 (7)	0	100 (3)		0	100 (2)	0.0	7.1
	Recruitment Campaign	13 (28)	87 (194)	11 (2)	89 (16)	17 (1)	83 (5)	AC1-2	50 (1)	50 (1)		
	<b>Total</b>	<b>13 (36)</b>	<b>87 (243)</b>	<b>9 (3)</b>	<b>91 (30)</b>	<b>10 (1)</b>	<b>90 (9)</b>		<b>20 (1)</b>	<b>80 (4)</b>	<b>2.8</b>	<b>1.6</b>
2016 / 2017	Lecturer	9 (3)	91 (30)	0	100 (4)	0	100 (2)		0	100 (1)	0.0	3.3
	Lecturer (Education)	16 (5)	84 (26)	29 (2)	71 (5)	0	100 (1)		0	100 (1)	0.0	3.8
	Recruitment Campaign	8 (28)	92 (335)	6 (3)	94 (47)	10 (1)	90 (9)	AC1-2	50 (1)	50 (1)		
								AC3	0	100 (6)		
	<b>Total</b>	<b>8 (36)</b>	<b>92 (391)</b>	<b>8 (5)</b>	<b>92 (56)</b>	<b>8 (1)</b>	<b>92 (12)</b>		<b>10 (1)</b>	<b>90 (9)</b>	<b>2.8</b>	<b>2.3</b>
2017/2018	Professor	11 (4)	89 (33)	11 (1)	89 (8)	0	100 (2)		0	0	0.0	0.0
	Lecturer	20 (18)	80 (74)	8 (1)	92 (12)	0	100 (6)		0	100 (6)	0.0	8.1
	Recruitment Campaign Acad	12 (6)	88 (45)	11 (1)	89 (8)	20 (1)	80 (4)	AC3	100 (1)	0		
	Recruitment Campaign Acad Ed	22 (11)	78 (40)	0	100 (5)	0	100 (2)	AC4	0	100 (1)		
								AC1-2 (Ed)	0	100 (1)		
								AC3 (Ed)	0	100 (1)		
	<b>Total</b>	<b>17 (39)</b>	<b>83 (192)</b>	<b>8 (3)</b>	<b>92 (33)</b>	<b>7 (1)</b>	<b>93 (14)</b>		<b>10 (1)</b>	<b>90 (9)</b>	<b>2.6</b>	<b>4.7</b>
2018/2019	Professor	24 (5)	76 (16)	13 (1)	88 (7)	0	100 (1)		0	0	0.0	0.0
	Professor (Education)	0	100 (6)	0	100 (1)	0	100 (1)		0	100 (1)	0.0	16.7
	Lecturer (Education)	24 (4)	76 (13)	33 (2)	67 (4)	33 (1)	67 (2)		33 (1)	67 (2)	25.0	15.4
	Recruitment Campaign	16 (24)	85 (131)	7 (2)	94 (29)	8 (1)	92 (12)	AC1-2	20 (1)	80 (4)		
								AC3	0	100 (2)		
								AC4	0	100 (1)		
	<b>Total</b>	<b>17 (33)</b>	<b>83 (166)</b>	<b>11 (5)</b>	<b>89 (41)</b>	<b>11 (2)</b>	<b>89 (16)</b>		<b>17 (2)</b>	<b>83 (10)</b>	<b>6.1</b>	<b>6.0</b>

**Table 8: EECS Academic recruitment by gender and grade.** \*Recruitment Campaign refers to unnamed posts

### Research-only staff:

- Research posts are advertised as fixed-term with the exception of Research Engineering posts.

## Analysis

- The percentage of female applicants over the period has been between 15%-19% (Table 9).

- The positions advertised at Senior Research Fellow level and above were all permanent Research Engineering posts and attracted a much smaller number of applicants with no females appointed. Whilst we know 11% of the engineering workforce in the UK is female (Skills & Demands from Industry – 2017 Survey, IET) we realise this is a challenge. Due to industry demand for these engineers we have a low acceptance rate for offers and often have to re-advertise repeatedly to fill these positions.

Year	Post Title	Apps Received			Apps Shortlisted		Offers Made		Unnamed Posts Grade at appointment	Appointed		Success Rates App to Appointed	
		% F (N)	% M (N)	% U (N)	% F (N)	% M (N)	% F (N)	% M (N)		% F (N)	% M (N)	% F	% M
2014 / 2015	Research Assistant	15 (4)	85 (22)		17 (1)	83 (5)	0	100 (2)		0	100 (2)	0.0	9.1
	Research Fellow	19 (67)	81 (287)		18 (16)	82 (72)	22 (6)	78 (21)		25 (5)	75 (15)	7.5	5.2
	Senior Research Fellow	0	100 (5)		0	100 (1)	0	0		0	0	0.0	0.0
	Principal Research Fellow	0	100 (7)		0	100 (5)	0	0		0	0	0.0	0.0
	Recruitment Campaign*	21 (42)	80 (163)		15 (9)	85 (51)	19 (3)	81 (13)	AC2	14 (1)	86 (6)		
<b>Total</b>	<b>19 (113)</b>	<b>81 (484)</b>		<b>16 (26)</b>	<b>84 (134)</b>	<b>20 (9)</b>	<b>80 (36)</b>		<b>21 (6)</b>	<b>79 (23)</b>	<b>5.3</b>	<b>4.8</b>	
2015 / 2016	Research Assistant	26 (11)	74 (31)		14 (1)	86 (6)	0	100 (2)		0	100 (2)	0.0	6.5
	Research Fellow	16 (29)	84 (156)		15 (7)	85 (41)	10 (2)	91 (19)		8 (1)	92 (12)	3.4	7.7
	Senior Research Fellow	11 (3)	89 (24)		0	100 (8)	0	100 (2)		0	100 (2)	0.0	8.3
	Principal Research Fellow	11 (1)	89 (8)		17 (1)	83 (5)	0	100 (1)		0	100 (1)	0.0	12.5
	Recruitment Campaign*	18 (30)	82 (136)		14 (4)	86 (25)	18 (2)	82 (9)	AC2	0	100 (7)		
<b>Total</b>	<b>17 (74)</b>	<b>83 (355)</b>		<b>13 (13)</b>	<b>87 (85)</b>	<b>11 (4)</b>	<b>89 (33)</b>		<b>4 (1)</b>	<b>96 (24)</b>	<b>1.4</b>	<b>6.8</b>	
2016 / 2017	Research Fellow	15 (66)	85 (384)		16 (17)	84 (87)	29 (8)	71 (20)		32 (7)	68 (14)	10.6	3.6
	Recruitment Campaign*	14 (11)	86 (70)		18 (3)	82 (14)	33 (2)	67 (4)	AC2	50 (1)	50 (1)		
									AC3	0	100 (1)		
<b>Total</b>	<b>15 (77)</b>	<b>85 (454)</b>		<b>17 (20)</b>	<b>83 (101)</b>	<b>29 (10)</b>	<b>71 (24)</b>		<b>33 (8)</b>	<b>67 (16)</b>	<b>10.4</b>	<b>3.5</b>	
2017 / 2018	Research Assistant	12 (4)	88 (29)		7 (1)	93 (13)	17 (1)	83 (5)		17 (1)	83 (5)	25.0	17.2
	Research Fellow	19 (58)	81 (244)		10 (7)	90 (65)	11 (2)	90 (17)		6 (1)	94 (15)	1.7	6.1
	Senior Research Fellow	17 (3)	83 (15)		0	100 (4)	0	100 (1)		0	100 (1)	0.0	6.7
	Recruitment Campaign*	8 (1)	92 (12)		0	100 (1)	0	100 (1)	AC2	0	100 (1)		
<b>Total</b>	<b>18 (66)</b>	<b>82 (300)</b>		<b>9 (8)</b>	<b>91 (83)</b>	<b>11 (3)</b>	<b>89 (24)</b>		<b>8 (2)</b>	<b>92 (22)</b>	<b>3.0</b>	<b>7.3</b>	
2018 / 2019	Research Assistant	11 (3)	89 (24)		0	0	0	0		0	0	0.0	0.0
	Research Fellow	18 (76)	82 (348)	0.5 (2)	21 (14)	79 (54)	27 (4)	73 (11)		36 (4)	64 (7)	5.3	2.0
	Senior Research Fellow	25 (5)	75 (15)		0	100 (6)	0	100 (2)		0	100 (1)	0.0	6.7
	Principal Research Fellow	17 (2)	83 (10)		17 (2)	83 (10)	0	0		0	0	0.0	0.0
	Recruitment Campaign*	44 (4)	56 (5)		33 (1)	67 (2)	50 (1)	50 (1)	AC1	0	100 (1)		
<b>Total</b>	<b>18 (90)</b>	<b>81 (402)</b>	<b>0.4 (2)</b>	<b>19 (17)</b>	<b>81 (72)</b>	<b>26 (5)</b>	<b>74 (14)</b>		<b>31 (4)</b>	<b>69 (9)</b>	<b>4.4</b>	<b>2.2</b>	

**Table 9: EEECS Research-only recruitment by gender and grade.** \*Recruitment Campaign refers to unnamed posts

#### Action 2.1

- We will ensure language used in all our recruitment is gender neutral and encourages female applicants by communicating our family friendly and flexible working practices
- We will develop new recruitment materials including case studies, videos of female academics and research staff to communicate our supportive female environment
- We will use our website to promote our female role models and our people initiatives. Focus Groups will be used with existing staff to seek feedback on proposed content

(ii) Induction

Describe the induction and support provided to all new academic staff at all levels. Comment on the uptake of this and how its effectiveness is reviewed.

- **The information in this section applies to all staff.**
- All new staff attend the University's central induction course.
- The School requires new staff to attend a 1-day induction programme (held 4 times a year) which includes EDI (including AS). Since 2014 100% of new staff have attended. Attendees complete an evaluation questionnaire at the end of the programme. A recent member of staff stated –

*'I thought the induction day was well organised and comprehensive, actually more than I expected from an organisation the size of EEECS. I have joined large organisations in my career, like Motorola (120,000 employees) and GE (400,000 employees) and the level of preparedness and information delivered was similar so well done to the team for preparing it'.*

- As a result of induction evaluation we introduced a first-day induction for all new employees and also a 'critical friend' they can call upon in addition to their line manager. As a result we will revise our 1-day induction and introduce pre-boarding activities.
- All staff must attend a half-day School inclusion workshop (unconscious bias) see Section 5.6 (i). To date 90% of staff have attended. A member of staff stated:

*'I gained an understanding of unconscious bias as well as understanding that diversity does not just relate to race and religion but also that we need different types of personalities in teams. I felt that this made me more aware of any unconscious bias that I may have and how quickly I may judge people'.*

- The University requires all staff to complete compulsory e-learning courses including EDI ('Think Different Act Differently' and unconscious bias Training). Our completion rate is currently 81% and 85% respectively. Staff failing to complete these within 1 month receive a reminder from our HoS.
- Support to all staff is provided via their line manager, the School's BIC, support staff and Faculty HR. We were delighted that 88% of staff reported in the December 2017 survey they received support when needed. Female mentoring for all categories of staff is available through Queen's Gender Initiative (QGI).
- Formal probation procedures are in place to allow staff a period of development with support and guidance from their manager and others. The procedure includes regular review meetings and discussions about development needs, and a formal end of probation meeting. Probation is 3 years for academic staff and 6 months for all other staff. During the review period all probationary meetings have occurred.
- Following feedback from female probationers who indicated they would welcome additional support, we introduced in 2017/18 an academic induction programme (4 x 3 hour sessions) to augment our induction programmes.



- Feedback from appraisals and staff on probation indicated additional academic mentoring for teaching during probation would be beneficial. We will therefore introduce a peer observation programme.

<b>Action 1.5</b>	<ul style="list-style-type: none"> <li>• We will build on our long-standing commitment to equality by ensuring completion of online University training modules on unconscious bias and equality, our own workshops, and by sharing our expertise and best practice with other Schools</li> </ul>
<b>Action 2.5</b>	<ul style="list-style-type: none"> <li>• We will provide additional academic mentoring support for staff on probation through introducing a peer observation teaching programme</li> </ul>
<b>Action 2.6</b>	<ul style="list-style-type: none"> <li>• We will revise our 1-day induction and introduce pre-boarding activities so that induction can focus on interaction with new staff rather than simply providing information</li> </ul>

(iii) Promotion

Provide data on staff applying for promotion and comment on applications and success rates by gender, grade and full- and part-time status. Comment on how staff are encouraged and supported through the process.

**Academic Promotions:**

- Academic promotions are shown in Table 10. From 2014–2017 there were 9 applications for promotion (all male) and 4 were successful (all to Senior Lecturer). Our promotion success rate was therefore a major concern which we addressed by lobbying faculty to take a balanced view of academic standards and we introduced a ‘promotion ready’ process. This involves an early call for applications and a panel (senior academics from within our School and Faculty) meets to consider each case. Mentors are assigned based on needs to mentor the academic in order to strengthen their application. If it is felt the application is premature the academic will be advised to delay the application and a development plan will be discussed to fill any perceived gaps with a relevant academic mentor.
- We previously put in place a Specialist Mentoring Scheme however it became clear staff were not approaching mentors. Research was carried out into other HE mentoring schemes and the findings indicated that formal mentoring schemes were the most effective. We therefore adopted this approach and put in place our ‘promotion ready’ scheme.
- **The impact of our ‘promotion ready’ process is that since 2017, 16 members of staff have been promoted (3F/13M).** 1 female has been promoted to Professor (from SL) and 2 to Senior Lecturer (from L). This represents a success rate of 94% since 2017 compared to 44% in the previous 3 years. An additional benefit is that our retention rates have improved as a result.
- Our liP Assessor Report stated:

*‘The whole area of diversity and equality is a particular strength of the School with quite extensive efforts made to foster opportunities for females in particular to develop their leadership capabilities’.*



- We are proud of our beacon activity as regards our EEECS Women’s Leadership Programme (see section 5.3(iii)). 2 of our females who recently were promoted completed this programme.
- Promotion readiness is discussed with all academic staff during their career planning discussion within appraisal. We recently held a ‘Planning Your Career Session’ for Academic and Research staff with 58 staff attending (13F/45M).
- Following the ‘promotion ready’ process all applicants applying for promotion are reviewed by a School Committee (comprising at least 1 external female academic). Recommendations are then forwarded to the Faculty Promotions Committee.
- Faculty run promotion sessions and every academic staff member is invited.
- Our University will launch a new Academic Progression Scheme (Promotion) in December 2019. We will review our ‘promotion ready’ process and roll out the new scheme.

	Application (Grade on Appl)		Promotions (Grade on Appl)		Success Rate	
	F (N)	M (N)	F (N)	M (N)	F %	M %
<b>2014 - 2015</b>						
Lecturer	0	1	0	1		
Sn Lec (inc Ed)	0		0	0		
Reader	0	1	0	0		
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>50</b>
<b>2015 - 2016</b>						
Lecturer	0	1	0	1		
Sn Lec (inc Ed)	0	1	0	0		
Reader	0	0	0	0		
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>50</b>
<b>2016 - 2017</b>						
Lecturer	0	3	0	2		
Sn Lec (inc Ed)	0	2	0	0		
Reader	0	0	0	0		
<b>Total</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>40</b>
<b>2017 - 2018</b>						
Lecturer	1	2	1	2		
Sn Lec (inc Ed)	0	1	0	1		
Reader	0	0	0	0		
<b>Total</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>100</b>	<b>100</b>
<b>2018 - 2019</b>						
Lecturer	1	5	1	5		
Sn Lec (inc Ed)	1	4	1	4		
Reader	0	2	0	1		
<b>Total</b>	<b>2</b>	<b>11</b>	<b>2</b>	<b>10</b>	<b>100</b>	<b>91</b>
<b>5 Year Total</b>	<b>3</b>	<b>23</b>	<b>3</b>	<b>17</b>	<b>100</b>	<b>74</b>

**Table 10: EEECS Academic Promotions by gender and grade**

- Action 2.4**
- Following the introduction of the new policies on academic progression, we will review our ‘promotion ready’ process which offers feedback from a senior academic panel on promotion applications to academic staff prior to them submitting their application

(iv) Department submissions to the Research Excellence Framework (REF)

Provide data on the staff, by gender, submitted to REF versus those that were eligible. Compare this to the data for the Research Assessment Exercise 2008. Comment on any gender imbalances identified.

- For Ref 2021 UoA 11 and UoA 13 have combined to form part of REF2021 UoA 12 – the engineering unit of assessment. The total number of academics within EEECS is 74, as part of REF2021 73 academics will be returned (1 male academic is not being returned). Outcome will not be announced until 2020.
- We report statistics to UoA 11 and UoA 13. Tables 11, 12 and 13 show the submissions made in the 2014 exercise to both UoA.

Gender	Submitted	Not Submitted
Male	25	2
Female	1	0
<b>Totals</b>	26	2
<b>Total Eligible</b>	<b>28</b>	

**Table 11:** EEECS REF Submission UoA 11 - Computer Science and Informatics – 28 eligible staff with only 2 males not submitted for strategic reasons

Gender	Submitted	Not Submitted
Male	35	0
Female	3	0
<b>Totals</b>	38	0
<b>Total Eligible</b>	<b>38</b>	

**Table 12:** EEECS Ref Submission UoA 13 Electrical and Electronic Engineering, Metallurgy and Materials – 38 eligible staff with all staff submitted

Gender	Submitted	Not Submitted
Male	60	2
Female	4	0
<b>Totals</b>	64	2
<b>Total Eligible</b>	<b>66</b>	

**Table 13:** EEECS Total Submission in 2014 REF

- We submitted 97% of our staff (with 100% return in UoA 13 and 93% return in UoA 11). This is one of the highest rates nationally and illustrated in Tables 14 and 15 which show comparison returns for other institutions in the UK per UoA. Whilst all female staff were returned some were returned with Special Circumstances within UoA 13 namely periods of maternity leave for 2 female members of staff. Under these circumstances, staff were permitted to return fewer than the required 4 papers. This is reflected in the 96.57% return noted in Table 15.

Rank	HEI	UoA	Proportion of Staff Submitted
1	Cardiff University	11	57.21%
2	Newcastle University	11	83.33%
<b>3</b>	<b>Queen's University Belfast</b>	<b>11</b>	<b>92.17%</b>
4	University of Birmingham	11	96.67%
5	University of Bristol	11	99.05%
6	University of Glasgow	11	96.74%
7	University of Liverpool	11	72.73%
8	University of Nottingham	11	84.02%
9	University of Southampton	11	86.67%

**Table 14:** *Comparator returns for UoA11*

Rank	HEI	UoA	Proportion of Staff Submitted
1	Newcastle University	13	82.11%
<b>2</b>	<b>Queen's University Belfast</b>	<b>13</b>	<b>96.57%</b>
3	University of Birmingham	13A	84.52%
4	University of Birmingham	13B	100.34%
5	University of Liverpool	13	80.00%
6	University of Southampton	13	96.84%

**Table 15:** *Comparator returns for UoA13*

- In RAE 2008, 95% of staff were returned. 3 male staff were omitted due to insufficient output. Table 16 shows the male/female ratio of return.

Gender	Submitted	Not Submitted
Male	49	3
Female	4	0
<b>Totals</b>	53	3
<b>Total Eligible</b>	<b>56</b>	

**Table 16:** *EECS School Return in RAE 2008*

## SILVER APPLICATIONS ONLY

### 5.2. Key career transition points: professional and support staff

#### (i) Induction

Describe the induction and support provided to all new professional and support staff, at all levels. Comment on the uptake of this and how its effectiveness is reviewed.

#### (ii) Promotion

Provide data on staff applying for promotion, and comment on applications and success rates by gender, grade and full- and part-time status. Comment on how staff are encouraged and supported through the process.

### Induction

- See Section 5.1 (ii).

### Promotion

- There is no formal promotion process for professional and support staff (PSS) however if a substantial change to the responsibilities of a post has occurred there is a process whereby roles are job evaluated. Since 2014 a total of 9 staff (2F/7M) have been promoted through this process, 5 professional/4 support.
- Career progression for technical staff is currently being reviewed as part of a Faculty-wide Technical Review. The School is represented and committed to implementing the recommendations.
- Since 2014, 22 staff (12F/10M) have moved to higher graded University posts within QUB. The School invested significantly in these staff, including funding part-time course of study required in order for many to progress (Table 24, Section 5.4 (iii)). **It is pleasing to see the impact this has had on staff progression. Our liP Silver Accreditation is also a testament to this.**
- We held focus groups following our staff survey and staff requested that we put in place a mock interview process to receive constructive feedback. A pilot was introduced in 2018/19 with 6 clerical staff (5F/1M) taking part, since the pilot 2 of our clerical staff have been appointed to higher graded posts. This will be rolled out fully in 2019/20.

#### Action 2.8

- We will roll out our mock interview process to all EEECS Professional and Support staff who wish to progress to higher graded posts within the University
- We will roll out actions announced by our University with regards to the Technician Commitment

### 5.3. Career development: academic staff

- **The information included in Sections 5.3(i)-(ii) applies to all staff.**



(i) **Training**

Describe the training available to staff at all levels in the department. Provide details of uptake by gender and how existing staff are kept up to date with training. How is its effectiveness monitored and developed in response to levels of uptake and evaluation?

- Individual development plans are discussed and agreed during appraisal and feed into our annual School Development Plan including activities requiring financial assistance.
- Results from our recent staff survey indicated almost 80% of staff felt they had opportunities for personal development and growth.
- Internal University course participation and School investment in external activities, including SWAN activities (Table 3 Section 3 (ii)) are listed in Table 17.

External Activities		Internal University Participation				
Year	Investment	Staff Category	Female Attendance	Male Attendance	Total Attendance	% F Attendance
2014 / 15	£118,000	Academic	7	52	59	12
		Research	6	32	38	16
		PSS	107	75	182	59
2015 / 16	£91,000	Academic	11	57	68	16
		Research	10	43	53	19
		PSS*	112	37	149	75
2016 / 17	£126,000	Academic	12	40	52	23
		Research	10	30	40	25
		PSS*	87	23	110	79
2017 / 18	£147,000	Academic	7	67	74	9
		Research	5	39	44	11
		PSS*	74	61	135	55
2018 / 19	£178,500	Academic	23	60	83	28
		Research	8	28	36	22
		PSS*	54	26	80	68

**Table 17:** School investment in external activities and Internal University Course Participation both since 2014 \*Professional & Support Staff

- Effectiveness of training is evaluated via the appraisal process and all group activities at the end of each programme.
- Since 2015 we have invested significantly in an Emerging Leaders Programme (ELP), which leads to an ILM Level 5 qualification to strengthen and build leadership capacity as part of our succession planning strategy (Table 18).

Year	Investment	Uptake by category and gender
2015 / 16	£33,000	1 x Professor (M) 2 x Senior Lecturer (1F/1M) 2 x PSS (1F/1M)
2016 / 17	£21,105	2 x Senior Lecturer (2M) 1 x Lecturer (M) 1 x PSS (M) 1 x Senior Research Engineer (M) 1 x Principal Research Engineer (M)
2017/ 18	£14,700	1 x Reader (M) 2 x PSS (F) 1 x Principal Research Engineer (M)
2018/ 19	£8,900	2 x Senior Lecturer (1F/1M)

**Table 18:** School investment and uptake in Emerging Leaders Programme since 2015

- **The impact of this leadership programme has contributed to the promotion of 10 staff (3F/7M) since 2015.** A ELP female participant who has since gained promotion commented:

*I am very grateful that the School provided me with the opportunity and substantial funding to attend the Emerging Leaders Programme, which I have successfully completed with an ILM credited Level 5 award in Leadership and Management. As a female, working in a male dominated environment, there are many challenges. Emerging Leaders Programme provided me with a profound change in both leadership skills and mind-set. It helped me to manage my critical transition from 'bricklayer' to 'architect', improving my ability to set directions and communicate this to others. It gave me more confidence to put myself forward when promotion and leadership opportunities become available."*





**Figure 25:** Senior Lecturer Xueqin Liu receiving her ILM credited Level 5 award in Leadership and Management

(ii) Appraisal/development review

Describe current appraisal/development review schemes for staff at all levels, including postdoctoral researchers and provide data on uptake by gender.

Provide details of any appraisal/review training offered and the uptake of this, as well as staff feedback about the process.

- The HoS meets to offer support with every member of staff who notes anything of concern in their appraisal (for example; WAM, excessive teaching, pressure of work etc.)
- Appraiser training is mandatory. Discussions on career plans, development, and promotion/upgrade readiness are a key part of the discussion. The appraisal procedure includes specific guidance on dealing with staff going on/returning from extended leave. The School has a 100% return rate for appraisals during the period.
- The University is introducing a new appraisal process in 2019/20 which we will roll out and ensure staff are trained prior to its introduction.



- Table 19 below shows results from our recent staff survey in relation to Appraisal.

Survey Question	Agreement %
Q I have clear performance goals and I know what my manager expects of me	87% agree
Q My manager encourages me to take advantage of learning and development opportunities available to me	83% agree
Q My manager has had a meaningful discussion with me about my professional development in the last 12 months	77% agree

**Table 19:** Results from December 2017 staff survey in relation to Appraisal

<b>Action 2.4</b> <ul style="list-style-type: none"> <li>• We will review our appraisal process in light of the changes to ensure the process is fit for purpose</li> <li>• We will ensure all staff are trained in the new policies and processes</li> </ul>
---

(iii) Support given to academic staff for career progression

Comment and reflect on support given to academic staff, especially postdoctoral researchers, to assist in their career progression.

**PDRA-academic transition point:**

- Actions have been carried out addressing the loss of women at this key career transition point outlined below. This will remain a key focus going forward.
- To support female post-docs to apply for fellowship opportunities we invited all our female PhDs, academic and research staff to breakfast to launch a publication produced by a member of our SAT, outlining Women in Science Awards. 20 females attended and we have introduced an advisor to promote the various awards at appropriate times.
- **Academic Apprenticeship Programme** introduced in 2015/16 as a Teaching Fellowship scheme, has been evaluated and continuously improved and now includes teacher training, academic mentoring, Associate Membership of the HEA and a CV clinic. Formal evaluation from both researchers and academic mentors are provided on completion. This opportunity offers researchers planning to pursue an academic career the chance to acquire valuable teaching experience without any negative impact on their research. We provide funding to extend their research contract by 1 month to carry out teaching duties (up to 50 contact hours). In the call we particularly welcome applications from females. **We are pleased to see evidence of impact as 11 research staff have transitioned into academic roles since its introduction (4F/7M).** Costs and participation levels are shown in Table 20, staff may apply in consecutive years to allow continuous teaching development (5 staff have repeated 3F/2M). 5 research staff are participating (2F/3M) in 2019/20.



Year	Participation F/M	Investment
2015 / 16	1F / 2M	£12,000
2016 / 17	4F / 3M	£28,000
2017 / 18	4F / 4M	£32,000
2018 / 19	2F / 3M	£20,000

**Table 20:** Academic Apprenticeship costs and participation levels

- Comments from 2 female participants are displayed below:

*'The programme gave me the opportunity to lecture and to realise that I enjoy lecturing, motivating me to pursue an academic career.'*

*'The programme gave me more confidence and more relevant, concrete teaching experience to apply for the lecturer post - without which I almost certainly wouldn't have got the job at this stage of my career.'*

- **Funded part-time PhD study.** The School is supportive of staff who wish to undertake a PhD while working as a Research Assistant. Since 2014, 13 Research staff have been supported (2F/11M). A female Research Assistant commented:

*'My long term plan is to pursue a career as an academic and having a PhD is an essential for this pathway. I received full support from the School to pursue my PhD. EEECS further offered to cover the tuition fee. This policy is commendable, especially for an international staff member like myself.'*

- **Confident Communications and Presentation Course.** This course runs biannually, specifically targeting female staff (all categories) and female PhDs. Table 21 details the participation levels. We always receive overwhelming evaluation, a female participant commented:

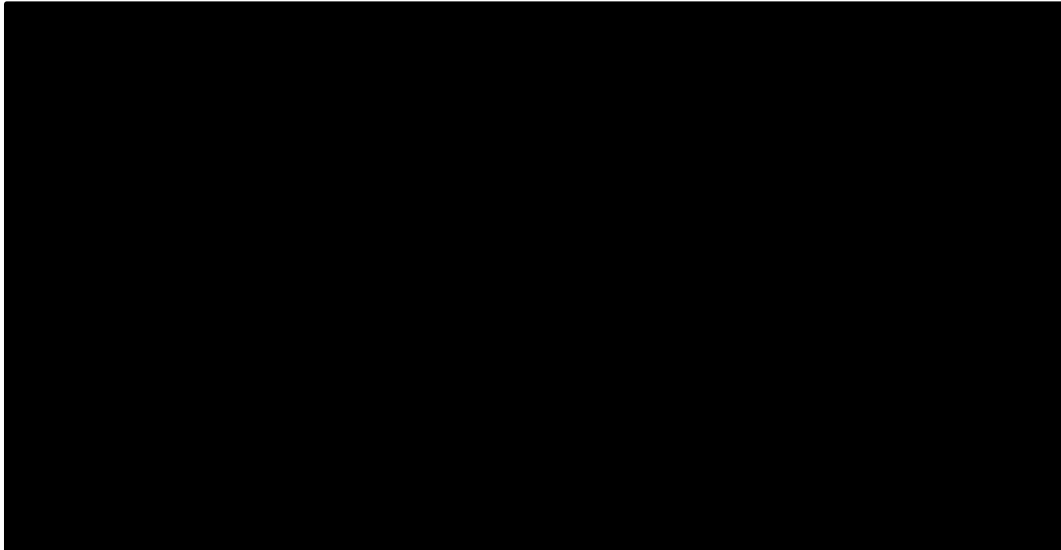
*"This is my second time attending Victoria Pritchard's Confident Communication Course. I am even more impressed by her energy and passion. Yes, it is not about the course, it is about Victoria, and how she makes you feel. Smiling with your eyes, controlling your voice, and being passionate is the key to grab the attention from the audience. Victoria is capable of teaching you everything you need to know how to be a passionate communicator. It was quite unique experience for me".*

Year	Participation by category and gender
2014 / 15	3 x Research (1F/2M), 1 x PSS (F), 7 x Academic (1F/6M)
2015 / 16	6 x PhD (F), 8 x Research (2F/6M), 3 x Academic (1 F/2M)
2016 / 17	1 x PSS (F), 2 Professional (F), 4 x PhD (F), 11 x Research (1F/10M)
2017 / 18	5 x Research (M), 3 x Academic (1F/2M)
2018 / 19	4 x PSS staff (3F/1M), 4 x PhD (3F/1M), 2 x Research (1F/1M), 7 x Academic (1F/6M)

**Table 21:** Confident Communications Course

- Our Research Society, launched in 2011, provides networking opportunities and includes a welcome event for all staff. Activity has declined recently and we will use the relaunch as an opportunity to advance our AS plans.

**Action 2.7** • We will relaunch and rebrand the EEECS Research Society to ensure remit, aims and objectives of the Society advance SWAN



**Figure 26:** *Annual Welcome Event for Research Staff*

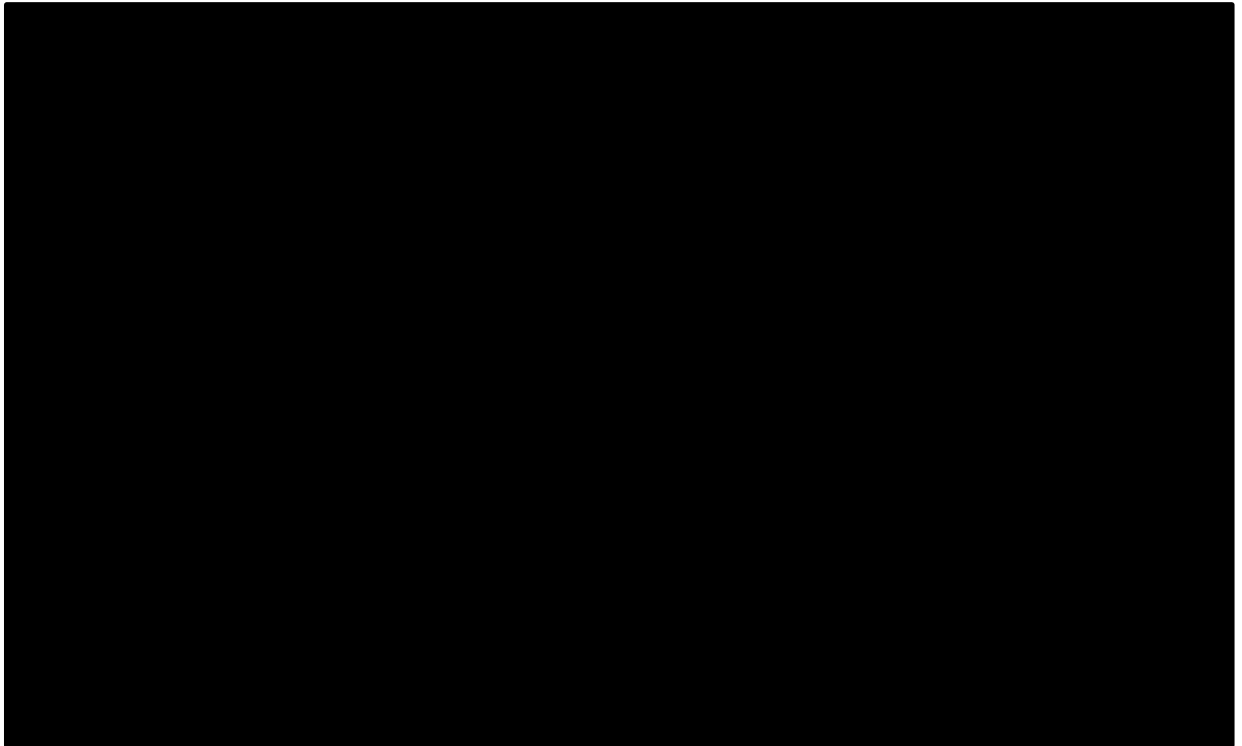
**Early-career academic-Senior academic transition point:**

- Following confirmed promotions (effective 1<sup>st</sup> August 2019) we have 10 female Academics - 2 Professors, 2 Senior Lecturers, 2 Lecturers and 4 lecturers on probation.
- Our 'promotion ready' process outlined in section 5.1(iii) outlines how promotion is supported.
- Biannually the School ran a series of workshops on 'How to win research money' and 'How to spend research money' programme. We have discontinued our programmes as support is now available centrally via Research and Enterprise.
- Female academics and researchers are offered career development and networking opportunities through QGI seminars and specific events, promoted and encouraged by the HoS. During the period 2 female academics attended our Emerging Leaders Programme, 1 attended a Next Generation Leadership Programme and 4 attended a Conference on Women and Leadership in a Changing World. In 2019/20 we will support a female Professor to attend LSE Achieving Leadership Excellence.
- **EECS Women's Leadership Programme (WLP)** was piloted in 2017/18 to upskill our female staff and students with the knowledge and behaviours necessary to confidently and successfully navigate their future leadership journey. Delivered by the Clinton Leadership Institute, the programme consists of 4 modules;
  - Who am I?
  - Personality and behavioural preferences
  - Impact of choices, attitudes and behaviour
  - Leading oneself through change and transition.

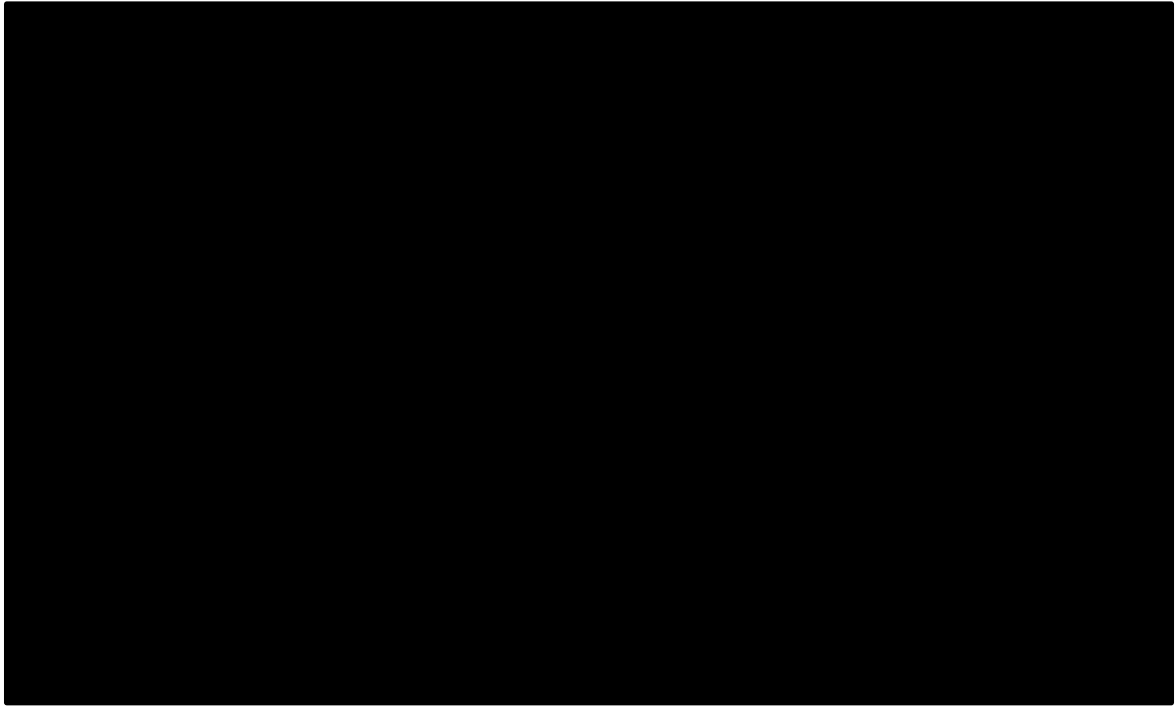
15 undergraduates and 15 postgraduates/staff participated in the pilot. The feedback was 100% positive (rating it excellent or very good). Now an annual event we run one programme for UG students and one for PG students/staff. We view it as a beacon activity.

One WLP participant commented:

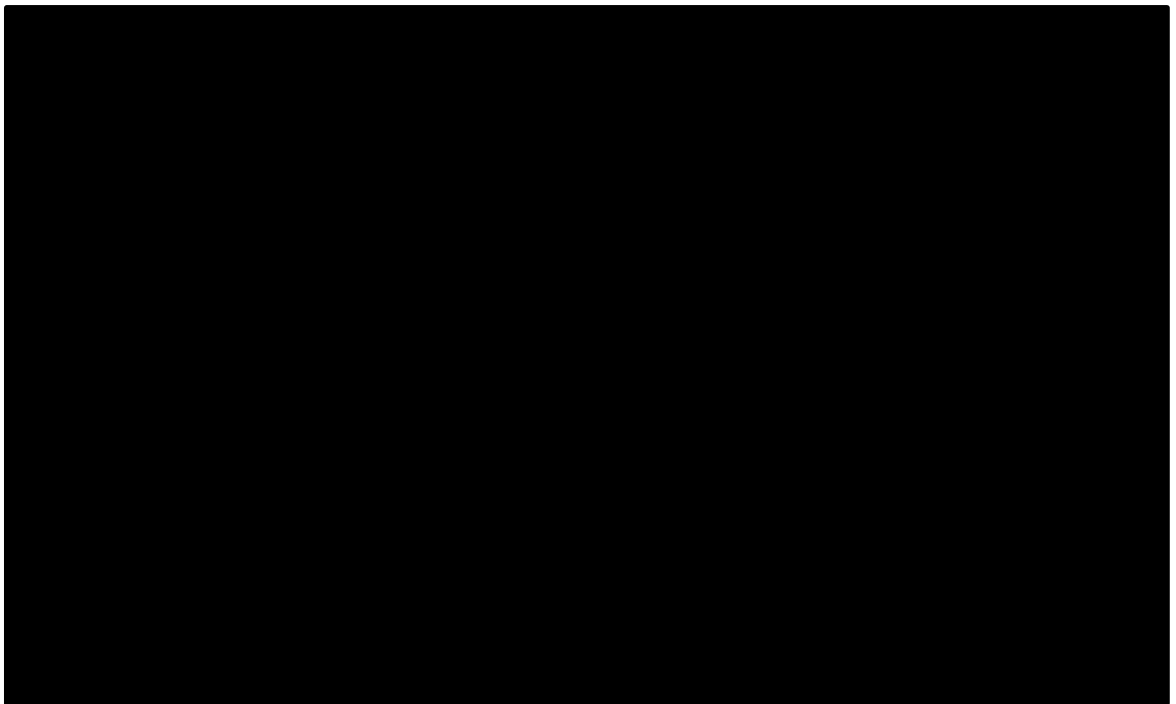
*"The EECS Women's Leadership Programme was a fantastic opportunity for myself. As a student, you have to do presentations, interview for jobs etc., so having confidence in yourself is important. The programme was a great way to improve on these skills with other like-minded females. By taking part, I learned about what type of personality I have and learned how to deal with people who may have different ones to myself. The most important thing about the programme, was meeting all the other females who were so intelligent and watching all of us grow over the course of the programme was really remarkable!! I would highly recommend the programme to anyone!"*



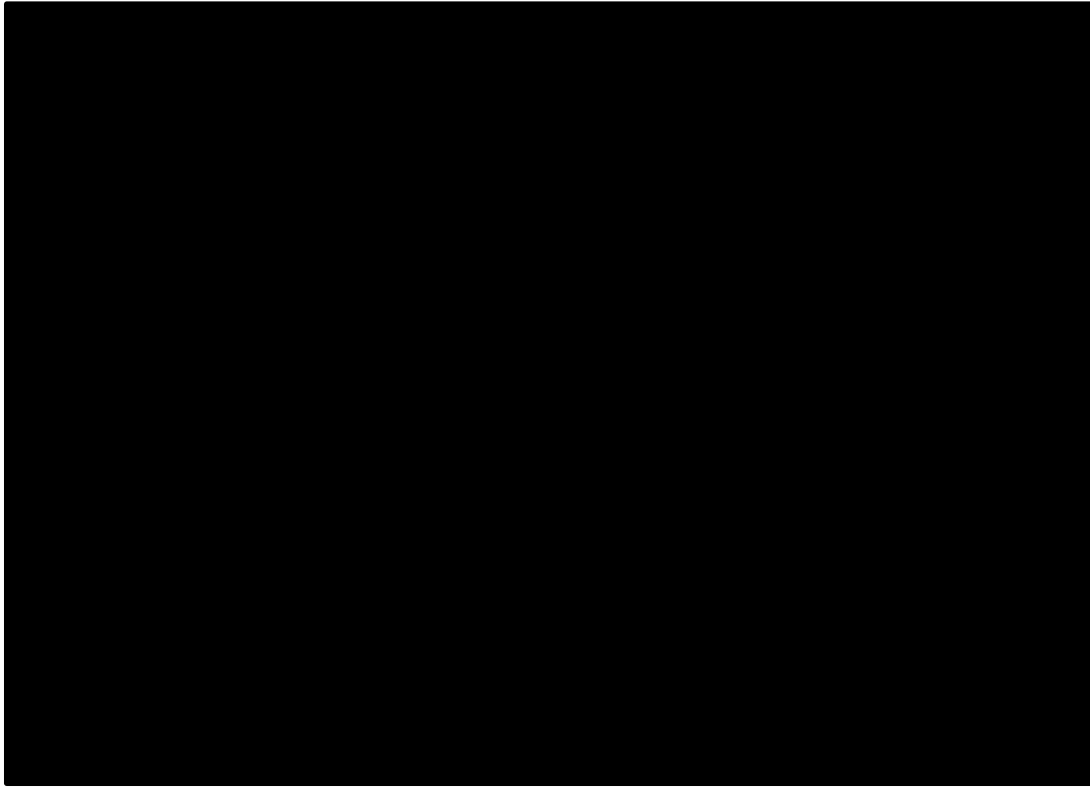
**Figure 27:** EECS WLP in action



**Figure 28:** *EEECS WLP UG cohort with Professor Yvonne Galligan, former Director of Queen's Gender Initiative and Professor Karen Rafferty, EEECS Head of School*



**Figure 29:** *EEECS WLP PG and Staff cohort with Professor Yvonne Galligan, former Director of Queen's Gender Initiative and Professor Karen Rafferty, EEECS Head of School*



**Figure 30:** [redacted] (right) a former EECS Student (scholarship provider) with [redacted] [redacted] (left), UG student who was awarded the Scholarship

- The evaluation of the 2018/19 WLP indicated our female staff and students would like mentoring to be introduced and also welcome the opportunity to be mentors.
- As part of the pilot we launched the [redacted] Scholarship, awarded to the best UG student graduating from our Programme (Figure 30). [redacted], an EECS graduate and a strong advocate for females in leadership positions, was so excited by the Programme that she tailored a personal scholarship.

<b>Action 2.3</b>	<p>We will further develop our female leadership training (EEECs Women’s Leadership Programme) for female staff as follows:</p> <ul style="list-style-type: none"> <li>• We will introduce mentoring for participants and the opportunity for them to mentor others</li> <li>• We will use video footage and interviews/testimonials from staff to promote the programme via our website to attract female staff</li> <li>• We will partner with sponsors for future programmes and encourage female speakers from those organisations to present during the programme and seek mentors from the sponsoring organisation</li> </ul>
<b>Action 3.4</b>	<p>We will further develop our female leadership training (EEECs Women’s Leadership Programme) for female students as follows:</p> <ul style="list-style-type: none"> <li>• We will secure funding for UG scholarship of £1500 annually to the best female student</li> <li>• We will use video footage and interview with UG scholarship holder and testimonials from students to promote the offering via our website to attract female students</li> <li>• We will partner with sponsors for future programmes and encourage female speakers from the organisations to present during the programme and seeks mentors from the organisation</li> <li>• We will partner with Women’sTec (an innovative regional charity that provides training for women in non-traditional skills in Northern Ireland). Our UG females will provide mentoring for school girls (13+) as part of their #NOTJUSTFORBOYS IT project</li> </ul>

(iv) Support given to students (at any level) for academic career progression

Comment and reflect on support given to students at any level to enable them to make informed decisions about their career (including the transition to a sustainable academic career).

- Below is a quote from the final report of the Periodic Review and Enhancement Process undertaken in March 2017. The panel includes an External Reviewer from the University of York.

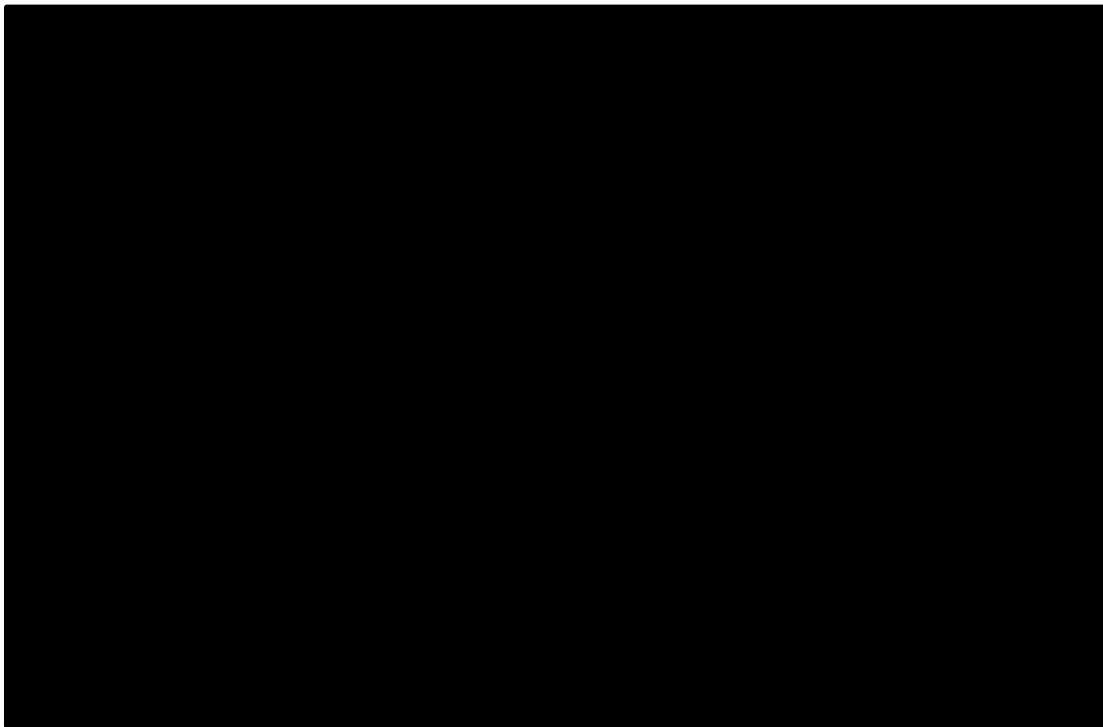
*“It is clear that the School works closely with employers to ensure that the curriculum is current and enhances employability for its students”*

**Support for UG Students**

- Women’s Leadership Programme (Section 5.3 (iii)).
- We have 2 full-time staff members providing dedicated careers support. Every UG/PGT student is offered one-to-one support from our in-house Careers/Placement team who have provided 3515 one-to-one appointments during the reporting period.
- Peer mentors are trained Level 2/3/4 students who provide support to our Level 1 students (Figure 31). The mentors organise events throughout the year, ranging from coffee mornings, games nights, peer-to-peer academic support and mini-hackathons. 29% of the peer mentors from 2014-2019 were female (Table 22).

Academic Year	EECS Peer Mentors	
	Female	Male
2014 / 15	6	14
2015 / 16	6	22
2016 / 17	5	14
2017 / 18	5	14
2018 / 19	13	21
<b>Total</b>	<b>35 (29%)</b>	<b>85 (71%)</b>

**Table 22:** Number of students, by gender that acted as a School Peer Mentor



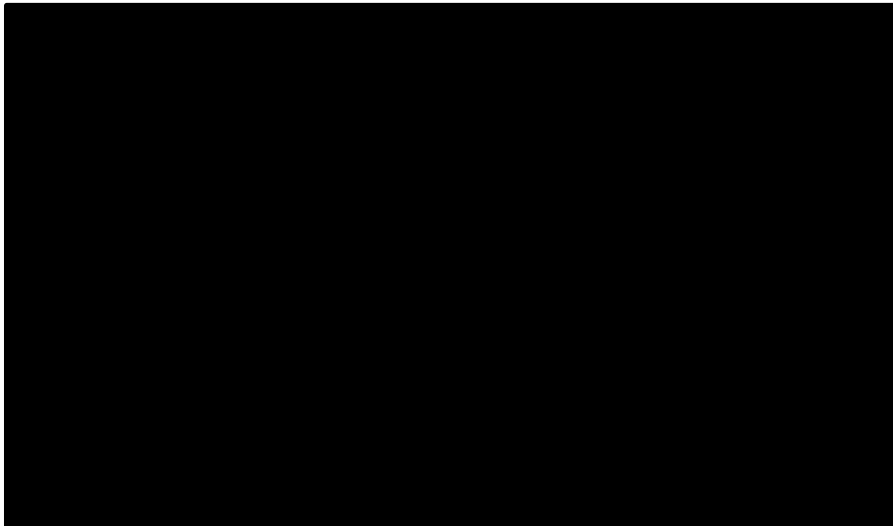
**Figure 31:** Some of our *EECS Peer Mentors*, 38% of *EECS Peer Mentors* are female (2018/19)

- We provide support to UG students to help them identify suitable employers, prepare for interviews, psychometric tests and assessment centres.
- We support the female CitiSpire program which provides ongoing one-to-one sessions with the Citi female mentors, alongside a series of UG career development networking and workshops events. To date 50 females have participated.



### Support for PG Taught Students

- Women's Leadership Programme (Section 5.3 (iii)).
- Both PGT and PGR students can avail of monthly School Careers Guidance appointments provided by the School.
- The QUB Graduate School offers a range of employability workshops co-developed by employers and industry experts to support postgraduates with the next step in their career.



**Figure 32:** *A number of students enrolled on the MSc in Software Engineering (PG-Taught) speaking with a representative of employer Citi Group at a School Careers Fair*

### Support for PG Research Students

- In 2015/16, as a result of survey findings, we piloted a mandatory 3 year Structured Development Plan (SDP), to provide students with relevant technical and life-skills training (£10k annual investment). In 2017/18 we evaluated the pilot and 82% of PhDs agreed that the SDP offered all desired training.
- The latest survey highlighted the need to provide funding to enable our PhDs to present their work.

- |                   |   |
|-------------------|---|
| <b>Action 3.5</b> | <ul style="list-style-type: none"><li>• We will promote a Travel Award to enable PGR/PhD students to travel to a conference or a collaborator to present their work</li><li>• We will increase the number of in-house 'Paper Awards' to reward our outstanding PG students</li><li>• Following the annual University PG surveys we will hold focus group sessions (at least 30% representation to be female) to receive feedback on what additional support is required by students</li></ul> |
|-------------------|---|

(v) Support offered to those applying for research grant applications

Comment and reflect on support given to staff who apply for funding and what support is offered to those who are unsuccessful.

- Queen's Research Development Office guides academics through the funding landscape and application process of funders, providing workshops on grant writing techniques and offers advice on best practises.
- In addition to the above the School encourages all funding applications to be peer reviewed prior to submission.
- EEECS have no formal mechanisms in place to support staff who are applying or for those who are unsuccessful in applying for research funding. Whilst people are informally encouraged to speak with their mentors and peers, we recognise that it would be good practice to have additional support in place. In addition, feedback via appraisal has indicated staff would welcome the reintroduction of School funding workshops.

**Action 2.9**

- We will provide additional support for staff who are applying for funding applications as well as support to those who have been unsuccessful in funding applications
- We will reintroduce School workshops on applying for funding

#### SILVER APPLICATIONS ONLY

##### 5.4. Career development: professional and support staff

(i) Training

Describe the training available to staff at all levels in the department. Provide details of uptake by gender and how existing staff are kept up to date with training. How is its effectiveness monitored and developed in response to levels of uptake and evaluation?

(ii) Appraisal/development review

Describe current appraisal/development review schemes for professional and support staff at all levels and provide data on uptake by gender. Provide details of any appraisal/review training offered and the uptake of this, as well as staff feedback about the process.

(iii) Support given to professional and support staff for career progression

Comment and reflect on support given to professional and support staff to assist in their career progression.

#### Training

- See section 5.3 (i).

#### Appraisal/development review

- See section 5.3 (ii).

### Support given to professional and support staff for career progression

- See section 5.3 (i). The School encourages and financially supports staff with continuing professional development. Table 23 details the significant investment provided to staff since 2014 which has resulted in 22 staff moving into higher graded posts (12F/10M).

Year	Investment
2014 / 15	£35,500
2015 / 16	£33,500
2016 / 17	£31,000
2017 / 18	£39,100
2018 / 19	£37,900

**Table 23:** Financial support given to professional and support staff for development over the last 5 years within EEECS

- Many staff require additional qualifications to apply for higher graded positions within the University. Included in the expenditure is our financial support provided for part-time course of study leading to a qualification (Table 24).

Year	Staff category/gender	Description
2014 / 15	Support (M) Support (M) Support (F) Support (M) Support (M) Support (F) Support (F) Professional (F)	MSc Marketing BSC Business BSC Business BA Open University Degree BA History BSC Accounting with Finance Accountancy Technicians Course ILM L5 Leadership and Management
2015 / 16	Support (M) Support (F) Support (M) Support (F) Support (F) Support (F)	BSC Business BSC Business BA Open University Degree BSC Accounting with Finance Accountancy Technicians Course Foundation Degree in Counselling
2016 / 17	Support (F) Support (M) Support (F) Support (F) Support (F) Professional (F)	BSC Business BA Open University Degree BSC Accounting with Finance Accountancy Technicians Course Foundation Degree in Counselling MSc in Business Development and Innovation
2017 / 18	Support (F) Support (F) Support (M) Support (F) Support (F) Professional (F)	BSc Business Studies BSc Business Studies BA Open University Degree BSc Accounting w Finance Degree in Counselling MSc Business Development
2018 / 19	Support (F) Support (F) Support (M) Support (F) Support (F) Support (M)	BSc Business Studies BSc Business Studies BA Open University Degree Event Management PG Cert Accountancy Technicians Course OU Course

**Table 24:** Financially supported part-time course of study leading to a qualification within EEECS for professional and support staff

- Resulting from feedback we have recently introduced mock interviews for staff (see section 5.2(ii))

## 5.5. Flexible working and managing career breaks

Note: Present professional and support staff and academic staff data separately

### (i) Cover and support for maternity and adoption leave: before leave

Explain what support the department offers to staff before they go on maternity and adoption leave.

- University policies and practices seek to ensure that no colleague will experience disadvantage as a result of disclosing pregnancy. All relevant maternity, adoption, paternity and parental leave procedures are accessible via our People and Culture website (Figure 33). This is a recent development and we will ensure effective signposting to all female staff and line managers.

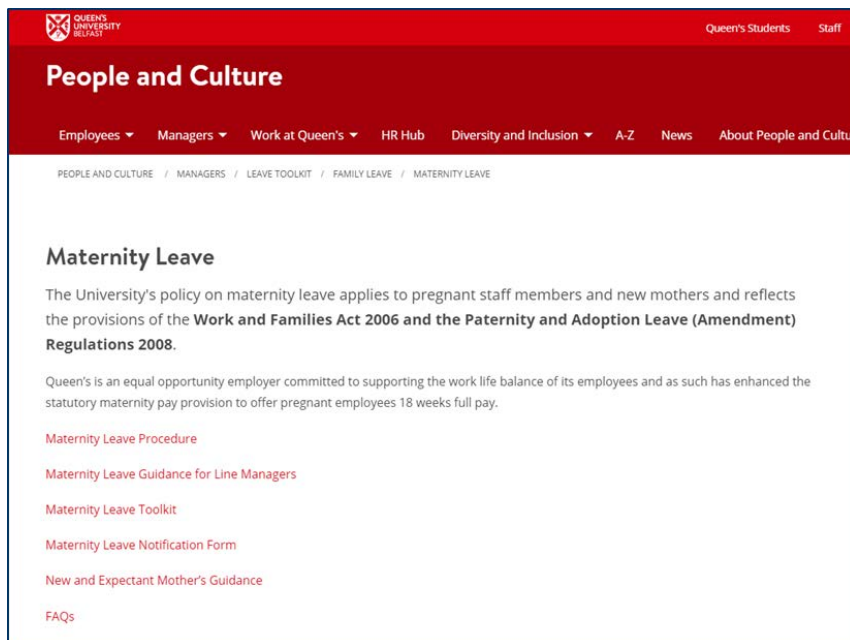


Figure 33: QUB online information resource for family leave and maternity leave

- Staff are entitled to paid absence to attend antenatal or pre-adoptive appointments. Prior to taking maternity leave, a colleague will discuss arrangements with her line manager. Managers carry out a pregnancy risk assessment and we emphasise the importance of encouraging colleagues to take lunch and rest breaks.
- For maternity and adoptive leave, flexibility is built into the provision, facilitating changes of start and return dates.
- The School organises for PSS to have a handover period to the member of staff covering their duties prior to maternity leave starting.
- Prior to academic staff starting maternity leave they will meet with HoS to discuss their plans.

**Action 4.5** • We will ensure effective signposting of new University maternity support (via dedicated website) to all female staff and line managers

(ii) Cover and support for maternity and adoption leave: during leave

Explain what support the department offers to staff during maternity and adoption leave.

- Since 2014 5 female academics, 3 research staff, and 3 clerical staff have taken maternity leave (1 academic has had 2 periods of maternity leave). The maternity cover fund provided by our University has been used to cover 3 members of staff maternity leave.
- Line managers make reasonable contact with women on Maternity/Adoption leave to plan arrangements for return to work.
- Women are entitled to work for a period of 10 days during Maternity/Adoption leave, without loss of Maternity Allowance, Statutory Maternity/Adoption Pay or triggering a return to work. For these 'Keeping in Touch Days' (KIT Days) staff are paid at a full day salary (inclusive of any SMP/MA payments). While there is no obligation for colleagues to utilise KIT Days, colleagues have found them useful for attending conferences, training, departmental away days or even for a phased return to work. Leave provisions in Queen's are significantly enhanced compared to statutory provisions (Table 25).

Current Minimum Statutory Provision	Queen's Enhanced Provision
<b>Maternity/Adoption:</b>	<b>Maternity/Adoption:</b>
Weeks 1-6, higher rate Statutory Maternity / Adoption Pay (SMP/SAP)	Weeks 1–18: full pay
Weeks 7-39, lower rate SMP	Weeks 19–39: lower rate SMP
Weeks 40-52, unpaid	Weeks 40-52: unpaid

**Table 25:** *Maternity/Adoption provision at Queen's and Statutory Provision*

- Due to the flexible working arrangements in place no academic returning from maternity has requested to reduce their hours. This is evidenced in the 2018/19 University survey in which 91% of our staff agreed with the statement 'I have the freedom to work in a way that suits me as long as I get my job done'.

(iii) Cover and support for maternity and adoption leave: returning to work

Explain what support the department offers to staff on return from maternity or adoption leave. Comment on any funding provided to support returning staff.

- All women returning from maternity/adoption leave have a 'return to work' interview with their line manager to discuss workload allocation, flexible working arrangements and any requests to aid settling back.

- Since 2018 we have operated a policy which allows all academic women returning from maternity/adoption leave a teaching free semester to focus on research. To ensure there has been no detrimental effect on career progression, probation and promotion panels take periods of leave into consideration when assessing applications.
- New mothers returning to work are accommodated with suitable facilities to express and store breastmilk including within Queen's crèche. Safety Services offer facilities such as personal fridges where applicable and also support managers in conducting a risk assessment for breastfeeding. As part of the design of our new Computer Science Building we introduced quiet rooms to facilitate new mothers wishing to express milk.

(iv) **Maternity return rate**

Provide data and comment on the maternity return rate in the department.

Data of staff whose contracts are not renewed while on maternity leave should be included in the section along with commentary.

**SILVER APPLICATIONS ONLY**

Provide data and comment on the proportion of staff remaining in post six, 12 and 18 months after return from maternity leave.

- All 11 women who have taken maternity leave since 2014 have returned. All currently remain in post with the exception of 1 researcher who left to take up a post in industry 3 years after returning from maternity.
- 2 female academics have been promoted since their return 1 from Senior Lecturer to Professor (currently our HoS), 1 from Lecturer (Ed) to Senior Lecturer (Ed) (currently our DHoS). The Professor who returned has since taken up Acting Director of our Global Research Institute. 3 of the Research staff who returned have since secured academic positions within our School (1 securing the post whilst on maternity leave).

(v) **Paternity, shared parental, adoption, and parental leave uptake**

Provide data and comment on the uptake of these types of leave by gender and grade. Comment on what the department does to promote and encourage take-up of paternity leave and shared parental leave.

- Similar to maternity and adoptive leave, the University offers enhanced paternity support (Table 26)

Current Minimum Statutory Provision	Queen's Enhanced Provision
2 Weeks leave (to be taken in a block within 56 days of the birth of the child)	3 weeks leave (2/3 weeks leave to be taken in a block within 56 days of the birth of the child)
Weeks 1 – 2: Statutory Paternity Pay	The other week can be taken within 4 months of the birth, in a block or as individual days
	Weeks 1 – 3: Full Pay

**Table 26: Paternity leave provision at Queen's and Statutory Provision**

- The number of staff taking paternity leave since 2014 is shown in Table 27.
- All new fathers are encouraged to take their parental leave. To the best of our knowledge no-one entitled to this leave has not applied. No applications for parental leave have been received over this period however we offer flexibility for staff to care for a dependant which may explain this.
- We annually provide 2 leave days to staff to deal with unforeseen emergencies or crises relating to dependants (Table 28).

Ordinary Paternity Leave	2014/15 M	2015/16 M	2016/17 M	2017/18 M
Academic Staff	1	1	4	1
Research Staff	1	2	2	4
Professional & Support Staff	1	0	0	2
<b>Overall Total</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>6</b>

**Table 27: EEECS Paternity Leave Uptake from 2014 to 2018 (figures for 18/19 are not yet available)**

Dependant Leave	2014/15 F / M	2015/16 F / M	2016/17 F / M	2017/18 F / M
Academic Staff	1 / 5	1 / 0	1 / 0	1 / 0
Research Staff	2 / 5	0 / 2	0 / 5	0 / 5
Professional & Support Staff	5 / 3	1 / 0	2 / 1	2 / 1
<b>Overall Total</b>	<b>8 / 13</b>	<b>2 / 2</b>	<b>3 / 6</b>	<b>3 / 6</b>

**Table 28: EEECS Dependant Leave Uptake from 2014 to 2018 (figures for 18/19 are not yet available)**

(vi) Flexible working

Provide information on the flexible working arrangements available.

- Flexible working policies are fully supported and actively promoted to help staff achieve a good work-life balance. Applications are discussed with the line manager/HoS and arrangements are made. Since 2014 we have received 6 requests to work flexibly (4F/2M) (Table 29). 1 request in 2016/17 was not supported as it would have had a detrimental impact on our ability to meet the needs of the students. The staff member was asked to reapply in 12 months and has since been approved.

- The small number of requests is attributed to staff being able to work flexibly without having to make a formal application to facilitate caring responsibilities. Our recent staff survey showed 91% agreed that their line manager was open to flexible work arrangements and requests for flexible working are supported.
- Our recent staff survey indicated that 93% felt that meetings are completed in core hours to enable those with caring responsibilities to attend (10am–4pm). 85% agreed our policies helped them balance work and personal life responsibilities.

Flexible Working Request	2014/15 F / M	2015/16 F / M	2016/17 F / M	2017/18 F / M
Academic Staff	0 / 0	0 / 0	0 / 1	0 / 0
Research Staff	0 / 0	0 / 0	0 / 1	0 / 0
Professional & Support Staff	2 / 0	0 / 0	1 / 0	1 / 0
<b>Overall Total</b>	<b>2 / 0</b>	<b>0 / 0</b>	<b>1* / 2</b>	<b>1 / 0</b>

**Table 29: EEECS Flexible Working Requests from 2015 to 2018 (figures from 18/19 are not yet available) \*1 refusal – 2016/17 – Female – since approved (all other requests approved)**

(vii) **Transition from part-time back to full-time work after career breaks**

Outline what policy and practice exists to support and enable staff who work part-time after a career break to transition back to full-time roles.

- Staff can automatically transfer to full-time once the agreed part-time period ends or alternatively can apply to extend their arrangement. In the event that the part-time arrangement is a permanent change a business case would need approved should the staff member wish to transition to full-time.
- We have not had any requests from staff to transfer from part-time to full-time during the period.

## 5.6. Organisation and culture

(i) **Culture**

Demonstrate how the department actively considers gender equality and inclusivity. Provide details of how the Athena SWAN Charter principles have been, and will continue to be, embedded into the culture and workings of the department.

- We are proud of our survey results as regards EDI. In 2015/16 we contacted 8 Institutional Athena SWAN Award holders to discuss how they dealt with the challenge of unconscious bias (UB). 6 responded favourably and based on the findings we carried out a pilot during 2015/16 with staff, the programme is now fully embedded for all staff and students. We partnered with the Employers Network for Equality and Inclusion (ENEI). The pilot was designed by having ENEI meet with SLT and analysis of our survey results for themes that could be built into a customised programme.



- In 2016/17 we rolled out the sessions and every staff member was asked to attend with 90% of staff attending to date. EEECS have led the way as regards UB training leading to the University introducing online training. To date the School has invested over £20,000 into this programme.
- The results from our most recent staff survey are provided (Table 30) as regards EDI. These results have been over 80% in agreement in the last 2 surveys indicating sustained excellent results.

Survey Question	Agreement %
Q I believe our School has an inclusive work environment where all staff are respected, their views valued and input encouraged	80% agree
Q I believe our School promotes equality, diversity and inclusion	81% agree
Q My manager values the diverse perspectives and ideas that come from staff members from different abilities and backgrounds	81% agree
Q I am treated fairly in the School without regard to my age, race, ethnic background, religion, gender, disability, sexual orientation etc.	88% agree
Q Our School makes it clear that unsupportive language and behaviour are not acceptable	85% agree

**Table 30:** December 2017 Staff Survey - Equality and Diversity Results

- The results from our latest PhD survey regarding EDI are provided below (Table 31) These results have been over 80% in agreement in the last 2 surveys indicating sustained excellent results.

Survey Question	Agreement %
Q I believe I am treated with dignity and respect	93% agree
Q I believe the School is committed to equality of opportunity	93% agree
Q I believe the School promotes equality and diversity	91% agree
Q The School makes it clear that unsupportive language and behaviour are not acceptable	89% agree
Q Work related social activities in the School or Cluster/Group, team building or networking events, are likely to be welcoming to both women and men	84% agree
Q The School uses women as well as men as visible role models (e.g. as speakers on seminar programmes, staff induction, School visits)	87% agree

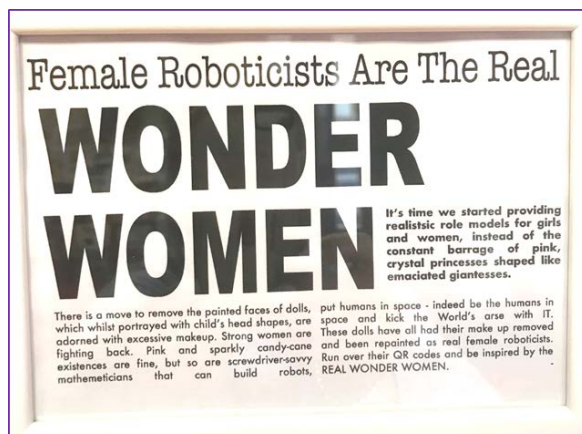
**Table 31:** December 2017 PhD Survey Results - Equality and Diversity

- The University has in place a Trans-Equality Policy which provides advice and support to individuals who are considering, are taking or have taken steps to present themselves in a sex different to that assigned at birth. We have adapted School survey questionnaires to make them inclusive for transgender people, following advice from the Equality & Diversity Unit. We promote seminars delivered by this unit on Trans-Equality.
- Our commitment to advancing gender equality can be evidenced by the many hosted events and visits by private and public organisations. Recent events are listed in Table 32.

- Hosted BCS Karen Sparck Jones Lecture
- Hosted and facilitated Sensata Technologies GROW (Generating Recognition and Opportunities for Women) event – ‘Fitting your life to your values’
- SENSE Networking Events: (Support for Equality Network in Science and Engineering) event on ‘planning or considering parental leave’ session
- Hosted ‘Inclusion Matters’ launch (EPSRC Project)
- Department of Electronic and Computer Engineering at Limerick, AS Visit
- Future Sectoral Policy, Department for the Economy visit Re. study with the aim to develop a series of key policy recommendations for NI Government to tackle the poor representation of females in certain STEM sectors

**Table 32:** SWAN related recent events/visits

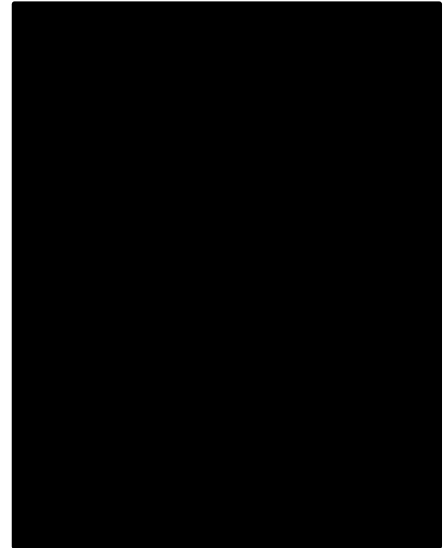
- We consulted with female students and staff extensively on the refurbishment of our new Computer Science Building which has received very positive feedback. Its modern design is extremely attractive to prospective students who visit with numerous social spaces available for all staff and students to use to facilitate communication and networking.
- Events are regularly organised for instance, charity coffee mornings (over £6,000 raised to date). All staff and PhDs, together with family and friends, are invited to Family Fun Days and staff/PhDs are invited to Celebrating Success lunches to recognise achievements.
- In 2017/18 we introduced a week of ‘Celebrating Equality, Diversity and Inclusion’ events and this has now become embedded in the School social calendar. The highlight is a lunch for all staff and students serving International cuisine and we decorate the Great Hall with international flags. It is essential to continue these events due to our split sites.



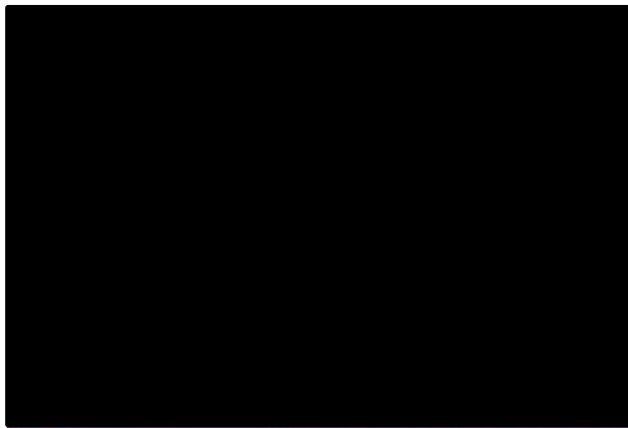
**Figure 34 & 35:** Art installation in CSB – Wonder Women in Tech, some of the women characterised  
G Ayorkor Korsah,  
Margarita Chli  
Prof Andrea Thomaz



**Figure 36:** Artwork in the CSB



**Figure 37:** Teacher Training Session



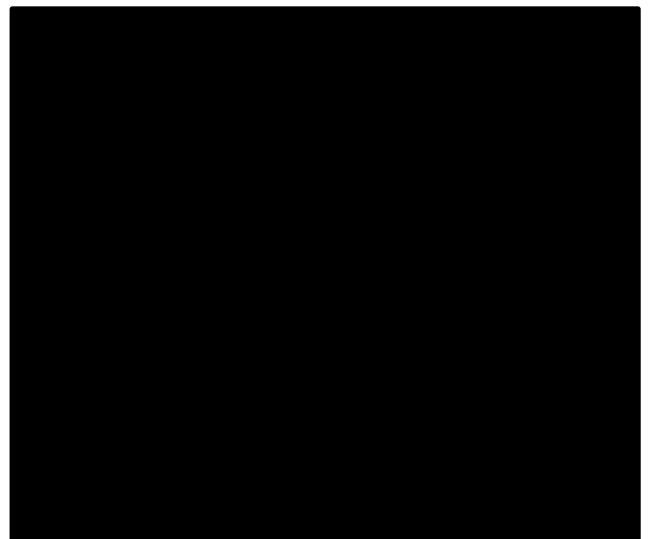
**Figure 38:** Christmas Family Fun Day



**Figure 39:** A Student Lounge in the CSB



**Figure 40:** 1<sup>st</sup> Floor Area in the CSB



**Figure 41:** The FD Room in the CSB

- We place significant importance on Health, Safety and Wellbeing. During 2016/17 we introduced a Fitbit scheme whereby all staff were offered a Fitbit on loan and we run competitions/team events encouraging staff to stay active. Our recent staff survey results relating to Health and Wellbeing are shown below (Table 33). These results have been over 80% in agreement in the last 2 surveys indicating sustained excellent results.

Survey Question	Agreement %
Q I believe the School promotes its goal to have healthier and happier staff where everyone is aware and accepts responsibility for their individual health, safety and wellbeing	80% agree
Q My line manager is open to flexible work arrangements	91% agree
Q I feel our policies help me balance work and personal life responsibilities	85% agree
Q I have access to adequate support or advice on health, safety and wellbeing	84% agree
Q I am given enough responsibility to effectively carry out my role	91% agree
Q My work gives me a feeling of satisfaction and personal achievement	88% agree

**Table 33:** December 2017 Staff Survey Results - Health, Safety and Wellbeing

- We have a concern that in our last staff survey 50% of staff felt stressed by their work responsibilities. Focus groups indicated this resulted from recruiting difficulties which led to very large class sizes in Computer Science (300+). We will introduce Staff Mental Health Ambassadors to promote positive mental health and signpost staff requiring support.

<b>Action 4.4</b>	• We will pilot a Staff Mental Health Ambassador Programme to promote positive mental health and to effectively signpost staff who need support
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(ii) HR policies

Describe how the department monitors the consistency in application of HR policies for equality, dignity at work, bullying, harassment, grievance and disciplinary processes. Describe actions taken to address any identified differences between policy and practice. Comment on how the department ensures staff with management responsibilities are kept informed and updated on HR policies.

- We fully support and promote the University policies in this area and have zero-tolerance for inappropriate language/images, bullying or harassment. Staff and students are informed of these policies during induction and recruitment days and through 11 compulsory training modules (including Unconscious Bias).
- New Bullying and Harassment training has been delivered by the University to ensure staff are trained in organisational procedure. In 2018, we recruited an initial cohort of volunteer Anti-Harassment Advisors from across the University who are trained to advice and support staff via a confidential service (Figure 42).

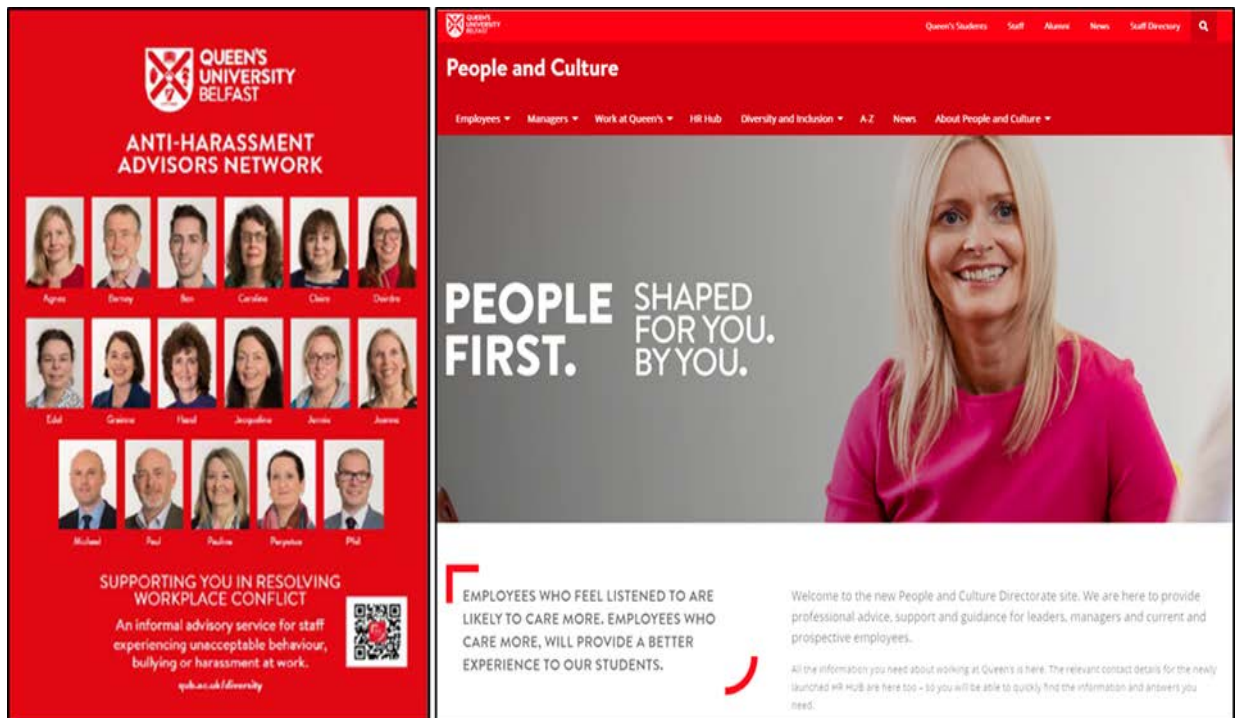


Figure 42: QUB online information resource for Anti-Harassment Advisors

- Students are encouraged to report any incident to their AoS or personal tutor. Staff are asked to discuss any concerns (no matter how small) with their line manager, Faculty Business Partner or directly with the Equality and Diversity Unit. There have been no formal complaints, but a small number of issues have been brought forward informally and have been resolved quickly within EEECS. In the last staff survey 77% of staff stated that they understood the process for making a complaint or raising a concern about inappropriate and/or unsupportive behaviour. We therefore introduced this into induction for both staff and students. Staff with management responsibilities are kept informed and updated on HR polices via email updates or if significant an information session for line managers would be organised.

(iii) Representation of men and women on committees

Provide data for all department committees broken down by gender and staff type. Identify the most influential committees. Explain how potential committee members are identified and comment on any consideration given to gender equality in the selection of representatives and what the department is doing to address any gender imbalances. Comment on how the issue of 'committee overload' is addressed where there are small numbers of women or men.

- We recently restructured our key committees following a School restructuring (Table 34). We aim to ensure appropriate gender balance and the Chair on every key committee is a member of our SAT. We ensure our women do not suffer from committee overload.



Name of Committee (Chair Gender)	Size of Committee	No of Females	% Females
Internal / External Exams Board (EEE) (M)	46	8	17%
Internal / External Exams Board (CS) (M)	40	4	10%
Education Committee - School (M)	19	3	16%
Operations Board (M)	14	5	36%
School Leadership Team (F)	18	4	22%
School Health, Safety, Wellbeing & Environment Committee (M)	5	2	40%
School Postgraduate Research Committee (M)	8	1	13%
School Promotions Committee (F)	11	3	27%
EEECS SAT (F)	11	6	55%

**Table 34:** Female Representation on Committees in the School of EEECS 2018/19

(iv) Participation on influential external committees

How are staff encouraged to participate in other influential external committees and what procedures are in place to encourage women (or men if they are underrepresented) to participate in these committees?

- Table 35 shows percentages of staff who currently sit on committees both internal and external to the University. The School does not carry out an annual audit of participation levels and recognises this is an area for improvement. We currently do not define what we view as influential committees outside EEECS. As this would help staff in their career advancement we will address this in our action plan and encourage participation.

	Female	Male
Staff who sit on Internal Faculty & University Committees	18%	82%
Staff who sit on committees external to the University	21%	79%

**Table 35:** Representation on Influential External Committees

<b>Action 4.3</b>	<ul style="list-style-type: none"> <li>• We will define influential committees both within and externally to QUB</li> <li>• We will disseminate the list of influential committees to encourage staff, particularly females, to apply, with a personal email from our Deputy Head of School</li> </ul>
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(v) Workload model

Describe any workload allocation model in place and what it includes. Comment on ways in which the model is monitored for gender bias and whether it is taken into account at appraisal/development review and in promotion criteria.

Comment on the rotation of responsibilities and if staff consider the model to be transparent and fair.

- We have used a workload allocation model (WAM) since 2010 to ensure that teaching and administrative duties are distributed fairly. Each activity has an allocated 'credit' (e.g. module co-ordination, Adviser of Studies, SWAN Champion) - an annual number of hours to represent the expected workload. The model is available through SharePoint and is reviewed by the SLT annually to ensure that no one is over or under-loaded. WAM is discussed with every individual during appraisal to ensure any concerns are addressed.
- In 2016/17, WAM underwent major revision to make it easier to use and more transparent. In addition, the allocated units were changed from hours to a percentage of time so the WAM model reflected the Time Allocation Schedule (TAS) university staff are required to return. After the 2016/17 exercise, staff were able to review the average typical profile of School staff in addition to their own returns. These changes highlight further transparency and more appropriate allocations for roles and assessment of modules given student numbers.
- Table 36 illustrates the teaching and administration loads reported by staff from 2014 to 2019 split by gender. Each year, typically 8 females and 66 males made a return.

Year	Average Teaching Unit		Statistical T-Test	Average Admin Units		Statistical T-Test
	Female	Male	p	Female	Male	p
2014-2015	396.25	624.18	0.13	285.63	258.71	0.76
2015-2016	685.38	687.62	0.99	193.75	233.44	0.58
2016-2017	68.94	75.93	0.61	36.07	29.59	0.44
2017-2018	72.53	80.89	0.64	47.00	37.68	0.39
2018-2019	71.41	82.73	0.50	38.63	39.07	0.96

**Table 36: EEECS Average Teaching and Administration Loads split by gender (NB: (2012/13) to (2013/14) reports averages as total hours, (2016/17) to (2018/19) reports averages as % of time.)**

- The average teaching load reported by female staff is slightly lower than that reported by male colleagues but the statistical t-test shows that there is no significant statistical difference between the averages reported. The exception is in 2014/15 where 2 of our 8 female staff reported zero hours teaching due to maternity leave and a recent appointment.
- We continue to evolve and develop our WAM model in line with the new School strategy to ensure that staff can take advantage of various leadership and development opportunities.

(vi) **Timing of departmental meetings and social gatherings**

Describe the consideration given to those with caring responsibilities and part-time staff around the timing of departmental meetings and social gatherings.

- It is School policy that meetings, School organised events and activities re held between core hours (10am – 4pm) to facilitate caring responsibilities.



- Our latest staff survey results indicated that 93% of staff agreed that meetings are completed during core hours compared to 84% 2 years ago. At induction we encourage our staff to challenge any request to meet outside core hours. **We feel this has had an impact which is evident in the increase in positive responses to this question.**

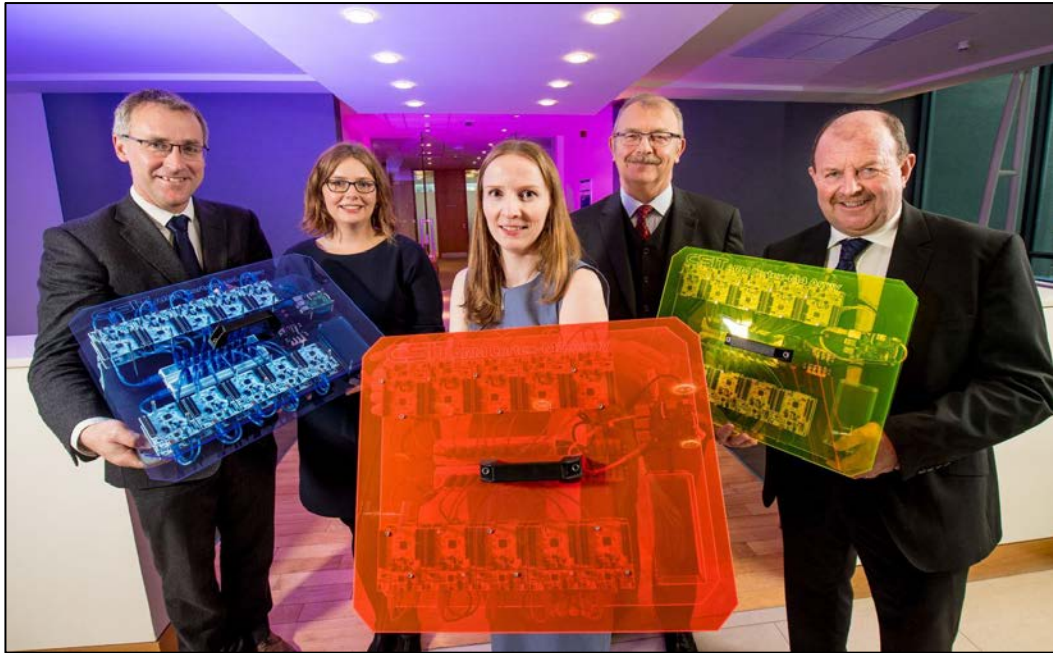
(vii) **Visibility of role models**

Describe how the institution builds gender equality into organisation of events.

Comment on the gender balance of speakers and chairpersons in seminars, workshops and other relevant activities. Comment on publicity materials, including the department's website and images used.

- We have particularly strong female role models in senior positions, including Professor Karen Rafferty our HoS (Figure 45), Ms Angela Allen our DHoS and Professor Maire O'Neill our Acting Director of the Global Research Institute and £5M UK Hardware Security Institute (Figure 43).
- We are delighted that in September 2019, Maire was elected as Fellow by the Royal Academy of Engineering in the UK (FREng) where females currently represent less than 7% of Fellows. Those proposed for the Fellowship must come "from among eminent engineers regarded by virtue of the professional achievements in the field of engineering as being of exceptional merit and distinction." In addition to providing strong leadership within the School, particularly directing research within the Cybersecurity theme, Maire is a strong advocate for promoting STEM. Recent activities include:
  - TEDx talk, Queen's University Belfast, 'Spies and Dolls – The Future of IoT Security', May 2019
  - Invited talk, Cure, Create, Innovate: 9 Young Scientists Transforming Our World, Science Museum, London, March 2019.
  - Royal Irish Academy Discourse, Securing Connected Devices: An Arms Race, October 2018.





**Figure 43:** A £5m multi-university research institute to improve hardware security and reduce vulnerability to cyber threats has been launched at the Centre for Secure Information Technologies (CSIT) at Queen's University - 23 November 2017



**Figure 44:** First Trust Bank Queen's Student of the Year, Diane received a perpetual trophy and a cheque for £500 from the University's former President and Vice-Chancellor, Professor Patrick Johnston (pictured right).



**Figure 45:** Professor Karen Rafferty and Professor Roger Woods receiving Queen’s University of Belfast’s Students Union’s Most Inspiring and Motivating Teaching Staff Members Award for their work on the Industrial Project.

- Our females are prominent in university publications and showcase events. We will continue to develop publicity materials highlighting the success of our female staff and students. We will scrutinise our imagery used for all promotional activities (including our website) and pay close attention to gender ratios of invited speakers and chairpersons in seminars. Staff actively promote gender parity at public events however we recognise we do not formally record and analyse this data for any disparity.
- We acknowledge we need to develop Athena SWAN webpages as part of our new School website.
- Going forward we will leverage the successes of our staff and students and the close links we have with our graduates to showcase the exceptional female talent to attract more females for instance The Rachel Stanford Scholarship (Section 5.3(iii)).

<b>Action 1.2</b>	• We will put in place a 4 year plan which will identify key organisations we need to engage with and identify who will be responsible for leading key activities
<b>Action 1.3</b>	• We will ensure Athena SWAN will be a prominent part of our website with sections detailing <ul style="list-style-type: none"> <li>○ SWAN events and initiatives (both School and University)</li> <li>○ Staff and student case studies to showcase our excellent female role models</li> <li>○ Information on our SAT and how to contact us</li> <li>○ Link to SWAN application</li> <li>○ Invitation to other Universities to contact/visit us</li> </ul>

(viii) Outreach activities

Provide data on the staff and students from the department involved in outreach and engagement activities by gender and grade. How is staff and student contribution to outreach and engagement activities formally recognised? Comment on the participant uptake of these activities by gender.

- Both male and female students participate in our UCAS Conversion and Applicant Open Days. For instance, during our 2019 events 3 (19%) of these were female and 13 (81%) were male.
- Participation in outreach activities is embedded in our culture, with superb participation from our staff and students. Such outreach activities are included in our Work Allocation Model (WAM) and are credited in both probationary and promotion applications. Staff/students also receive emails/letters of thanks from the HoS and are recognised informally by being given theatre tickets and vouchers. We acknowledge we do not collect data in relation to our key annual outreach activities and we will address this in our action plan.
- Sentinus Team R&D programme: in this activity, we organise several visits each year to EEECS for local schools engaged with Sentinus. The program targets year 11 and 12 students studying for their GCSEs. We will further develop this programme by providing our 2<sup>nd</sup> year female students as teachers.
- IET Faraday Challenge: An annual competition of STEM activity days with a real-world challenge for pupils aged 12-13 years. This 1 day event is organised by a female lecturer and the IET where a number of local secondary schools are invited to EEECS (Figure 46). In 2018 the winners were St Dominic's, an all-girls school (Figure 47).

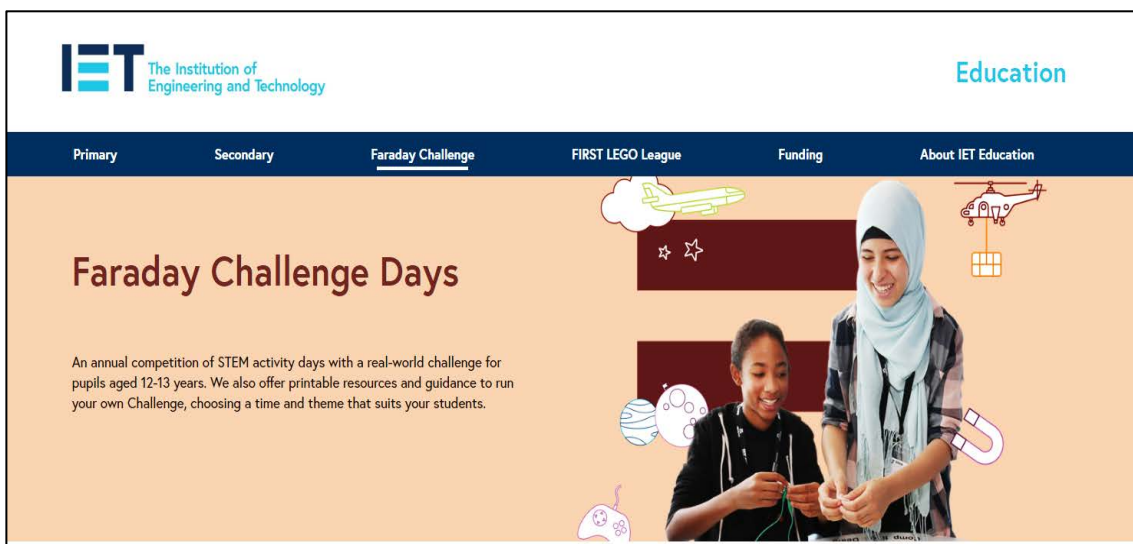
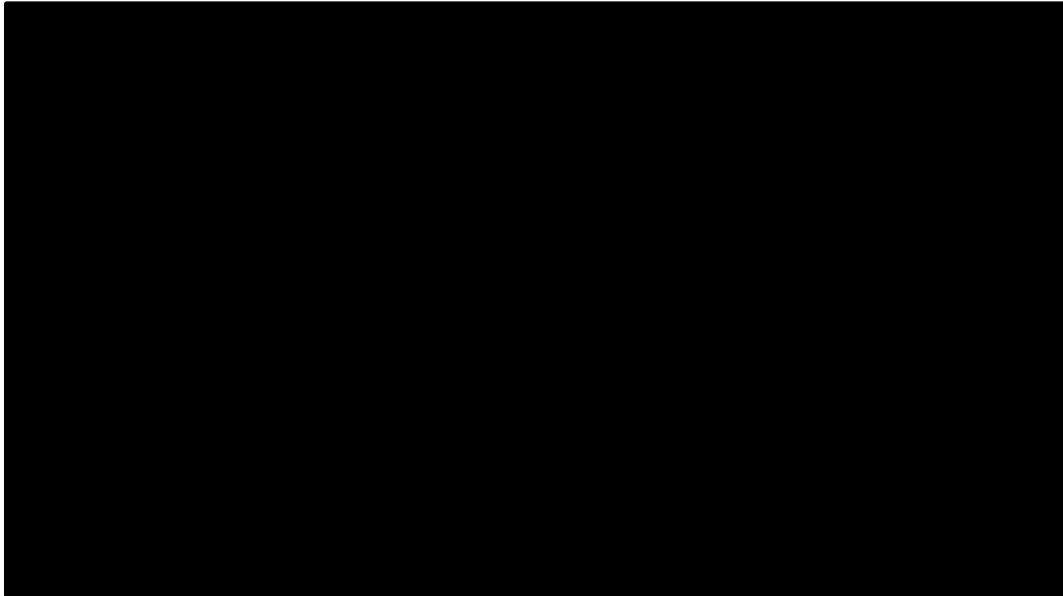


Figure 46: IET Faraday Challenge (screenshot from IET Website)



**Figure 47:** EEECS IET Faraday Challenge 2018 winners St Dominic's (all-girls School)

- We organise a Code School on a regional level with primary/post-primary schools. Since the launch in 2014 our lecturers/students have delivered coding tasters sessions to more than 1400 pupils. Code School has delivered an advanced 6-week coding programme to more than 200 pupils in local secondary schools. The gender balance of participating schools is: 33% all-girls schools; 58% mixed-gender schools; 9% all-boys schools. We will develop and deliver Code Schools to primary schools.
- **Teacher Training:** In 2014, the School was funded by the Northern Ireland Department of Education (DE) in conjunction with Invest Northern Ireland (INI) to deliver a £156,500 2-year programme of teacher upskilling to equip teachers with the skills needed to successfully deliver A-level computing programmes, principally CCEA's Software Systems Development (SSD) award. A total of 115 (64% female) teachers from 69 schools (including 5 all girls' schools) and colleges completed the programme. **Early indications of impact are positive. There has been a growth of 236% in the numbers of pupils taking an A level qualification in computing between 2015 and 2018/19 with 306 pupils taking SSD at A-level in 2018/19.** We will develop a programme of one-to-one support for teachers who previously completed this programme to build their confidence in encouraging students into STEM.





**Figure 48:** *Ada Lovelace, regarded as the first computer programmer, shown in pride of place in the Computer Science Building.*

**Action 1.2**

- We will put in place a 4 year plan which will identify key organisations we need to engage with and identify who will be responsible for leading key activities

**Action 3.3**

- We will further develop the PATHWAY programme to provide a route for talented young people (in years 13 and 14) from Northern Ireland who have the ability to study at QUB but may require additional support and encouragement to reach their full potential who will benefit from a structured series of events designed to prepare them for the transition to UG study with us including admissions guidance, insight into life in EECS and a Summer School
- We will support the Sentinus Engineering Futures Programme in local secondary schools by providing our second year female students as teachers
- We will develop a programme of one-to-one support for teachers that previously completed our A-level teacher training course to build their confidence in encouraging students into STEM
- We will develop and deliver Code Schools to primary school students to help them develop problem solving and computational thinking skills, and introduce this as a future area of study or employment

[Word Count – 6930]



## SILVER APPLICATIONS ONLY

### 6. CASE STUDIES: IMPACT ON INDIVIDUALS

Recommended word count: Silver 1000 words

Two individuals working in the department should describe how the department's activities have benefitted them.

The subject of one of these case studies should be a member of the self-assessment team.

The second case study should be related to someone else in the department. More information on case studies is available in the awards handbook.



#### SWAN Case Study: [REDACTED]

I am a lecturer in the School of EECS (appointed April 2017). I completed an UG degree course in Mathematics at QUB in 2011, and moved to EECS to pursue PhD research. I completed my PhD in 2015 and held posts in EECS as Research Assistant and Research Fellow from 2014 until my appointment to Lecturer in 2017.

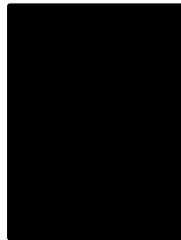
Throughout my career I have benefitted from the inclusive culture and friendly working environment in the School. As a PhD student, I was encouraged to participate in a wide range of training courses, presentations and networking activities, which grew my confidence, my transferable skills and my subject-specific knowledge. Moreover, I had the opportunity to assist with UG tutorials, and gained experience of working first-hand with UG students, which prepared me for future teaching duties. Throughout my PhD, I had the support and guidance of a PhD supervisor, who set an inspiring example as a very successful female professor. Other senior academics also provided advice and mentoring, through formal processes (structured performance reviews) and informally, at coffee mornings, poster sessions and other School events.

Whilst finishing my PhD studies I was able to remain at QUB as a research assistant, and was a named research assistant on a H2020 Research project, related to my PhD research. My post-doctoral studies afforded me the opportunity to further develop my skillset. The School offers continued career support for Early Career Researchers, and I availed of the mentoring scheme, and numerous training opportunities. One particular highlight was the Confident Communication course, where female staff are encouraged to attend. I participated in a female cohort of this course, and I found it to be a very valuable experience to enhance my communication skills, which were essential for the academic recruitment process that involved several presentations.

The EECS Teaching Fellowship (now Academic Apprenticeship Programme) was also another fantastic opportunity I benefitted from as a post-doctoral researcher. I received the EECS Teaching Fellowship for two years, which enabled me to co-lecture a module

and gain vital, demonstrable teaching experience that I otherwise would not have gained. Through the Fellowship, I lectured on an MSc module, assisted with assessment and laboratory supervision and ultimately gained a better understanding of the Academic career pathway. I drew on this experience throughout the recent academic recruitment exercise, and I believe this fellowship contributed heavily towards my successful appointment as Lecturer.

Overall, I find that EEECS provides a supportive working environment, where there is a strong ethos on employee wellbeing and work-life balance, as well as aiming to be global leaders in research and education. EEECS facilitates several Brown Bag sessions and lunchtime learning seminars, which is beneficial for all staff and PhD students. I also enjoy several wellbeing initiatives, such as the Fitbit loan scheme and the annual Employee Health assessments, and I am proud to work for an organisation that prioritises such wellbeing and environmental issues amongst staff and students.



**SWAN Case Study:** [Redacted]

I started Queens in 2013 and was promoted to Senior Lecturer (Education) in August 2019, teaching computer science subjects to MSc and final year students. I previously was employed in industry and also a lecturer at a local college. I am married and have three children.

EEECS offers a very supportive work environment. My wife is a nurse and works shift patterns so I am responsible for the School run each morning. The School schedules my lectures to enable me to collect my children to and from their Schools each morning and afternoon. This flexibility has been a great benefit to my family arrangements as I can normally be home in time to help out with homework.

EEECS has been incredibly supportive of both my professional and academic development. They have provided support and significant funding to allow me to pursue my part-time PhD that examines the innovative use of technology in tertiary-level teaching. My PhD, when completed will have a very positive impact on my future career plans. The funding and support for PhD is in-addition to an individual training budget allocated me.

I availed of the School's "promotion ready" process during 2019/20 and benefited from mentoring with regards to my application. I was delighted to be promoted to Senior Lecturer in August 2019.

The School has been very supportive of me working from home and this has significant benefits in reducing my travel times and enables me to have the flexibility to attend appointments etc. for my children. I have found the School to be very considerate about my circumstances and the ethos is one of mutual respect.

While life at Queen's is busy, it is exciting and stimulating. The School's promotion of a healthy work life balance has been important for me to maintain job satisfaction and the demands and pleasures of family life.

**[Word Count – 805]**

## **7. FURTHER INFORMATION**

**Recommended word count: Bronze: 500 words | Silver: 500 words**

Please comment here on any other elements that are relevant to the application.

### **Minerva Award – Runner Up**

In June 2017 we submitted an application for the Minerva Informatics Equality Award which recognises best practices in Departments or Faculties of European Universities and Research Labs that encourage and support the careers of women in informatics research and education. In 2017 the award focused on supporting the transition for PhD and postdoctoral researchers into faculty positions.

We demonstrated the appreciation and satisfaction of the women within the School via individual comments and the outputs of the student and staff surveys. As evidence of impact we were able to provide statistics on the successful transition rate of female students and staff within the School.

Our submission was very well received by the panel and we are proud runner up in the Minerva award.

**[Word Count – 127]**

## **8. ACTION PLAN**

The action plan should present prioritised actions to address the issues identified in this application.

Please present the action plan in the form of a table. For each action define an appropriate success/outcome measure, identify the person/position(s) responsible for the action, and timescales for completion.

The plan should cover current initiatives and your aspirations for the next four years. Actions, and their measures of success, should be Specific, Measurable, Achievable, Relevant and Time-bound (SMART).

See the awards handbook for an example template for an action plan.



**ATHENA SWAN Action Plan 2019 – 2023**

**Queen’s University Belfast, School of Electronics, Electrical Engineering and Computer Science (EEECs)**

1. Embedding Athena SWAN and gender equality in EEECS
2. Advancing recruitment and career progression of female staff
3. Advancing recruitment and support of female students
4. Enhancing culture within EEECS for all

**RED SYMBOLISES KEY PRIORITIES**

Area to be addressed (WHAT)	Rationale (WHY)	Planned actions (HOW)	Responsibility (WHO)	Timescale (WHEN)	How we will measure impact
<b>1. Embedding Athena SWAN and gender equality in EEECS</b>					
1.1 Improve SAT efficiency	We acknowledge the need to define roles and responsibilities to make our SAT more efficient	<ul style="list-style-type: none"> <li>• We will define roles and responsibilities for each SAT member</li> <li>• We will introduce a SAT Annual Away day</li> </ul>	SAT Chair  SAT Chair	December 2020  Annually starting in September 2020	To have an engaged SAT where everyone contributes and is clear of their role and responsibilities
1.2 Create a 4-year outreach and engagement strategy, and collect outreach data	Our application has highlighted a gap in our data collection in relation to outreach, and the need to have an outreach and engagement strategy with a SWAN focus	<ul style="list-style-type: none"> <li>• We will put in place a 4 year plan which will identify key organisations we need to engage with and identify who will be responsible for leading key activities</li> </ul>	SAT	Starting in June 2020 with mid-year and end-of-year reviews carried out during 2020/ 2021/ 2022/ 2023	Plan in place and implemented  Data reviews used to create further appropriate actions, where necessary
1.3 Development of Athena SWAN webpages	To communicate Athena SWAN both internally and externally, we will develop a new section on our website	<ul style="list-style-type: none"> <li>• Athena SWAN will be a prominent part of our website with sections detailing:                             <ul style="list-style-type: none"> <li>• SWAN events and initiatives (both School and University)</li> <li>• Staff and student case studies to showcase our excellent female role models</li> <li>• Information on our SAT and how to contact us</li> <li>• Link to our SWAN application</li> <li>• Invitation to other Universities to contact/visit us</li> </ul> </li> </ul>	School Manager	June 2020	New website in place that is regularly updated

1.4 Demonstrate to external stakeholders our commitment to gender equality	In order to embed SWAN in all aspects of our School life and encourage more external female speakers, we need to communicate to external stakeholders our commitment to gender equality	<ul style="list-style-type: none"> <li>We will provide staff with wording to be used in funding applications and other reports to communicate our commitment and success in relation to SWAN and gender equality in EEECS</li> </ul>	SAT	December 2020	Clear external signposting of School's commitment to SWAN and gender equality
		<ul style="list-style-type: none"> <li>We will prepare a welcome statement to be used to invite external speakers to encourage female representation</li> </ul>	SAT	February 2020	Increase the number of female speakers to be greater than 40%
1.5 Build on our long-standing commitment to equality by ensuring completion of online University training modules on unconscious bias and equality, our own workshops, and by sharing our expertise and best practice with other Schools	We have led the way with regards to unconscious bias training and want to build on this with regards to current completion rates and share our best practice with other Schools	<ul style="list-style-type: none"> <li>We will highlight the online modules at our School induction sessions and through email reminders</li> </ul>	Business Improvement Consultant	July 2021	Completion rates showing year on year improvement (target 90% staff/70% 1 <sup>st</sup> year students)
		<ul style="list-style-type: none"> <li>We will partner with the School of Chemistry and Chemical Engineering to take part in our unconscious bias workshops to broaden participation</li> </ul>	Business Improvement Consultant	June 2020	Positive participation and feedback from CCE
1.6 We will hold 2 events during our week of 'Celebrating Equality, Diversity and Inclusion' that support SWAN principles	In order to further staff engagement and knowledge of SWAN, we will hold 2 events during our EDI week that specifically focus on our female staff and students	<ul style="list-style-type: none"> <li>We will hold a graduation event of our 'Women's Leadership Programme' and broaden participation through inviting new female staff to the event (who have not been on the programme)</li> </ul>	SAT	Annually starting in March 2020 during celebrating EDI week	Positive participation and feedback from events
		<ul style="list-style-type: none"> <li>We will invite a female guest speaker to EEECS during the EDI week to give a talk</li> </ul>	SAT		
1.7 Develop training strategy and tools on staff attitudes to gender equality initiatives	As part of the EPSRC grant to undertake gender equality research in STEM we will proactively work to improve reactions to gender initiatives	<ul style="list-style-type: none"> <li>Through the EPSRC 'Inclusion Matters' project we will obtain and act on data acquired about EEECS staff attitudes to gender equality initiatives and pilot training tools</li> </ul>	Head of School	January 2021	Act upon data required and pilot training tools

Area to be addressed (WHAT)	Rationale (WHY)	Planned actions (HOW)	Responsibility (WHO)	Timescale (WHEN)	How we will measure impact
<b>2. Advancing recruitment and career progression of female staff</b>					
2.1 Recruit more female academics and research staff	In 2018/19, females accounted for 18% of applicants for research positions and 17% for academic positions	<ul style="list-style-type: none"> <li>We will ensure language used in all our recruitment is gender neutral and encourages female applicants by communicating our family friendly and flexible working practices</li> <li>We will develop new recruitment materials including case studies, videos of female academics and research staff to communicate our supportive female environment</li> <li>We will use our website to promote our female role models and our people initiatives. Focus groups will be used with existing staff to seek feedback on proposed content</li> </ul>	Deputy Head of School  Business Improvement Consultant  School Manager	January 2020  April 2020  June 2020	All job advertisement material to use language that attracts female applicants  Increase in applications year on year to exceed 30% by 2023
2.2 We will introduce a PhD Teaching Apprenticeship Programme to encourage female PhDs to enter academia	Our latest PhD survey indicated that PhDs wanted formal training and opportunities to lecture and demonstrate and we will use this opportunity to encourage PhDs into academia	<ul style="list-style-type: none"> <li>Our Apprenticeship Programme will include - <ul style="list-style-type: none"> <li>➤ Academic Mentoring</li> <li>➤ Teacher training and delivery of lectures</li> <li>➤ HEA Associate Membership.</li> </ul> </li> </ul>	Business Improvement Consultant	Pilot July 2020 Roll out July 2021	Programme fully rolled out with female participation exceeding 30% each year
2.3 Further develop our female leadership training (EEECS Women's Leadership Programme) for female staff	Evaluation has shown that participants would like to have a mentor and also the opportunity to mentor others	<ul style="list-style-type: none"> <li>We will introduce mentoring for participants and the opportunity for them to mentor others</li> <li>We will use video footage and interviews/testimonials from staff to promote the programme via our website to attract female staff</li> </ul>	Business Improvement Consultant  School Manager	March 2021  June 2020	Track all participants of the programme to assess impact

<p>2.3 Continued Further develop our female leadership training (EEECs Women's Leadership Programme) for female staff</p>		<ul style="list-style-type: none"> <li>We will partner with sponsors for future programmes and encourage female speakers from those organisations to present during the programme and seek mentors from the sponsoring organisation</li> </ul>	Business Improvement Consultant	March 2020	Links created with external organisations to strengthen our numbers of female speakers
<p>2.4 Due to staff feedback, our University is implementing new University policies on appraisal, progression and promotion</p>	<p>We will ensure School knowledge and engagement with the new schemes</p>	<ul style="list-style-type: none"> <li>Following the introduction of the new policies on academic progression, we will review our 'promotion ready' process which offers feedback from a senior academic panel on promotion applications to academic staff prior to them submitting their application</li> <li>Following the introduction of the new policies on probation, we will review our probation process to ensure it is fit for purpose</li> <li>We will review our appraisal process in light of the changes to ensure the process is fit for purpose</li> <li>We will ensure all staff are trained in the new policies and processes</li> </ul>	<p>Head of School</p> <p>Head of School</p> <p>Business Improvement Consultant</p> <p>HR Business Partner</p>	<p>July 2020</p> <p>July 2020</p> <p>September 2020</p> <p>June 2020</p>	<p>New policies in place</p> <p>Staff trained in new policies</p> <p>Feedback to specific questions in 2021 School staff survey</p>
<p>2.5 We will provide additional academic mentoring support for staff on probation through introducing a peer observation teaching programme</p>	<p>Feedback from staff on probation has indicated they would welcome additional mentoring as regards their teaching</p>	<ul style="list-style-type: none"> <li>We will pilot a Peer Observation Programme to include <ul style="list-style-type: none"> <li>➤ Academic mentoring</li> <li>➤ Teacher training</li> <li>➤ Peer observation</li> <li>➤ Feedback</li> </ul> </li> </ul>	Business Improvement Consultant	<p>Pilot July 2020</p> <p>Rollout July 2021</p>	<p>Positive evaluation from those taking part and full roll out of the programme</p>

2.6 We will revise our 1-day induction and introduce pre-boarding activities so that induction can focus on interaction with new staff rather than simply providing information	Evaluation of our induction programme has indicated that new staff would like information prior to them joining	<ul style="list-style-type: none"> <li>We will visit an IIP Gold accredited organisation (known for its effective induction programme) to learn about the use of pre-boarding activities</li> <li>We will introduce a pre-boarding process</li> </ul>	Business Improvement Consultant  Business Improvement Consultant	June 2022  June 2022	Positive evaluation received from new staff
2.7 We will relaunch and rebrand the EEECS Research Society to ensure remit, aims and objectives of the Society advance SWAN	Recently our society has not been as active and we will use the relaunch as an opportunity to include SWAN focus	<ul style="list-style-type: none"> <li>We will relaunch Society with a new committee and Chair</li> </ul>	Director of Research	June 2021	We have an active and vibrant Research Society  Committee to have at least 30% female membership annually
2.8 Build on career progression support provided to Professional and Support staff	In response to staff feedback we piloted in 2018/19 a clerical mock interview process and will now roll this out to all P&S staff as the feedback has been very positive  The University is currently carrying out a Technical Review	<ul style="list-style-type: none"> <li>We will roll out our mock interview process to all EEECS Professional and Support staff who wish to progress to higher graded posts within the University</li> <li>We will roll out actions announced by our University with regards to the Technician Commitment</li> </ul>	Business Improvement Consultant  School Manager	January 2020 (Clerical) January 2021 (Technical) January 2022 (Professional) When announced by our University	Positive participant evaluation
2.9 We will provide additional support for staff who are applying for funding applications as well as support to those who have been unsuccessful in funding applications	We currently do not provide School support for staff and our latest appraisals have indicated that staff would like support in this area	<ul style="list-style-type: none"> <li>We will appoint a Funding Advisor to mentor staff in applying for funding as well as to provide support to those who have not been successful in funding applications</li> <li>We will reintroduce School workshops on applying for funding</li> </ul>	Director of Research	December 2020	Introduction of a School funding application mentoring process and reintroduce School workshops on applying for funding
2.10 Understand why our staff leave EEECS	It is important that we understand reasons for staff leaving, particularly female research staff as this constitutes a leaky pipeline	<ul style="list-style-type: none"> <li>Our University is currently developing a staff exit strategy to include a revised survey and exit interviews. We will consult and review this data and put appropriate actions in place where necessary</li> </ul>	School Manager	Annually 2020 - 2023	Follow up actions taken as necessary

Area to be addressed (WHAT)	Rationale (WHY)	Planned actions (HOW)	Responsibility (WHO)	Timescale (WHEN)	How we will measure Impact
<b>3. Advancing recruitment and support of female students</b>					
3.1 Recruit more female students to EEECS UG programmes	In 2018/19, females accounted for 20% of UG applications	<ul style="list-style-type: none"> <li>We will ensure language used in all our student promotion material is gender neutral and encourages female applicants</li> <li>We will develop new recruitment materials including case studies, videos of female students to communicate our attractive learning environment</li> <li>We will use our website to promote the various student initiatives we have in place and female role models and focus groups will be used with existing students to seek feedback on proposed content</li> </ul>	School Manager  SAT  School Manager	June 2020  June 2021  June 2020	All material to use language that attracts females to EEECS UG study  Increase in applications year on year to exceed 30% by 2023
3.2 Recruit more female students to EEECS PG programmes	Due to the buoyant employment market in Belfast it is becoming more difficult to attract students to PG study, we therefore need to market our courses better and highlight the flexibility of our part-time delivery which we know is attractive particularly to females with caring responsibilities	<ul style="list-style-type: none"> <li>We will ensure language used in all our student promotion material is gender neutral and encourages female applicants</li> <li>We will develop new recruitment materials including case studies, videos of female students to communicate our supportive PG female culture</li> <li>We will use our website to promote the various student initiatives we have in place and female role models and focus groups will be used with existing students to seek feedback on proposed content</li> </ul>	School Manager  SAT  School Manager	June 2020  June 2021  June 2020	Increase in applications year on year to exceed 35% for PGT programmes and 20% for PGR programmes by 2023

<p>3.2 continued Recruit more female students to EECS PG programmes</p>		<ul style="list-style-type: none"> <li>• We will develop activities that introduce undergraduates to research during non-teaching time and to promote PG study</li> <li>• We will ensure final year project supervisors will encourage our UG students to consider postgraduate study in emerging areas of postgraduate research, including our new PGT MSc in Cyber Security, and its PGR counterpart, the Centre for Secure Information Technologies (CSIT)</li> <li>• We will expand on our UG Summer Research Internships which run over the holiday period. The aim of the Scheme is to identify and develop researchers of the future</li> <li>• We will develop a marketing strategy for the new Part-time MSc in Software Development which will be marketed towards female students that would benefit from the flexibility of part-time delivery</li> <li>• We will advertise part-time PGT and PGR study option as a more flexible mode of study</li> </ul>	<p>Directors of PGR &amp; PGT</p> <p>Project Supervisors</p> <p>Directors of PGR &amp; PGT</p> <p>Software Development MSc Co-ordinator</p> <p>Director of PGR</p>	<p>July 2020</p> <p>July 2022</p> <p>Annually starting August 2020</p> <p>August 2020</p> <p>October 2020</p>	
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<p>3.3 We will expand our initiatives to encourage female primary and secondary School pupils to consider STEM subjects</p>	<p>In 2018/19, females accounted for 20% of UG applications, the leaky pipeline starts at a very early age and therefore we need to encourage and attract pupils at primary school level and throughout their early education though working with teachers and positively promoting our career pathways</p>	<ul style="list-style-type: none"> <li>• We will further develop the PATHWAY programme to provide a route for talented young people (in years 13 and 14) from Northern Ireland who have the ability to study at QUB but may require additional support and encouragement to reach their full potential who will benefit from a structured series of events designed to prepare them for the transition to UG study with us including admissions guidance, insight into life in EEECS and a Summer School</li> <li>• We will support the Sentinus Engineering Futures Programme in local secondary Schools by providing our second year female students as teachers</li> <li>• We will develop a programme of one-to-one support for teachers that previously completed our A-Level teacher training course to build their confidence in encouraging students into STEM</li> <li>• We will develop and deliver Code Schools to primary School students to help them develop problem solving and computational thinking skills, and introduce this as a future area of study or employment</li> </ul>	<p>Pathway Lead</p> <p>Sentinus Lead</p> <p>Teacher Training Lead</p> <p>Code Schools Lead</p>	<p>May 2021</p> <p>January 2021</p> <p>July 2021</p> <p>January 2021</p>	<p>All material to use language that attracts females to consider STEM subjects</p> <p>Increase in applications year on year to exceed 30% by 2023</p>
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<p>3.4 Further develop our leadership training (Women's Leadership Programme) for female students (UG and PG)</p>	<p>We need to promote our programme more widely to our female students in particular the UG scholarship offering</p> <p>Evaluation has shown that student participants would like to have a mentor and also the opportunity to mentor other females in order to gain experience of mentoring</p>	<ul style="list-style-type: none"> <li>• We will secure funding for UG scholarship of £1500 annually to the best student</li> <li>• We will use video footage and interview with UG scholarship holder and testimonials from students to promote the offering via our website to attract female students</li> <li>• We will partner with sponsors for future programmes and encourage female speakers from the organisations to present during the programme and seek mentors from the organisation</li> <li>• We will partner with Women'sTec (an innovative regional charity that provides training for women in non-traditional skills in Northern Ireland. Our UG females will provide mentoring for school girls (13+) as part of their #NOTJUSTFORBOYS IT project</li> </ul>	<p>Business Improvement Consultant</p> <p>School Manager</p> <p>Business Improvement Consultant</p> <p>Business Improvement Consultant</p>	<p>Annually from March 2020</p> <p>June 2020</p> <p>March 2020</p> <p>March 2020</p>	<p>Track all participants of the programme following graduation and successful scholarship holders to assess impact of programme</p> <p>Measure feedback from participants and partner organisations</p>
<p>3.5 We will develop initiatives to provide additional support to PG students and make PG study in EECS more attractive</p>	<p>We need to provide funding to enable our PhDs to present their work and we will recognise and celebrate their successes</p>	<ul style="list-style-type: none"> <li>• We will promote a Travel Award to enable PGR/PhD students to travel to a conference or a collaborator to present their work</li> <li>• We will increase the number of in-house 'Paper Awards' to reward our outstanding PG students</li> <li>• Following the annual PG surveys we will hold focus group sessions (at least 30% representation to be female) to receive feedback on what additional support is required by students</li> </ul>	<p>Director of PGR</p> <p>Directors of PGR &amp; PGT</p> <p>Business Improvement Consultant</p>	<p>June 2020</p> <p>June 2020</p> <p>Annually starting in October 2019</p>	<p>Positive feedback from students through the University Postgraduate Surveys</p>

Area to be addressed (WHAT)	Rationale (WHY)	Planned actions (HOW)	Responsibility (WHO)	Timescale (WHEN)	How we will measure Impact
<b>4. Enhancing culture within EEECS for all</b>					
4.1 We will rationalise our staff and student surveys	As well as School surveys and a requirement to carry out an IIP survey, the University has recently introduced a biennial staff survey. Therefore, we need to ensure that our staff and students do not suffer from survey fatigue and that we are not covering the same questions within the various surveys	<ul style="list-style-type: none"> <li>We will carry out an audit of all staff and student surveys</li> <li>We will review how our UG School survey is carried out as it received very poor response in 18/19</li> <li>We will ensure all data for both staff and students is broken down by gender</li> </ul>	Business Improvement Consultant	July 2020	Surveys in place to cover all requirements from a School / University / SWAN / IIP perspective with no overlap of questions
4.2 Continuously improve our people practices through applying the Investors in People and Athena SWAN standards/principles	Continuous improvement will be what gives us a competitive advantage and is vital to attract and retain staff and students	<ul style="list-style-type: none"> <li>We will apply for reaccreditation of the Silver Investor in People Award to aid our EDI continuous journey of improvement</li> <li>We will apply for Athena SWAN Gold and act upon the feedback received</li> </ul>	Business Improvement Consultant  Head of School	June 2020  April 2024	IIP Silver Awarded  Athena SWAN Gold Awarded
4.3 Increase the number of female members on internal and external influential committees	We currently do not define what we view as influential committees which would help staff in their career advancement	<ul style="list-style-type: none"> <li>We will define influential committees both within and externally to QUB</li> <li>We will disseminate the list of influential committees to encourage staff, particularly females, to apply, with a personal email from our Deputy Head of School</li> </ul>	Senior Leadership Team  Deputy Head of School	June 2020  September 2020	Committees published and increase year on year of participation levels from females

<p>4.4 Introduce student and staff Mental Health Ambassadors to promote positive mental health and to effectively signpost staff and students who need support</p>	<p>In our last School Staff Survey 50% of our staff indicated they felt stressed by their responsibilities and we are also aware of the increasing need for mental health support for our students</p>	<ul style="list-style-type: none"> <li>• We have successfully piloted a Student Mental Health Ambassador Programme in 2018/19 with 16 students which will be fully rolled out</li> <li>• We will pilot a Staff Mental Health Ambassador Programme, these programmes include – <ul style="list-style-type: none"> <li>➤ Mental Health training leading to a Certification in Mental Health First Aid</li> <li>➤ Sessions on what support is available both internally to QUB and externally from agencies</li> <li>➤ Workshops on resilience</li> </ul> </li> </ul>	<p>Business Improvement Consultant</p> <p>Business Improvement Consultant</p>	<p>April 2020</p> <p>April 2020</p>	<p>Improved results in our School staff survey (currently 50% state they feel stressed by their work) target &lt;30% by 2023</p>
<p>4.5 We will ensure effective signposting of new University maternity support (via dedicated website) to all female staff and line managers</p>	<p>We will promote the new support via the University website that is available</p>	<ul style="list-style-type: none"> <li>• We will disseminate maternity guidelines and support resources to staff and ensure line managers understand their responsibilities and have access to the information they require</li> </ul>	<p>School Manager</p>	<p>January 2020</p>	<p>Positive feedback from staff and line managers</p>



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