
# Department Application
## Bronze and Silver Award

School of Computer Science &
Electronic Engineering
Bangor University

## 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 | Bronze | Silver |
|---|---|---|
| Word limit | 10,500 | 12,000 |
| *Recommended word count* | | |
| 1.Letter of endorsement | 500 | 500 |
| 2.Description of the department | 500 | 500 |
| 3. Self-assessment process | 1,000 | 1,000 |
| 4. Picture of the department | 2,000 | 2,000 |
| 5. Supporting and advancing women's careers | 6,000 | 6,500 |
| 6. Case studies | n/a | 1,000 |
| 7. Further information | 500 | 500 |

| | |
|---|---|
| Name of institution | **Bangor University** |
| Department | **School of Computer Science and Electronic Engineering** |
| Focus of department | **STEMM** |
| Date of application | **April 2020** |
| Award Level | **Bronze** |
| Institution Athena SWAN award | **Date: April 2018** |
| Contact for application<br>**Must be based in the department** | **Dr Daniel Roberts** |
| Email | **d.r.g.roberts@bangor.ac.uk** |
| Telephone | **01248 383855** |
| Departmental website | **www.bangor.ac.uk/computer-science-and-electronic-engineering** |

| | |
|---|---|
| **AI** | Artificial Intelligence |
| **AMS** | Academic Mentoring Scheme |
| **AP** | Action Plan |
| **AS** | Athena SWAN |
| **BCC** | Bangor College China |
| **BCS** | British Computer Society |
| **BEA** | Bangor Employability Award |
| **BoS** | Board of Studies |
| **BU** | Bangor University |
| **CCC** | Coleg Cymraeg Cenedlaethol |
| **CDT** | Centre of Doctoral Training |
| **CELT** | Centre for the Enhancement of Learning and Teaching |
| **CoESE** | College of Environmental Sciences and Engineering |
| **CPD** | Continual Professional Development |
| **CS** | Computer Science |
| **E&D** | Equality and Diversity |
| **ECR** | Early Career Researcher |
| **EE** | Electronic Engineering |
| **EHB** | Engineering Horizons Bursary |
| **GLLM** | Grŵp Llandrillo Menai |
| **H&S** | Health and Safety |
| **HEA** | Higher Education Academy |
| **HERA** | Higher Education Role Analysis |
| **HESA** | Higher Education Statistics Agency |
| **HEFCE** | Higher Education Funding Council for England |
| **HEFCW** | Higher Education Funding Council for Wales |
| **HoS** | Head of School |
| **HR** | Human Resources |

| | |
|---|---|
| **HSS** | Health and Safety Services |
| **IEEE** | Institute of Electrical and electronics Engineers |
| **IET** | Institute of Engineering and Technology |
| **NSS** | National Student Survey |
| **OSA** | Optical Society |
| **PDR** | Performance Development Review |
| **PELO** | Photo-Electric Light Orchestra |
| **PGCertHE** | Postgraduate Certificate in Higher Education |
| **PGR** | Postgraduate Research (typically PhD students) |
| **PGT** | Postgraduate Taught (typically MSc Students) |
| **QAV** | Quality Assurance & Validation Unit |
| **RAE** | Royal Academy of Engineering |
| **REF** | Research Excellence Framework |
| **RIIO** | Research, Innovation and Impact Office |
| **RO** | Research Officer |
| **SAMS** | Senior Academic Mentoring Scheme |
| **SAT** | Self-Assessment Team |
| **SCSEE** | School of Computer Science and Electronic Engineering |
| **SL** | Senior Lecturer |
| **SOS** | School of Ocean Science |
| **STEM** | Science, Technology, Engineering and Mathematics |
| **SWAN** | Scientific Women's Academic Network |
| **T&R** | Teaching and Research |
| **UCEA** | Universities & Colleges Employers Association |
| **UG** | Undergraduate |
| **WAM** | Work Allocation Model |
| **WC** | Welsh Crucible |

## 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.*

COLEG GWYDDORAU'R AMGYLCHEDD A PHEIRIANNEG
COLLEGE OF ENVIRONMENTAL SCIENCES AND ENGINEERING

YSGOL CYFRIFIADUREG A PHEIRIANNEG ELECTRONIG
SCHOOL OF COMPUTER SCIENCE AND ELECTRONIC ENGINEERING

PRIFYSGOL
BANGOR
UNIVERSITY

02 November 2020
James Greenwood-Lush
Athena SWAN Charter
Advance HE
First Floor, Napier House
24 High Holborn
London WC1V 6AT

**Dear Athena SWAN panel members,**

I am writing as the Head of the School of Computer Science and Electronic Engineering at Bangor University to express my wholehearted support for the school's application for the Athena SWAN Bronze Award. SCSEE is a new School that was formed by merging the former School of Computer Science with the School of Electronic Engineering in September 2018. When I took on the role of head of this new school, I made it a priority that we fully commit to and engage with Athena SWAN. I firmly believe that the school has already hugely benefitted from the work and scrutiny of its Self-Assessment Team, which I am proud to be a member of.

However, as is clear from the statistics that accompany this application, there is a steep hill we must all climb to ensure that equality and diversity are embedded in the day-to-day business of the school. We currently only have two female full-time members of academic staff in the school (a reduction from four at the beginning of the reporting period). It is clear that this is a huge problem in many ways. From the lack of female role models our students and research staff encounter, to the lack of female support networks for existing female staff, to our inability to have gender balanced committees, interview panels etc. Our main priority therefore is to ensure we do everything we can to hire more female staff. As you will see, our action plan addresses this across all relevant stages from looking at language of job adverts, where we advertise, to the interview process/experience and induction, and support when new members of staff arrive. We have also committed to affording any female staff that we hire at Lecturer or Senior Lecturer the opportunity to attend the Aurora programme. The future plans for the school to expand its provision of undergraduate computing programmes in the 2021/22 academic year will be an opportunity for us to address the present gender imbalance in the academic staff through the recruitment of new lecturers.

Another priority is to support and develop women at an earlier stage of the career pipeline, particularly at PhD and post-doc level. These are the female scientists and engineers of tomorrow and we have a duty to nurture and develop their talent, whether they choose to stay at Bangor or go elsewhere. In order to support their career development, we have put a number of things in place. For example, a female ECR post-doc representative will be invited to join the School's research and marketing committees. Also, ECR mentoring will be instigated.

The school has also identified room to expand our postgraduate taught provision, including new programmes that offer non-specialists the option to add computing and data skills to their first-degree studies. We see these conversion courses as an exciting way of increasing the diversity of our student body, with benefits for everyone through more balanced distributions across gender, ethnicity and educational background.

As you will see in the application, SCSEE is very active in terms of outreach and we are proud of the contribution we are making to getting children (especially girls) excited about engineering and computer science and thereby challenging the often gendered perceptions of our fields.

I applaud the hard work of the entire Athena SWAN Self-Assessment Team. I am excited by the opportunities laid bare by the action plan items identified in this application and am personally committed to bringing those actions to fruition as I firmly believe they will benefit all, for example by working to ensure all staff have an annual performance development review.

I confirm that the information presented in the application (including quantitative and qualitative data) is an honest, accurate and true representation of the School.

Yours sincerely,

Dr Iestyn Pierce
Head of School

*(Word Count: 599)*

## 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 Computer Science and Electronic Engineering (SCSEE) is one of three schools in the College of Environmental Sciences and Engineering (CoESE) at Bangor University (BU), which also includes the School of Natural Sciences, the School of Ocean Sciences (SOS) and the BioComposites Centre. Until 2018 the School of Computer Science (CS) and the School of Electronic Engineering (EE) were separate schools; they were merged as part of a significant restructure of BU in 2018. The School structure is illustrated in Figure 2.1.

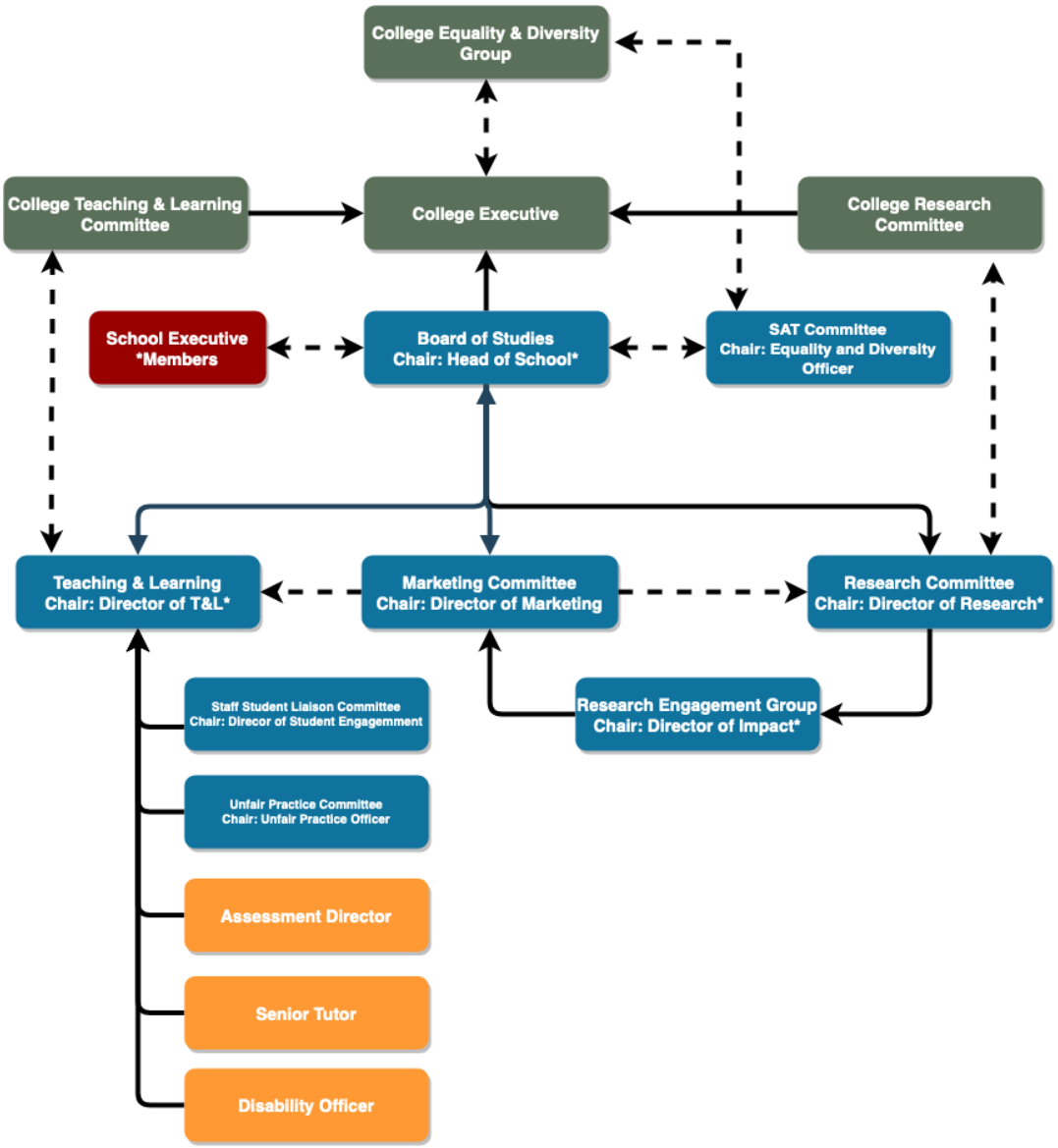


*Figure 2.1*: Organisational structure of the School and its committees. School Executive members denoted by *. The Equality and Diversity Officer is also the SAT Chair.

The School has a total of 503 undergraduate (UG), postgraduate taught (PGT) and postgraduate research (PGR) students. It has 59 members of staff, including academics, researchers, professional services and support staff summarised in Table 2.1.

*Table 2.1: Snapshot of current staff and students at the School.*

| | Total | Female | Male | % Female | % Male |
|---|---|---|---|---|---|
| **Total Staff** | **59** | **11** | **48** | **19%** | **81%** |
| Academic | 31 | 2 | 29 | 6% | 94% |
| Research | 19 | 5 | 14 | 26% | 74% |
| Professional / Support Staff | 9 | 4 | 5 | 44% | 56% |
| **Total Students** | **503** | **77** | **426** | **15%** | **85%** |
| Undergraduates | 411 | 56 | 355 | 14% | 86% |
| Taught Postgraduates | 42 | 13 | 29 | 31% | 69% |
| Research Postgraduates | 50 | 8 | 42 | 16% | 84% |

The School also offers EE as an undergraduate course at Bangor College China (BCC), a joint school established by BU and the Central South University of Forestry and Technology in Hunan Province, China. Students studying at BCC are given the option to transfer to Bangor as direct entry into the second year after completing the first two years of their degree in China. The school also has an agreement with ECE Paris, a private University, where around 30 of their students join the second-year CS and EE undergraduates for a semester at the School. The School also offers some collaborative degrees with the School of Music and Media and the Business School.

In the 2019 NSS survey, our EE and CS courses were given a 100% and 92% overall satisfaction rating, respectively, which are both above the University average of 88%.

Several our courses are accredited by professional bodies, including the British Computer Society (BCS) and the Institute of Engineering and Technology (IET), emphasising that the skills our students acquire are recognised as being the first step towards achieving Chartered status. Both the BCS and the IET are very active in terms of addressing E&D issues in the sector.

The School's research excellence was reflected in REF 2014 in which the School was ranked 4th in the UK and 1st in Wales for research output in the Electrical and Electronic Engineering unit of assessment. We achieved 4* and 3* ratings across all sub-categories within the REF assessment process, demonstrating that we engage in world leading research. Our staff figure among the world leaders in a broad range of technologies, including Artificial Intelligence (AI) and Pattern Recognition, Data Visualisation, Medical Microwave Electronics, Medical Simulation, Optoelectronics, Broadband and Optical Communications, Organic Electronics, Nanotechnology and Nuclear Engineering.

The School has outreach activities at its core, with Technocamps Bangor an integral part of the School, where addressing the underrepresentation of females in CS and EE is one of their core principles. The school also participates in numerous workshops to encourage schoolchildren into CS and EE, including at the Engineering Centre for North and Mid Wales. The School was also successful in its grant application to the Royal Academy of

Engineering (RAE) Ingenious scheme for projects that engage the public with engineers and engineering.

*(Word Count: 498)*

## 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

The self-assessment team (SAT) has broad representation from across the School, reflecting a wide variety of roles and life experiences; a 42/58 female/male split reflects the gender imbalance of the School. Members were appointed by the SAT chair (male) and HoS based on their role in the School and interest in gender equality issues. The SAT chair is given a workload allocation for Athena Swan (AS) of up to 150-hours a year; the remainder of the SAT will accommodate their participation under existing administration duties within their role. Students on the SAT receive recognition via Bangor Employability Award (BEA) points which provides a framework for students to build on their transferrable skills through recognition of their involvement with activities during University life. The current membership of the SAT is shown in Table 3.1.

*Table 3.1: Current members of the Self-Assessment Team (SAT) indicating SAT roles and work-life balance, together with Internal Consultants.*

| Name | Role in School | Role on SAT | Gender | Background |
|---|---|---|---|---|
| Ben Assinder | Research Technician | PGR and Academic Staff Pipeline analysis | Male | [redacted] |
| Dr Noel Bristow | Research Fellow | Staff recruitment analysis | Male | [redacted] |
| Dr Amira Eltokhy | Postdoctoral Research Officer | Staff Data Analysis | Female | [redacted] |
| Emeline Fredrick | Undergraduate Student in Computer Science | Focus-groups UG Representative | Female | [redacted] |
| Dr Yanhua Hong | Senior Lecturer in Optoelectronics | Co-Chair PGT student analysis | Female | [redacted] |
| Dr Mohammed Mabrook | Senior Lecturer/Senior Tutor. College Equality Champion and Internationalisation Lead | Co-chair | Male | [redacted] |
| Megan Owen | PhD student within the Nuclear Futures Institute Research Group | Focus-groups PGR Representative | Female | [redacted] |

| | | | | |
|---|---|---|---|---|
| Dr Dave Perkins | Director of Teaching and Learning | Staff and PG Pipeline analysis | Male | [redacted] |
| Dr Iestyn Pierce | Head of School (HoS) | Lead on Action Plan implementation | Male | [redacted] |
| Dr Panagiotis Ritsos | Director of Student Engagement | Staff/PGR/PGT data analysis, School culture. | Male | [redacted] |
| Dr Daniel Roberts | CCC Lecturer & Director of Equality and Diversity | Chair | Male | [redacted] |
| Yvonne Scutt-Jones | Recruitment and Admissions Administrator | Staff data analysis | Female | [redacted] |
| Internal Consultants | | | | |
| Dr Alison Wiggett | Athena SWAN & Research Concordat Manager, HR | | | |

(ii) an account of the self-assessment process

Established in May 2019 the SAT and has met regularly (see Table 3.2 for an overview of SAT activity).

*Table 3.2: Overview of the Self-Assessment Team activity.*

| Date(s) | Activity |
|---|---|
| January 21st 2019 | Initial meeting with the University AS & Research Concordat Manager and HoS outlining Bronze application requirements. |
| February 25th 2019 | Meeting with HoS appoint SAT membership. |
| May 28th 2019 | First SAT meeting outlining challenges within the School and the requirements of the application. |
| July 8th 2019 | Discussion of other institution applications and invitation for critical friends. |
| September 25th 2019 | Assigned SAT co-chair, decided on relevant benchmark and assigned student representatives on SAT. |
| October 9th 2019 | First data analysis to identify issues within the School. Postdoctoral representatives assigned to SAT. |

| | |
|---|---|
| October 30th 2019 | Critical friend visit ([redacted]) from Department of CS, Aberystwyth University. |
| December 11th 2019 | Critical friend talk ([redacted]) from College of Engineering, Swansea University via Skype.<br>Discussed issues identified from staff survey.<br>Agreed to hold fortnightly meetings from early 2020 to address issues and form Action Plan (AP). |
| January 15th 2020 | Started to address issues raised in School survey and discussed data analysis strategy; split SAT into sub-groups for efficient analysis. Each sub-group assigned a different section to identify and address issues to feed-back. |
| February 5th 2020 | Sub-groups fed-back to SAT.<br>Staff and Student focus-groups organised. |
| March 4th 2020 | Discussed actions and matters arising from previous meeting and from staff focus-group.<br>Discussed feedback from the RAE conference 'Time for Action: achieving a gender balance in engineering' attended by chair and co-chair. |
| April 6th 2020 | First meeting since Covid-19 via Microsoft Teams; weekly SAT meetings up to application submission on the 20th of May 2020. |
| May 7th 2020 | Mock review panel held with two AS leads from other BU Schools and University AS manager. |
| May 11th 2020 | Application sent to critical friends from the Department of CS in Aberystwyth and College of Engineering in Swansea. |
| May 13th 2020 | Meeting to review and sign off AP with HoS and Dean of College. |

## School-wide consultation

School-wide staff and student consultation was done via a series of surveys and focus-groups in Autumn 2019 and Spring 2020. The comments and feedback from these have informed the development of our AP:

- Autumn 2019: All staff anonymous online survey was conducted to obtain a wide sample of views from staff at the School focused around the culture of the School and how it is run. 29 members of staff (3f, 23m 3 who didn't report gender) responded to the survey (~50% of staff).
- Spring 2020: All staff meeting was organised to discuss the findings from staff survey in detail.
- Spring 2020: All-female staff focus-group was held, facilitated by the University's AS coordinator, which discussed the culture of the School in more detail.
- Spring 2020: All-female student (UG/PGT) focus-group was organised and run by student members of the SAT which aimed to obtain feedback on the culture of the School and their experiences as female students in the School.

- Spring 2020: A student-wide focus-group was arranged as an Equality and Diversity (E&D) lecture to introduce AS to the wider student body **(Action 1.5)**. Unfortunately, this was cancelled due to Covid-19 outbreak.

We will continue to work towards embedding AS and E&D into CSEE culture **(Action 1.2, Action 1.3, Action 1.6, Action 1.7, Action 1.9 Action 1.10)**.

## Consultation outside the School

The School has engaged with the AS process beyond our SAT meetings as follows:

- The SAT consulted with the AS leads from the Department of CS, Aberystwyth University ([redacted]), and from the College of Engineering, Swansea University ([redacted]).
- The University's AS coordinator attended all SAT meetings and provided feedback regarding the application through sharing ideas and best practice from other Schools who have achieved AS awards.
- The AS lead and co-chair are members of the University level AS group.
- CoESE Equality committee is chaired by the SAT co-chair.
- AS lead sat on AS panel in London.
- AS lead and co-chair attended conference on Equality in Engineering hosted by the RAE.

## COVID-19

Due to the Covid-19 outbreak, the student-wide focus-group and all staff meeting to discuss the findings from the staff survey were both cancelled. Additionally, in terms of outreach activities (discussed in more detail in Section 5.6 (viii)), the 'Photo-Electric Light Orchestra' (PELO) project finale was also cancelled. In order to mitigate these cancellations, and to continue with our AS agenda, our SAT meetings were moved online to Teams meetings, and the student-wide focus-group will be run as an E&D lecture once/if lectures resume from September 2020 (otherwise it will be moved online). Additionally, all-staff discussions on our AS commitments will be a standing item on future School level Board of Studies (BoS) meetings. Furthermore, the team responsible for the PELO project aim to re-start in September 2020 (pending Schools re-opening) to conclude the project.

In response to the Covid-19 outbreak, the Directors of E&D in all CoESE Schools have worked together to identify issues affecting wellbeing of staff and students and highlighted those groups likely to be particularly affected during the Covid-19 crisis. They are working with College management to ensure E&D is considered (e.g Equality impact assessments are carried out on new guidelines/policies). On the student facing side, investigating the impact of moving to online provision will be key **(Action 1.11)**. The School has also been conducting all staff meetings via Teams to 'check-in' with all staff and inform of any future plans for the School after Covid-19 and beyond.

**ACTIONS:**

**1.2** Embed AS and E&D into CSEE culture;

**1.3** Implement and annual compulsory 'Teaching and Equality Away Day';

**1.5** Embed E&D into the student experience by implementing E&D into the wider curriculum;

**1.6** Ensure E&D agenda is embedded in all committees in the School;

**1.7** Run the staff survey every two years;

**1.9** Ensure all staff complete the compulsory University on-line quality training and the new unconscious bias training;

**1.10** All senior academic staff who manage others to complete Equality for Managers training.

**1.11** Investigate the impact of Covid-19.

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

The SAT will continue to meet on a quarterly basis in line with the CoESE committee to implement, monitor progress and measure the impact of the AP. The SAT will also conduct a critical annually review of the AP **(Action 1.1)**.

The SAT will ensure that AS is a standing item at the School level BoS meetings, together with feeding our agenda into the CoESE committee **(Action 1.6)**. The BoS is chaired by the HoS ensuring that the School remains proactive in implementing AS actions. The SAT co-chair will continue in his role as chair of the CoESE committee. The AS lead and co-chair will continue their membership of the AS University level group.

The AP will be circulated to all staff at the School ensuring that all members of staff with actions are aware of what is required **(Action 4.3)**. The HoS will monitor progress against the AP and follow up with the individuals responsible.

Membership of the SAT will be continually reviewed, enabling new staff to volunteer and existing members to step down should they so wish. This will be in line with **Action 1.4** which will seek to introduce AS as part of the induction process for new members of staff, which will work as a mechanism for opening up membership of the SAT to new members. **Action 1.8** also ensure that annual staff and student focus groups are conducted to ensure all staff and students are regularly consulted.

**ACTIONS:**

**1.1** Conduct annual critical review of Athena SWAN actions and progress towards Silver application;

**1.4** Develop a School level induction using the School of Ocean Science induction checklist as a template which ensures new staff receive an effective induction to the School;

**1.6** Ensure E&D agenda is embedded in all committees in the School;

**1.8** Annual staff and student focus groups to ensure all staff and students are regularly consulted;

**4.3** Develop an AS page on the CSEE webpage and include this Application and Action Plan on the webpage.

*(Word Count: 905, Covid Extension: 254, Total: 1159)*

## 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.*

In the following sections, the UG CS and EE degree data are benchmarked against the 2014/15 and 2017/18 Computer Science (COMP) and Engineering and Technology (ENGI) HESA data. Hereafter, and due to the nature of our School, we present data split to the two disciplines. Please note that our application data also includes any students who would apply for direct entry into the second/third year of a degree course. The majority of these students are those from BCC, ECE Paris, and Kuwait. **Action 2.5** will look at the gender balance of these students compared to Home EU students.

Please also note that student numbers are headcount whereas application and UG classification data refers to full-time equivalent (i.e. representing the split across Schools for our Joint-Honours courses). As shown in Tables 4.2/4.3, these courses make up only a small proportion of our total student numbers.

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

The School currently does not have any dedicated foundation year degrees but will launch two new foundation years in 2020/21 as part of the current CS BSc and EE BEng programmes **(Action 2.2)**. Students will be allowed to transfer to a different course at the end of the foundation year.

#### Degree Apprenticeships

*Table 4.1: Breakdown of Degree Apprenticeship courses (2019/20).*

| Course Title | Students |
|---|---|
| BSc Applied Electrical/Electronic Engineering Systems | 1 |
| BSc Applied Mechanical Engineering Systems | 1 |
| BSc Applied Cyber Security | 0 |
| BSc Applied Data Science | 3 |
| BSc Applied Software Engineering | 4 |

The School developed five undergraduate BSc degree apprenticeships in partnership with Grŵp Llandrillo Menai (GLLM), which are currently running for the first time (Table 4.1). On these courses, students work four days with their employer each week, with day-release and evening study at College then University. They will study at GLLM during the first

two years and then move location to Bangor for the last year to complete the BSc qualification. Students will graduate at the end with a degree from BU. All applicants were accepted on the courses. Unfortunately, there were no female applicants for 19/20. **Action 2.3** looks to address this by developing a targeted marketing campaign in order to increase female student numbers (25% enrolment) on these courses for 20/21.

**ACTIONS:**

**2.2** Implement foundation years for both CS & EE**

**2.3** Recruit more women onto Degree Apprenticeship courses.

**** Already implemented to launch in September 2020**

### (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.*

The school offers nine main programmes across both CS and EE disciplines:

- BSc/MComp† Computer Science
- BSc Computer Information Systems
- BSc Computer Information Systems for Business
- BSc Creative Technologies
- BSc Data Science with Visualisation†
- BSc Data Science with Machine Learning†
- BSc/BEng/MEng Electronic Engineering
- BSc/BEng/MEng Computer Systems Engineering
- BSc Electronic Engineering & Music
- MEng Control and Instrumentation Engineering
- MEng Critical Safety Engineering

† Recently validated for 2019/2020

The CS and EE degree programmes have a common first year so students can easily transfer from one version of the course to another (e.g. BSc EE to BEng EE). The School also has a joint honours BA degree with the School of Business in Business & Computer Information Systems. The BSc Electronic Engineering & Music course is a joint honours course with the School of Music. This course is also available as a BA Music & Electronic Engineering joint honours degree through the School of Music. All courses are also available with International Experience (a year out studying abroad) and an optional Year in Industry (work placement). Also presented in the data are three discontinued courses: Computer Science for Business, Computing and Oceanography, Ocean Informatics, and MEng Critical Safety Engineering

Tables 4.2 and 4.3 summarise the number of UG students, by gender, on CS and EE courses respectively, from 2014/15 to 2018/19.

*Table 4.2: Breakdown, by gender, of CS courses (columns highlighted in orange are discontinued courses).*

| Study Scheme | | | All UG Courses | Computer Science (BSc) | Computer Information Systems (BSc) | Computer Information Systems for Business (BSc) | Creative Technologies (BSc) | Computing (NGU) | Computer Science for Business (BSc) | Computing and Oceanography (BSc) | Ocean Informatics (BSc) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2014/15 | Students | Total | 220 | 115 | 53 | 23 | 16 | 2 | 6 | 4 | 1 |
| | | Female | 22 | 4 | 10 | 1 | 1 | 1 | 5 | 0 | 0 |
| | | Male | 198 | 111 | 43 | 22 | 15 | 1 | 1 | 4 | 1 |
| | Students (%) | Female | 10% | 3% | 19% | 4% | 6% | 50% | 83% | 0% | 0% |
| | | Male | 90% | 97% | 81% | 96% | 94% | 50% | 17% | 100% | 100% |
| 2015/16 | Students | Total | 231 | 135 | 63 | 19 | 7 | 2 | 1 | 4 | - |
| | | Female | 20 | 7 | 10 | 1 | 0 | 1 | 0 | 1 | - |
| | | Male | 211 | 128 | 53 | 18 | 7 | 1 | 1 | 3 | - |
| | Students (%) | Female | 9% | 5% | 16% | 5% | 0% | 50% | 0% | 25% | - |
| | | Male | 91% | 95% | 84% | 95% | 100% | 50% | 100% | 75% | - |
| 2016/17 | Students | Total | 250 | 145 | 67 | 16 | 13 | 1 | 7 | 1 | - |
| | | Female | 29 | 11 | 11 | 4 | 1 | 1 | 1 | 0 | - |
| | | Male | 221 | 134 | 56 | 12 | 12 | 0 | 6 | 1 | - |
| | Students (%) | Female | 12% | 8% | 16% | 25% | 8% | 100% | 14% | 0% | - |
| | | Male | 88% | 92% | 84% | 75% | 92% | 0% | 86% | 100% | - |
| 2017/18 | Students | Total | 244 | 141 | 65 | 10 | 22 | 5 | 1 | - | - |
| | | Female | 31 | 13 | 11 | 4 | 2 | 1 | 0 | - | - |
| | | Male | 213 | 128 | 54 | 6 | 20 | 4 | 1 | - | - |
| | Students (%) | Female | 13% | 9% | 17% | 40% | 9% | 20% | 0% | - | - |
| | | Male | 87% | 91% | 83% | 60% | 91% | 80% | 100% | - | - |
| 2018/19 | Students | Total | 281 | 181 | 60 | 8 | 24 | 8 | - | - | - |
| | | Female | 41 | 20 | 9 | 4 | 6 | 2 | - | - | - |
| | | Male | 240 | 161 | 51 | 4 | 18 | 6 | - | - | - |
| | Students (%) | Female | 15% | 11% | 15% | 50% | 25% | 25% | - | - | - |
| | | Male | 85% | 89% | 85% | 50% | 75% | 75% | - | - | - |

*Table 4.3: Breakdown, by gender, of EE courses (column highlighted in orange is discontinued course).*

| | Study Scheme | | All UG Courses | Electronic Engineering (BSc / BEng / MEng) | Computer Systems Engineering (BSc / BEng / MEng) | Electronic Engineering & Music (BSc / BA) | Control & Instrumentation Engineering (MEng) | Electronic Engineering (NGU) | Critical Safety Engineering (MEng) |
|---|---|---|---|---|---|---|---|---|---|
| 2014/15 | Students | Total | 185 | 139 | 31 | 7 | 0 | 8 | 0 |
| | | Female | 12 | 8 | 2 | 0 | 0 | 2 | 0 |
| | | Male | 173 | 131 | 29 | 7 | 0 | 6 | 0 |
| | Students (%) | Female | 6% | 6% | 6% | 0% | 0% | 25% | 0% |
| | | Male | 94% | 94% | 94% | 100% | 0% | 75% | 0% |
| 2015/16 | Students | Total | 214 | 178 | 32 | 1 | 1 | 1 | 1 |
| | | Female | 20 | 15 | 5 | 0 | 0 | 0 | 0 |
| | | Male | 194 | 163 | 27 | 1 | 1 | 1 | 1 |
| | Students (%) | Female | 9% | 8% | 16% | 0% | 0% | 0% | 0% |
| | | Male | 91% | 92% | 84% | 100% | 100% | 100% | 100% |
| 2016/17 | Students | Total | 263 | 187 | 34 | 1 | 1 | 40 | 0 |
| | | Female | 30 | 17 | 3 | 0 | 1 | 9 | 0 |
| | | Male | 233 | 170 | 31 | 1 | 0 | 31 | 0 |
| | Students (%) | Female | 11% | 9% | 9% | 0% | 100% | 23% | 0% |
| | | Male | 89% | 91% | 91% | 100% | 0% | 78% | 0% |
| 2017/18 | Students | Total | 231 | 167 | 21 | 2 | 2 | 37 | 1 |
| | | Female | 35 | 18 | 0 | 0 | 1 | 15 | 1 |
| | | Male | 196 | 150 | 21 | 2 | 1 | 22 | 0 |
| | Students (%) | Female | 15% | 11% | 0% | 0% | 50% | 41% | 100% |
| | | Male | 85% | 89% | 100% | 100% | 50% | 59% | 0% |
| 2018/19 | Students | Total | 185 | 132 | 15 | 2 | 3 | 29 | 1 |
| | | Female | 24 | 16 | 2 | 0 | 0 | 5 | 1 |
| | | Male | 161 | 116 | 13 | 2 | 3 | 24 | 0 |
| | Students (%) | Female | 13% | 12% | 13% | 0% | 0% | 17% | 100% |
| | | Male | 88% | 88% | 87% | 100% | 100% | 83% | 0% |

Table 4.4 shows the total number of UG students, both part-/full-time, for CS and EE. The trends of total student numbers in CS and EE against HESA benchmarks are also presented in Figures 4.1 and 4.2.

*Table 4.4: Undergraduate student population for CS and EE.*

| | | *2014/15* | | | *2015/16* | | | *2016/17* | | | *2017/18* | | | *2018/19* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M | F | %F | M | F | %F | M | F | %F | M | F | %F | M | F | %F |
| CS | Full Time | 185 | 19 | 9% | 201 | 19 | 9% | 216 | 29 | 12% | 207 | 31 | 13% | 232 | 40 | 15% |
| | Part Time | 13 | 3 | 19 % | 10 | 1 | 9% | 5 | 0 | 0% | 6 | 0 | 0% | 8 | 1 | 11% |
| | Total | 198 | 22 | 10 % | 211 | 20 | 9% | 221 | 29 | 12% | 213 | 31 | 13% | 240 | 41 | 15% |
| EE | Full Time | 164 | 12 | 7% | 185 | 20 | 10% | 224 | 30 | 12% | 189 | 35 | 16% | 145 | 24 | 14% |
| | Part Time | 9 | 0 | 0% | 9 | 0 | 0% | 9 | 0 | 0% | 7 | 0 | 0% | 16 | 0 | 0% |
| | Total | 173 | 12 | 6% | 194 | 20 | 9% | 233 | 30 | 11% | 196 | 35 | 15% | 161 | 24 | 13% |

As the School does not offer part-time courses as a degree option, these students are effectively repeating modules. As can be seen from the data, there are very few part-time male and female students in both CS and EE; with no female EE students and a declining number of CS students over the past five years. This demonstrates the good progression rates of all our student cohorts. Nonetheless, there was a concerning increase, in male part-time students in EE between 2017/18 and 2018/19, by almost 129% which needs further investigation **(Action 2.10)**.

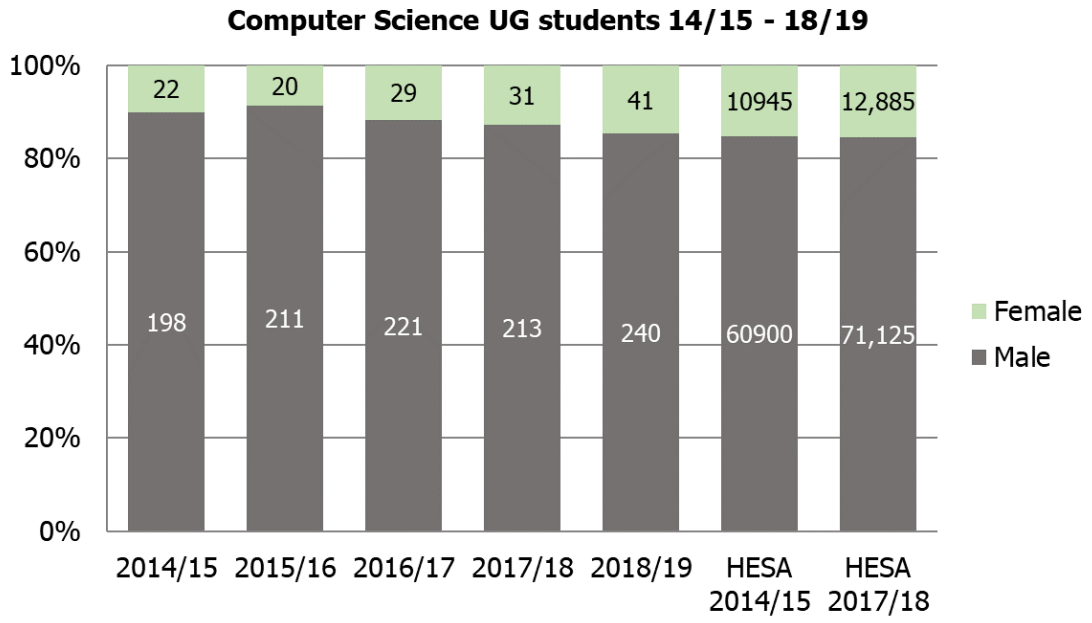


*Figure 4.1*: Total number of CS undergraduate students against HESA benchmark; 2017/18 HESA benchmark 15.3% female, 2018/19 School data 14.6% female.

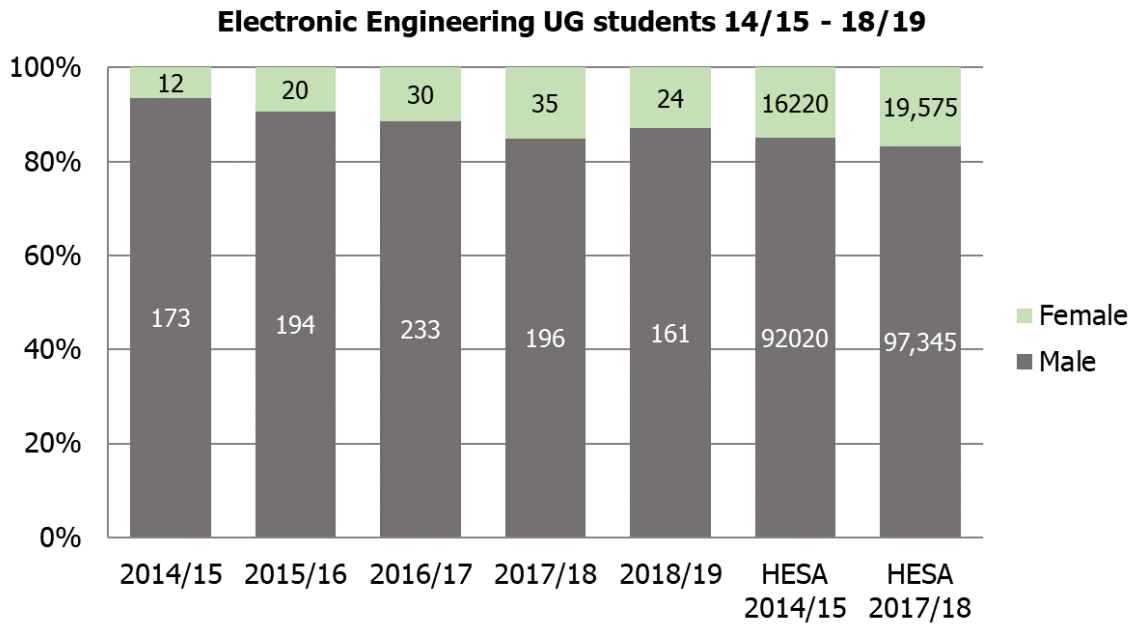


*Figure 4.2*: Total number of EE undergraduate students against HESA benchmark; 2017/18 HESA benchmark 16.7% female, 2018/19 School data 13% female.

The number of female CS students has shown a gradual increase since 2014/15 with the overall percentage now more in line with the HESA statistics. In 2014/15, the School was 5% below the 2014/15 HESA statistics; now the School is only 0.7% behind the national average. When comparing the figures to the 2014/15 HESA benchmark, the department has increased its female CS population by 86%. In comparison, the male student population has increased by 21% over the same period.

The number of female students in EE has also gradually increased from 2014/15, however there was a dip in female student numbers between 2017/18 and 2018/19. Having said that, the number of students overall reduced between 2017/18 and 2018/19, from 231 to 185 (the same number of students as in 2014/15), but the number of female students compared to 2014/15 had increased by 100%. In comparison, the male student population decreased by 7% in 2018/19, but increased by 13% in 2017/18.

Overall, looking back to the 2014/15 HESA benchmark statistics, our School has come a long way, starting with being 10% below the national average to now only 3.7%. In addition, since 2014/15 the School has increased its female student population by 100% in 2018/19, with a peak at 192% in 2017/18. The increase in female student numbers, particularly on EE courses, could be attributed to an increase in the number of international students from our BCC campus, from Kuwait, and also the non-graduating undergraduates from ECE Paris.

However, we of course realise that we need to do more than reach UK wide benchmarks and we are committed to further increasing our female student population. Our AP includes a number of initiates to address this including actions that aim to improve marketing material **(Action 4.1)** and visibility of female students/staff **(Action 4.3)**, increase our UG/PGT applications/recruitment from women **(Action 2.1, Action 2.7)**, enhance outreach to female schoolchildren **(Action 2.4)** and develop initiatives to improve the female student experience **(Action 4.2)**.

*Table 4.5: Number of student applications, offers and accepts for CS and EE courses (the .5 are students on joint honours courses with another School).*

| | | Computer Science | | | | | Electronic Engineering | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | Male | Female | Unknown | % Female | Total | Male | Female | Unknown | % Female |
| 2014/15 | Applicants | 378 | 322.5 | 54.5 | 1 | 14% | 349.5 | 302 | 40.5 | 7 | 12% |
| | Offer | 322 | 276 | 46 | | 14% | 269 | 236 | 29 | 4 | 11% |
| | Accepts | 89.5 | 71 | 18.5 | | 21% | 90 | 82 | 7 | 1 | 8% |
| 2015/16 | Applicants | 450.5 | 406 | 43.5 | 1 | 10% | 431.5 | 375 | 56.5 | 0 | 13% |
| | Offer | 371 | 328.5 | 41.5 | 1 | 11% | 303 | 260 | 43 | | 14% |
| | Accepts | 95 | 88.5 | 6.5 | | 7% | 87 | 75 | 12 | | 14% |
| 2016/17 | Applicants | 469 | 407.5 | 61.5 | 0 | 13% | 337 | 278 | 57 | 2 | 17% |
| | Offer | 383.5 | 333.5 | 50 | 0 | 13% | 244.5 | 203.5 | 39 | 2 | 16% |
| | Accepts | 109 | 90 | 19 | | 17% | 92 | 74 | 16 | 2 | 17% |
| 2017/18 | Applicants | 476.84 | 422.84 | 53 | 1 | 11% | 384 | 310.5 | 73.5 | 0 | 19% |
| | Offer | 373.5 | 332.5 | 40 | 1 | 11% | 274.5 | 220 | 54.5 | 0 | 20% |
| | Accepts | 100 | 91 | 9 | | 9% | 94 | 73 | 21 | | 22% |
| 2018/19 | Applicants | 432 | 353 | 77 | 2 | 18% | 353.5 | 307.5 | 43 | 3 | 12% |
| | Offer | 361 | 293 | 67 | 1 | 19% | 249 | 217 | 32 | 0 | 13% |
| | Accepts | 113 | 93 | 20 | | 18% | 89.5 | 74.5 | 15 | 0 | 17% |

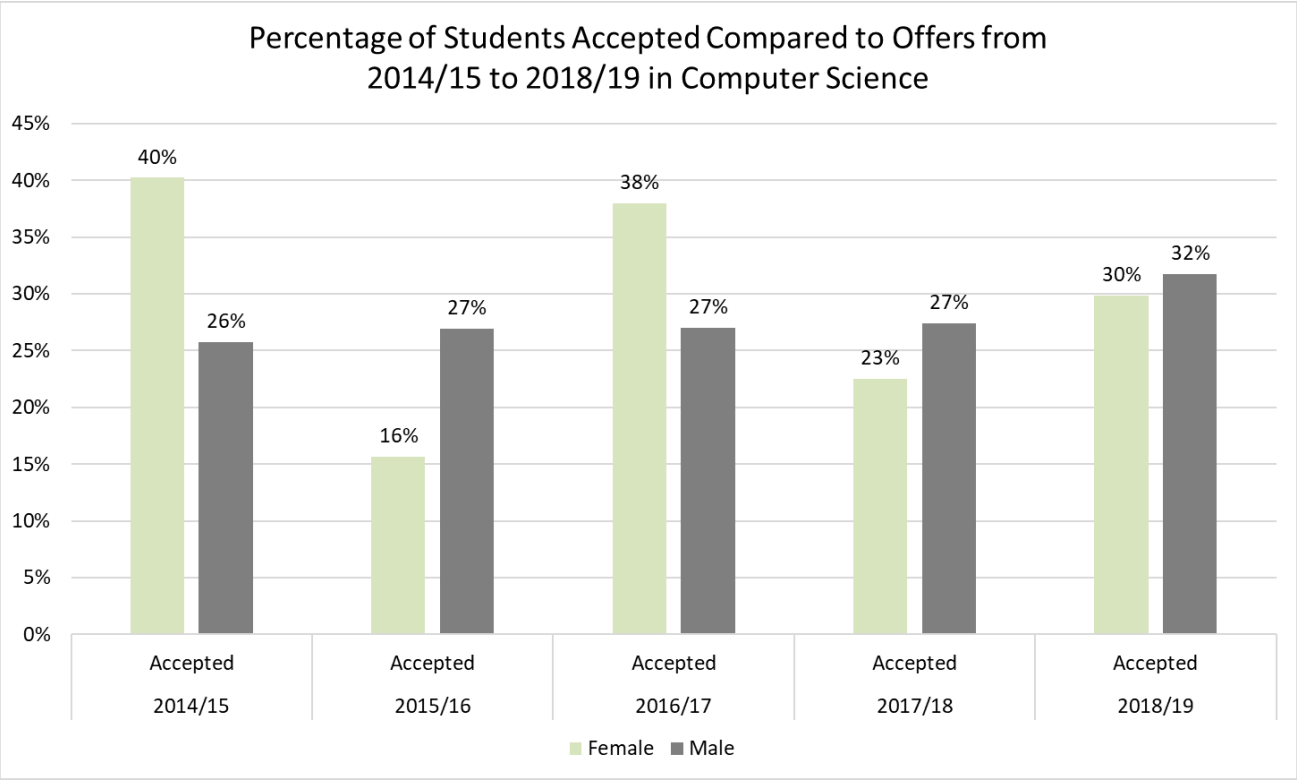


*Figure 4.3*: Percentage of students admitted compared to those who were given offers for CS courses.

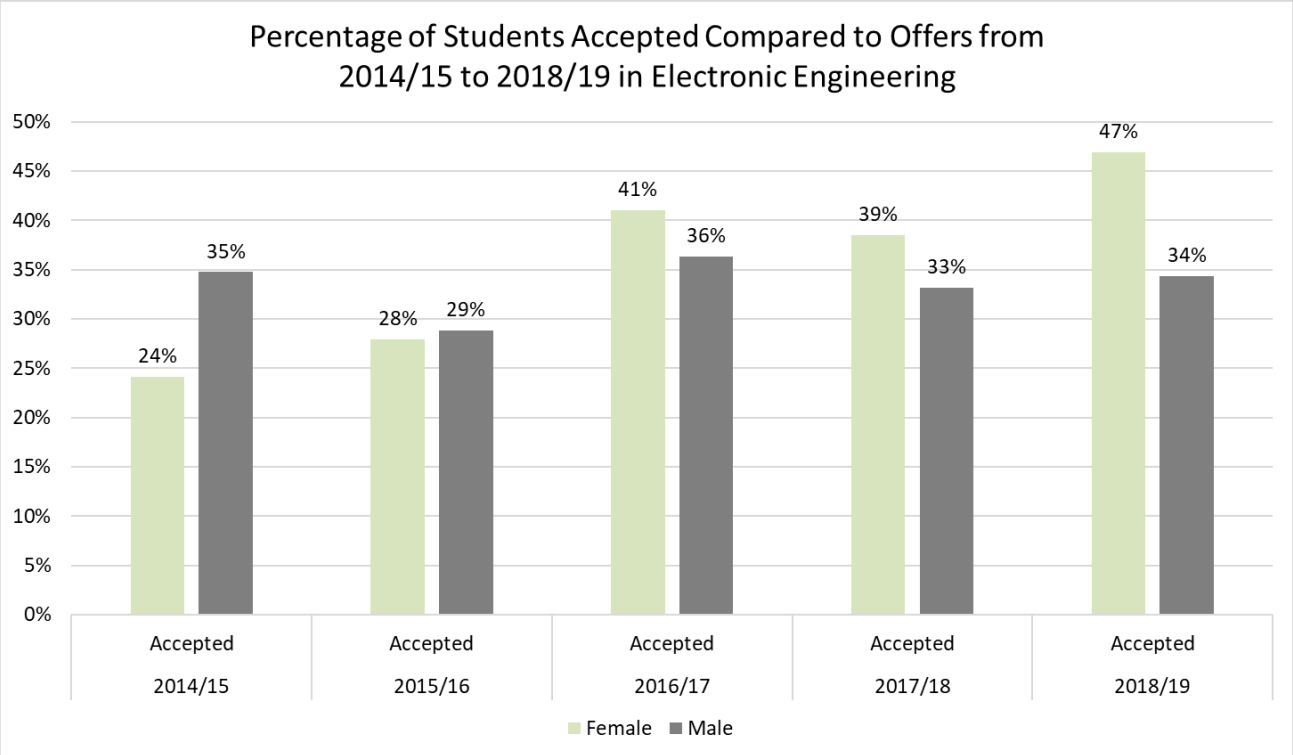


*Figure 4.4*: Percentage of students admitted compared to those who were given offers for EE courses.

Table 4.5 show the number of students for CS and EE courses respectively who applied, were offered a place and admitted to Bangor. Figures 4.3 and 4.4 show the percentage of admitted students compared to those who were given an offer.

The number of female students admitted to EE courses has steadily increased from 2014/15 to 2017/18, followed by a dip in applications in 2018/19, which consequently resulted in a lower number of accepted students. However, the number of female students accepted in 2018/19 increased by 113% compared to 2014/15 as shown in Table 4.5, with an increase of 250% in 2017/18. The data shows that overall we are good at converting female applicants, with EE showing a gradual increase across the five years, peaking at 8% in 2018/19. Overall, EE courses have a higher conversion rate for all applicants compared to CS courses. The School will make a commitment to increase the female conversion rates in both disciplines **(Action 2.8)**.

The staff survey indicated that we need clearer representation of female role models in marketing and recruitment activities, such as open days/recruitment/outreach events, which only some staff are actively engaged with. This would encourage more females to apply for Engineering/CS courses at University. For this reason, a managed rota/monitoring system for the participation in open days/outreach events will be implemented **(Action 2.7a)**, to ensure female role models are always available, through staff/student/peer guide representation. The School will ensure female members are not disproportionately overloaded through a fair workload allocation in the rota/monitoring system. The School will also look to other Schools within CoESE for female role models to provide presentations at open days.

In order to actively recruit more female students, the School will also enhance its current pre-entry engagement communications with prospective students **(Action 2.8b,c)** by sending personalised correspondence that reflect the content of a student's application, as well as after the publication of their examination results. The School will also arrange/attend outreach events for female students **(Action 2.4, Action 2.7d)** discussing careers in CS and EE and will also work with local schools to promote the visibility of CS and EE subjects at University.

## Computer Science and Electronic Engineering Degree Classification

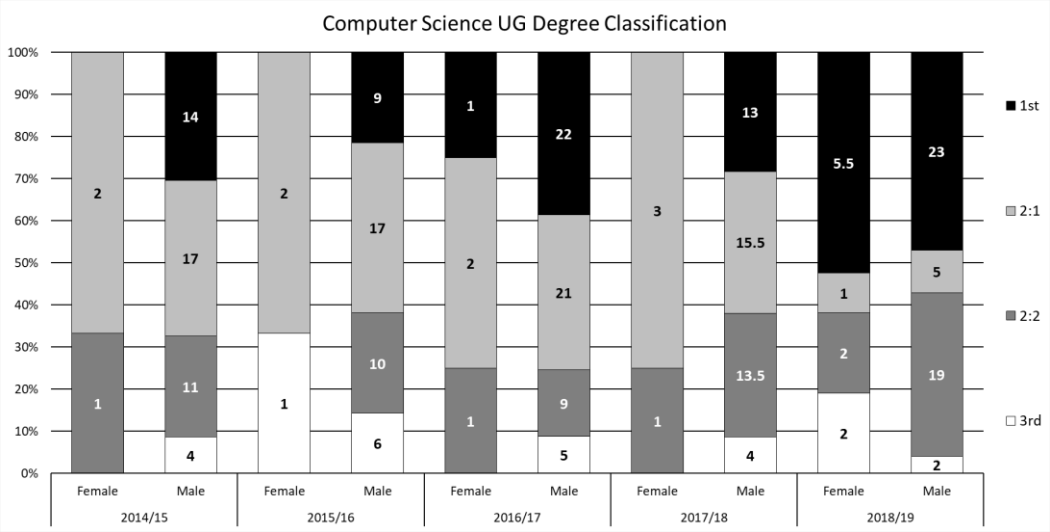


*Figure 4.5*: Computer Science UG degree classification across 5 years (the .5 are students on joint honours courses with another School).

*Table 4.6: Computer Science UG degree Classification (the .5 are students on joint honours courses with another School).*

| | | Total | 1st | | 2:1 | | 2:2 | | 3rd | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2014/15 | Female | 3 | 0 | 0% | 2 | 67% | 1 | 33% | 0 | 0% |
| | Male | 46 | 14 | 30% | 17 | 37% | 11 | 24% | 4 | 9% |
| 2015/16 | Female | 3 | 0 | 0% | 2 | 67% | 0 | 0% | 1 | 33% |
| | Male | 42 | 9 | 21% | 17 | 40% | 10 | 24% | 6 | 14% |
| 2016/17 | Female | 4 | 1 | 25% | 2 | 50% | 1 | 25% | 0 | 0% |
| | Male | 57 | 22 | 39% | 21 | 37% | 9 | 16% | 5 | 9% |
| 2017/18 | Female | 4 | 0 | 0% | 3 | 75% | 1 | 25% | 0 | 0% |
| | Male | 46 | 13 | 28% | 15.5 | 34% | 13.5 | 29% | 4 | 9% |
| 2018/19 | Female | 10.5 | 5.5 | 52% | 1 | 10% | 2 | 19% | 2 | 19% |
| | Male | 49 | 23 | 47% | 5 | 10% | 19 | 39% | 2 | 4% |

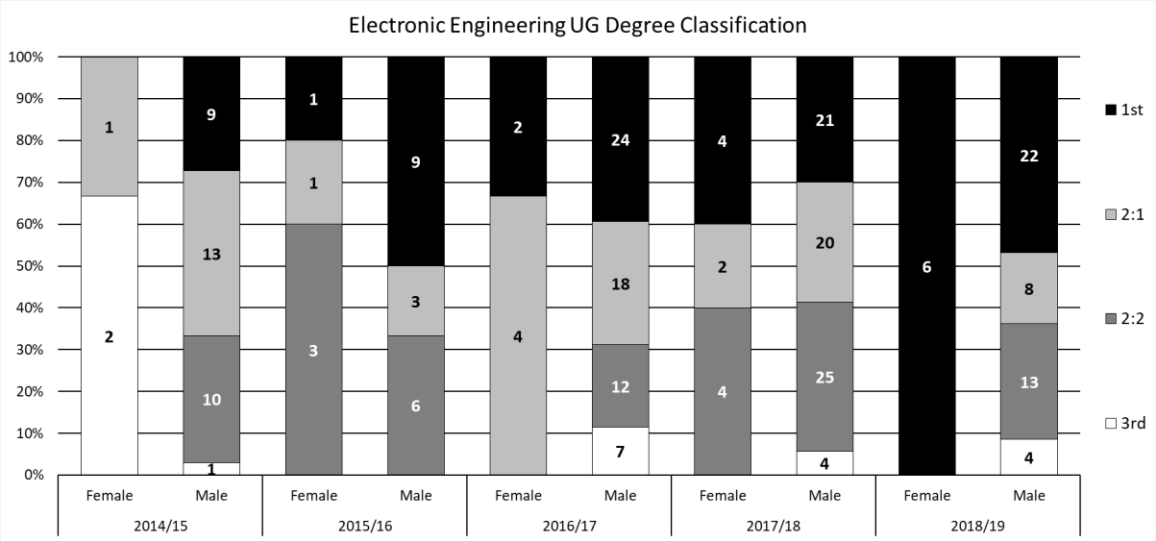


*Figure 4.6*: Electronic Engineering UG degree classification across 5 years.

*Table 4.7: Electronic Engineering UG degree Classification.*

| | | Total | 1st | | 2:1 | | 2:2 | | 3rd | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2014/15 | Female | 3 | 0 | 0% | 1 | 33% | 0 | 0% | 2 | 67% |
| | Male | 33 | 9 | 27% | 13 | 39% | 10 | 30% | 1 | 3% |
| 2015/16 | Female | 5 | 1 | 20% | 1 | 20% | 3 | 60% | 0 | 0% |
| | Male | 18 | 9 | 50% | 3 | 17% | 6 | 33% | 0 | 0% |
| 2016/17 | Female | 6 | 2 | 33% | 4 | 67% | 0 | 0% | 0 | 0% |
| | Male | 61 | 24 | 39% | 18 | 30% | 12 | 20% | 7 | 11% |
| 2017/18 | Female | 10 | 4 | 40% | 2 | 20% | 4 | 40% | 0 | 0% |
| | Male | 70 | 21 | 30% | 20 | 29% | 25 | 36% | 4 | 6% |
| 2018/19 | Female | 6 | 6 | 100% | 0 | 0% | 0 | 0% | 0 | 0% |
| | Male | 47 | 22 | 47% | 8 | 17% | 13 | 28% | 4 | 9% |

*Table 4.8: Average Computer Science and EE UG degree classification across 5 years (the .5 are students on joint honours courses with another School).*

| | | 2014/15 - 2018/19 | | | |
|---|---|---|---|---|---|
| | | Total Female | Total Male | % Female | % Male |
| CS | 1st | 6.5 | 81 | 27% | 34% |
| | 2:1 | 10 | 75.5 | 41% | 31% |
| | 2:2 | 5 | 62.5 | 20% | 26% |
| | 3rd | 3 | 21 | 12% | 9% |
| | Total | 24.5 | 240 | | |
| EE | 1st | 13 | 85 | 43% | 37% |
| | 2:1 | 8 | 62 | 27% | 27% |
| | 2:2 | 7 | 66 | 23% | 29% |
| | 3rd | 2 | 16 | 7% | 7% |
| | Total | 30 | 229 | | |

Table 4.8 shows that in both CS and EE a higher percentage of our female student cohort achieve the highest degree classifications (2:1 and 1st), with 68% of females achieving a 2.1 or a 1st in CS compared to 65% of males, and 70% of females in EE achieving a 2.1 or a 1st compared to 64% of males.

Overall, the number of female students on EE courses achieving a first-class degree has increased, with 100% of female students achieving a first-class degree in 2018/19. Also, there are very few third-class degrees awarded to female students across both disciplines in the School.

On graduation days each year, the School holds a banquet for all graduating students, which includes a prize giving ceremony (awards summarized by gender in Table 4.9) for our best performing students, including an award for the most meritorious female in Engineering. The Ada Lovelace Award is named after the English Mathematician, Ada Lovelace, known as the 'first computer programmer' for writing an algorithm for a computing machine in the mid-1800s. We introduced this award in 2012/13 as a way of celebrating our female students' success and as motivation for career progression.

*Table 4.9: Summary of the prizes awarded by the School at the end of each academic year split by gender.*

| Award | Description | CS / EE | Year | M | F |
|---|---|---|---|---|---|
| Paul Green Memorial Award | Most meritorious Undergraduate Final Year Project | EE | 3 | 3 (50%) | 3 (50%) |
| Institute of Engineering & Technology | Best Final Year Student on an IET accredited course | EE | Final | 3 (60%) | 2 (40%) |
| R A Jones Prize | Any student for most proficiency in Engineering-related maths | EE | Any | 4 (67%) | 2 (33%) |
| RHC Newton | Best performing 2nd year student in maths in an Engineering subject | EE | 2 | 2 (40%) | 3 (60%) |
| Dr David Owen (for Physics) | Outstanding performance in Physics course(s) from a student from any year | EE | Any | 4 (67%) | 2 (33%) |
| W E Williams Prize | Best 2nd year student on a BSc/BEng course | EE | 2 | 3 (60%) | 2 (40%) |
| The Ada Lovelace Award | Any year, to the most meritorious female in Engineering | CS & EE | Any | 0 | 6 (100%) |
| Jan Abas Computer Graphics Prize | Demonstrated the best use & understanding of Computer Graphics or related technologies in the final year of their course | CS | Final | 5 (100%) | 0 |
| J H Gee Prize | Outstanding performance in Computing related maths | CS | Any | 5 (100%) | 0 |
| Dr Jane Rudall Award for Achievement and Progress | Awarded to a student who has attained significant achievement(s) having pursued their studies with particular determination and effort | CS | Final | 5 (56%) | 4 (44%) |
| British Computer Society | Best graduating student on a BCS accredited course | CS | Final | 4 (100%) | 0 |

**ACTIONS:**

**2.1** Increase entry tariff for UG programmes;

**2.4** Attend and organise events specifically aimed at girls from local Schools within our catchment areas where we typically recruit from;

**2.7** Increase UP/PGT female applications;

**2.8** Improve conversion rates for both male and female UG and PGT applications;

**2.10** Improve male EE conversion rates;

**4.1** Improve marketing materials;

**4.2** Improve female student experience;

**4.3** Ensure CSEE website reflects the diversity of our staff and students.

### (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.*

The school currently offers 8 PGT degrees, namely:

- MSc Advanced Computer Science
- MSc Advanced Data Science
- MSc Computing
- MSc Computing for Data Science
- MSc Rise of the Machines
- MSc Electronic Engineering
- MSc Broadband and Optical Communications
- MSc Nanotechnology and Microfabrication
- MBA Information Management†

† Business School Degree with CS modules

All our PGT courses have a duration of 1 year full-time, and 2-years part-time.

The data for PGT student numbers have been benchmarked against the Computer Science (COMP) and Engineering & Technology (ENGI) 2014/15 and 2017/18 HESA statistics.

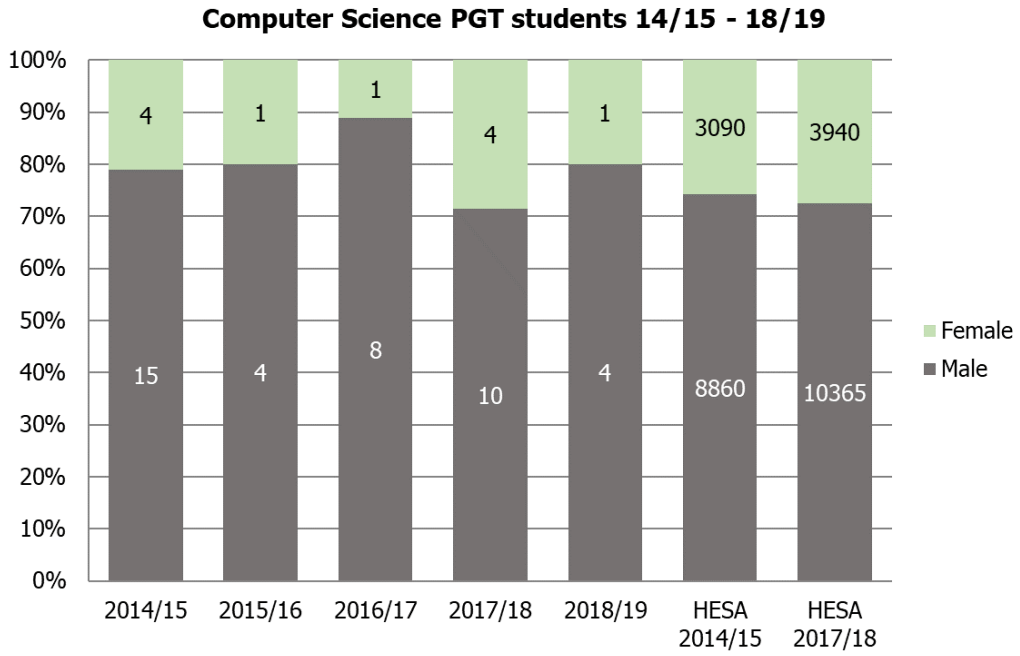


*Figure 4.7*: Total number of CS PGT students against HESA benchmark.

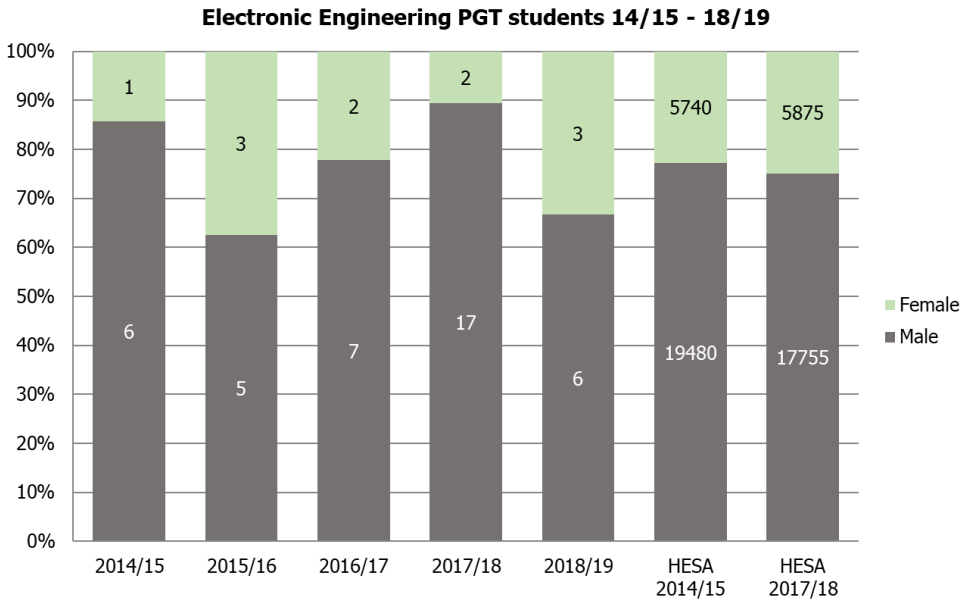


*Figure 4.8*: Total number of EE PGT students against HESA benchmark.

As the data demonstrates, our programmes have had a relatively small number of applicants for a few years and resulted in small cohorts. This was also highlighted by our external examiners, who suggested expanding to more specialised programmes. Following feedback, during the 2019/20 academic year we introduced a number of new PGT programmes and revamped the core existing ones. Our new provision includes a Conversion MSc intended to attract applicants outside the domain of CS, who may wish to establish domain knowledge in programming, data structures, AI and human-computer interaction. Data on our first cohort of applications are summarised in the snapshot of the department section (Table 2.1) where we now have a 31% PGT female student population. We believe this increase can be partly attributed to the new provision; the 'Advanced' title

seems to be attractive to the international market, but **Action 2.6** will analyse in detail the reasons for this increase.

The data indicates that we are good at converting female applicants from accept to admitted with a clear dip in 2017/18 and 2018/19, although the number of accepted offers increased in these two years. As with UG students, the School will action an initiative to improve our conversion rates through a telephone campaign to increase our PGT female student population **(Action 2.8)**.

The improvement in our recruitment, and the offers made to students, can be seen in Table 4.9 and Figures 4.9 and 4.10, where despite the small numbers, the update in 2018/19 is indicative of our efforts, while improving our balance between female and male applicants.

In order to improve our PGT/PGR recruitment, a postgraduate programmes information fair was organised for the first time in February 2020. The fair was advertised to our University's student body via emails and social media and attracted students from within our School, for our advanced MSc/PhD programmes, as well as from other Schools for our conversion programmes. Follow-up events are planned for 2019/20 and 2020/21 **(Action 2.7e)**.

*Table 4.9: Number of student applications, offers and accepts for CS and EE PGT courses (the .5 are students on the MBA course).*

| | | Computer Science | | | | | Electronic Engineering | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | Male | Female | Unknown | % Female | Total | Male | Female | Unknown | % Female | |
| 2014/15 | Applicants | 214.5 | 165.5 | 48 | 1 | 22% | 185 | 160 | 24 | 1 | 13% | |
| | Offer | 153.5 | 118 | 34.5 | 1 | 22% | 92 | 76 | 15 | 1 | 16% | |
| | Admitted | 17.5 | 15 | 2.5 | 0 | 14% | 8 | 7 | 1 | | 13% | |
| 2015/16 | Applicants | 219 | 170.5 | 45.5 | 3 | 21% | 219 | 185 | 32 | 2 | 15% | |
| | Offer | 119 | 89 | 27 | 3 | 23% | 115 | 87 | 26 | 2 | 23% | |
| | Admitted | 8.5 | 4.5 | 1 | 3 | 12% | 11 | 8 | 3 | | 27% | |
| 2016/17 | Applicants | 176.5 | 140 | 35.5 | 1 | 20% | 204 | 172 | 32 | 0 | 16% | |
| | Offer | 111 | 86 | 24 | 1 | 22% | 92 | 72 | 20 | 0 | 22% | |
| | Admitted | 9.5 | 7.5 | 2 | 0 | 21% | 10 | 8 | 2 | | 20% | |
| 2017/18 | Applicants | 248.5 | 200.5 | 48 | 0 | 19% | 181 | 152 | 26 | 3 | 14% | |
| | Offer | 159 | 125.5 | 33.5 | 0 | 21% | 85 | 70 | 15 | 0 | 18% | |
| | Admitted | 15.5 | 12 | 3.5 | 0 | 23% | 17 | 16 | 1 | | 6% | |
| 2018/19 | Applicants | 208 | 155 | 53 | 0 | 25% | 167 | 122 | 45 | 0 | 27% | |
| | Offer | 124.5 | 86.5 | 38 | 0 | 31% | 87 | 61 | 26 | 0 | 30% | |
| | Admitted | 5 | 4 | 1 | 0 | 20% | 11 | 8 | 3 | | 27% | |

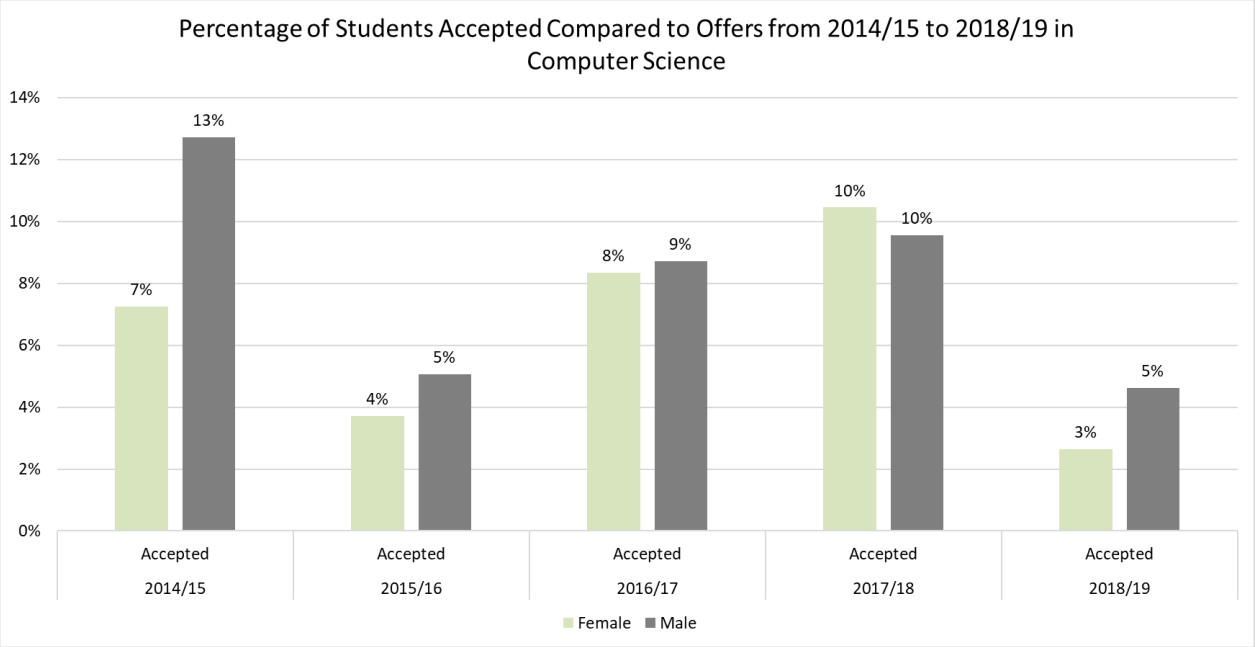


*Figure 4.9*: Percentage of students admitted compared to those who were given offers for PGT CS courses.

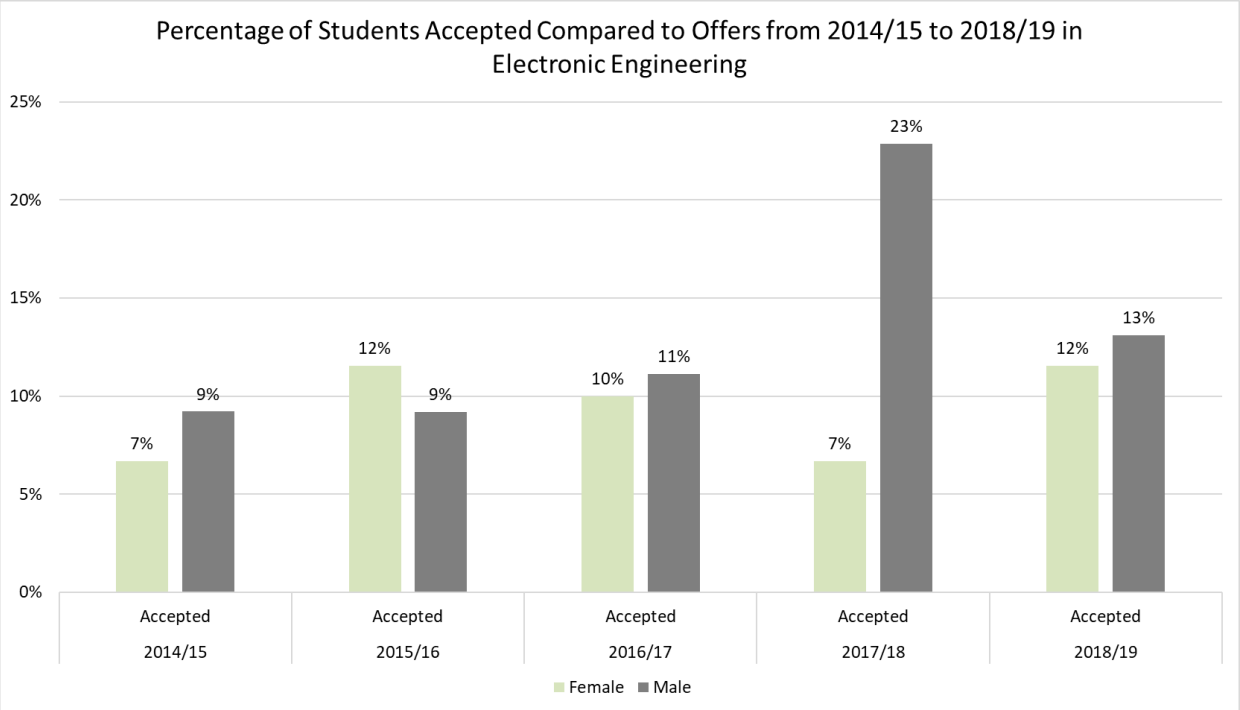


*Figure 4.10*: Percentage of students admitted compared to those who were given offers for PGT EE courses.

## Computer Science and Electronic Engineering MSc Degree Classification

The figures below present the degree classification in our MSc programmes for CS and EE. Overall, although the number of male students is usually higher, the number of students for both CS and EE domains is low and does not allow for a meaningful comparison.

In general, female CS students achieve merit and distinction classification at a higher/around the same percentage as male students, with the exception of 2016/17. EE is slightly different with 2014/15 having no female students, and a higher percentage of distinctions and merits for males, during 2015/16 and 2018/19.

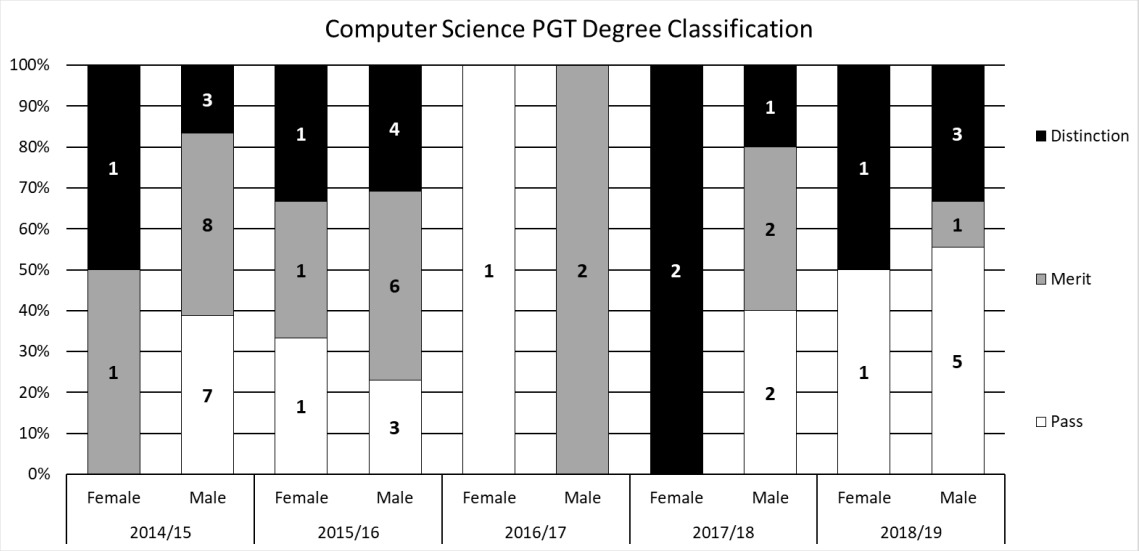


*Figure 4.11*: Computer Science PGT degree classification across 5 years.

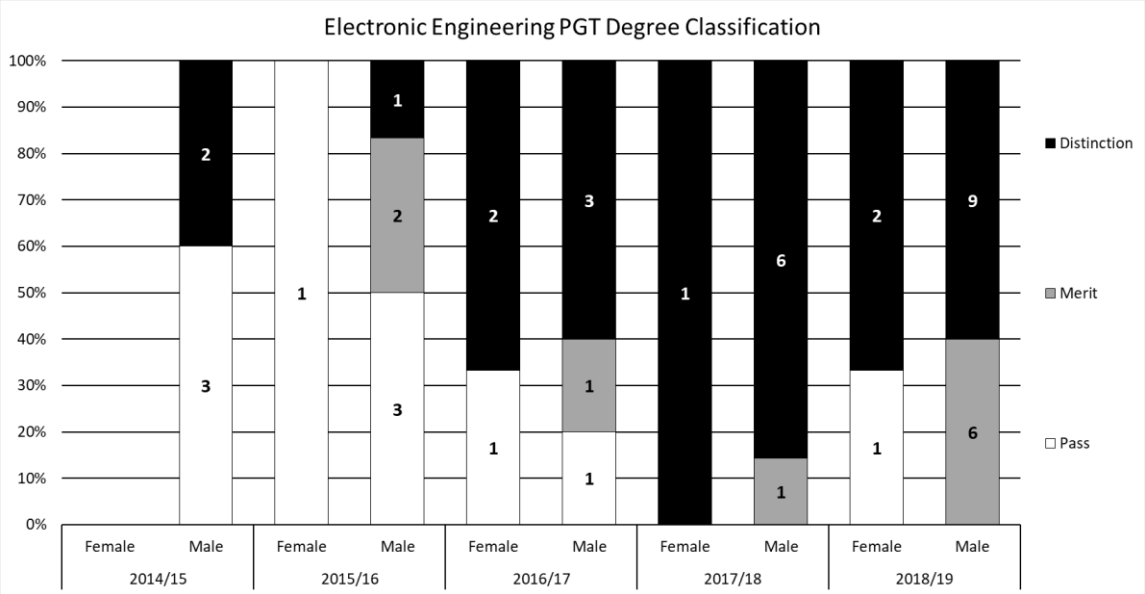


*Figure 4.12*: Electronic Engineering PGT degree classification across 5 years.

**ACTIONS:**

**2.6** Investigate and analyse the reasons for an increase in female PGFT population in 2019/20;

**2.7e** Increase UG-PGT academic pipeline by hosting an annual PGT courses fair at the School;

**2.8** Improve conversion rates for both male and female UG and PGT applications.

### (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 Students

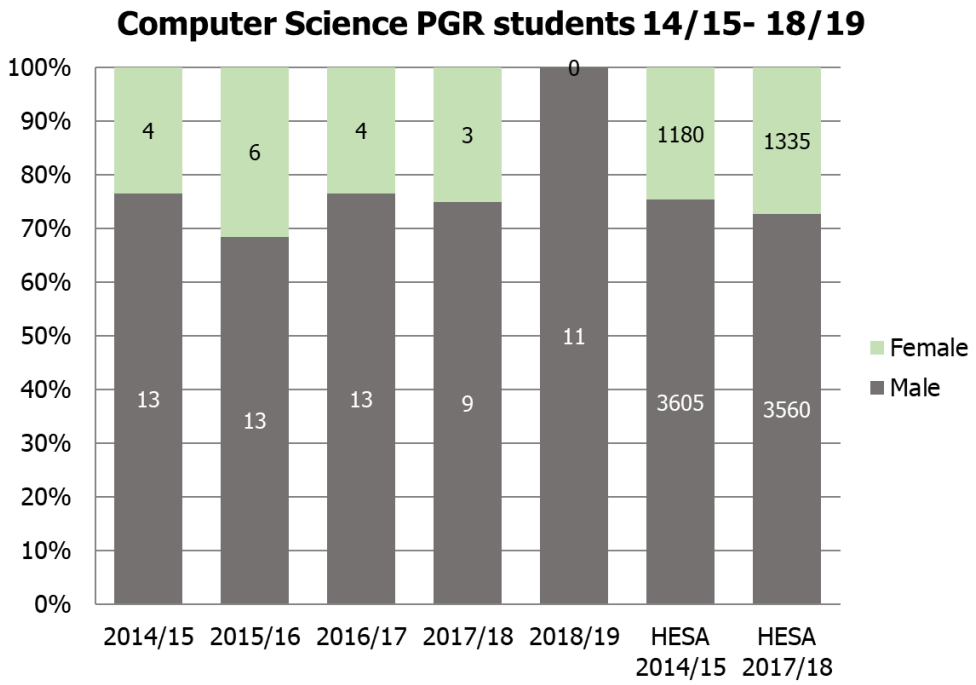


*Figure 4.13*: Total number of CS PGR students against HESA benchmark.

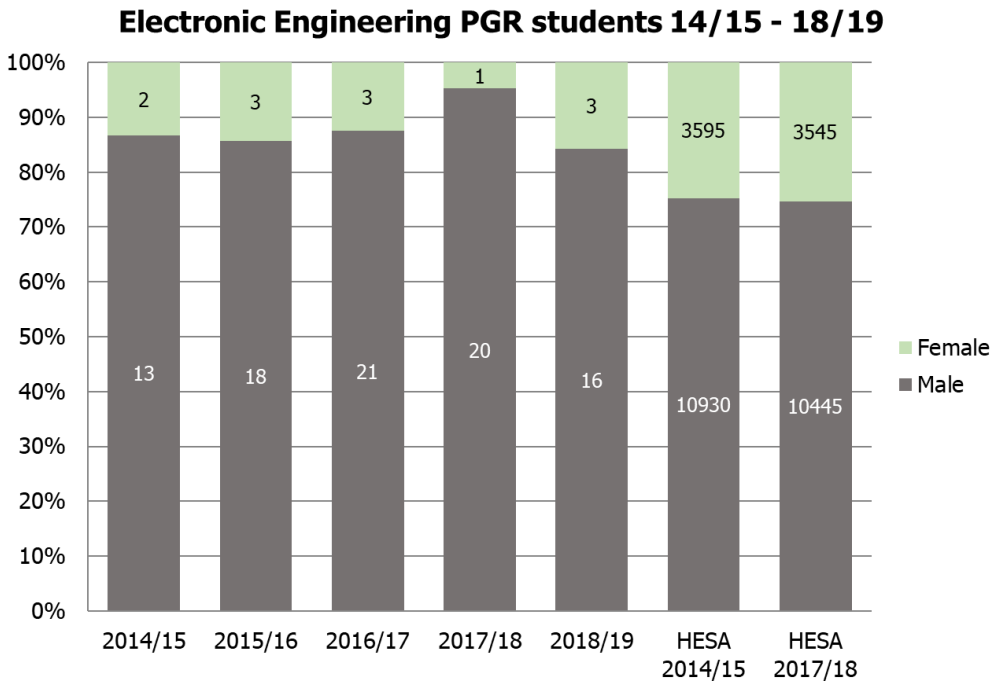


*Figure 4.14*: Total number of EE PGR students against HESA benchmark.

The number of male and female PGR students in CS and EE are shown in Figures 4.13 and 4.14. In both disciplines the proportion of female PGR students is considerably below the UK benchmark, particularly in EE.

In CS we saw a somewhat larger than normal intake in 2015; all female students had completed by 2018/19 and a drop-off for CS can be observed for 18/19 with no new PGR students starting.

The number and proportion of female PGR students in EE are very low and have been relatively stable over the reporting period. This seems in line with the sector with the proportion of female PGRs UK-wide being relatively stable between 14/15 and 17/18.

The gap has been somewhat readdressed in the current academic year where two additional female PGR students have enrolled.

## Recruitment

As can be seen in the data in Table 4.10, the proportion of females that convert from applicant-offer-accept diminishes, suggesting that the PGR recruitment process (both MRes and PhD) favours males over females. A particular concern is that many of the offers to female students are not converted to accepts. The process of recruitment will be reviewed **(Action 2.9)** to ensure that the male/female ratio is consistent. There is an overall problem of not attracting enough female applications from the outset, however this may be a pipeline problem. This needs to be considered in the general issue of recruiting more females into STEM subjects. This is perhaps the result of the poor application numbers and the recruitment process.

*Table 4.10: Number of student applications, offers and accepts for CS and EE PGR courses.*

| | | Computer Science | | | | | Electronic Engineering | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | Male | Female | Unknown | % Female | Total | Male | Female | Unknown | % Female |
| 2014/15 | Applicants | 88 | 75 | 13 | | 15% | 61 | 48 | 11 | 2 | 18% |
| | Offer | 16 | 14 | 2 | | 13% | 25 | 21 | 3 | 1 | 12% |
| | Admitted | 10 | 9 | 1 | | 10% | 9 | 8 | 1 | | 11% |
| 2015/16 | Applicants | 95 | 72 | 22 | 1 | 23% | 69 | 57 | 12 | | 17% |
| | Offer | 15 | 9 | 6 | | 40% | 23 | 18 | 5 | | 22% |
| | Admitted | 8 | 5 | 3 | | 38% | 13 | 11 | 2 | | 15% |
| 2016/17 | Applicants | 53 | 38 | 14 | 1 | 26% | 49 | 37 | 12 | 0 | 24% |
| | Offer | 6 | 4 | 2 | | 33% | 18 | 13 | 5 | | 28% |
| | Admitted | 2 | 2 | 0 | | 0% | 11 | 9 | 2 | | 18% |
| 2017/18 | Applicants | 38 | 24 | 14 | | 37% | 14 | 11 | 3 | | 21% |
| | Offer | 6 | 5 | 1 | | 17% | 3 | 3 | 0 | | 0% |
| | Admitted | 1 | 1 | 0 | | 0% | 2 | 2 | 0 | | 0% |
| 2018/19 | Applicants | 45 | 34 | 10 | 1 | 22% | 42 | 32 | 10 | | 24% |
| | Offer | 9 | 7 | 2 | | 22% | 8 | 5 | 3 | | 38% |
| | Admitted | 3 | 3 | 0 | | 0% | 7 | 5 | 2 | | 29% |

## Completion

*Table 4.11: Full-Time PhD Average Time to Completion.*

| PhD Full-Time | Number | Average Time to Completion (Months) |
|---|---|---|
| Male | 24 | 44.4 |
| Female | 8 | 48.5 |

The data on completion (Table 4.11) suggests that female students take on average 4 months longer than male students. **Action 2.11** will monitor this, and the School will hold discussion forums with female and male PGR students to discuss the level of support etc. they feel they get while studying.

**ACTIONS:**

**2.9** Improve PGR application numbers and investigate the possible reasons behind the low number of PGR applications with the aim of improving PGR recruitment;

**2.11** Monitor timeframe of PGR completion rates and hold discussion forums with female and male PGR students.

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

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

The School has limited places for funded postgraduate places, which is a limiting factor in the transition from taught UG to PGR degrees. Nonetheless, since 2019 there have been additional funded places for eleven PhDs via the Centre of Doctoral Training (CDT) in AI, available over five-years, and four places (with the potential for more) via the CDT in Nuclear Energy Futures.

In addition, students now have an option to join our School from any discipline via our conversion course route. These are at level-7 and allow students with any first degree to apply for Computing, Computing for Data Science or Rise of the Machines. All three are designed to start with the fundamentals of computing and provide base skills necessary to undertake applied activities, followed by a research project following the taught element. Moreover, once the MSc programme is completed there is an option to move onto a

research degree. We will be looking to expand this offering to Engineering in the coming years.

### 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.*

BU's academic career profile and how these roles relate to HERA grades and UCEA Job levels is shown in Table 4.12. The data in this application is presented by Bangor role profile as this allows us to better define the academic career pipeline and identify any emerging issues (an academic on Grade 7 could either be a Research Officer (RO) or a Lecturer; Grade 9 could be a Senior Lecturer (SL) or a Reader).

*Table 4.12: Academic career profile.*

| HERA Grade | BANGOR UNIVERSITY ROLE PROFILES | | UCEA Job level |
|---|---|---|---|
| | Research | Academic | |
| Grade 6 | Research Project Support Officer | | L |
| Grade 7 | Research Officer | Lecturer 1 & Teaching Associate/Tutor | K |
| Grade 8 | Research Fellow | Lecturer 2 | J |
| Grade 9 | Senior Research Fellow | Senior Lecturer & Reader | I |
| PROF | | Professorial Bands 1-3 | 5A |

The following research and staff data have been benchmarked against the 2017/18 HESA UK Electrical, Electronic & Computer Engineering benchmark. We have grouped Research Project Support Officer, RO's and Research Fellows into "Researchers". "Other academic" includes teaching associates and tutors. The table showing overall staff numbers (Table 4.13) has been broken down into research groups (CS/EE) to highlight the two main disciplines in the School, but the subsequent data (including the Academic Pipeline in Figure 4.15) will be presented as the combined School of CSEE.

As noted in the LoE, we have unfortunately lost two female members of faculty staff over the reporting period (discussed in more detail in Section (iii)). The over-arching objective is to increase the number and proportion of permanent female staff in CSEE **(Action 3.1)**. Specific actions include developing gender-neutral wording of job and PhD/Post-doc positions and ensuring marketing materials/websites where potential applicants may look are not male-biased **(Action 3.2)**, ensuring men and women are represented on interview and shortlisting panels, and that all members of interview panels have completed Recruitment and Selection training **(Action 3.4)**, and in the case of a single-gender shortlist, we will implement a process whereby the shortlisting panel will be asked to reconsider all applications to check if any appointable female candidates were overlooked. This could result in re-advertising or selecting other appointable candidates for interview **(Action 3.5)**.

*Table 4.13: Breakdown of staff in the School by discipline.*

| | | 2014/15 | | | 2015/16 | | | 2016/17 | | | 2017/18 | | | 2018/19 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Female | Male | % Female | Female | Male | % Female | Female | Male | % Female | Female | Male | % Female | Female | Male | % Female |
| Computer Science | Other Academic | 0 | 1 | 0% | 0 | 0 | 0% | 0 | 0 | 0% | 0 | 1 | 0% | 0 | 1 | 0% |
| | Researcher | 0 | 7 | 0% | 0 | 4 | 0% | 0 | 2 | 0% | 1 | 2 | 33% | 2 | 4 | 33% |
| | Lecturer | 1 | 6 | 14% | 1 | 7 | 13% | 1 | 7 | 13% | 1 | 6 | 14% | 0 | 5 | 0% |
| | Senior Lecturer | 0 | 3 | 0% | 0 | 3 | 0% | 0 | 1 | 0% | 0 | 1 | 0% | 0 | 3 | 0% |
| | Reader | 0 | 0 | 0% | 0 | 0 | 0% | 0 | 0 | 0% | 0 | 0 | 0% | 0 | 0 | 0% |
| | Professor | 1 | 1 | 50% | 1 | 1 | 50% | 1 | 1 | 50% | 1 | 1 | 50% | 1 | 1 | 50% |
| | Total | 2 | 18 | 10% | 2 | 15 | 12% | 2 | 11 | 15% | 3 | 11 | 21% | 3 | 14 | 18% |
| Electronic Engineering | Other Academic | 0 | 3 | 0% | 0 | 2 | 0% | 0 | 1 | 0% | 0 | 1 | 0% | 0 | 1 | 0% |
| | Researcher | 2 | 7 | 22% | 1 | 5 | 17% | 4 | 7 | 36% | 3 | 9 | 25% | 5 | 11 | 31% |
| | Lecturer | 2 | 4 | 33% | 2 | 3 | 40% | 1 | 1 | 50% | 0 | 3 | 0% | 0 | 3 | 0% |
| | Senior Lecturer | 0 | 5 | 0% | 0 | 6 | 0% | 1 | 7 | 13% | 1 | 9 | 10% | 1 | 10 | 9% |
| | Reader | 0 | 0 | 0% | 0 | 0 | 0% | 0 | 1 | 0% | 0 | 1 | 0% | 0 | 1 | 0% |
| | Professor | 0 | 5 | 0% | 0 | 5 | 0% | 0 | 7 | 0% | 0 | 6 | 0% | 0 | 5 | 0% |
| | Total | 4 | 24 | 14% | 3 | 21 | 13% | 6 | 24 | 20% | 4 | 29 | 12% | 6 | 31 | 16% |
| School Total | | 6 | 42 | 13% | 5 | 36 | 12% | 8 | 35 | 19% | 7 | 40 | 15% | 9 | 45 | 17% |

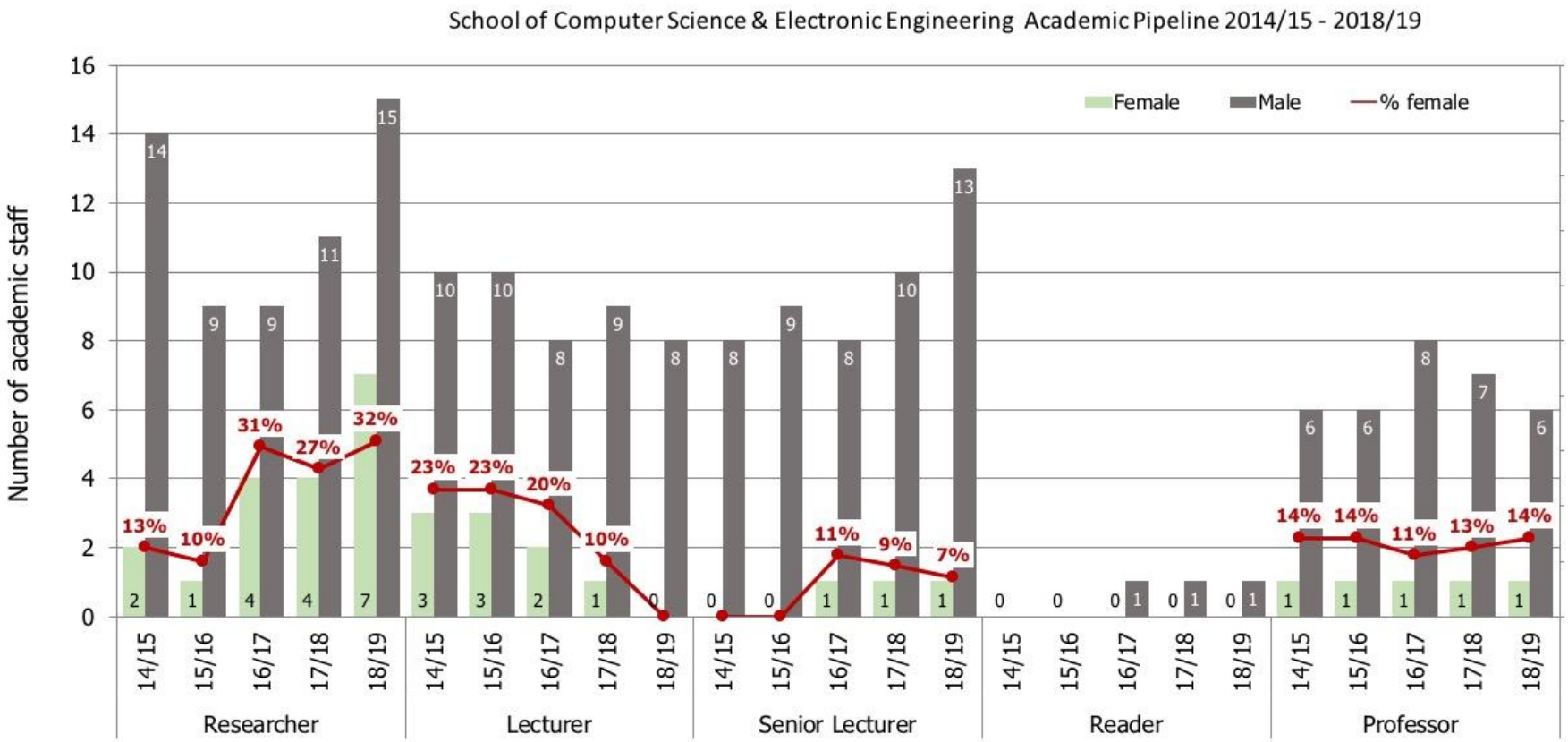


*Figure 4.15*: School of Computer Science and Electronic Engineering Academic Pipeline 2014/15 – 2018/19.

Due to limited recruitment of new staff in recent years, there has been very little change in overall numbers of academic staff. Note that as part of the University restructure, one male SL from another department joined the School in 18/19 (the other changes at SL level are due to promotions (see Section 5.1 (iii)).

However, there has been a significant increase in the proportion of female researchers in the School (from 13% in 14/15 to 32% in 18/19), which is very positive. Supporting the career development of this group of staff is a key priority of the school and our AP (see Section 5.3 (iii/iv)).

## Staff Data Full time and Part Time

Table 4.14 shows the breakdown of staff by full-/part-time and by gender. With the exception of the 2016/17 academic year, the proportion of full-time staff who are female is approximately constant at around 14%, with perhaps a small growth in the proportion of female staff as the underlying trend. However, it should be noted that a unit change in some of these numbers can lead to a significant percentage change. When considering the split between full-time and part-time, the proportion of female staff in part-time positions is lower than the HESA benchmark, while female staff in full-time positions are broadly in line with the benchmark, with a small growth in recent years. It would appear that the concerns around casualisation expressed elsewhere in the HE sector are not disproportionately affecting female staff in this School.

*Table 4.14: Full Time (FT) and Part Time (PT) Staff data broken down by gender.*

| | 2014/15 | | 2015/16 | | 2016/17 | | 2017/18 | | 2018/19 | | HESA (2017/18) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FT | PT | FT | PT | FT | PT | FT | PT | FT | PT | FT | PT |
| Female | 5 | 1 | 5 | 0 | 8 | 0 | 7 | 0 | 8 | 1 | 505 | 190 |
| Male | 31 | 11 | 30 | 6 | 27 | 8 | 32 | 8 | 39 | 6 | 31,955 | 670 |
| Female | 14% | 8% | 14% | 0% | 23% | 0% | 18% | 0% | 17% | 14% | 14% | 22% |
| Male | 86% | 92% | 86% | 100% | 77% | 100% | 82% | 100% | 83% | 86% | 86% | 78% |

## Contract Function

Table 4.15 indicates that no female staff are presently employed on teaching-only contracts. In contrast, a larger proportion than the HESA benchmark are employed on research-only contracts (32%). Again, the relatively small total numbers mean that there is some volatility in the proportions between years, attributable to churn at the end of research contracts, but the underlying trend is for a growth in the proportion of female staff on research-only contracts in more recent years. As has been identified above, this means there is potential to retain and develop the next generation of female academic staff. Note

that a small number of Researchers were on Teaching and Research (T&R) contracts rather than research-only contracts (2m in 14/15 and 15/16, 1m in 16/17, 1m & 1f in 17/18).

*Table 4.15: Staff data broken down by contract function.*

| | Year | Female | Male | Female | Male |
|---|---|---|---|---|---|
| Teaching Only | 2014/15 | 0 | 4 | 0% | 100% |
| | 2015/16 | 0 | 4 | 0% | 100% |
| | 2016/17 | 0 | 4 | 0% | 100% |
| | 2017/18 | 0 | 4 | 0% | 100% |
| | 2018/19 | 0 | 5 | 0% | 100% |
| | HESA (2017/18) | 120 | 500 | 20% | 80% |
| Research Only | 2014/15 | 2 | 12 | 14% | 86% |
| | 2015/16 | 1 | 7 | 13% | 87% |
| | 2016/17 | 4 | 8 | 33% | 67% |
| | 2017/18 | 3 | 10 | 23% | 77% |
| | 2018/19 | 7 | 15 | 32% | 68% |
| | HESA (2017/18) | 280 | 1,460 | 16% | 84% |
| Teaching & Research | 2014/15 | 4 | 24 | 14% | 86% |
| | 2015/16 | 4 | 24 | 14% | 86% |
| | 2016/17 | 4 | 23 | 15% | 85% |
| | 2017/18 | 4 | 26 | 13% | 87% |
| | 2018/19 | 2 | 24 | 8% | 92% |
| | HESA (2017/18) | 240 | 1,765 | 12% | 88% |

**ACTIONS:**

**3.1** Increase the number and proportion of permanent female staff in CSEE;

**3.2** Develop gender-neutral wording of job and PhD/Post-doc positions and ensure marketing materials/websites where potential applicants may look are not male-biased;

**3.4** Ensure men and women are represented on interview and shortlisting panels, and that all members of interview panels have completed Recruitment and Selection training;

**3.5** In the case of single-gender shortlist, there will be a process whereby the shortlisting panel will be asked to reconsider all applications to check if any appointable female candidates were overlooked.

**SILVER APPLICATIONS ONLY**
Where relevant, comment on the transition of technical staff to academic roles.

(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.*

Table 4.16 shows the data for the gender split between permanent/fixed-term staff contracts. While the proportion of permeant contracts held by women has declined over the reporting period (from 17% to 7%), the proportion of fixed-term contracts held by female staff has seen a significant increase from 8% to 26%. This is largely attributable to the increase in the number of research contracts awarded to female researchers in recent years. The lower proportion of permanent compared to fixed-term contracts held by women is in line with the pattern seen in the HESA UK benchmark. However, the proportion of permanent contracts held by women in CSEE is well below the HESA benchmark while our proportion of fixed-term contracts is well above the national benchmark.

*Table 4.16: Staff data broken down by contract type (Permanent (P) & Fixed Term (F)) and by gender.*

| | 2014/15 | | 2015/16 | | 2016/17 | | 2017/18 | | 2018/19 | | HESA (2017/18) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P | F | P | F | P | F | P | F | P | F | P | F |
| Female | 4 | 2 | 4 | 1 | 4 | 4 | 3 | 4 | 2 | 7 | 360 | 335 |
| Male | 20 | 22 | 22 | 14 | 20 | 15 | 23 | 17 | 25 | 20 | 2405 | 1465 |
| Female | 17% | 8% | 15% | 7% | 17% | 21% | 12% | 19% | 7% | 26% | 13% | 19% |
| Male | 83% | 92% | 85% | 93% | 83% | 79% | 88% | 81% | 93% | 74% | 87% | 81% |

(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.*

During the reporting period, the majority of leavers (Table 4.17), both male and female, were those coming to the end of fixed-term contracts. There is no significant difference in the proportion of leavers between genders with fixed-term contracts. Regarding full-time and part-time contracts, the data shows different patterns in different years suggesting there are few systematic effects in play. Across the reporting period:

- 7 out of 30 researchers (1f,6m) that left were on part-time contracts;
- One (m) of the five lectures was part-time;
- One (m) of the two other academics was part-time;
- The two professors (m) who left in 17/18 were part-time;
- The two SL (m) who left in 15/16 were full-time;

[redacted]

*Table 4.17: Academic leavers broken down by role profile and gender (the total number of leavers and number of fixed-term contract leavers).*

| **Leavers** | | 2014/15 | | 2015/16 | | 2016/17 | | 2017/18 | | 2018/19 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | F | M | F | M | F | M | F | M | F | M |
| OTHER ACADEMIC | All | | 2 | | | | | | | | |
| | End of FTC | | 2 | | | | | | | | |
| RESEARCHER | All | 1 | 8 | | 4 | 2 | 2 | | 6 | 3 | 4 |
| | End of FTC | | 5 | | 3 | 2 | | | 3 | 1 | 2 |
| LECTURER | All | | 1 | | 1 | 1 | 1 | 1 | | | |
| | End of FTC | | 1 | | 1 | | | | | | |
| SL | All | | | | 2 | | | | | | |
| | End of FTC | | | | | | | | | | |
| PROF | All | | | | | | | | 2 | | |
| | End of FTC | | | | | | | | 2 | | |
| **TOTAL** | **All** | **1** | **12** | | **7** | **3** | **3** | **1** | **8** | **3** | **4** |
| | **End of FTC** | | **9** | | **4** | **2** | **0** | **0** | **5** | **1** | **2** |

*(Word Count: 2249, Extension: 1,000, Total: 3249)*

## 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.*

The University's Recruitment and Selection Policy aims to recruit staff based on objective criteria that are fair, equitable and free from bias. The University's webpage, that lists all vacancies, includes a statement on the University's AS membership and commitment to AS Charter principles. Departmental job adverts are placed on the University website (https://jobs.bangor.ac.uk/) and on https://www.jobs.ac.uk/. Specialist jobs such as those advertised in the Nuclear Futures Institute rely on external websites such as LinkedIn.

The Chair of all selection and interview panels must have attended the Recruitment and Selection training which includes unconscious bias training (to date 18 [2f, 16m] academic members of staff (58%) have completed this training). Also, where possible, the Chair must ensure a diversity of representation on panels among those involved in the process, including no single gender interview panels. All interview panel members have undertaken the University's on-line equality training.

BU uses TalentLink for its application tracking; data on recruitment activity for AS purposes and other returns are pulled from this system. However, there are gaps in the data, particularly regarding shortlisting. The issues were identified in the University's Institutional AS application and AP, and work is ongoing to improve accuracy and completeness of this data. Progress has been made with this; we are able to report shortlisting data for all researcher posts advertised in 18/19.

Please also note that this data captures recruitment activity within a given period. The data is based on job posting dates (rather than contract start date) which means the recruitment data is not necessarily reflected in the corresponding academic year, in the staff data in Section 4.2.

Table 5.1 shows the number of applicants/shortlists/hires for externally funded researcher positions between 2014/15 and 2018/19. There were 25 positions advertised that resulted in hires, 6 (24%) of these were offered to female applicants. In 2018/19 although females accounted for just 8% of the applications 25% of these were successful, compared to just 8% for male applicants. Since 2015/16 female applicants have had a higher success rate than males.

*Table 5.1: Applications, short-list and hires to CSEE Researcher posts 2014/15-2018/19.*

| CSEE | Researcher Positions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2014/15 | | 2015/16 | | 2016/17 | | 2017/18 | | 2018/19 | |
| | F | M | F | M | F | M | F | M | F | M |
| Applications | 7 | 52 | 5 | 52 | 11 | 60 | 7 | 69 | 8 | 88 |
| **%** | **11%** | **89%** | **9%** | **91%** | **16%** | **84%** | **9%** | **91%** | **8%** | **92%** |
| Shortlist | *1* | *8* | *2* | *10* | *2* | *5* | *1* | *18* | 5 | 23 |
| **%** | *11%* | *89%* | *17%* | *83%* | *29%* | *71%* | *5%* | *95%* | **18%** | **82%** |
| Hires | 0 | 3 | 1 | 2 | 2 | 2 | 1 | 5 | 2 | 7 |
| **%** | **0%** | **100%** | **33%** | **67%** | **50%** | **50%** | **17%** | **83%** | **22%** | **78%** |
| *Shortlist : Appl.* | *14%* | *14%* | *40%* | *19%* | *18%* | *8%* | *14%* | *26%* | 63% | 26% |
| *Hires : Shortlist* | *0%* | *38%* | *50%* | *20%* | *100%* | *40%* | *100%* | *28%* | 40% | 30% |
| **Hires : Appl.** | **0%** | **5%** | **20%** | **4%** | **18%** | **3%** | **14%** | **7%** | **25%** | **8%** |

Note that the shortlisting data is incomplete as it wasn't available for all positions advertised. It is therefore shown in italics for 14/15-17/18.

Table 5.2 shows that there were three recruitment rounds for permanent lecturer positions over the 5-year period, as well as one fixed-term lectureship. According to the data available, there were very few applicants in total and none of these were female (no shortlisting data is available, and we are not confident this application/shortlisting data is complete).

*Table 5.2: Applications and hires to faculty positions 2014/15-2018/19.*

| Faculty position Computer Science & Electronic Engineering 14/15 -18/19 | | | | |
|---|---|---|---|---|
| | | Applicants | | Hired |
| | | F | M | |
| 14/15 | Lecturer in Computer Science | 0 | 1 | M |
| 14/15 | Lecturer in Computer Science (Fixed Term) | 0 | 1 | M |
| 16/17 | Lecturer in Computer Science | 0 | 3 | M |
| 18/19 | Lecturer in Cyber Security | 0 | 1 | M |

The over-arching objective is to increase the number and proportion of permanent female staff in CSEE and **Actions 3.1-3.6** will help us achieve this.

**ACTIONS:**

**3.1** Increase the number and proportion of permanent female staff in CSEE;

**3.2** Develop gender-neutral wording of job adverts and ensure marketing materials/websites that potential applicants may look at are not male biased;

**3.3** Advertise posts on Cygnet Jobs (https://cygnetjobs.co.uk/about/) and other channels such as LinkedIn, and staff to promote advertised posts via their contacts and social media channels;

**3.4** Ensure men and women are represented on interview and shortlisting panels, and that all members of interview panels have completed Recruitment and Selection training;

**3.5** In the case of single-gender shortlist, there will be a process whereby the shortlisting panel will be asked to reconsider all applications to check if any appointable female candidates were overlooked;

**3.6** Female members of staff (at lecturer or SL level) to be given opportunity to attend Aurora programme.

### (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.*

BU holds mandatory inductions for all new staff to provide an introduction to, and overview of, the University, including its strategic objectives. The topics covered include employment matters, E&D (including AS) health and safety (H&S), pensions, employee support policies etc. Attendees complete feedback forms to facilitate the review of the course effectiveness. Analysis of induction feedback 17/18 shows that 90% of attendees found it useful or very useful. Researcher inductions for new academic and research staff are held twice a year.

The School currently doesn't have a formalised School induction process in place. **Action 1.4** will address this by developing a new CSEE induction. BU's SOS has recently developed a new School induction process as part of their AS Bronze AP. This induction, which includes a checklist, meeting with AS lead etc., is now being adapted as best practice within the College.

### (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.*

BU's academic promotions policy is currently being reviewed which will clearly state the expectations and benchmarks at each level of promotion in regard to (1) Teaching and Learning, (2) Research, and (3) Impact & Wider Contribution. Widening of the career progression criteria at University level has ensured that academic staff are offered alternative routes to progression, which match their skill sets and interest.

Table 5.3 shows the number of promotion applications/successful promotions between 14/15 -18/19 (note there were no applications in 17/18).

*Table 5.3: Number of applications and promotions to SL, Reader and Professor by gender between 2014/15 and 2018/19.*

| Promotions | | 2014/15 | | 2015/16 | | 2016/17 | | 2018/19 | |
|---|---|---|---|---|---|---|---|---|---|
| | | F | M | F | M | F | M | F | M |
| SL | Applications | - | 2 | 1 | 2 | - | 2 | - | 2 |
| | Promotions | - | 1 | 1 | 1 | - | 2 | - | 2 |
| | Success Rate | - | 50% | 100% | 50% | - | 100% | - | 100% |
| Reader | Applications | - | - | - | - | - | 1 | - | - |
| | Promotions | - | - | - | - | - | 1 | - | - |
| | Success Rate | - | - | - | - | - | 100% | - | - |
| Prof | Applications | - | - | - | 1 | - | - | - | - |
| | Promotions | - | - | - | 1 | - | - | - | - |
| | Success Rate | - | - | - | 100% | - | - | - | - |

There have been 11 applications for promotion over the past 5-years, 9 of which have been successful. There have been significantly more promotion applications from men than women which reflects the gender distribution of academic staff in the School. The application for promotion to SL from a female member of staff was successful. All of the applicants were on full-time contracts.

The majority of respondents in the staff survey (62% - 1f, 15m, 2 who didn't report gender) agreed that an individual's full range of skills and experience are valued by the School when it comes to considering promotions. Approximately threequarters of all respondents (76% – 2f, 17m, 3 who didn't report gender) agreed with the statement "I understand the promotion process and criteria in the University". Staff also indicated that they would welcome the opportunity to discuss and prepare a clear plan of how career goals, such as how promotion can be achieved, and how mentoring from senior staff to include clear and consistent promotion guidance would be beneficial. Staff also expressed a desire for a

workshop/seminar on the promotion process and the expectations for promotion **(Action 5.2)**.

### (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.*

Previous REF submissions were made before the two departments merged and the data is therefore shown for the separate departments (see Table 5.4).

All members of CS staff were included in REF2014, whereas in REF2008 90% of staff were included (100%-m, 67%-f). In EE for REF2014, 88% of staff were included (86%-m, 100%-f), whereas in REF2008 only 70% of staff were included (100%-m).

In comparison to the national rate of submission figures by gender (HEFCE) both departments were significantly above the national rate for both males and females.

*Table 5.4: REF submission rates, data by gender, split between EE and CS.*

| | REF2014 | | | REF2008 | | |
|---|---|---|---|---|---|---|
| | School | Male | Female | School | Male | Female |
| Computer Science | 100% | 100% | 100% | 90% | 100% | 67% |
| Electronic Engineering | 88% | 86% | 100% | 70% | 70% | 0% |
| National (HEFCE) | | 67% | 51% | | 67% | 48% |

BU is preparing for REF2021 using a "Rolling REF" exercise. This is an administrative exercise that involves annually reviewing the systems/data/activities/outputs in the research domain. A key outcome of Rolling REF is to provide individuals with an annual update on their progress to submission. Equality Impact Assessments are currently being carried out to ensure a fair approach to the selection of outputs; support is being provided on a case-by-case basis to ensure all eligible staff can make the best possible submission to our units of assessment.

**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.

### 5.3. Career development: academic 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?*

BU's Staff Development Team provides a wide range of learning and development opportunities to ensure that staff have the skills and knowledge necessary at all stages of their career/role/professional development. This includes schemes, events and online resources targeting both personal and professional development. Academic and research staff also have access to BU's Researcher Development programme which pulls together training delivered by RIIO, Library & Archives Services, HR and the Doctoral School.

Staff training is also provided by CELT (Centre for the Enhancement of Learning and Teaching), Governance and Compliance Office, Health and Safety Services (HSS), and IT Services and Learning Technology. The uptake of staff training offered in each area broken down by gender is shown in Table 5.5.

*Table 5.5: Uptake of training by staff offered in each area, by gender.*

| CSEE Training uptake | 14/15 | | 15/16 | | 16/17 | | 1718 | | 18/19 | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F | M | F | M | F | M | F | M | F | M | F | M |
| CELT | | | | | | 6 | | 7 | 1 | 8 | 1 | 21 |
| Compliance & Governance | | 1 | | 2 | 1 | 1 | 1 | 8 | | 4 | 2 | 16 |
| Health & Safety Services | 1 | 12 | 1 | 8 | 1 | 1 | | 6 | 2 | 12 | 5 | 39 |
| IT Services | | | | 3 | 1 | | | 2 | | 1 | 1 | 6 |
| Researcher Development (incl Doctoral School) | | 1 | | 1 | | 4 | | 1 | 2 | 11 | 2 | 18 |
| Staff Development | | 20 | 3 | 19 | | 7 | | 6 | 5 | 21 | 8 | 73 |
| TOTAL | 1 | 34 | 4 | 33 | 3 | 19 | 1 | 30 | 10 | 57 | 19 | 173 |

Evaluation is undertaken for sessions provided centrally; e.g. 88% of staff attending staff development sessions in 18/19 noted that the training they received was useful/very useful. However, this data is not broken down by school.

One of our members of staff is on the CELT team and has had significant input on CPD provision and has chaired both the E-Programme Development Group and the CPD Stakeholder Group for the last 5-years. This has had the direct benefit of other members of the School contributing to diverse CELT activities. There are also numerous members of staff who have contributed in some way towards the PGCertHE (Postgraduate Certificate in Higher Education), by way of mentoring, marking and observing.

The school actively supports staff members' through induction and training procedures and promotes additional opportunities specific to female staff. The school also maintains a budget for external professional development opportunities and for conference attendance.

The School is committed to supporting the career development of its staff and to improving its training uptake; we recognise that as a School we have work to do in this area. The School's commitment to the AS charter has enabled it to re-evaluate its priorities and take a fresh approach to staff support. The results from the staff survey indicated that staff would welcome more internal CPD for teaching and learning that is mandatory and an improvement in pedagogy and teaching skills **(Action 5.3)**. The survey also highlighted a desire for research funding proposal write-up training **(Action 5.6)**, more opportunities for training in E&D and H&S, and more training sessions on time management **(Action 5.4)**.

The staff survey highlighted that 68% of all respondents agreed that they are encouraged to take-up career development opportunities (see Figure 5.1). A further open-ended question suggested that staff would welcome additional training as part of their career development. Examples given were training on how to write research funding proposals/time management. As discussed, these types of training are offered at University level, which suggests improved communication of these opportunities is required at School level **(Action 5.4)**.

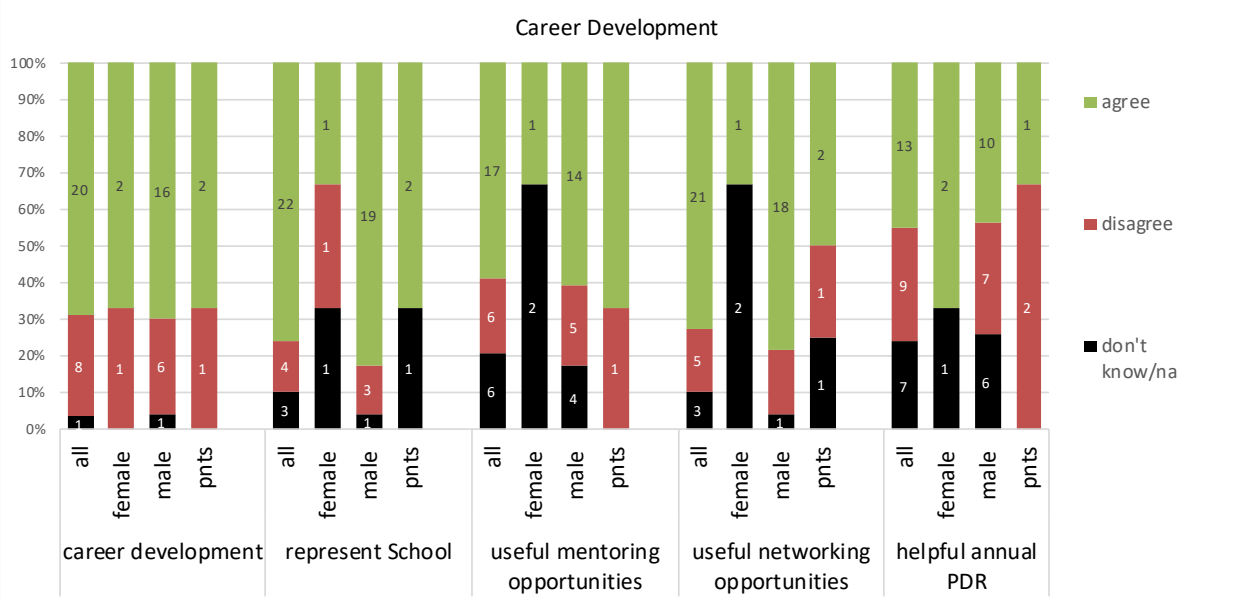


*Figure 5.1:* Percentage of 'agree' responses to questions regarding the School's encouragement/provision in terms of career development/networking/mentoring/PDR.

## Equality & Diversity Training

The University offers a number of E&D training modules aimed at different audiences, as shown in Table 5.6. Furthermore, an Unconscious Bias online training course has been launched in May 2020 (see **Action 1.9**).

*Table 5.6: Equality & Diversity training on offer and uptake by gender.*

| Module | Who are required to attend | Notes | Uptake | | |
|---|---|---|---|---|---|
| | | | Total | Female | Male |
| Equality Training | All staff | Online | 23 | 3 (13%) | 20 (87%) |
| Equality for Managers | Staff with management responsibilities | | 9 | 1 (11%) | 8 (89%) |
| Recruitment & Selection | Staff serving on recruitment/interview panels | | 18 | 2 (11%) | 16 (89%) |
| Responding to Disclosures of Sexual Violence | Student-facing staff | New Online Module | 11 | 1 9%) | 10 (91%) |

**ACTIONS:**

**1.9** Ensure all staff complete the compulsory University on-line equality training and the new Unconscious Bias training;

**5.3** Develop More internal CPD particularly for teaching and learning and pedagogy;

**5.4** Increase awareness of University training and career development opportunities and monitor uptake;

**5.6** Support to those applying for research grant applications and for those who have been unsuccessful.

### (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.*

BU policy aims to ensure all staff have an annual review. The academic PDR process was updated in 2015 to ensure discussion and recognition of a broader range of contributions (leadership and administration/engagement/wider contributions). The reviewer is also expected to discuss the impact of any career breaks to ensure that full support is provided if necessary. Completion of training seminars (i.e., equality training) should also be discussed.

However, ensuring all eligible staff have an annual PDR has not yet been achieved; completion of staff PDRs has been low, and less than half of all respondents in the survey agreed that the School provides a helpful annual PDR (see Figure 5.1). This is a major concern and one of the main areas which needs to be addressed **(Action 5.1, Action 5.2)**. Carrying out annual PDRs has not been a priority within the School, in large part due to the institutional re-structure and subsequent changes to the School structure.

**ACTIONS:**

**5.1** All academic and research staff to receive an annual PDR;

**5.2** Ensure that all staff are aware of the promotions process and are supported to apply when ready to do so.

### (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.*

At SCSEE, the research structure means that every postdoctoral researcher becomes part of a cluster which provides opportunities for collaboration, such as writing groups/joint working papers/access to funding. Moving forward, school-wide research days and writing retreats **(Action 5.7)** will be organised as mechanisms to encourage networking and career progression. BU currently offers a university-wide mentoring scheme for staff at all levels of their career and CSEE will seek to offer a departmental mentoring scheme **(Action 5.6c)**.

ECR staff are encouraged to participate in the University's ECR Network, which provides support in their career development, guidance on career progression, and an opportunity to meet other ECRs. The Researcher Development Programme offers workshops and training on a range of topics relevant to all academic staff (pathways to impact/grant writing/data management) and many workshops and training offered by the Doctoral School are also open to staff. The Doctoral School also run workshops for academic staff who supervise PhD students.

ECRs are encouraged to apply for the Welsh Crucible (WC) which is a pan-Wales programme funded by a consortium of Welsh institutions and HEFCW (Higher Education Funding Council for Wales) that aims to support interdisciplinary research and collaboration among researchers within Wales. There have been two (both male) participants from CSEE; **Action 5.5b** will seek to encourage female postdocs to apply. A female AS lead from another School will give a presentation in CSEE ahead of next year's WC to help encourage female CSEE post-docs to apply.

At University level, the Research Leadership Programme was launched in 18/19 and two further programmes were offered in 19/20. This programme aims to support research in Bangor by enhancing the leadership capabilities of research leaders to ensure they have the skills, abilities and confidence to lead and manage researchers effectively. Two members of CSEE staff (both male) have taken part.

BU also launched two academic mentoring schemes in September 2019; the Academic Mentoring Scheme (AMS) and the Senior Academic Mentoring Scheme (SAMS). Interest in these schemes from CSEE was low with only one mentor from CSEE taking part in the AMS, and one mentee in the SAMS (both male). **Action 5.4c** will look to improve participation by CSEE staff. Furthermore, we will set up a CSEE Early Career Mentoring Scheme in order to ensure that all staff at the early stages of their career have access to a mentor outside of their research group/PI relationship **(Action 5.5a)**.

Welsh language CSEE academics are also supported by the Coleg Cymraeg Cenedlaethol (CCC) which offer research and PhD funding, workshops and conferences. These are also open to all Welsh speaking staff. Currently, the School has two Welsh language CCC supported staff.

Whilst the SAT have anecdotal data on CSEE staff involved in the above career progression activities, it recognises that this should be systematically captured and

monitored at School level. This is captured at University level and the School will action an agenda of communicating this to the School.

The results from the staff-survey indicated that staff would welcome focus and information on higher levels of the HEA (Higher Education Academy) fellowship, and to also encourage PhD students and postdocs to complete the PGCertHE programme **(Action 5.3c)**. Opportunities for post-docs to have teaching roles was also highlighted in the survey.

The School will make a commitment to working with the University on encouraging female access to these professional development programmes **(Action 5.4a)** which are of a variety of formats and commitments. The School has also committed to affording any female staff that we hire at Lecturer or SL the opportunity to attend the Aurora programme **(Action 3.5)**.

**ACTIONS:**

**3.5** Female members of staff (at lecturer or SL level) to be given opportunity to attend Aurora programme;

**5.3** Develop More internal CPD particularly for teaching and learning and pedagogy;

**5.5** Ensure female post-docs are represented in professional development schemes such as the Welsh Crucible and Research Leadership Programme;

**5.6** Support and training for academic staff for developing and writing grant applications;

**5.7** Support for postdoctoral researcher career progression by organising School and College wide research days and writing retreats.

### (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).*

Career guidance for undergraduate and postgraduate students is a priority for BU and supporting the career progression of CSEEs female postdocs is a key priority for SCSEE **(Action 5.5)**. Students are supported in making decisions about their careers through career guidance services and opportunities to gain insight into particular careers. Guidance services are offered by the Careers and Employability Service and include appointments with career advisers, online resources and a range of workshops and events throughout the academic year. Students are also encouraged and supported to find relevant work experience, such as placements, internships, work shadowing and volunteering in local and national companies. In addition, the School joins the university Undergraduate

Internship Scheme to provide the students paid internship projects to work with university staff and gain valuable work experience. The School has an appointed employability tutor who ensures that information about career prospects and employability is made available to students via emails/employability boards placed throughout the school, as well as social media.

Each year, SCSEE organizes a careers fair (which has recently developed into a collaboration between all schools within CoESE) providing the opportunity to explore a wider range of career paths and employment opportunities.

Undergraduate and postgraduate students have extensive support, in terms of pastoral care as well as professional development. Each student is allocated a personal tutor with whom they meet at least once each semester. A number of additional support services are available, for example module drop-ins, research and writing skills drop-ins (bilingual for both Welsh and English students), and a University-wide Skills Centre.

At University level, the University AS Group awards Women in Science MSc Scholarships to enable top female students to continue their studies at Bangor. Two students from the School have been successful in applying for these; Kathryn Howard was awarded the scholarship in 16/17 and completed an MRes in the School of EE in collaboration with Creo Medical ltd, and Shiromini Satkunarajah was awarded the scholarship in 18/19 and completed an MSc in Broadband and Optical Communications (Figure 5.2).


*Figure 5.2*: BU Women in Science scholarship recipient 18/19 - Shiromini Satkunarajah (right).

At PhD level, the School offers considerable research support, skills development, and pastoral care. Before commencing students attend an induction day, where they are

provided with information and points of contact for advice, mentoring and pastoral care. All students have at least a two-person committee, comprising of the chair and supervisor, to ensure the provision of professional knowledge, mediation and representation. The student meets with the PhD committee at least once a year for reviews. Seminars are regularly organised to provide PhD students with a wide range of cutting-edge knowledge and information related to career development. In addition, the University's Doctoral School holds courses on professional development.

PhD students also have several opportunities to develop their presenting and public speaking skills; the weekly seminar gives students the opportunity to present their work to their peers and receive/give feedback. A PhD conference is held every year, where students can present their work to academic staff from diverse fields. Since 2018/19 the School has a budget for supporting postgraduate students to attend conferences and workshops.

All PhD students are able to participate in the PGCertHE workshops and have the opportunity to gain teaching experiences. Prior to commencing teaching, students are allocated a teaching mentor, who observes teaching and provides feedback.

The female student focus-group highlighted that they felt supported throughout their studies and that lecturers inform students of scholarships and opportunities available and support them through the application process. This was reflected in the female staff focus-group who highlighted that there is good support for PhDs and Post-docs whose supervisors encourage CPD, career training and development training.

### (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.*

All permanent staff on T&R contracts are expected to be preparing and submitting grants. The School has three research groups. Research group meetings are often the first place for support, acting as a sounding board for grant ideas, and providing feedback on grant applications.

In terms of central University support, RIIO provides a range of pre-and post-award support for staff who apply for funding by identifying funding opportunities, costing and pricing of projects and the financial administration of grants. Each College has a College Research Support Officer, a member of the RIIO pre-award team, who is the first point of contact for academics applying for funding. Relevant workshops and training delivered by RIIO are available to all staff, e.g. "Costing your research proposal", "Pathways to Impact".

*Table 5.7: Total number of PI grant submission, grants awarded, value of submission and amount awarded in CSEE from 14/15-18/19 by gender.*

| | | 14/15 – 18/19 | |
|---|---|---|---|
| | | **F** | **M** |
| Number of submissions | | 26 | 121 |
| Value of Submissions | 2,267,300 | £42,135,049 | |
| Grants awarded | | 4 | 42 |
| Amount awarded | £334,450 | £15,669,587 | |
| Success rate | | **15%** | **35%** |

Table 5.7 shows that over the reporting period, female grant applicants from CSEE had a considerably lower success rate than male applicants. However, these figures only show principal investigator grants, and we are aware that our female academics (and male) have had successful grant applications as co-Investigators during this period, as well as having successfully supported post-doctoral Fellowship applications to their research groups.

Feedback from staff in the survey highlighted that staff would like more support for the development and writing of grants **(Action 5.6)**. In order to support the career development of post-doctoral staff, actions will focus particularly on supporting and mentoring Fellowship applications in CSEE. **Action 5.6c** will see a mentorship mechanism set up for grant writing particular for new staff and ECRs. This will ensure that support continues for those who have had unsuccessful grant applications as these members of staff will be offered guidance and mentorship on developing ongoing research plans. **Action 5.8** will also seek to improve coordination between research groups in CSEE and ensure sharing of best practice for research.

**ACTIONS:**

**5.6** Support and training for academic staff for developing and writing grant applications;

**5.8** Improve coordination between research groups in CSEE and ensure sharing of best practice for research.

**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?

(vi) 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.

(ii) 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.

### 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.*

Only two members of staff have taken maternity leave during the reporting period (see Section iv below). Both were fixed term research staff and are no longer in the School. We therefore have no data/examples of support for academic staff. Our action plan spells out how will develop our support in this area, following best practice developed in other BU Schools **(Action 6.1b)**.

The University-level support for staff taking maternity/adoption leave is jointly provided by HR (who provide general advice and guidance on Employee Support policies) and HSS who provide welfare support to expectant and new mothers. HR officers work closely with Schools/Departments to ensure managers are aware of policies and procedures and are able to support their staff before, during and on return from maternity leave. The University offers shared parental leave to allow new parents to equally chare the care of their child in the first year of birth or adoption.

An expectant mother would inform her line manager or Head of School, of any periods of upcoming maternity leave. This discussion would include the need to adjust workload during pregnancy, maternity cover provision, and workload following return to work.

The School will ensure that University policy on maternity and adoption leave is clearly communicated with staff by creating a document summarising the University's support for staff before, during and after returning from such leave **(Action 6.1a)**. This document

will also include School level support and key contacts. These include colleagues from SATs in other Schools who have agreed to "buddy" female staff/PhD students in CSEE who may take maternity leave in the future.

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

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

Staff who take maternity/adoption leave will be encouraged to stay in touch with their line manager during maternity leave, as this allows staff to continue to feel connected during their absence and it eases the return to work. However, this is not obligatory and the issue would be discussed with the line manager prior to the commencement of the leave period. The University offers up to a maximum of 10 Keeping in Touch (KIT) days during maternity leave. Staff will be made aware of KIT days via the "CSEE Family Friendly Support" document **(Action 6.1a)**

### (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.*

Staff have the right to request flexible working in order to assist them returning to work. This would be discussed with the HOS before going on maternity leave and revisited before return to work in case of any changing needs/desires. It is an ongoing discussion after return to work, principally through PPDR but also as required with HOS.

The School will reduce teaching and/or administrative workload during the first semester after return from maternity/adoption leave **(Action 6.2)**. The HoS will hold a 'return to work' meeting with returning staff to welcome them back into the School and ensure they are up to date with any changes (e.g. staffing, admin roles) that may have happened. Also, the SAT chair will also ask to meet informally with returning staff (approximately 6 months after return) to get feedback regarding the experiences of CSEE support and whether the AS actions were implemented successfully **(Action 6.3)**. **Action 6.4** will ensure that a quiet room and fridge facilities are available to breastfeeding staff/students.

**ACTIONS:**

**6.2** Teaching and administrative loads to be reduced during first semester after return from maternity/adoption leave;

**6.3** Staff returning from maternity/adoption leave will meet with the HoS and the SAT Chair;

**6.4** Establish a quiet room and fridge facility for breastfeeding staff and students.

### (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.*

Table 5.8 shows the instances for maternity and paternity leave. Two full-time contract researchers took maternity leave, one in 2015/16 and the other in 2016/17 and both returned to post after their period of leave was completed. Furthermore, three PhD students went on maternity leave in the last five years and returned to finish their degrees within 4-5 years.

*Table 5.8: Staff occurrences of Maternity and Paternity leave.*

| | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 |
|---|---|---|---|---|---|
| Maternity | 0 | 1 | 1 | 0 | 0 |
| Paternity | 3 | 3 | 0 | 3 | 2 |

**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.

### (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.*

During the period 2014/15 to 2018/19 11 members of staff took paternity leave, mainly amongst the permanent faculty staff (see Table 5.8). All members of staff who took paternity leave took the full two weeks and returned to work after this period ended. We have not had any leave adoption in CSEE and we have so far not had any uptake of shared parental leave.

**Action 6.5**: To ensure staff (particularly male staff) are aware of BU's shared parental leave policy that allows new parents to equally share the care of their child in the first year of birth or adoption.

### (vi) Flexible working

*Provide information on the flexible working arrangements available.*

The University has a Flexible Working Policy. Academic Staff and PSS can apply on a temporary or permanent basis. In addition to this, all staff have the opportunity to purchase additional leave through a tax-efficient scheme biannually. The aim of these policies is to

improve work/life balance, support those with caring responsibilities, and improve business efficiency and productivity.

In the five-year period, there were only 2 formal requests for flexible working, both were approved. In 2014/15, a female PSS staff requested temporary reduction in hours. In 2018/19, a female researcher also requested temporary reduction in hours. In addition to this there are many informal arrangements to work flexibly or remotely, particularly amongst academic staff who can manage their workload independently. **Action 6.6** will ensure a greater awareness of flexible working provision available for all staff.

### (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.*

Arrangements for transitions from part-time to full-time work after career breaks can be considered on a temporary or permanent basis. An application is made and assessed by the department and if approved, it is regularly reviewed to ensure that it is suitable for the employee.

## 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.*

Merging two Schools together that have different cultures, staff with different skills, and a variety of experiences of teaching and research is challenging. The results of the staff survey indicated that staff still feel that the School is still largely two separate entities and that the "assumptions and expectation between different groups creates difficulties". Our engagement in the AS process has been hugely beneficial in terms of addressing this and bringing the groups together since the SAT has members from both previous schools. This, as well as the survey and the discussion that followed, have identified these issues and opened up communication.

Despite the low number of female members of staff, the female staff focus-group indicated that they are happy and feel welcome and included working at the School and that the School is also welcoming to any gender. However, they noted that the School does not currently have any female specific activities during Welcome-Week **(Action 4.2c)**, and they feel that their supervisors' expectations are lower than if they were a male.

Feedback from the female student focus-group highlighted that they would like to see a female STEM society set-up which would bring the benefits of similar societies set-up within other Schools at BU. The focus-group highlighted that the males within the department tended to know other males in years above and/or below and could help each

other with work; they felt that a female STEM society could help in this regard and **Action 4.2a** will set this up.

The focus-group also highlighted the lack of communication and advertisement from the School's IEEE (Institute of Electrical and Electronics Engineers) society, and also the lack of guest speakers and lectures that are part of IEEE societies at other Universities and **Action 4.2b** will look at improving this.

Figure 5.3 and Table 5.9 summarizes the responses to the questions on the culture in CSEE from the staff survey.

*Table 5.9: Staff responses to a select number of culture questions from the staff survey.*

| | | | | |
|---|---|---|---|---|
| **How regularly do you work longer than your contracted hours?** | Female | Regularly | 1 | 33% |
| | | Sometimes | 2 | 67% |
| | | Never | 0 | 0 |
| | Male | Regularly | 13 | 57% |
| | | Sometimes | 8 | 35% |
| | | Never | 2 | 9% |
| **Any work I do in excess of my contracted hours is recognised by my line manager/School.** | Female | Agree | 2 | 67% |
| | | Disagree | 0 | 0 |
| | | Don't Know | 1 | 33% |
| | Male | Agree | 15 | 65% |
| | | Disagree | 4 | 17% |
| | | Don't Know | 4 | 17% |
| **I am happy with my work/life balance.** | Female | Agree | 3 | 100% |
| | | Disagree | 0 | 0 |
| | | Don't Know | 0 | 0 |
| | Male | Agree | 19 | 83% |
| | | Disagree | 3 | 13% |
| | | Don't Know | 1 | 4.3% |

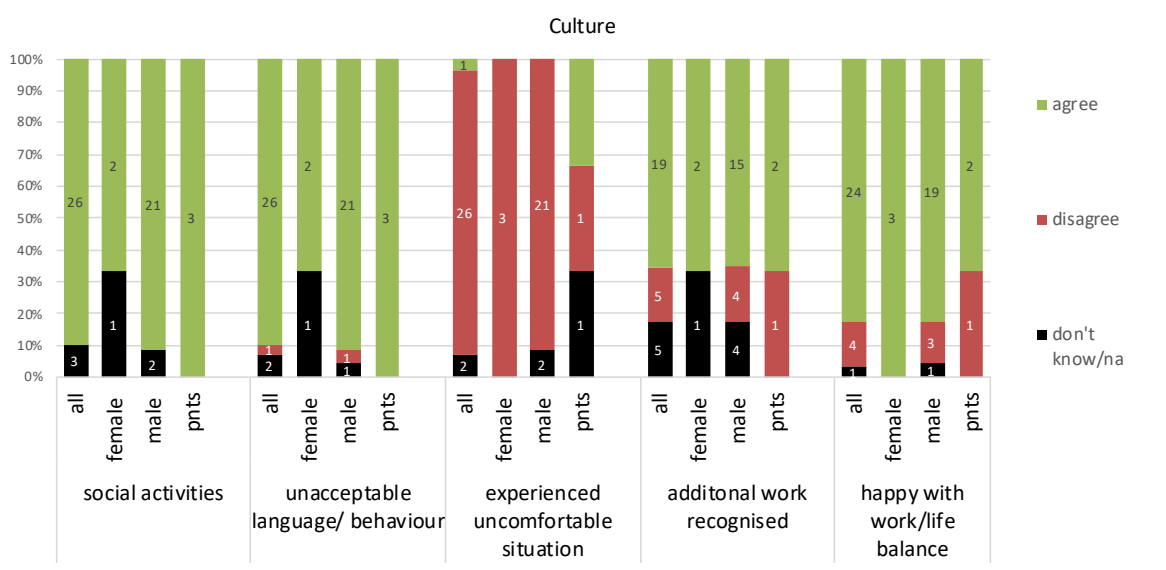


*Figure 5.3*: Percentage of 'agree' responses to questions regarding the welcoming nature of social activities to all staff, clarity that unsupportive language and behaviour are not acceptable, whether staff has experienced an uncomfortable situation, additional work is recognised, and whether staff are happy with their work/life balance. PNTS – prefer not to say.

**ACTIONS:**

**4.2** Improve female student experience;

**4.4** Transparent decision making in the School;

**4.5** Introduce more social activities to promote inclusivity within the department;

**4.6** Ensure clarity and transparency in the allocation of workloads across the School;

**5.1** All academic and research staff to receive an annual PDR.

**5.8** Improve coordination between research groups in CSEE and ensure sharing of best practice for research.

### (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 polices.*

Each College has a designated Senior HR Officer who has a close working relationship with the School and is in frequent contact via the HoS. The Senior HR Officer is present at any formal meetings with staff in relation to policy. Within SCSEE if any differences between policy and practice are identified, one-to-one advice would be given involving HR, HoS, line managers and PIs; if an issue remained, guidance from the HR Staff Development Team would be sought, which might result in a group session, training course or workshop.

Frequent training courses are provided to line managers on a variety of topics relating to HR policies; these form part of the Staff Development Programme and are also provided on request to a College or Department to ensure staff with management responsibilities are kept up to date.

The HR Equality Officer has recently begun gathering equality data relating to staff involved in formal grievance, capability and disciplinary cases, which will be reported in the Equality Annual Report. BU also established Equality Champions in 2018, who act as a link between staff and the University; there is one Equality Champion for each College (SAT co-chair).

### (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.*

BU internal committees are being held at School and College level and membership is dependent on the School roles (Figure 5.4 and Table 5.10). This is mainly done to ensure committees are small in size and meetings run effectively. In addition, the SCSEE Research Committee is open to all research-active members of staff, whereas the SCSEE BoS is open to all teaching-active academics. In order to ensure transparent decision making with the School, we will implement a process whereby staff can indicate an interest in joining committees **(Action 4.4c)**. Additionally, invitations will go out to all members of staff to attend committees as 'observers' if they are not already committee members **(Action 4.4e)**.

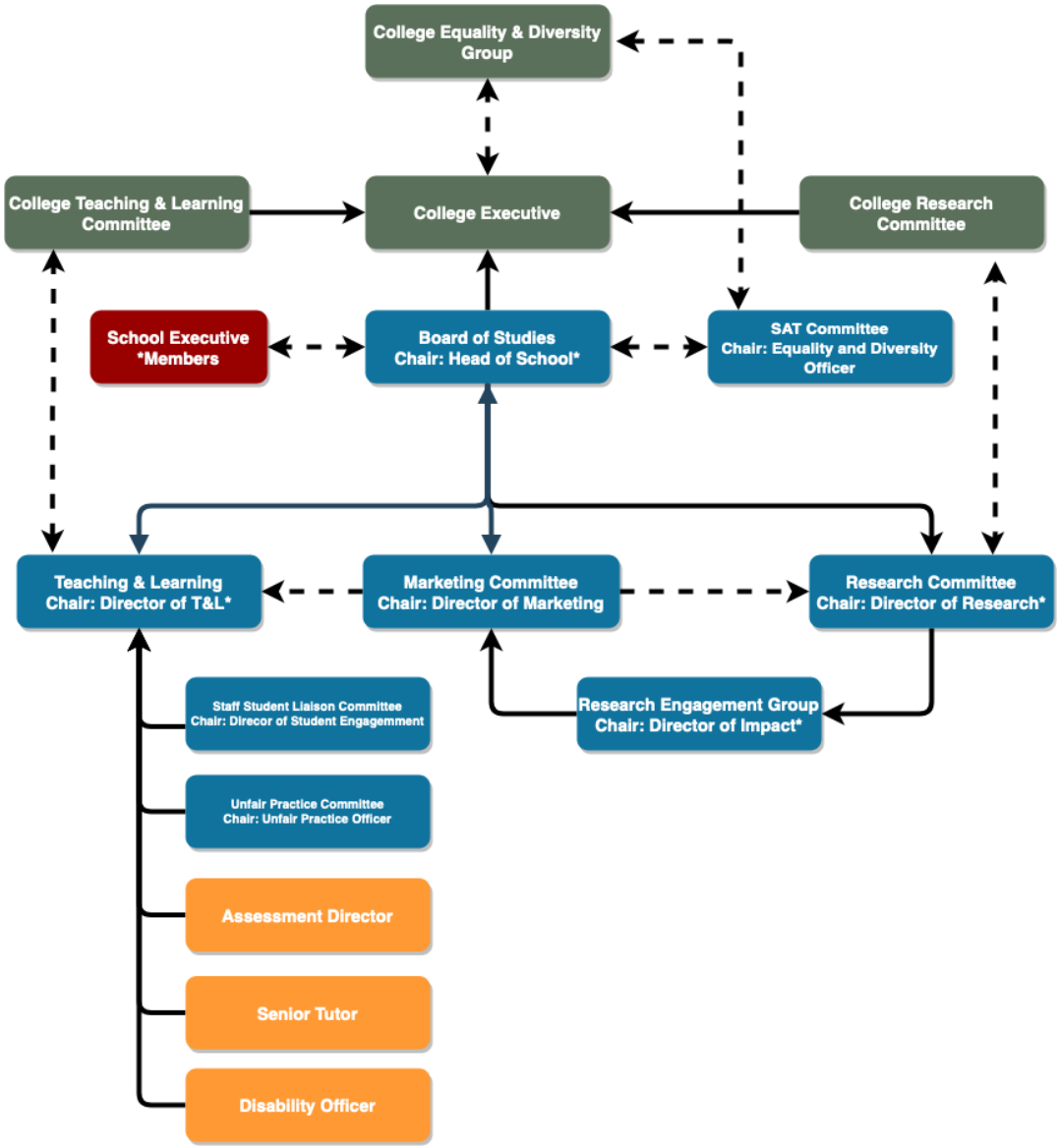


*Figure 5.4:* A chart showing the organisational structure of the School and its committees.

*Table 5.10: Representation in committees by gender.*

| Committee | Members | Male | Female |
|---|---|---|---|
| Board of Studies | 33 | 31 (94%) | 2 (6%) |
| Teaching and Learning | 15 | 15 (100%) | 0 (0%) |
| Marketing | 10 | 8 (80%) | 2 (20%) |
| Research | 3 | 3 (100%) | 0 (0%) |
| Research Engagement Group | 33+ | 31 (94%) | 2 (6%) |
| Staff Student Liaison | 12 | 10 (83%) | 2 (17%) |
| SAT Committee | 13 | 7 (58%) | 5 (42%) |

Given that the School only has two female members of academic staff, the School acknowledges the potential risk of overloading female members of staff and will commit

to avoiding such cases. **Action 1.6** will ensure that our E&D agenda is embedded in all committees in the School.

**ACTIONS:**

**1.6** Ensure Equality and Diversity agenda is embedded in all committees in the School. Members of the SAT represent the E&D/AS agenda on other committees they sit on;

**4.4** Transparent decision making in the School.

### (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?*

Participation in external committees is not officially recorded, and therefore all information presented has been provided either through the staff survey questionnaire or via alternative information channels, such as the REF2020 preparation groups. Overall, the School encourages members of staff, irrespectively of their gender, to participate in external committees, whether these are for grant reviewing/conference organisation/journal editorial teams. In addition, participating in such committees is one of the promotion criterial for SL and above. The School often communicates to all members of staff calls from Research Councils seeking to expand their Peer Reviewer pools.

Out of the two female senior staff members, one is a Fellow of the International Association for Pattern Recognition and has served as Associate Editor of the IEEE Transactions on Fuzzy Systems and IEEE Transactions on Pattern Analysis and Machine Intelligence. The other female senior staff member is an EPSRC Associate Peer Review College member and a Senior Member of the Optical Society (OSA).

**Action 5.9** will increase representation of CSEE staff on influential external committees.

### (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.*

Over the last year the University has been developing an institution-wide workload allocation model (WAM). The aim of developing a transparent academic workload allocation model in the University is to ensure equitable and planned workloads reflective of individual job descriptions in the University and will reflect the values of Athena SWAN. It will acknowledge discipline specific differences, full and part time staff working patterns, planned absences, staff wellbeing and the changes in work and demands over the short and long term.

Any proposals developed by the Academic Workload Task and End Group (AW Group) will be in partnership with academic staff and will be subject to final negotiation with Bangor University College Union, and will be subject to regular review and, as appropriate, agreed refinements. The Head of CSEE is a core member of the AW Group and the School will be one that is involved in the upcoming pilot.

**Action 4.6** will ensure clarity and transparency in the allocation of workloads across the School, and **Action 2.7a** will ensure a fair workload rota system for open days (both males and females) whereby the female representation at open days is increased without disproportionally affecting female members of staff.

**ACTIONS:**

**2.7** Increase UG / PGT female applications;

**4.6** Ensure clarity and transparency in the allocation of workloads across the School.

### (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.*

The weekly PhD seminars are held when no teaching is timetabled to maximise attendance.

Departmental meetings and committees are also all held on Wednesday afternoons when no other teaching activities are scheduled, typically between 1pm and 3pm. The staff survey indicated that the majority of staff find the timing of these meetings and committees reasonable; the response to the question 'Meetings in my School are held during core hours (10am-4pm) to enable those with caring responsibilities to attend' 76% of respondents agreed (67%-f and 74%-m).

The only current social gathering held at the School is the annual Christmas lunch which all staff are invited to. Since the merger of the two Schools, staff still feel there is a divide between CS and EE and so the School will implement a daily 15min coffee break at 10:30am in the staff common room, and also arrange monthly lunchtime walks and an early-evening drink at the end of every semester to promote inclusivity within the School **(Action 4.5)**.

### (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.*

A considerable effort has been made by the School to increase the number of females featured on the School's marketing materials and webpages to show the diversity in CS and EE, but we intend to continually monitor this. The materials on the webpages also include female student profiles, and videos of our female students discussing what it's like to study at the School. However, the female staff focus-group highlighted that the website does not currently do the School justice; they highlighted that the research excellence conducted by females at the School is not prominent. The whole University website is currently undergoing a major overhaul to launch before the end of 2020 and the School will ensure clearer visibility of female role models on the School's webpages **(Action 4.1b)**.

The student focus-group also highlighted that they feel that more females are not attracted to the subject because of the lack of role models, and that they feel that they have to choose between being an 'Engineer' and 'Feminine'. The School has been aware of the issues of tackling the perceptions of CS and EE amongst school children for many years, which is why the School has such a fruitful programme of outreach activities (discussed in more detail in Section viii) in an attempt to change these perceptions earlier in the academic pipeline.

Professor Siân Hope, a former head of the school of CS and until recently a Professor of CS in the School has been a prominent role model for female staff across the institution. Professor Hope was the inaugural chairperson of the University-wide AS committee, and in her role as Executive Director of Innovation in the Vice-Chancellor's office has been pivotal in a number of UK-wide initiatives, including acting as a member of the board of directors for the Menai Science Park, and leading the North West Nuclear Arc Science and Innovation Audit for the UK Government. Professor Hope was also Bangor's representative on the all-Wales expert panel as part of the Welsh Government's report on 'Talented Women for a Successful Wales' which outlined recommendations to address the under-representation and difficulties of retaining women in STEMM in Wales.

In September 2019, the School hosted the 'Computer Graphics & Visual Computing (CGVC) 2019' conference which featured female Keynote and Capstone speakers; Professor Carol O'Sullivan from Trinity College Dublin, and Dr Rita Borgo from King's College London. Carol O'Sullivan is the Professor of Visual Computing in Trinity College Dublin, and the HoS for CS and Statistics. Dr Borgo is a SL in the Department of Informatics at King's College London and is currently the head of the Human Centred Computing Research Group.

The graduation banquet was discussed earlier in Section 4.1 (ii), Table 4.9, and the following figures highlight the HoS presenting some of these awards to our female graduating students. Figure 5.5 highlights Kathryn Howard who received the Women in Science Scholarship (discussed in Section 5.3 (iv)).

*Figure 5.5*: Kathryn Howard receiving The Ada Lovelace Award from the HoS.

Ellie Frost (Figure 5.6), one of our female second year EE undergraduate students, was accepted on the Santander Universities Women in Engineering Scholarship Programme at a recent event at Silverstone. The successful students were announced by Santander UK's CEO Nathan Bostock and ambassador Jenson Button at the 2019 Formula Student global competition.

The inaugural STEMships programme launched by Santander UK is dedicated to supporting female engineering students at universities across the country. The new initiative aims to support and incentivise more women to embark on a career in the UK engineering industry and responds to the skills shortage challenge currently facing the country's engineering sector. Ellie was one of 30 UK students selected.


*Figure 5.6*: Ellie Frost (third from right, front row) at Silverstone with the other successful Engineering students.

Truly Capell (Figure 5.7, far right), one of our EE graduates, has gone on to gain a permanent position as a Graduate Software Engineer at Jaguar Land Rover and was also

awarded the Engineering Horizons Bursary (EHB) from the IET in her second year of undergraduate study. Truly said of Bangor that "the support from staff at BU is second to none and I was always able to get help and guidance. Bangor provided a nurturing atmosphere, where learning was always encouraged, which allowed me to find my real interests".

Megan Owen (Figure 5.7, far left), also our PGR student representative on the SAT, is also an EE graduate from the School and is now studying for a PhD with the Nuclear Futures Institute Research Group. Megan also received the EHB from the IET when she was in her second year of undergraduate study.

Abigail Hughes (Figure 5.7, middle), a former EE undergraduate also received the EHB from the IET when she was in her second year of undergraduate study. Abigail was also one of five student Interns from the UK who went to Hitachi City in Japan to work for three months with Hitachi-GE Nuclear Energy Ltd during the summer of 2018.


*Figure 5.7*: From left to right; Megan Owen, Abigail Hughes, Truly Capell.

*Figure 5.8:* Martha Mason receiving The Ada Lovelace Award from the HoS.

*Figure 5.9:* Aishah Hill-Izani who was admitted in the BT Technology Graduate Scheme.

## External Examiners

Table 5.11 shows the gender balance of external examiners for MRes and PhD vivas. Supervisors need to ensure that more female academics are invited to examine CSEE Mrse and PhD students. We will work with the QAV unit to ensure the pool of potential female external examiners is widened **(Action 2.12)**.

*Table 5.11: Gender balance of external examiners.*

| | Total | Male | Female |
|---|---|---|---|
| 2014/15 | 6 | 5 (83%) | 1 (17%) |
| 2015/16 | 13 | 10 (77%) | 3 (23%) |
| 2016/17 | 6 | 6 (100%) | 0 (0%) |
| 2017/18 | 9 | 8 (89%) | 1 (11%) |
| 2018/19 | 19 | 16 (84%) | 3 (16%) |

**ACTIONS:**

**2.12** Increase the number of female external examiners for PhD viva examinations;

**4.1** Improve marketing materials.

### (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.*

Outreach activities are an integral part of the School, with Technocamps Bangor being led from the School (see Section 7 for more information on Technocamps). Technocamps has 8 members staff (25% female) and addressing the underrepresentation of females in CS and EE is one of their core principles. The School has also recently appointed (2019/20) a new Schools' Liaison Officer who will take on a lot of the day-to-day engagement with schools and arrange workshops and outreach activities to encourage schoolchildren into both CS and EE, with female students playing an integral role in delivering these sessions to show schoolchildren that females can do CS and EE too.

In February 2019, the School was successful in its grant application to the RAE Ingenious scheme for projects that engage the public with engineers and engineering; the PELO project, in partnership with the University's Widening Access Centre secured the £30,000 grant with the aim of inspiring children aged 9-13 to design their own musical instruments

by implementing coding skills and utilising Photonics, to create a music score that will be performed at Pontio, the University's Arts and Innovation Centre at the final stage of the project. The project involves pupils from 8 mainstream schools, including 2 special-needs schools, and consists of 2-hour fortnightly sessions delivered by Engineers recruited as part of the project, and were successful in recruiting a 50/50 gender split in Engineers (16 Engineers total) as per the target of the project. The project involved 136 pupils in total; these pupils were chosen by the schools and they were requested to provide a 50/50 gender split so far as possible.

Due to the Covid-19 outbreak during the Spring of 2020, the final performance in Pontio scheduled for May 2020 had to be cancelled with a view to arranging a smaller event at each school showcasing their achievements in September/October 2020.

It is the Schools ambition to attend and arrange more workshops and outreach events aimed specifically at girls to encourage more females into the fields of CS and EE.

CERDDORFA OLAU FFOTO-DRYDANOL

PELO

PHOTO-ELECTRIC LIGHT ORCHESTRA

*Figure 5.10*: 'Photo-Electric Light Orchestra' Logo.

*Figure 5.11*: Ysgol Syr Hugh Owen taking part in the PELO project.

*Figure 5.12*: Ysgol Bro Lleu taking part in the PELO project.

*Figure 5.13:* Launch of the PELO project at the School in September 2019.

*(Word Count: 6075, Covid Extension: 42, Total: 6117)*

**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.

## 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.*

Technocamps is a programme that is funded by HEFCW, Welsh Government and WEFO (Welsh European Funding Office). Each funder has different requirements across the whole of Wales, which Bangor supports the overall targets for. The WEFO project has a target of 3800 participants, split as 1400/2400 male/female (63%-f). This is the only area where Technocamps are specifically targeted to work with girls over boys, as the ethos of Technocamps as a programme is to upskill all equally.

*Table 7.1 – Technocamps National & Bangor Targets.*

| Operation | National Targets | Bangor | |
|---|---|---|---|
| | | Target | Achieved |
| *Main Targets* | | | *To Dec 2019* |
| Playground Computing<br><br>Primary School Engagement | 7500<br><br>Unique participants | 2000 | 2432 |
| | 125<br><br>New Schools | 22 | 31 |
| Continued CPD to Support Computer Science Teachers (Secondary/Primary) | 3000 Hours | 750 Hours | 370 Hours |
| *Added Value Requirements* | | | |
| Other Activity Not Recorded Elsewhere. E.g. Community Support | | | 49 Hours of Support<br><br>431 Participants (225 Female, 206 Male) |
| | | | |
| **WEFO ESF Targets August 2018 – Sept 2021** | | | |
| | National | Bangor | Achieved to Jan 2020 |
| STEM Enrichment Programme | 140 STEM Enrichment Programmes Started | 41 | 25 |
| | 3800<br><br>No of Participants Engaging | 1140 | 402<br><br>(187 Female, 215 Male) |

In order to achieve the girl's bias, Technocamps undertake a lot of extra activity, working with Girl Guides, out of school clubs and their GiST (Girls into STEM) programme, plus a Women's network to develop role models. Technocamps Bangor hosted a GiST event at the School between the 17th and 19th of February 2020, and Figures 7.1 to 7.5 highlight some of the girls who took part in the event.


*Figure 7.1*: Technocamps GiST event.

*Figure 7.2*: Technocamps GiST event.

*Figure 7.3*: Technocamps GiST event.


*Figure 7.4*: Technocamps GiST event.


*Figure 7.5*: Technocamps GiST event.

*(Word Count: 147)*

## 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.*

| Action | Planned Action / Objective | Rationale | Key Outputs and Milestones | Timeframe<br>Start Date / End Date | | Person(s) Responsible | Success Criteria and Outcome |
|---|---|---|---|---|---|---|---|
| **1. Progressing Athena SWAN** | | | | | | | |
| **1.1** | Conduct annual critical review of Athena SWAN actions and progress towards Silver application. | Need to ensure we sustain momentum after submission of the application in April 2020 in terms of embedding E&D and AS principles into CSEE.<br><br>Need to ensure progress on action plan is monitored and problem areas identified.<br><br>Key to this is clear and ongoing communication within SAT, as well as between the SAT and wider School. | **a)** Set-up a SAT Microsoft Team.<br><br>**b)** Annual critical review and revision of the Action Plan.<br><br>**c)** Progress towards Silver application by the end of awarding period. | **a)** May 2020<br><br>**b)** May 2021<br><br>**c)** April 2020 | **a)** May 2020<br><br>**b)** May 2021, May 2022, May 2023<br><br>**c)** April 2024 | **a)** SAT Chair<br><br>**b)** SAT<br><br>**c)** SAT<br><br>HoS | CSEE Athena SWAN Microsoft Teams set up where the Action Plan is a live and regularly updated document. SAT members clear on which actions they are responsible for.<br><br>Annual critical review undertaken (first in May 2021). Staff and student Focus groups (**Actions 1.7**) held to feed into critical review. Critical review SAT meeting to include University AS Manager and AS lead from SOS.<br><br>Application for Silver AS award submitted by April 2024. |

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| **1.2** | Embed AS and E&D into CSEE culture; ensure broad and sustained engagement from all staff. | The process of self-assessment towards this application has shown that not all staff in CSEE are engaged and/or think there are issues that need to be addressed. For example, only ~50% of staff responded to the survey. | **a)** The communication/ discussion of results of staff survey was interrupted due to Covid-19.<br><br>(Assuming staff are back at work) an all staff meeting will be held at the beginning of Semester 1 in 20/21 to share Action Plan with all staff.<br><br>**b)** Conduct an annual 'you said, we did' so that staff can see the impact of the Action Plan which should lead to greater engagement. This will be done annually following the critical review (see **1.1b**) to be emailed to all staff and highlighted in School's social media. | **a)** September 2020<br><br>**b)** June 2021 | **a)** September 2022<br><br>**b)** June 2021, 2022, 2023 | **a)** SAT Chair<br><br>**b)** SAT | Achieve and maintain 75% response rate to the staff survey. |

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| | | | **c)** Annual "E&D in CS&EE" lecture to be organised where external academic speaker invited to talk about their work/research in relation to E&D.<br><br>Number of (f/m) staff and student attendees to be recorded.<br><br>Attendees will be asked to complete short evaluation of each session. | **c)** Annually in May | **c)** Annually in May | **c)** SAT<br><br>HoS | |
| **1.3** | Implement an annual compulsory 'Teaching and Equality Away Day' as part of our Teaching Away Days for all staff. | We want to ensure CSEE's E&D commitment and agenda is embedded in our approach to Teaching & Learning.<br><br>Our Director of T&L is also the Teaching and | **a)** Annual compulsory 'Teaching and Equality Away Day' for all staff (including academic, research, technical, professional). | May 2020 | August 2021 | **a)** Director of T&L, SAT Chair | Improvement in pedagogy and teaching skills amongst staff and greater understanding and appreciation of the equality agenda in relation to teaching & pedagogy. |

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| | | Learning Development Leader in CELT. This is an opportunity for CSEE to develop and share best practice in E&D in pedagogy and teaching skills. | **b)** HR to conduct an equality training session as part of the away day for all staff to attend. | | | **b)** HR | Encourage the wider University to share best practice regarding Equality and Diversity into the curriculum.<br>80% of staff to complete training as part of the away day. Away days will be recorded so that staff who cannot attend can view at a later date. |
| **1.4** | Develop a School level induction using the School of Ocean Science induction checklist (developed as part of their AS Bronze action plan) as a template which ensures new staff receive an effective induction to the School.<br>Introduction to AS will be a key element of new staff induction. | CSEE does not currently have a formalised School induction for new staff.<br>Developing the induction process is an opportunity to communicate School's commitment to E&D and AS to new staff at the start of their time in CSEE (see **Action 1.3**).<br>The SOS has developed their School induction as | **a)** SOS induction checklist shared with SAT and discussed who does what.<br>Included in the induction will be a meeting with the Director of Equality and Diversity who will give an overview of AS in the School and highlight areas of the Action Plan that may be of particular interest to the new members of staff. | **a)** May 2020 | **b)** September 2020 | SAT Chair<br>SAT<br>HoS | CSEE induction provided to all new members of staff within the first weeks of the appointment.<br>Feedback on usefulness/effectiveness of Induction and overall impression of the School gathered from all new members of staff after 2 months in post. 100% of new staff aware of the School's |

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| | | part of their Athena SWAN Bronze award. This is being shared as best practice with BU. | **b)** Short questionnaire to be developed which asks new staff about usefulness of CSEE induction and perception of the School. | **b)** After each new appointment. | **b)** After each new appointment | | commitment to Athena SWAN charter and E&D agenda.<br>SAT to annually review the induction procedure as well as the feedback from new staff. |
| **1.5** | Embed E&D into the student experience in CSEE by implementing E&D into the wider curriculum. This will include E&D lectures and assessment on E&D issues in Electronic Engineering & Computer Science. . | There is currently limited engagement in/ knowledge of Athena SWAN amongst our student population. It is key to make students aware of the issues surrounding E&D in CS & EE and why CSEE is committed to the AS charter and to addressing these issues. We need to ensure engagement from students at all levels in our AS work. | **a)** Develop and run E&D quiz in the first year undergraduate Professional Perspectives module to gauge awareness of issues amongst student population.<br>**b)** Implement E&D lecture in the first year undergraduate Professional Perspectives module.<br>**c)** Implement an assessment on E&D for first year students. | **a)** September 2020<br>**b)** September 2020<br>**c)** September 2020 | **a)** May 2021<br>**b)** May 2021<br>**c)** May 2021 | **a)** Module Leader, SAT Chair<br>**b)** Module Leader, SAT Chair<br>**c)** Module Leader, SAT Chair | Greater awareness of Athena SWAN and E&D by all students at all levels to be assessed in two ways:<br>Within cohorts by comparing scores on E&D quiz in 1st and final year.<br>Across cohorts: by analysing and comparing grades on E&D assessment in each of the years during reporting period to see if students generally become more aware. |

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| | | | **d)** Refresher sessions on E&D in subsequent years Professional Development modules. Re-run E&D quiz during 3rd year.<br><br>**e)** Implement a process for students to easily join the SAT. | **d)** September 2021<br><br>**e)** September 2020 | **d)** May 2022<br><br>**e)** Throughout the award period | **d)** Director of T&L<br><br>**e)** SAT<br><br>HoS | Student representation from all levels on the SAT by 2022. |
| **1.6** | Ensure Equality and Diversity agenda is embedded in all committees in the School. Members of the SAT represent the E&D/AS agenda on other committees they sit on. | It is important that the Athena SWAN SAT/ E&D committee is not perceived as sitting separately to other committees and committee structures in the School. Rather, E&D representation and agenda embedded in all committees. | **a)** Terms of Reference of School committees to be reviewed to ensure inclusion of E&D.<br><br>**b)** Members of the SAT that sit on other committees (e.g. Director of T&L) to be listed as having E&D role.<br><br>**c)** Identify committees that currently have no members of SAT on, appoint an E&D representative and invite to join SAT. | **a)** December 2020<br><br>**b)** December 2020<br><br>**c)** December 2020 | **a)** December 2020<br><br>**b)** December 2020<br><br>**c)** December 2020 | SAT Chair<br><br>SAT<br><br>Director of T&L<br><br>HoS | Equality and Diversity and Athena SWAN agenda will be embedded in all committees;<br><br>Annually review committee membership. |
| **1.7** | Run the staff survey every two years | Ensure that actions taken are having an impact and identify areas of actions that are not on target. To | **a)** Conduct staff survey in 2022 and 2024. | **a)** Jan 2022, Jan 2024 | **a)** Feb 2022, Feb 2024 | **a)** SAT Chair / BU Athena SWAN Manager | Achieve and maintain 75% response rate to the staff survey (see **Action 1.2**). |

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| | | do this, we will run two staff surveys during the award period.<br><br>Also need to ensure broader engagement from staff as evidenced by higher response rates. Key to this is evidencing impact of engagement to all staff and evidencing that everyone benefits. | **b)** Expectation that staff complete staff survey to be communicated to staff by HoS. Results of staff survey discussed in all staff meeting.<br><br>**c)** SAT reviews survey data and updates actions in the plan accordingly. | **b)** Following each survey<br><br>**c)** Following each survey | **b)** Following each survey<br><br>**c)** Following each survey | **b)** HoS<br><br>**c)** SAT | All-staff meetings held to discuss issues identified from staff surveys for further work. |
| **1.8** | Annual staff and student focus groups to ensure all staff and students are regularly consulted. | Ensure that actions taken are having an impact and identify areas of actions that are not on target.<br><br>Ensure that all staff and students have the opportunity to share their views on how CSEE is progressing on the Action Plan. We only ran focus groups with female staff and students in preparation for the Bronze submission. | **a)** Conduct annual staff and student focus groups.<br><br>**b)** Results of focus groups to be part of annual critical review of our AS progress (**Action 1.1**). | **a)** March 2021 (repeated March each year)<br><br>**b)** See **Action 1.1** | **a)** March 2024<br><br>**b)** See **Action 1.1** | SAT<br><br>SAT Student Representative<br><br>BU Athena SWAN Manager | Collated views from range of staff (different grades, genders, types of contract etc.) and students (UG and PG, international students etc.) on their experiences related to equality issues in CSEE to be discussed by the School executive and action will be fed-back to staff and Action Plan(s) updated. |
| **1.9** | Ensure all staff complete the compulsory University on-line equality training and the | The University offers a range of staff training on E&D issues. We need to | **a)** HoS to contact those staff who have not yet | **a)** Continuous | **a)** Continuous | **a)** HoS | **a)** 90% of staff have completed the Equality training (due to factors such |

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| | new Unconscious Bias training. Ensure all senior academic staff who manage others complete Equality for Managers training course.<br><br>All student-facing staff to complete the Responding to Disclosures of Sexual Violence training which has been developed by BU's Equality & Diversity Officer for students. | ensure staff in CSEE have completed all relevant training.<br><br>Currently approximately 39% of all staff have completed the online Equality training. | completed the Equality training.<br><br>**b)** BU will be rolling out Unconscious Bias training in June 2020. This is an online module and will be compulsory for all staff.<br><br>**c)** Senior tutor to collate a list of student-facing staff (academic and support) and work with BU's Equality & Diversity Officer for students to ensure all student-facing staff have completed the "Responding to Disclosures of Sexual Violence training".<br><br>**d)** Ensure new staff are made aware of these compulsory training courses by SAT chairs as part of their School induction (see **Action 1.4**). | **b)** June 2020<br><br>**c)** June 2020<br><br>**d)** See **Action 1.4** | **b)** June 2021<br><br>**c)** June 2021<br><br>**d)** See **Action 1.4** | **b)** HoS<br><br>**c)** Senior Tutor, SAT Chair<br><br>**d)** See **Action 1.4** | as staff turnover we acknowledge that we won't get 100% completion so have set a target to achieve 90%).<br><br>**b)** 90% of staff have completed Unconscious Bias training (see above).<br><br>**c)** All student facing staff have completed the "Responding to Disclosures of Sexual Violence training". List of student-facing staff reviewed each academic year.<br><br>**d)** 100% of new staff to have completed equality training within first 3 months in post. |

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| | | | **e)** Work with HR to ensure all senior academic staff involved in managing others have attended the Equality & Diversity for Managers training. Ensure this is regularly updated, e.g. if/when a member of staff employs a post-doc for the first time. | **e)** September 2020 | **e)** June 2021 | **e)** CoESE HR Officer | **e)** Ensure all senior academic staff involved in managing others have attended the Equality for Managers training. |
| **1.10** | All senior academic staff who manage others to complete Equality for Managers training course. | This is essential training for senior staff who manage others. | All senior staff involved in managing others to complete the Equality & Diversity for Managers course by March 2021. | May 2020 | March 2021 | HoS | Monitor that 100% of senior staff managing others have completed the Equality and Diversity for Managers course by March 2021 and for HoS to follow-up with those who have not completed the training. |

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| **1.11** | Investigate the impact of Covid-19. | The current situation has brought into sharp focus the need for care and inclusivity towards staff and students in all circumstances and stages of their careers and study.<br><br>We need to be mindful of the potential impact of Covid-19 in terms of (gender) equality in both the staff and student body. | **a)** In response to the Covid-19 outbreak, the Directors of Equality and Diversity in all CoESE Schools have worked together to identify issues affecting wellbeing of staff and students and highlighted those groups likely to be particularly affected during the Covid-19 crisis. They are working with College management to ensure E&D is considered (e.g. Equality impact assessments are carried out on new guidelines/policies).<br><br>**b)** On the student facing side, investigating the impact of moving to online provision will be key. | **a)** September 2020<br><br>**b)** September 2020 | **a)** September 2021<br><br>**b)** September 2021 | **a)** SAT Chair / College Equality champion (SAT co-chair)<br><br>**b)** T&L & BoS Committees | **a)** Ensure college management are aware of the issues raised by staff, and ensure E&D is considered in any new guidelines/policies.<br><br>**b)** Collate student Feedback from online provision through module evaluation forms. |

| Action | Planned Action / Objective | Rationale | Key Outputs and Milestones | Timeframe<br>Start Date / End Date | | Person(s) Responsible | Success Criteria and Outcome |
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| **2. Student Numbers / Improve Gender Balance in the Student Population/** | | | | | | | |
| **2.1** | Increase entry tariff for UG programmes. | Our entry tariff is currently low compared to other departments and institutions in a similar position to us in league tables. Women are significantly more likely to go to University and have performed better at A-levels than men. By increasing our entry tariff, we believe that we will be able to attract a higher percentage of female students. | **a)** Increase entry tariff to match our overall league table position after consultation with the T&L and Marketing Committees.<br><br>**b)** Annual data passed to SAT for analysis. | **a)** August 2020<br><br>**b)** November 2021 | **a)** August 2020<br><br>**b)** November 2021 | **a)** T&L & Marketing Committees<br><br>**b)** SAT | Entry tariff raised to match our overall position, resulting in an increase of female intake above national averages by 2024. |
| **2.2** | Implement foundation years for both CS & EE.<br>*Already implemented to launch in September 2020. | To enable students who may not have a background in Computing / Physics / Mathematics, but are interested in the fields, to learn all necessary fundamental concepts. Help us recruit women who may not | Higher progression rates of students. | September 2020 | September 2020 | Director of T&L<br><br>HoS | An enrolment of 15% female students on Computer Science undergraduate courses and 17% female students in Electronic Engineering undergraduate courses by 2022 in-line with Benchmark data. |

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| | | consider these fields straight after School. | | | | | |
| **2.3** | Recruit more women onto Degree Apprenticeships courses. | All current Degree Apprenticeship students (19/20) are male. This is the first year we (in partnership with Grŵp Llandrillo Menai) have offered these Degree Apprenticeship courses. | **a)** Investigate application data to establish if there were any female applicants, or any bias in offers.<br><br>**b)** Targeted marketing campaign to increase female student numbers on these courses. | **a)** September 2020<br><br>**b)** September 2020 | **a)** December 2020<br><br>**b)** September 2021 | Admissions Tutors<br>Marketing Committee<br>School Liaison Officer | An enrolment of 25% female students on these courses by 2021. |
| **2.4** | Attend and organise events specifically aimed at girls from local Schools and within our catchment areas where we typically recruit from. | Interest in CS & EE at high school / college level is typically low. We want to encourage more young people, especially girls into the fields at undergraduate level. | The School will build on what we already offer in terms of outreach activities.<br>**a)** Hold outreach events for female students discussing careers in CS and EE.<br>**b)** Working with local schools during 2020/21 to increase awareness of CS and EE. | **a)** September 2020<br><br>**b)** September 2020 | **a)** September 2024<br><br>**b)** September 2021 | Marketing Committee<br>School Liaison Officer<br>SAT | An enrolment of 15% female students on Computer Science undergraduate courses and 17% female students in Electronic Engineering undergraduate courses by 2022 in-line with Benchmark data.<br>The SAT will annually review the number and type of outreach activities, together with the reach of these activities. |

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| **2.5** | Investigate potential reasons for the increase in female student numbers in both CS & EE; analysis into the gender and domicile of these students. | We want to understand the reasons for the increase in female student numbers on CS and EE courses over the past 5-years; we need to investigate a range of factors, including the gender and domicile of cohorts such as BCC, ECE Paris and Kuwait.<br><br>This analysis is necessary for us to be able to evaluate the impact of our local outreach activity in terms of attracting more (home) female students (see **Acton 2.4**). | **a)** Identify potential reasons for the increase in female student numbers by looking into the gender and domicile of these students.<br><br>**b)** Monitor any trends in international cohorts. | **a)** September 2020<br><br>**b)** September 2021 | **a)** September 2021<br><br>**b)** September 2022 | SAT | Student data analysed by gender and domicile which will enable identification of trends in female student population from international vs home cohorts. |
| **2.6** | Investigate and analyse the reasons for an increase in female PGT population in 2019/20. | There has been an increase in female PGT student population in 2019/20 but we are not sure what factors have led to this increase. | Identify potential reasons for the increase in female PGT student numbers by looking into the gender and domicile of these students. | September 2020 | September 2021 | SAT<br><br>Marketing Committee | Identified any trends in female PGT student population and whether this increase is due to the new course / revamp in existing course provision.<br><br>Identification of trends in female student population from international vs home cohorts. |

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| **2.7** | Increase UG / PGT female applications. | Female applications to both UG & PGT courses have typically been low and need to increase.<br><br>Due to the small number of female staff in the School, visibility of female role models at open days has been low. | **a)** Increase female representation at University open days without disproportionately affecting female staff / students. | **a)** October 2020 | **a)** May 2021 | Admissions Tutors<br><br>Marketing Committee<br><br>School Liaison Officer | **a)** Fair workload rota system for open days (for both males and females) whereby the female representation at open days is increased without disproportionately affecting female members of staff. Involve female student representatives and/or peer guides so that female academics are not unfairly overloaded.<br><br>**b)** Increased pool of female role models includes student alumni and female staff/students from other Schools in CoESE.<br><br>**c)** Potential students/parents aware of Athena SWAN commitment and CSEE's work. Increased awareness and knowledge to be evident in 1st year cohorts (see **Action 1.5**).<br><br>**d)** Implement a rota system so that female representation at outreach events is maintained, but at the same |
| | | | **b)** Seek female role models from our student alumni and from other Schools within CoESE to be invited to give presentations or be profiled (posters/videos) at open days. | **b)** October 2020 | **b)** May 2021 | Admissions Tutors<br><br>Marketing Committee<br><br>School Liaison Officer | |
| | | | **c)** Ensure CSEE commitment to AS and to addressing the issues of underrepresentation of females is a key element of information students receive at open days, e.g. in presentations by HoS/ Director of T&L. | **c)** At each Open Day | **c)** At each Open Day | **c)** HoS, Director of T&L | |
| | | | **d)** Host / attend higher number of workshops / outreach activities specifically aimed at females (see **Action 2.4**). | **d)** See **Action 2.4** | **d)** See **Action 2.4** | **d)** See **Action 2.4** | |

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| | | | **e)** Increase UG – PGT academic pipeline by hosting an annual PGT courses fair at the School and monitor the student conversion rates from UG to PGT. | **e)** October 2020 | **e)** October 2024 | **e)** Director of Student Engagement, Employability Representative | time, not overloading our female representation;<br><br>**e)** Monitor the student conversion rates from UG to PGT and arrange an annual PGT fair for October each year. |
| **2.8** | Improve conversion rates for both male and female UG and PGT applicants. | Our conversion rates for both male and female applications have typically been low and need to be improved. | **a)** UG and PGT phone campaign encouraging applicants to study at the School.<br><br>**b)** Personalised correspondence reflecting the content of applications in terms of personal statements.<br><br>**c)** Follow-up correspondence after the publication of examination results. | **a)** August 2020<br><br>**b)** February 2021<br><br>**c)** August 2020 | **a)** August 2021<br><br>**b)** February 2022<br><br>**c)** August 2021 | Admissions Tutors<br><br>Marketing Committee<br><br>Recruitment and Admissions Administrator | An enrolment of 15% female students on Computer Science undergraduate courses (by 2022) and 27% on postgraduate courses by end of awarding period.<br><br>An enrolment of 17% female students on Electronic Engineering undergraduate courses (by 2022) and 25% on postgraduate courses by end of awarding period.<br><br>Positive feedback from receiving personal correspondence from the School before arriving from students who enrol at the School and received personal correspondence. |

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| | | | | | | | SAT and Marketing Committee to continually review application data at all levels. |
| **2.9** | Improve PGR application numbers and investigate the possible reasons behind the low number of PGR applications with the aim of improving PGR recruitment. | We want to recruit more female PhD students; numbers of female PGRs are considerably below the UK benchmark, particularly on EE courses (9% below the benchmark in 2018/19).<br><br>We have identified that application numbers are low but also that a number of offers to female applicants during the reporting period were not converted. | **a)** Look at the process of application, including the language used in PhD adverts/communication about PhD opportunities (see also **Action 3.2**) and ensuring gender representation in PhD interviews (see **Action 3.4**).<br><br>**b)** Hold a focus group with female PGR students to discuss steps to improve the application process. | **a)** August 2021<br><br>**b)** March 2022 | **a)** February 2022<br><br>**b)** May 2022 | Marketing Committee<br><br>Admissions tutors<br><br>Postgraduate Lead | An enrolment split of 27/73 f/m in CS PGR students and 25/75 f/m in EE PGR students (currently 0/100 in CS and 16/84 in EE) in line with benchmark data by the end of awarding period.<br><br>The data from focus groups anonymised and used to identify any follow-up actions in our PGR recruitment activities and practices; |

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| | | | **c)** Survey PGR applicants who were offered places to request feedback on why they decided not to enrol - issue the survey annually.<br><br>**d)** Link to other Schools in the college as to why females in particular accepted but then didn't enrol. | **c)** August 2021<br><br>**d)** October 2021 | **c)** February 2022<br><br>**d)** February 2022 | | |
| **2.10** | Improve male EE progression rates. | There has been an increase in male part-time students in EE in 2018/19 which the School needs to investigate.<br><br>Courses are not offered part-time, so this is likely due to students having to repeat modules. | Implement a support mechanism for students who may be struggling academically involving personal tutors flagging up any students who may be struggling and at risk of failing modules / the year. | May 2021 | May 2022 | Marketing Committee<br><br>T&L Committee<br><br>Personal Tutors | A 50% reduction in male part-time students by the end of the 2022 academic year.<br><br>Positive feedback from the support mechanism.<br><br>Annually review the number of part-time students. |
| **2.11** | Monitor timeframe of PGR completion rates and hold discussion forums with | Analysis of average time to submission of PhD theses for this application | **a)** Monitor PGR completion rates. | **a)** Continuous | **a)** Continuous | **a)** Postgraduate Lead | Maintain an average completion time of between |

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| | female and male PGR students. | revealed that female students have taken on average 4 months longer than male students to submit. Numbers (especially of female PhD students) are small and therefore hard to interpret. However, we will now continue to monitor the completion time of PGR students, as well as regularly survey PhD students on the support they are receiving. | **b)** Conduct discussion forums / anonymous survey with both female and male PGRs on level of support after annual review. | **b)** Annually (September 2021) | **b)** Annual | **b)** SAT Chair / PhD rep(s) on SAT | 44 and 48 months for PGR students.<br>Develop/evolve current support mechanisms based on feedback. |
| **2.12** | Increase the number of female external examiners for PhD viva examinations. | Overall the number of female examiners for PhD examinations at the School is low. Our data show that only 15% of external examiners over the reporting period were female. | Encourage supervisors to consider other / new examiners, but to also acknowledge that the pool of potential examiners is smaller across the sector.<br>Work with Quality Assurance & Validation Unit to action changes to requirements in terms of seniority so that female lectures from other | To be considered for each viva examination. | To be considered for each viva examination. | Postgraduate Lead<br>Supervisors<br>QA and Validation Unit<br>HoS | Increase of 25% of female external examiners for PhD and MRes viva examinations. |

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| | | | intuitions can be PhD examiners for our vivas. | | | | |

| Action | Planned Action / Objective | Rationale | Key Outputs and Milestones | Timeframe<br>Start Date / End Date | | Person(s) Responsible | Success Criteria and Outcome |
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| **3. Staff Appointments and Promotions** | | | | | | | |
| **3.1** | **The over-arching objective is to increase the number and proportion of permanent female staff in CSEE.**<br>The actions below address individual actions that will help us achieve this. | CSEE currently only has two female academic members of staff (1 SL, 1 Prof). The situation has got worse over the reporting period with two female members of staff leaving to take jobs elsewhere.<br>We want to ensure we hire female applicants in future recruitment rounds and retain these members of staff by providing support and ensure CSEE has an inclusive work culture. | The proportion of females is low at all levels at the School, and to avoid overlooking capable women, and to act as a motivator to publicise widely to women, and to introduce (at a minimum) a process to reconsider shortlisting when the shortlist is a single gender. This could result in re-advertising or selecting other appointable candidates for interview. | Immediately | Immediately | SAT<br>HoS<br>HR | **At least one female appointment made to positions advertised during the award period.**<br>CSEE's plans for staff recruitment are based on growing the number of students at the School. This could mean recruiting up to 4 new academic members of staff in next 4-years. We aim to ensure that at least 50% of new appointments to CSEE are female. However, our ability to grow in terms of staff numbers will depend on the number of students we recruit (Covid-19 is also likely to have a significant effect on this). |

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| **3.2** | Develop gender-neutral wording of job and PhD/Post-doc positions and ensure marketing materials/websites where potential applicants may look are not male-biased. | The wording of job and PhD/Post-doc adverts and marketing materials/websites may reflect a male bias which may discourage potential female applicants from applying. | **a)** Work with Equality & Diversity Officer and Athena SWAN Manager to develop a school template for job and PhD/Post-doc adverts.<br><br>**b)** Work with the School and University Marketing groups to update marketing materials and websites.<br><br>**c)** Improve communication of our PhD/Post-doc opportunities. | **a)** May 2020<br><br>**b)** Continuous<br><br>**c)** Continuous | **a)** May 2021<br><br>**b)** Continuous<br><br>**c)** Continuous | HR<br><br>E&D<br><br>Marketing Committee<br><br>Uni Marketing Committee<br><br>HoS | Increase in the number of female applicants for job roles. |
| **3.3** | Advertise posts on Cygnet jobs (https://cygnetjobs.co.uk/about/) and other channels such as LinkedIn, and staff to promote advertised posts via their contacts and social media channels. | We want to increase the visibility of job adverts, specifically targeting potential female applicants and encouraging them to apply | **a)** Increase number of locations where jobs are advertised. Advertise jobs on Cygnets (a website that empowers people to make a positive difference) to ensure potential female applicants are targeted.<br><br>**b)** Staff will actively advertise posts via their contacts and social media channels to increase the field of applicants as much as possible. | **a)** When position becomes available<br><br>**b)** After advertisements have been live | **a)** When position becomes available<br><br>**b)** After advertisements have been live | Business Liaison (TBA)<br><br>All Staff<br><br>Social Media Officer | Increase in number of locations where job adverts can be seen which will increase the number of applicants.<br><br>A broader range of locations noted allowing us to target the most popular websites.<br><br>School to setup a monitoring system highlighting where job adverts were seen. |

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| | | | **c)** We will ask interviewees where they saw the advert as part of the induction process. | **c)** At interview / after appointment as part of induction | **c)** At interview / after appointment as part of induction | | |
| **3.4** | Ensure men and women are represented on interview and shortlisting panels, and that all members of interview panels have completed Recruitment and Selection training. | We need to ensure that when women (and men) are interviewed, they have a positive experience and our commitment to E&D and Athena SWAN is clear through the process.<br><br>BU Recruitment Procedures state Chairs of interview panels for academic positions need to ensure both genders are represented on interview panels. In CSEE this is often achieved by including the (female) HR Senior Officer. We want to ensure greater representation of female researcher/academics on shortlisting and interview panels in the School. | **a)** At least one member of the CSEE SAT is on each shortlisting panel.<br><br>**b)** All members of interview panels to complete recruitment and selection training which includes training on E&D issues and equality bias. The training is mandatory for Chairs of interview panels; CSEE to ensure all those on interview panels have completed it.<br><br>**c)** Where it is not possible to include a female academic on the interview panel (due to small number of female academics in CSEE), invite female postdoc / HR / CoESE to be on shortlisting committee (see below). | **a)** At each shortlisting panel<br><br>**b)** May 2020<br><br>**c)** For each interview panel | **a)** At each shortlisting panel<br><br>**b)** May 2021<br><br>**c)** For each interview panel | **a)** SAT<br><br>**b)** HoS<br><br>**c)** Interview Panel | A member of the SAT will be appointed to collate a database of staff who sit on interview panels and the gender split of each shortlisting and interview panel. This data will be reviewed as part of the annual critical review of our progress (see **Action 1.1**).<br><br>All staff (including post-doctoral staff) who sit on interview panels have completed Recruitment and Selection training. Annual review of those who have completed the training. |

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| | | | **d)** Interviews for Post-doc positions are typically left for PI's to organise and gender representation is not monitored by the School. Female post-docs will be invited to join interview panels which will ensure gender representation on interviews for post-doc positions.<br><br>**e)** Create a list of cognates from other Schools within CoESE that could sit on interview and shortlisting panels. | **d)** For each post-doc interview panel<br><br>**e)** Continuous | **d)** For each post-doc interview panel<br><br>**e)** Continuous | **d)** SAT<br><br>**e)** SAT | |
| **3.5** | In the case of single-gender shortlist, there will be a process whereby the shortlisting panel will be asked to reconsider all applications to check if any appointable female candidates were overlooked. This could result in re-advertising or selecting other appointable candidates for interview. | We want to ensure that women are represented on all short lists of jobs in CSEE. | **a)** All applications are reconsidered if there is a single-gender shortlist.<br><br>**b)** If no females are considered appointable, it will be discussed by School management who will consider advertising. | **a)** For each single-gender shortlist<br><br>**b)** If no females appointable | **a)** For each single-gender shortlist<br><br>**b)** If no females appointable | **a)** Member of SAT on each shortlisting panel<br><br>**b)** HoS | Female and male applicants are shortlisted and invited to interview in each future recruitment round. |

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| **3.6** | Female members of staff (at lecturer or SL level) to be given opportunity to attend Aurora programme. | We need to ensure that we retain and develop female staff in order to ensure that females in our School are able to progress along the academic pipeline. | **a)** Current female Senior Lecturer to be offered to attend Aurora programme in 2021.<br>**b)** New female members of staff to attend Aurora programme. | **a)** 2021 (date location dependent)<br>**b)** When new female staff hired | **a)** 2021 (date location dependent)<br>**b)** When new female staff hired | HoS<br>SAT | The School's female Senior Lecturer to have completed Aurora programme by end of 2021.<br>All new female members of staff have completed Aurora programme. |

| Action | Planned Action / Objective | Rationale | Key Outputs and Milestones | Timeframe<br>Start Date / End Date | | Person(s) Responsible | Success Criteria and Outcome |
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| **4. Culture, Communication and School Organisation** | | | | | | | |
| **4.1** | Improve marketing materials. | The results of our staff survey highlighted the need for positive role models with only 28% of respondents agreeing that both genders are represented equally in CSEE in terms of visibility of role models. | **a)** Improve marketing materials by highlighting female role models.<br><br>**b)** Improve visibility of female role models on the website, particularly in terms of research excellence.<br><br>**c)** Implement the 'This is Engineering' campaign from the Royal Academy of Engineering in Social Media posts. | **a)** September 2020<br><br>**b)** September 2020<br><br>**c)** Immediately / Continuous | **a)** September 2021<br><br>**b)** September 2021<br><br>**c)** Immediately / Continuous | **a)** SAT, Marketing Committee<br><br>**b)** SAT, Marketing Committee<br><br>**c)** Social Media Officer | **a)** Improved visibility of female role models on the School webpage.<br><br>**b)** Monitor the traffic to the specific female role model pages.<br><br>**c)** Monitor the number of followers to our Social Media pages.<br><br>Annual review by the SAT and Marketing Committee on our marketing materials. |
| **4.2** | Improve female student experience. | The female student focus group highlighted the desire for a female STEM society and to improve the visibility and effectiveness of the IEEE society. | **a)** Set-up a female STEM society at the School; HoS has agreed to budget for events such as inviting external speakers. Links to be made with female CSEE alumni (as in **Action 2.7**). | **a)** September 2020 | **a)** September 2021 | **a)** SAT Student Representative | **a)** Student-led "Women in STEM" society set up. |

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| | | It also highlighted the fact that there was currently no E&D element or activities targeted specifically at new female students during Welcome Week. | **b)** Improve the visibility and effectiveness of the IEEE society.<br><br>**c)** Female specific activities during Welcome Week. | **b)** September 2020<br><br>**c)** Each Welcome Week | **b)** September 2021<br><br>**c)** Each Welcome Week | **b)** SAT Chair<br><br>**c)** Recruitment and Admissions Administrator | **b)** Clearer advertisement of the IEEE society, together with increasing the number of guest speakers to two per semester and monthly lectures / seminars by staff and PGR students / Post-docs.<br><br>**c)** Welcome week 2020 to include an introduction to AS to all new students, together with female specific activities. Annual review of these activities. |
| **4.3** | Ensure CSEE website reflects the diversity of our staff and students.<br><br>Develop an AS page on the CSEE webpage and include this Application and Action Plan on the webpage. | Bangor University's Communications and Marketing department are ensuring that all marketing and publicity materials reflect our diverse staff and student population in terms of gender, ethnicity, and that positive role models are captured in the images | **a)** Ensure that all marketing materials and the Schools website has a broad range of photos and case studies of role models, ranging from undergraduate to postgraduate students as well as academic case studies provided by post-doctoral researchers and lecturers; | **a)** September 2020 | **a)** September 2021 | Marketing Committee<br><br>SAT | Website and marketing materials have more information on offer regarding role models, and a range of photos are used to promote the school (see also **Action 3.2**). SAT to annually review the content on our webpage.<br><br>CSEE Athena SWAN webpage developed; |

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| | | and case studies used; CSEE to ensure that the Schools website also reflects this.<br><br>CSEE website also needs to highlight our commitment to Athena SWAN. | **b)** Develop an AS page on the CSEE webpage. | **b)** September 2020 | **b)** December 2020 | | application and action plan made available on the webpage. |
| **4.4** | Transparent decision making in the School. | The staff survey highlighted the need for better communication within the School and more transparency in decision making (50% of respondents to the staff survey agreed that decision making is transparent).<br><br>Qualitative feedback to the survey also suggests that some staff feel the two parts of the School are to some extent still separate entities (see also **Action 5.9** regarding research groups). Also, staff would like to have | **a)** Shared Teams folders for all committee minutes.<br><br>**b)** Document detailing committee membership.<br><br>**c)** Implement a process for staff interested in joining committees.<br><br>**d)** HoS to hold more regular all-staff meetings and to send monthly updates to all staff with updates on main developments e.g. recruitment, promotions as well as 'good news stories' (e.g. publications, grant capture etc.). | **a)** July 2020<br><br>**b)** July 2020<br><br>**c)** July 2020<br><br>**d)** September 2020 | **a)** July 2020<br><br>**b)** July 2020<br><br>**c)** July 2021<br><br>**d)** Continuous | **a)** Director of T&L, SAT<br><br>**b)** Director of T&L, SAT<br><br>**c)** Director of T&L, SAT<br><br>**d)** HoS, Director of Impact | All staff have access to minutes to CSEE committee meeting and membership of committees.<br><br>Improvement in results of next staff survey 2022. 75% of staff feel decision making is transparent. |

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| | | more regular all staff meetings.<br><br>Having more transparency in terms committees and decision-making structure, along with more regular staff meetings should help bring the School together. | **e)** Invite all members of staff to committees as 'observers' if they are not committee members. | **e)** September 2020 | **e)** September 2021 | **e)** Committee Chairs | |
| **4.5** | Introduce more social activities to promote inclusivity within the department. | Some members of staff still feel that there are two parts to the School since merging and are still largely separate entities. We want to foster better communication between CS and EE, and to promote inclusivity in the department.<br><br>90% of respondents to the survey agreed that "work related social activities in CSEE were welcoming to all staff". However, there haven't been many social activities in recent years. | **a)** Implement a 15min daily coffee break at 10:30am for all available staff to convene in the staff common room.<br><br>**b)** Arrange a monthly lunchtime walk.<br><br>**c)** Arrange an early-evening drink at the end of every semester. | **a)** Daily from September 2020<br><br>**b)** Monthly from September 2020<br><br>**c)** End of each Semester from December 2020 | **a)** Daily from September 2020<br><br>**b)** Monthly from September 2020<br><br>**c)** End of each Semester from December 2020 | SAT Chair<br><br>SAT | A greater sense of cohesion between CS and EE as evidenced in staff surveys and focus groups. |

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| **4.6** | Ensure clarity and transparency in the allocation of workloads across the School. | The staff survey indicated that overall staff feel that work is allocated on a clear and fair basis irrespective of gender (76% agree). However, qualitative feedback suggests that allocation of some admin, teaching and especially outreach tasks are unbalanced.<br><br>Staff need to be kept informed and consulted in development of University's WAM. | **a)** HoS is a core member of the Academic Workload Task and End Group; CSEE will use tariffs from the upcoming pilot of WAM to develop the process in the School.<br><br>**b)** Implement an open application to apply for administration roles.<br><br>**c)** Implement an open application for members of staff / students interested in conducting outreach workshops (currently staff ask for participants via word of mouth).<br><br>**d)** Annually monitor staff workload allocations in the WAM. | **a)** Continuous<br><br>**b)** January 2021<br><br>**c)** January 2021<br><br>**d)** Annually | **a)** Continuous<br><br>**b)** April 2021<br><br>**c)** April 2021<br><br>**d)** Annually | **a)** HoS, Director T&L<br><br>**b)** HoS, Director T&L<br><br>**c)** School's Liaison<br><br>**d)** HoS | Rotation of admin roles and a fair allocation of outreach workshops.<br><br>Annual review of workload allocations in the WAM. |

| Action | Planned Action / Objective | Rationale | Key Outputs and Milestones | Timeframe<br>Start Date / End Date | | Person(s) Responsible | Success Criteria and Outcome |
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| **5. Staff Career Development and Key Transition Points** | | | | | | | |
| **5.1** | All academic and research staff to receive an annual PDR. | Not all staff at the School are currently receiving PDRs. In the staff survey only 44% of respondents agreed that they had a helpful annual PDR. CSEE needs to do more to promote the role of the PDR in career development.<br><br>There is a particular concern that fixed-term research staff are not receiving PDRs. | **a)** Refresh reviewers PDR skills by making sure that all those who conduct PDRs attend the 'Developing Performance Management Skills' course.<br><br>**b)** Encourage staff to attend the 'Getting the best out of your PDR' training course.<br><br>**c)** Request that HR conduct a session on PDRs for CoESE staff, particularly aimed at managers of research staff to ensure annual PDRs for research staff becomes standard practice in all research groups in CSEE. | **a)** July 2020<br><br>**b)** July 2020<br><br>**c)** Once electronic version of PDR is launched | **a)** December 2020<br><br>**b)** July 2021<br><br>**c)** Once electronic version of PDR is launched | **a)** SAT, HoS<br><br>**b)** SAT<br><br>**c)** SAT | 100% completion of PDRs in 2021 and annually thereafter. This will be monitored annually by the SAT; |

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| **5.2** | Ensure that all staff are aware of the promotions process and are supported to apply when ready to do so. | 75% of all respondents to the staff survey indicated that they understand the promotion process and criteria in the University. Only 62% agreed that all skills and experience are valued when it comes to promotions.<br><br>BU is currently reviewing its academic promotions polices. We hope the outcome of this review will address our staff's concerns. | **a)** Once the new BU policies are in place, we will ensure CSEE staff are aware of the revised promotion criteria and process via discussions in PDRs, presentation in BoS and through staff meetings.<br><br>**b)** Line managers / HoS to put staff forward for promotion each year to avoid only considering a self-selecting pool. | **a)** September 2020<br><br>**b)** In line with PDR | **a)** September 2021<br><br>**b)** In line with PDR | HoS | Pathways to promotion are clearly identified and monitored during PDRs.<br><br>Improved response from staff in staff survey in relation to an understanding of the promotion process.<br><br>Increase in the number of staff applying for promotion. |
| **5.3** | Develop More internal CPD particularly for teaching and learning and pedagogy.<br><br>Ensure PhD students, post-docs and staff are aware of teaching-focused career progression routes within BU | Feedback from the staff survey shows that staff feel improving pedagogy and teaching skills within CSEE is key.<br><br>Staff also commented that PhD students and post- | **a)** Develop and implement new School level CPD training courses for all staff and PGR/Postdocs.<br><br>**b)** PhD students given opportunity to contribute to teaching. | **a)** September 2021<br><br>**b)** Continuous | **a)** September 2023<br><br>**b)** Continuous | **a)** Director of T&L<br><br>**b)** SAT, Director of T&L, HoS | Improvement in teaching skills and pedagogy. Module evaluations monitored to evaluate.<br><br>(see also **Action 1.3** on teaching away day). |

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| | and are given opportunity to undertake PGCertHE. | docs should have the opportunity to have teaching roles and have the opportunity to complete PGCertHE.<br><br>A clearly defined Teaching & Scholarship career path has been developed at BU in recent years**.** This ensures that academic staff are offered routes to progression that match their skill sets and interest. There have been promotions to SL, Reader and Professor on the T&S route in other Schools at BU. | **c)** Increase the number of PhD and post-doctoral researchers undertaking PGCertHE qualifications – supervisors to encourage participation.<br><br>**d)** Ensure different routes to career progressions are discussed in PDRs (see also **Action 5.1**). | **c)** Continuous<br><br>**d)** At PDRs | **c)** Continuous<br><br>**d)** At PDRs | **c)** Supervisors, HoS<br><br>**d)** HoS | **b)** 25% of PhD students in part-time teaching or demonstrating roles.<br><br>**c)** Increased number of PGCertHE qualifications awarded. |
| **5.4** | Increase awareness of University training, career development and mentoring opportunities and monitor uptake. | Respondents to staff survey asked for more training in areas such as developing funding proposals, equality and diversity, health & safety and time management. | **a)** Designate a member of the SAT to collate and distribute information regarding development and training opportunities. Highlight those that may be particularly relevant to female staff (see also **Action 5.6**). | **a)** September 2020 | **a)** Throughout award period | **a)** SAT Chair, Director of T&L | Increase in uptake of staff and researcher development opportunities by CSEE staff.<br><br>Feedback from future staff surveys show training needs of CSEE staff are being met.<br><br>At least 4 members of staff take part in BU's academic |

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| | | Training in these areas is regularly offered on BU's Staff development and research development programme.<br><br>Ensure CSEE staff are aware of these opportunities.<br><br>The University captures uptake of training by staff (see *Table 5.5* in application) but this is not monitored at School level.<br><br>Only 58% of respondents to staff survey agreed that they were provided with mentoring opportunities. However, only 2 members of staff from CSEE took part in the University academic mentoring schemes that were launched in September 2019. | **b)** Liaise with HR to ensure training uptake is shared with School annually and reviewed by SAT.<br><br>**c)** Encourage staff (particularly female staff) to put themselves forward as mentors and/or mentees in the next round of the University mentoring schemes by communicating opportunities to staff (see **a)**) and including this in PDR discussions on development activities. | **b)** Annually<br><br>**c)** At next University mentoring scheme round | **b)** Annually<br><br>**c)** At next University mentoring scheme round | **b)** SAT Chair<br><br>**c)** SAT Chair,<br><br>HoS | and senior academic mentoring schemes in 2020. 50% of staff to have taken part (as mentors or mentees) during award period. |
| **5.5** | **Supporting the career progression of CSEE's** | While CSEE has only 2 permanent female academic staff, the | **a)** ECR School mentoring scheme to be instigated. | **a)** January 2021 | **a)** January 2022 | **a)** SAT | **a)** Improvement in staff survey re: mentoring opportunities |

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| | **female postdocs is a key priority for School.**<br><br>Ensure female post-docs are represented in professional development schemes such as the Welsh Crucible and Research Leadership Programme. | proportion of women in researcher position has increased over the reporting period.<br><br>We need to nurture and develop their talent and support their career development in order to ensure that they are able to progress along the career pipeline. | **b)** Female post-docs will be encouraged to take part in professional development schemes such as Welsh Crucible. A (female) AS lead from another School has offered to give a presentation in CSEE ahead of next year's Welsh Crucible to help encourage female CSEE post-docs to apply. | **b)** Continuous | **b)** Continuous | **b)** SAT Chair, Supervisors | **b)** At least 2 female postdocs to have taken part in Welsh Crucible during award period. |
| | | | **c)** Female post-docs who are at the stage of wanting to become independent researchers are encouraged to apply for the University's Research leadership programme. | **c)** Continuous | **c)** Continuous | **c)** Supervisors | **c)** At least 2 female members of staff of have taken part in the University's research leadership programme during award period. |
| | | | **d)** Female post-docs to be invited to join shortlisting and interview panels (see **Action 3.4**). | **d)** See **Action 3.4** | **d)** See **Action 3.4** | **d)** See **Action 3.4** | **d)** Increased participation by female staff on shortlisting and interview panels. |

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| | | | **e)** An ECR post-doc representative will be invited to join the School's research and marking committees. This opportunity will be offered to female post-docs first as we also want to address the gender imbalance of CSEE committees. | **e)** Immediately | **e)** Immediately | **e)** Committee Chairs, HoS | **e)** Improved gender balance on Research and Marketing Committee. |
| **5.6** | Support and training for academic staff for developing and writing grant applications. | The funding success rate (for PI grants) was 31% over the reporting period. It was considerably higher for male applicants (35%) than female applicants (15%).<br><br>Feedback from the staff survey highlighted the need for more support for the development and writing of grants. | **a)** Individual support from the Director of Research for devising research plans based on successful grant capture.<br><br>**b)** Develop in-school training for writing funding proposals and ensure staff are aware of training RIIO training and support (see also **Action 5.4**).<br><br>**c)** Mentorship mechanism for grant application development and write-up. Particular focus on mentoring post-docs | **a)** April 2021<br><br>**b)** April 2021<br><br>**c)** April 2021 | **a)** April 2022<br><br>**b)** April 2022<br><br>**c)** April 2022 | Director of Research<br><br>SAT<br><br>HoS | Increase in successful research grant applications by 35%, by end of 2022. |

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| | | | through Fellowship applications. | | | | |
| **5.7** | Support for postdoctoral researcher career progression by organising School and College wide research days and writing retreats. | To follow best practice in terms of support for postdoctoral researcher career progression, and to provide mechanisms to encourage networking and career progression.<br><br>There is an action in the School of Natural Sciences Silver application (submitted in same round) to organise a "Grants and Fellowships event" for ECRs ever 2 years. | **a)** Organise School wide research days and writing retreats to encourage networking and career progression.<br><br>**b)** Set up departmental mentoring scheme for ECRs (see **Action 5.5)**.<br><br>**c)** Work with SNS SAT and Research Committee to ensure successful Grants and Fellowships events.<br><br>**d)** All CSEE post-docs/ECRs to attend Grant and Fellowships. | **a)** April 2021<br><br>**b)** January 2021<br><br>**c)** April 2021<br><br>**d)** April 2021 | **a)** April 2022<br><br>**b)** January 2022<br><br>**c)** April 2022<br><br>**d)** April 2022 | Director of Research<br><br>Research Committee | CSEE staff and postdocs represented at Grants & fellowship event. |
| **5.8** | Improve coordination between research groups in CSEE and ensure sharing of best practice for research. | The merged schools have brought together two different research cultures. Feedback from the staff survey highlighted that to some degree the groups are still separate and that | **a)** A series of joint research group meetings will be held to establish domain-specific working groups on cross-cutting themes across research groups as well as in other CoESE Schools. | **a)** January 2021 | **a)** April 2021 | Director of Research<br><br>Research Committee | Increase in the number of cross-discipline grant applications. |

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| | | assumptions and expectations between different groups can create difficulties. | **b)** Focus-teams for research groups to assist with research programme development and career progression. | **b)** January 2021 | **b)** January 2022 | | |
| **5.9** | Increase representation of CSEE staff on influential external committees. | The results of the staff survey showed that 75% of respondents feel that they are encouraged and given opportunities to represent CSEE externally and/or internally. However, our data collation for Section 5.6 (iv), as well as our current work on "esteem indicators" for REF 2021 suggests that we need to do more to get our staff on external committees. | Encourage all research-focused members of staff to become reviewers for Research Councils (e.g. Associate College Members of EPSRC). | April 2021 | April 2022 | Director of Research<br>Research Committee | Increase of staff participation in influential committees, such as RC Colleges. |

| Action | Planned Action / Objective | Rationale | Key Outputs and Milestones | Timeframe<br>Start Date / End Date | | Person(s) Responsible | Success Criteria and Outcome |
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| **6. Career Breaks, Workload and Flexible Working** | | | | | | | |
| **6.1** | Communicate University policy on maternity, adoption leave and shared parental leave. Also summarise School support and key contacts. | There have only been 2 instances of maternity leave over the reporting period, both were researchers on fixed-term contracts and have since left the School.<br>We have not had an academic member of staff take maternity leave for many years and have therefore not developed the support mechanisms that other BU Schools with a higher proportion | **a)** CSEE "Family Friendly Support" document to be developed. This will summarise University policies (and provide links to full policies) as well as School level support and key contacts (see b). It will in particular highlight the option of shared parental leave. | **a)** May 2020 | **a)** May 2021 | SAT<br>HoS | "Family Friendly Support" document available on the CSEE AS website, emailed to staff who are going leave. All staff to be informed that this information is on website.<br>At least 90% of staff in next staff survey agree they are kept informed about maternity/ adoption/paternity/parental leave policies as well as flexible working policies (see also **Action 6.6**). |

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| | | of female staff have developed.<br><br>We are committed to fully supporting any member of staff and/or PhD student who may take maternity leave in the future. We will adopt best practice by working closely with HR and other academic Schools. | **b)** Ensure we follow best practice if/when members of staff/PhD student take maternity leave by working with other Schools. Specifically, the AS lead in SOS has agreed to act a "buddy" for any member of staff taking leave. A member of the SAT in Health Sciences (who is also the contract research staff representative on BU AS committee) has offered to "buddy" any PhD students/post-docs taking maternity leave. Both have personal experience of taking maternity leave at BU. | **b)** Whenever leave is taken | **b)** Whenever leave is taken | | . |
| **6.2** | Teaching and administrative loads to be reduced during first semester after return from maternity/adoption leave. | We want to ensure that female academics returning to work after maternity leave are able to prioritise their research activity. | Reduce teaching and / or administrative workload during the first semester after return. This will be discussed and agreed with line manager and/or Head of School before the start of maternity/adoption leave. | Continuously | Continuously | HoS<br><br>SAT | Teaching and admin workloads are reduced for returning staff. This is formalised in their workload allocation.<br><br>Female staff who have returned report being well supported (see **Action 6.3**). |

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| **6.3** | Staff returning from maternity/adoption leave will meet with the HoS and the SAT Chair. | We want to ensure that women who have taken maternity/ adoption leave are welcomed back into the School and that their experiences regarding the support they received from CSEE before, during and on return from maternity leave are fed back into the SAT. This | **a)** HoS to hold a 'return to work' meeting with returning staff to welcome them back into the School and ensure they are up to date with any changes (e.g. staffing, admin roles) that may have happened.<br><br>**b)** Approximately 6 months after return, SAT chair to meet with returning staff. This will allow the SAT to get some feedback from staff who have taken maternity leave regarding their experiences and whether the AS actions were implemented successfully. | **a)** After each return from maternity or parental leave<br><br>**b)** 6 months after return | **a)** After each return from maternity or parental leave<br><br>**b)** 6 months after return | **a)** HoS<br><br>**b)** SAT Chair | Monitor that staff have attended the 'return to work' meeting and have also met with the AS lead 6 months after return. |
| **6.4** | Establish a quiet room and fridge facility for breastfeeding staff and students. | We need to ensure that mothers have the best possible support on return to work, including a space for breastfeeding/expressing and that a fridge is provided (these are available from the | Ensure this space is available if/when a member of staff or a student returns from maternity leave. | May 2020 | November 2020 | HoS<br>SAT | Room is available by May 2021. |

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| | | University's Health & Safety Services) | | | | | |
| **6.5** | School to inform particularly male staff of the option of shared parental leave. | Our data show that the male members of staff are taking the parental leave they are entitled too (11 members of staff took paternity leave during the reporting period).<br><br>However, there has been no uptake of shared parental leave that BU now offers. Shared parental leave allows new parents to equally share the care of their child in the first year of birth or adoption. | Information on BU's shared parental leave policy to be included in the Family Friendly Support" document (see **Action 6.1**). | Continuously | Continuously | HoS | At least 90% of staff agree:<br>• They are kept informed about flexible working provision and relevant maternity/paternity/parental leave policies and entitlements;<br>• Are happy with their work/life balance. |
| **6.6** | Greater awareness of the opportunities for flexible working provision available for all staff. | Enables employees to alter their hours or working patterns in order to help improve work/life balance, support those with caring responsibilities etc. | **a)** Information on flexible working provision to be included in the Family Friendly Support" document (see **Action 6.1**). | **a)** See **Action 6.1** | **a)** See **Action 6.1** | **a)** See **Action 6.1** | |

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| | | 82% of respondents to staff survey indicated they are happy with work-life balance. However, only 72% agreed CSEE kept them informed by about gender equality matters, including parental leave options and flexible working opportunities. | **b)** Flexible working provision to be included in CSEE School induction. | **b)** May 2020 | **b)** September 2020 | **b)** SAT Chair | |