

Department Application Bronze and Silver Award

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.

THENA 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

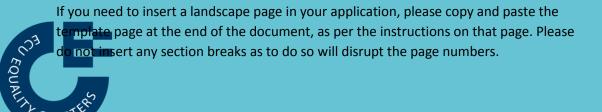
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DO NOT ATTEMPT TO COMPLETE THIS APPLICATION FORM WITHOUT READING THE ATHENA SWAN AWARDS HANDBOOK.

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)



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	University of Hertfordshire	
Department	Engineering and Computer Science	
Focus of department	STEMM	
Date of application	November 2019	
Award Level	Bronze	
Institution Athena SWAN award	Date: April 2018	Level: Bronze
Contact for application Must be based in the department	Dr Martina A. Doolan	
Email		
Telephone		
Departmental website	https://www.herts.ac.uk/study/schoo of-study/engineering-and-computer- science	

Section	Page	Recommended word limit	Actual word count	Additional words used
1. Letter of endorsement	6	500	574	+74
2. Description of the department	9	500	472	-28
3. Self-assessment process	11	1000	1,230	+230
4. Picture of the department	21	2000	2,449	+449
Supporting and advancing women's careers	53	6000 (Bronze) 6500 (Silver)	6,535	+535
6. Case studies (Silver only)	N/A	N/A (Bronze) 1000 (Silver)	N/A	N/A
7. Further information	89	500	142	-358
	Total	10,500 (Bronze)	11,402	902

Glossary

Abbreviation	Full term	
ACM	Association for Computing Machinery	
ADAQ	Associate Dean Academic Quality	
AD SE&P	Associate Dean Student Experience and Professions	
AM	Academic Manager (staff grade)	
AS	Athena SWAN	
CCSIR	Centre for Computer Science and Informatics Research	
CER	Centre for Engineering Research	
CPD	Continuing Professional Development	
CS	Computer Science	
CPAD	Continual Professional Development	
DD	Deputy Dean	
DoS	Dean of School	
ECS	Engineering and Computer Science	
EDIT	Equality, Diversity and Inclusion Team	
E&D	Equality and diversity	
ENG	Engineering	
F	Female	
F/T	Full-time	
FTE	Full-time equivalent	
HE	Higher Education	
HR	Human Resources	
IET	Institution of Engineering and Technology	
IFNTF	International Federation of National Teaching Fellows	
IWD	International Women's Day	
KIT	Keeping in Touch days	
Μ	Male	
NTF	National Teaching Fellow	
PAL	Peer Assisted Learning	
PG	Postgraduate	
PGT	Postgraduate Taught	
PGR	Postgraduate research	
PNS	Prefer not to say	



P&T	Professional and technical staff	
P/T	Part-time	
PVC	Pro Vice-Chancellor	
RDF	Researcher Development Framework	
RDP	Researcher Development Programme	
SAT	Self-Assessment Team	
SCO	School Community Organiser	
SEG	School Executive Group	
SL	Senior Lecturer	
SU	Students' Union	
UG	Undergraduate	
UH	University of Hertfordshire	
VL	Visiting Lecturer	
WES	Women's Engineering Society	
WPN	Working Parents' Network	



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.





University of Hertfordshire

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James Greenwood-Lush Head of Athena SWAN 1st floor Napier House 24 High Holborn London WC1V 6AZ

27th November 2019

Dear Mr Greenwood-Lush,

I write to provide my support for, and endorsement of, this Athena SWAN (AS) Bronze application and action plan. I am personally committed to enhancing Equality, Diversity and Inclusion (EDI) in the School of Engineering and Computer Science and am proud of the progress that we have made over recent years.

Our situation is particularly complex due to merging of two previously separate Schools (Engineering and Technology and Computer Science) into one in 2019. However, a key priority within the merger has been to ensure the AS principles are embedded School-wide. Some initiatives I have implemented have involved:

- Raising and expanding the profile and widening the agenda of our AS Self-Assessment Teams (SATs) by creating a single EDI team (EDIT), to which I am co-Chair.
- Achieving an almost 50/50 gender balance on the EDIT.
- Creating two new roles an EDI School Executive Group (SEG) representative to ensure that EDI features prominently at meetings with senior management and a Black, Asian and Minority Ethnic (BAME) Champion to further work relating to race equality in the School (Action 3.2), in collaboration with our AS Champion.
- Ensuring that those engaged in EDI and AS work are recognised and valued through inclusion in promotion and progression criteria (Action 5.5).

I am delighted that we now have more women as Associate Deans and I have recently appointed for the first time two women as Subject Group Leaders, the first tier of line management. Our support of the Aurora programme is also now bearing fruit with several women progressing into more senior leadership and management roles, including our new Deputy Dean and Associate Dean of Academic Quality. We recently appointed three more women as academic staff, in addition to those reported in the application, which builds on the already upward trend of attracting more women into the School.

I also want to draw attention to the dedication of colleagues who are engaged in taking on leadership roles externally, and in outreach activities to showcase the value of study and careers in Engineering and Computing. Large numbers of our staff have contributed to events such as The Big Bang Fair as well as the fabulously popular Girls in Engineering. And during UK Robotics week, our researchers worked over six days with 175 children encouraging them to program our innovative KASPAR the robot. These are a testament to how we as a School are striving to reach out beyond the University as part of our societal and community engagement.





University of Hertfordshire

Of course we have much further to go, not least in supporting and increasing the proportions of women in higher grades such as the Professoriate (Action 4.3), responding more decisively to feedback from staff on appraisal (Action 5.8), enhancing satisfaction in relation to workloads (Action 5.17), and demonstrating sustained improvements and progress to aspire to Silver and Gold levels of recognition. Some years ago, we also set ourselves a target of increasing the numbers of women students. And whilst we have made good progress in some subject disciplines and enrolment types, e.g. PGR and PGT, it is proving stubbornly difficult to make positive progress in others, despite our best efforts. Nonetheless, I believe we have in place a number of policies, mechanisms and actions (e.g. Action 4.1) that will enable us to make solid progress over coming years.

I can attest that the information presented in this application (both quantitative and qualitative) is an honest, accurate and true representation of the School.

Yours since ely,

odney Dau

Dr Rodney Day / Dean of School of Engineering and Computer Science University of Hertfordshire



University of Hertfordshire Higher Education Corporation is an exempt charity



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 Engineering and Computer Science (ECS) is one of nine academic Schools at the University of Hertfordshire (UH). This was established in 2019 as a result of merging the two subject areas (Engineering and Technology and Computer Science) which were formerly stand-alone Schools and are now departments. The Dean of School (DoS) (M) of Engineering (ENG) was appropriated to the Dean of ECS.

In creating a new dynamic School that focusses on delivering talented graduates, outstanding research and business solutions for the local, regional and global engineering & IT sectors, ECS aspires to be the largest provider of professionally recognised engineering and computing awards in the region. There is the potential, with further portfolio diversification, to position the School in the top quartile of the largest HE providers of Engineering and Computer Science in the UK. Underpinning our future progress must be a focus on performance and delivery with clear expectations but within a supportive, inclusive, and friendly working environment.

In ENG, programmes offered include subjects in Mechanical, Aerospace and Electronics. In Computer Science (CS), courses can be studied on and offline and students can choose a named degree including Computer Science (Artificial Intelligence, Networks, and Software Engineering). Table 1 shows a breakdown of students across the School.

Department	UG (%F)	PG (%F)
Engineering	1472 (10%)	200 (14%)
Computer Science	958 (13%)	447 (27%)
Total	2430 (23%)	647 (41%)

Table 1: Student breakdown by department

Of the 200 staff in ECS (Table 2), 29% are female. This is above the UK Higher Education (HE) sector of 22% for both ENG and CS (HESA 2017/2018). Staff engage in world-leading research, in ENG the research groups include: Microfluidics & Microengineering (MMRG), Bioengineering, Materials & Structures (MAST), Energy and Sustainable Design (ENESD), Communications and Intelligent Systems (CIS). All these research groups sit under the Centre for Engineering Research (CER). In CS research is in Adaptive Systems, Algorithms, Bio-computation, and Compiler Technology and Computer Architecture. These take place within the

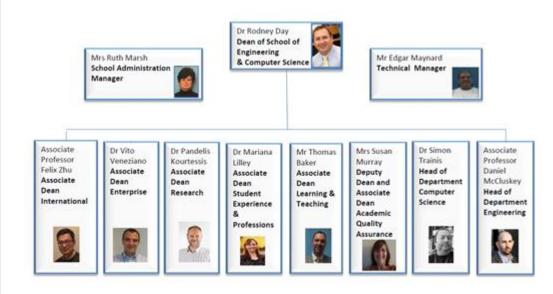
Centre for Computer Science and Informatics Research (CCSIR). The School is recognised across the HE sector for excellence in learning and teaching with three National Teaching Fellows (2F:1M).

Department	Female Mal		le	Total
Engineering	27 (23%) 89 (77		7%)	116
Computer Science	31 (37%) 53 (63%)		3%)	84
Engineering	Female		Male	
Academic and Research	16 (20%)		66 (80%)	
Professional	11 (32%)		23 (68%)	
Computer Science	Female			Male
Academic and Research	23 (31%)			52 (69%)
Professional	8 (89%)			1 (11%)

Table 2: Staff breakdown by department and category

The School Executive Group (SEG) as shown in Figure 1 comprises 8M and 3F. In 2019 a woman was recruited as Deputy Dean (DD) and Associate Dean of Academic Quality (ADAQ).

Figure 1: School Organisation Structure



The SEG has improved in gender balance as previously ENG had one female representing the Professional Staff and CS had two females, one AD and one member of the Professional Staff. The new structure includes three females of which two are ADs and one has the additional post as DD.

Please note that we have presented quantitative data separately for the two departments throughout the submission. Due to the recent merger, data has not

been kept centrally for ECS as a whole until the 2019/20 academic year. In future submissions after the merger has been fully embedded, we intend to include data for ECS as well as a breakdown of both departments.

(472 words)

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

Prior to the merger, each School had a separate Athena SWAN (AS) Self-Assessment Team (SAT). One initiative of the merger was to create a single Equality, Diversity and Inclusion Team (EDIT) through widening the agenda, enhancing communication and consultation with students and staff concerning equality and diversity (E&D) matters, and purposefully embedding the AS principles School-wide demonstrating a commitment to advancing gender equality. Since 2014 the SATs in both Schools have progressively become more inclusive.

In October 2019 two new roles were created - an E&D SEG representative and BAME Champion. Part of the remit for the E&D rep is to ensure the School does all we can to promote and widen E&D at a senior level. This is an annual role to give other staff an opportunity to contribute. Part of the role is to take forward the School's work on reducing the BAME attainment gap and other inequalities. Such initiatives have been driven by the Dean and are an integral part of the School's strategic planning, thereby demonstrating commitment and action by senior management to further embed the AS principles and E&D work in the new School. When in position these individuals will join the EDIT.

The EDIT is chaired by the AS Champion who is based in CS (F) and the DoS (M – Alternate Chair, former AS Alternate Champion in ENG). The Champion is supported by an AS Alternate Champion from CS (M) and in ENG by the Deputy AS Champion (F) and DD (F – former AS Champion for ENG) to ensure insight into the two subject areas and formerly separate cultures. The AS Champion also sits on the University AS SAT and is a member of the central AS Champions' Network, providing an opportunity to share good practice and link School and University activities. There is also a clerk (F) who represents the professional team. Part of her portfolio is administrative duties as well as being a valuable contributor based on her experience with previously successful AS applications and in her role as union representative.

The team comprises individuals with diverse life and career experiences, including primary carers of children, and a balance between academic, research, technical

and administrative staff in early, mid and senior careers (Table 3). Prior to the School merger there were 8M and 13F on the SAT teams. To address this imbalance and raise awareness of the relevance and importance of AS to both genders, the Dean co-opted members depending on roles within the newly-merged School and invited volunteers from amongst the staff and student body to join the team.

As a direct result of this action, senior management, professional and technical staff engagement has increased as well as student representation which is reflected in the membership. Overall, the EDIT is now more inclusive and diverse, the team is broader and has almost achieved a 50/50 gender balance. E&D work is also recognised in the workload allocation. Membership is revisited annually, and succession planning embedded in the new merger with a focus on identifying and growing talent, providing opportunity for staff to experience different roles for career development and potential progression – as demonstrated by the creation of the new E&D roles highlighted previously (See Action 3.2).

To pass on good practice and provide insight and knowledge into the AS process, six members have participated in assessment panels. Periodically, the AS Champion/Chair also sits on other School SATs in a reciprocal arrangement to help cross-pollinate and share ideas across academic Schools.

Table 3: EDIT Membership

This information has been redacted to ensure personal data privacy.

(ii) an account of the self-assessment process

AS is a regular agenda item of the SEG, which is chaired by the Dean. The EDIT Chair/AS Champion reports to the SEG, attends regular meetings with the Dean and reports to the University's SAT, chaired by the Secretary and Registrar responsible for the People strand of the University's Strategic Plan.

The unified EDIT has met seven times since it was established in 2018/19. Prior to that, the SAT teams in CS and ENG met on a quarterly basis with regular submeetings for different working groups, and with the Equality Office. Sub-working group meetings are also responsible for: *student and staff data analysis, staff consultation*, and *student consultation* (undertaken by the AD responsible for student experience). Students have also been consulted, for example, by way of membership and participation in EDIT meetings and consultation with the SU amongst others (Table 4). Members of the EDIT are identified for taking specific actions and communicating progress in the School as per the action plan.

Additionally, on a regular basis colleagues drop in to the EDIT to present, depending on their role. For example, the admissions tutor (F) from ENG who attends all Open Days discussed and highlighted ways to encourage more women into the discipline.

Staff and student consultation

Various strands of internal and external consultation have been organised with staff and students to gauge views on a broad range of issues covered by the submission, review our action plan, reflect on current practices and biases, identify challenges and ways of overcoming them, and raise awareness of AS and E&D issues.

Date	Activity	Data Type	Details
Ongoing	Regular advice from UH AS Officer and Head of Equality	Quantitative/ qualitative	• Data dissemination, survey design, facilitation of interviews, event organisation and support, application review
2015-2019	School Away Days	Qualitative	 Annual; attended by academic, professional, and Visiting Lecturer (VL) staff Consultation and comments re: application, views on School culture captured on flip chart AS, E&D and wellbeing presentations
Jan 2017	Set up ACM Herts Student Chapter	Qualitative, student consultation	• Views from 100+ female students and staff captured on perceived barriers and enablers to career progression

Table 4: Staff and student consultation activities



Feb 2017 (Every three years) Jun 2017	UH Staff Survey	Quantitative	 CS response rate 66% ENG response rate 54% University did not disaggregate data by gender Questions covered: employee engagement, working relationships, UH direction and values, senior management, E&D etc.
Jun 2017	induction interviews	Quantative	 Interviews conducted with new staff (2F professional, 1M Technical, 6M academic) about local induction experiences Feedback used to improve induction programme
Apr - Sept 2019 (Every 3 years)	ECS AS Staff Survey	Quantitative/ qualitative	 Disseminated to staff (academic, technical and professional) using Online Surveys platform Key areas covered included: workload, appraisal, career development, promotion, recruitment, parental leave and flexible working ECS overall response rate 42% (n=85) out of 200 staff (28%F:54%M:18% prefer not to say (PNS)) 39% (n=33) in CS, (27%F:55%M:18%PNS) 61% (n=52) in ENG, (29%F:54%M:17%PNS)
Oct 2019	Staff interviews	Qualitative	 Voluntary interviews as follow-up to staff survey 5 members of staff interviewed; 1 professional staff (M); 2 CS academic staff (M); 2 ENG academic staff (1F:1M)
May 2019	UH Pulse Survey	Quantitative	 ECS response rate 47% Questions as follow-up to UH-wide staff survey in 2017, University did not disaggregate by gender Topics included employee engagement, allocation of resources, awareness, E&D etc.
Oct 2019	Consultation with Herts Students' Union (SU)	Student consultation	• Sharing ideas on BAME attainment gap, gender pay gap, AS and developing a working relationship with the SU
Sep/Oct 2019	Tea and Chat with AS Champion/EDIT Chair	Qualitative, staff consultation	• Staff perspectives captured through nine one-to-one informal discussions on: role and motivation



Further engagement with the HE sector is continuous through various networks and services such as AS Charter Members, WISE, National Teaching Fellow (NTF) Symposium, International Federation of National Teaching Fellows (IFNTF), British Computer Society (BCS), ACM, Women in Engineering Society (WES), Leadership Foundation, Aurora, JISC, Advance HE, Cygnet, Institute of Technology (IEEE) and the Centre for Computing History. We have also consulted with various universities UK-wide and in Ireland, conducted a gap analysis and benchmarked our AS submission against other successful applications.

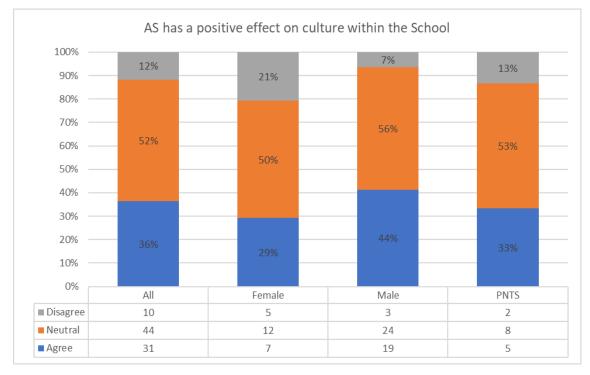


Figure 2: Survey result - AS has a positive effect on the culture within the School

Awareness-raising of women in science through events and other key activities (Table 5) will continue to be a primary focus. We are pleased to report that in our ECS Staff Survey (Figure 2), 97.7% (n=83) (100%F) of respondents were aware that the School was working towards an AS award. However, less staff were sure (more so women than men) whether this had a positive effect (36.5% agreed; 51.8% neutral; 11.8% disagreed). We therefore will focus on better communicating the impact and progress of the School's E&D activities amongst staff and students **(Action 3.1)**.

Action 3.1: Increase participation and raise awareness of the impact of the School's E&D initiatives and progress amongst staff and students.

Table 5: Key activities of the SATs/EDIT

Date	Activity	Details
Jul 2018	Girls in Engineering event	 In celebration of Year of Engineering and 100- year women's suffrage anniversary Funded through £15,000 UH outreach investment Years 8 through 12, offered fun and interactive workshops covering various aspects of Engineering and Technology
June 2017	2 nd National INSPIRE Conference: Identity, Impact and Voice	 Aimed to encourage and recognise commitment to advancing the careers of women in STEMM employment and research in HE Hosted by CS and the ACM Women UK Professional Chapter, organised and run in partnership with MSc and PhD students £1,000 research grant awarded + sponsorship + funding from CS 150 attendees from across UK Student awards for best poster and paper. Outstanding service award presented by ACM to EDIT chair for faculty sponsor of UH ACM student chapter
Mar 2018	Planetarium Dome International Women's Day	 Awareness-raising of women in science and celebration of International Women's Day Collaboration between Schools of Physics, Astronomy and Maths, ENG and CS Video produced show-casing women in various STEMM subjects, displayed within dome
2015-2019 Ongoing	EDIT members attended AS assessment panels	 4F and 1M observed panels; 1F both observed and assessed panels Lessons learnt disseminated as best practice in writing AS applications, embedding, disseminating and promoting the AS principles
Mar 2019	International Women's Day	 AS Champion invited to present her story, alongside the Mayor of Harrow, at Stanmore College Organised to commemorate their achievements as women in STEMM to promote gender equality
October 2019	Visit and consultation with Dawn Bonfield MBE - Founder and Director of 'Towards Vision', past president and executive of WES	 Dean, DD and AS Champion attended Views from a Royal Academy of Engineering Visiting Professor of inclusive education, leading the AS Gold Submission for Aston University Sharing of good practice for AS submission and towards a vision of inclusivity and diversity in ENG

June 2019 Ongoing	Diversity in Tech – Women in Tech Herts	 Group set up by the Associate Dean Student Experience and Professions (AD SE&P) in CS to bring together local community and promote diversity in tech
		 Joint venture between students, staff and the wider University community, organises events open to all
		 Events have included: Celebrating International Women's Day (Mar 2019); Programming Workshop for female UGs delivered by IT consulting organisation (Mar 2019); talk by The Feminist Internet group on societal implications of female virtual assistants (Jul 2019); pop-up event to celebrate Ada Lovelace Day (Oct 2019); guest speaker from IBM sharing her tech career journey with 2nd-year students (Oct 2019, also part of Ada Lovelace Day commemorations); hosting BCS Hertfordshire Ada Lovelace Commemorative Lecture (annual event outlined below)
Jun 2019 Ongoing	Diversity in Tech – partnership with UKBlackTech	• Group set up by the AD SE&P in CS to bring together local community and promote diversity in tech
		 Partnership with UKBlackTech – students offered opportunity to attend free GitHub workshops delivered by UKBlackTech (Apr 2019, Oct 2019)
		 Hosted workshop by UKBlackTech about diversity in tech (Jul 2019) – open to wider University community
		• Very popular and well-received, plans to repeat (Dec 2019) so that more colleagues are able to engage
2015-2019	BCS Herts	Annual Commemorative lecture celebrating Ada Lovelace
		 AS stall set up to raise awareness to the public, alumni, students and staff in the sector about AS and wider E&D issues, to ascertain views and to strengthen external engagement to inform the School's AS/E&D agenda
Oct 2019	Students Celebrate Ada Lovelace event	 CS School Community Organiser (Student) and AD raising awareness, shared stories of successful women
Dec 2019	International Day for Persons with Disabilities	 Collaboration between 3 Schools: Life and Medical Sciences, Health and Social Work and ECS Event focused on how work within Schools is
		enhancing the lives of people living with learning disabilities



2014-2019 Ongoing	EDIT members sit on other SATs/EDITs	 Sharing of good practice, cross-pollination of ideas, reciprocal arrangements with other UH Schools
2-3× per year (since 2015)	UH AS Champions' Network meetings	• Share information, advice and best practice with Champions from across all Schools
2014- 2019 Ongoing	Regular communication with Advance HE/Equality Challenge Unit	• Gather information, advice and best practice regarding the new School merger and writing the AS application
Nov 2019	Women in Engineering Society (WES) Celebratory Summit	 Joint venture run by the WES Herts and Beds Cluster and hosted by UH (27 Nov 2019) Open to students, local engineers' (women and men) Opportunity for networking, graphic design showcase and the chance to learn about WES projects like the WES Centenary Trail

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

Over the next three years and beyond, the Dean and EDIT are committed to continually improving our E&D agenda:

- From April 2020, the EDIT will better reflect the broadened remit of the AS Charter and consider the wider E&D agenda at UH, including the Race Equality Charter and the University's Equality Objectives (Action 3.2).
- The EDIT will continue to meet three times per year (once per semester) to monitor progress of action points, in addition to new actions.
- Working sub-groups will meet on a regular basis to address particular tasks and sections.
- Membership of the EDIT and key roles will be reviewed on an annual basis.
- The Champions and EDIT members will be funded to engage in CPD activities related to E&D (Action 3.3).
- AS and wider E&D will continue to be reported on and discussed at the SEG, to ensure action points are integrated into the whole-School planning process.
- Regular staff/student surveys and focus groups will be run to assess the impact of our action plan whilst being mindful of avoiding 'survey fatigue' (Action 3.4).
- The results of evaluation of progress and impact will be reported to all ECS staff through posting of EDIT meeting minutes, development opportunities, School meetings, events and the inclusion of reference to AS in School inductions and staff training (See Action 3.1).

Action 3.2: Broaden remit of EDIT to encompass wider E&D agenda and develop synergy amongst E&D leads (old and new) to further embed and promote AS principles in the School.



Action 3.3: Fund CPD E&D-related activities for Champions and EDIT members.

Action 3.4: Run regular staff/student surveys and focus groups to assess impact of action plan.

(1,230 words)

4. A PICTURE OF THE DEPARTMENT

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

4.1. Student data

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

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

There are no foundation courses in CS; data for ENG is in Figure 3. This is a year programme delivered at one of our partner colleges providing an alternative route into a named undergraduate award at UH. An overview of many types of Engineering is presented, enabling students to acquire the necessary knowledge and skills to progress. Students typically spend four days a week at college, plus a day at UH. There, they work alongside all the other ENG Extended degree students under the supervision of the University's staff. Women are under-represented on the initial year course. This is likely the result of gender stereotyping, discouraging girls from selecting STEMM subjects at school and aspiring towards a career as an engineer and a sector-wide issue. We are mindful of a multitude of diverse problems to be solved, requiring varied solutions and a combined effort across society. Harnessing the thoughts and ideas of not only women, but also a range of different ethnicities and different socioeconomic classes and disabilities, will result in the best solutions.

With this in mind, the department supports the 'Primary/Secondary Engineer Leaders Award' which encourages local primary and secondary school students to pinpoint everyday problems to be solved by an engineered solution; sparking their interest in STEMM. Additionally, the award takes a further step towards informing parents and teachers raising awareness that engineering is a stimulating, satisfying and successful career choice for all children, with the eventual aim of increasing the intake of girls to ENG and the initial year course by extension. In terms of attracting more girls into engineering, including onto the initial foundation course, ENG also runs a popular annual 'girls in engineering' event (See Table 5: Section 3(ii)).

Our retention statistics are very good. All female students registered last year progressed onto their chosen academic path either in ENG at UH or extended science at a consortium college. Two female students who started on this route are also now PhD students in the School. The number of students studying on the

part-time (P/T) route for this foundation is small with only 7 students across the reporting period, none of whom were female.

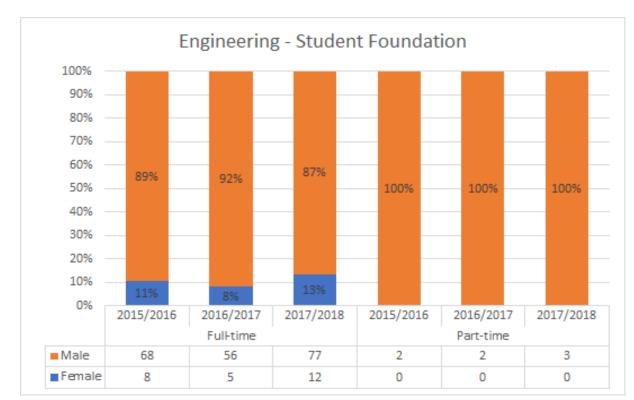


Figure 3: ENG Foundation Student Numbers by Gender



(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.

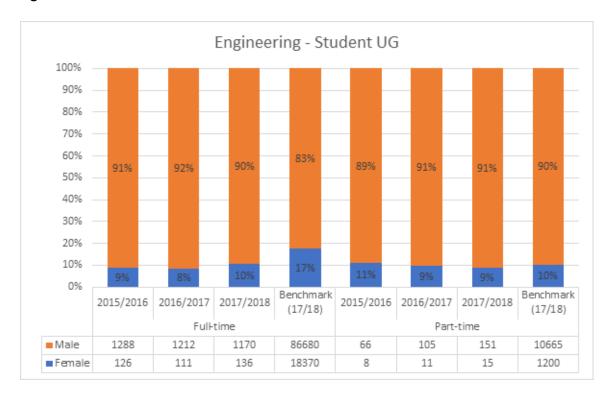


Figure 4: Student UG numbers for CS

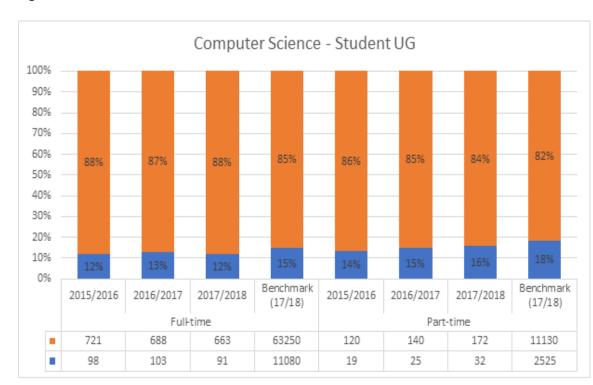


Figure 5: Student UG numbers for ENG



The %F for Undergraduates (UGs) has remained reasonably consistent but is still under the benchmarks – more markedly so in ENG than CS (Figures 4-5 above). However, the General ENG benchmark used in Figure 5 includes subjects that are not taught by the School. When each subject taught – Mechanical, Aerospace and Electronics - is measured against its own HESA benchmark (see Figures 6-8 below), most are either at or above their benchmark.

There has been a three-fold increase in P/T numbers within each department against which %F has remained consistent, indicating an absolute increase in the number of females studying P/T. Numbers are small, but under the benchmark.

There has been a drop in absolute male numbers but %M remains stable. Although the proportion of P/T UG students on CS programmes has risen from 17% to 27%, the %F remains consistent across both modes of study at around 12% (slightly below benchmark). In ENG subjects there is slight increase in %F in 2017/2018 for both full-time (F/T) and P/T numbers. The %M remains stable over the reporting period and %F in F/T is under benchmark data.

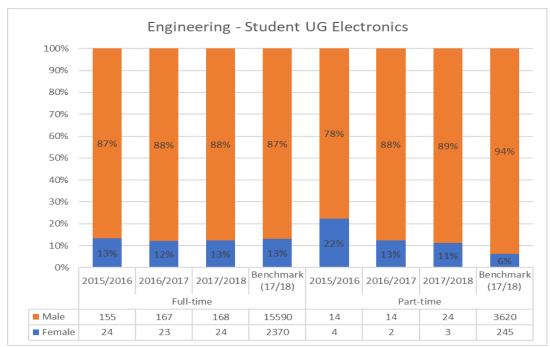
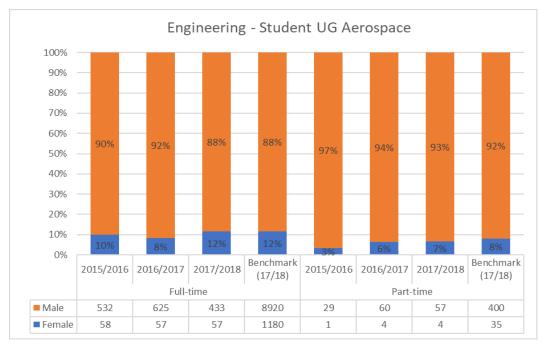


Figure 6: Student UG numbers for Engineering by subject - Electronics





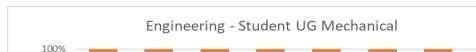
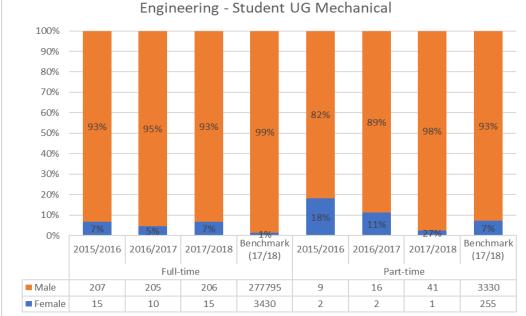


Figure 8: Student UG numbers for Engineering by subject - Mechanical



ECS remains committed to increasing the profile of women through various activities. These already include ensuring that recruitment and outreach programmes (See Section on Outreach) have sufficient female involvement. We have also given prominence to female students in our promotional materials; for example, women feature in our video testimonials on the ECS website. Our School marketing pop-up banners images of female students and staff are prominent and in our printed promotional material including course booklets and posters. Open Days always include female staff and/or student ambassadors. The Admissions Tutor (F) who attends all Open days and periodically attends the EDIT will ensure women continue to be involved (Action 4.1).

Action 4.1: Ensure continued high visibility of women on outreach and recruitment activities, including websites and promotional materials.

Furthermore, ENG offers scholarships (£20,000 investment per year) of £2,000 to female UGs interested in studying in ECS. In the first year (2018), three applications were received. The scheme will be re-run in the 2019/20 academic year and is funding-dependent although effort is made to offer this every year.

Under-representation of women in ENG and CS is a long-standing national problem and despite our measures to increase the visibility of women Engineers and Computer Scientists, the percentage of female F/T students enrolled has remained around 12-13%. This outcome reflects the analysis of Macdonald (2014)¹ that a plethora of family, school and societal pressures has kept the percentage of girls choosing ENG and CS unchanged for over 30 years. We are committed to our efforts to demonstrate that women can be Engineers and Computer Scientists.

Degree Attainment

Figures 9-10 show that the performance of women is good in both departments, with a majority achieving a 1st or 2.1. However, the performance of males in ENG dipped significantly in 2016/17 and the level of achievement for this group is still below that of other groups. The School is already aware of this issue and the DD and ADAQ is addressing it through a Student Attainment Working Group. We know that the issue particularly affects BAME, BTEC and commuting students and are putting actions in place to further support. Because this is already ongoing and there is a separate action plan in place, we are therefore not including this as an action for the AS submission. However, changes will continue to be monitored annually **(Action 4.2)**.

Action 4.2: Monitor the degree attainment of UG and PGT men.

¹ Macdonald, A. (2014), "Not for people like me?" Under-represented groups in science, technology and engineering" https://www.wisecampaign.org.uk/wp-content/uploads/2018/06/not for people like me-full-report.pdf [accessed 23 October 2019].



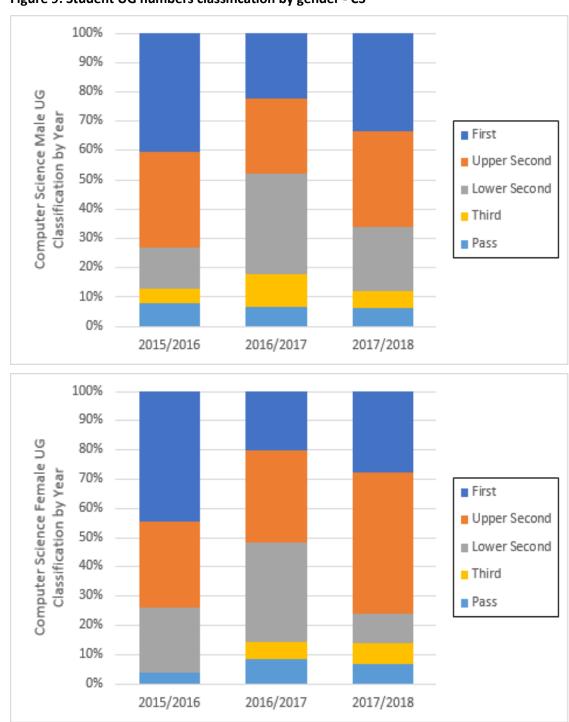


Figure 9: Student UG numbers classification by gender - CS

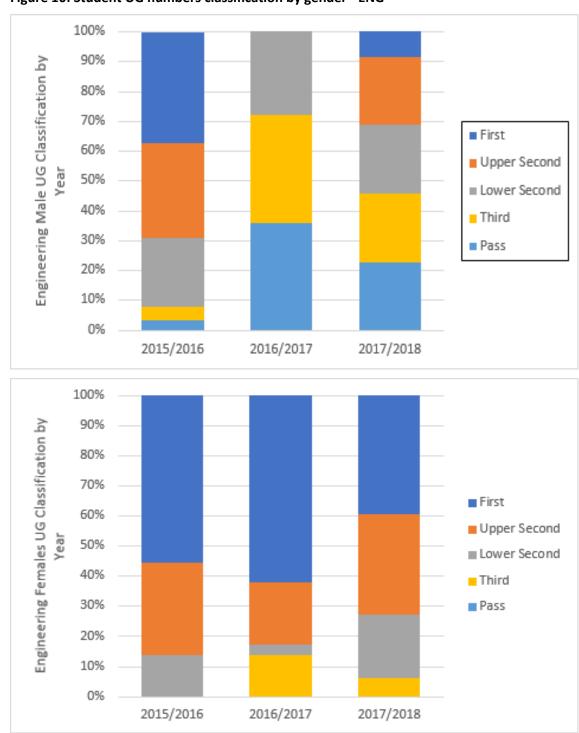


Figure 10: Student UG numbers classification by gender - ENG

Applications, Offers and Acceptances

The %F applications have remained reasonably consistent across the whole School at 11-13% and matches the gender split of students accepting places (Figures 11-12). This suggests that the recruitment process is robust and fair for both genders.

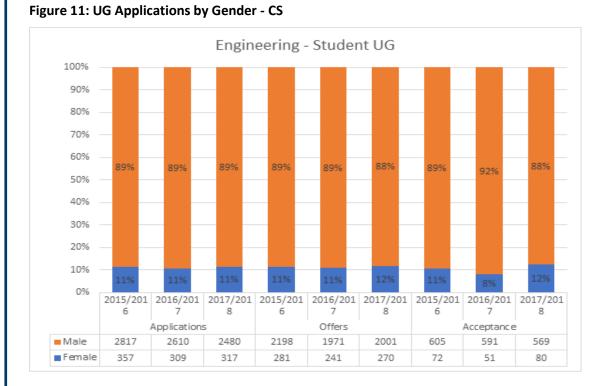
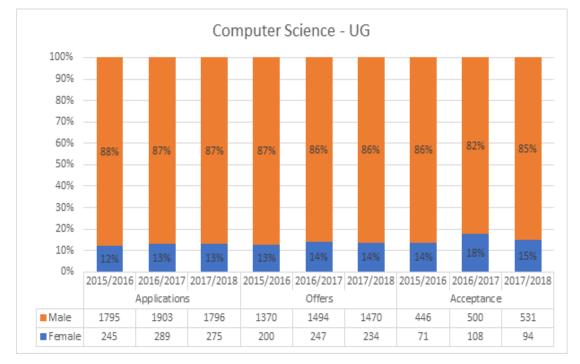


Figure 12: UG Applications by Gender – ENG



CS conversions from applications to acceptances for women remained stable while %M has experienced a slight increase. %F application rates and offers were constant while there was a slight dip in acceptances in 2017/2018. For both genders acceptance rates are below the application rate which is to be expected as each student applies to five Universities.



In ENG, %F conversions from applications to acceptances slightly increased over the reporting period from 20% in 2015 to 25% in 2017. The %M conversion rates maintained around the 20% mark.

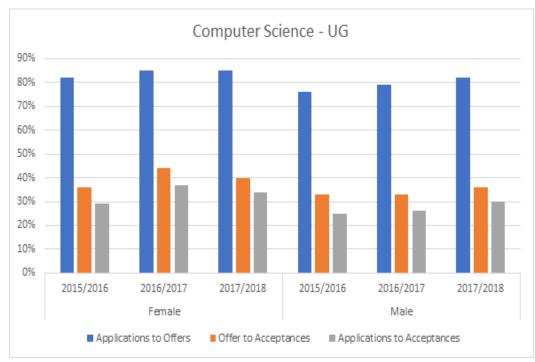
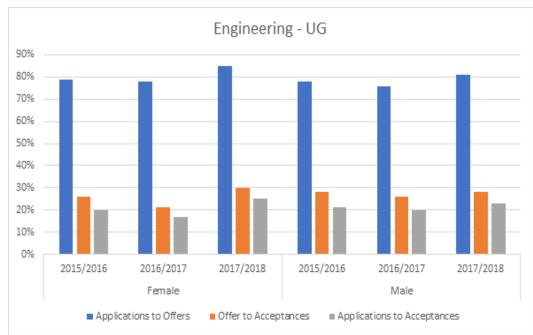


Figure 13: UG Conversions by Gender - CS

Figure 14: UG Conversions by Gender - ENG





(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.

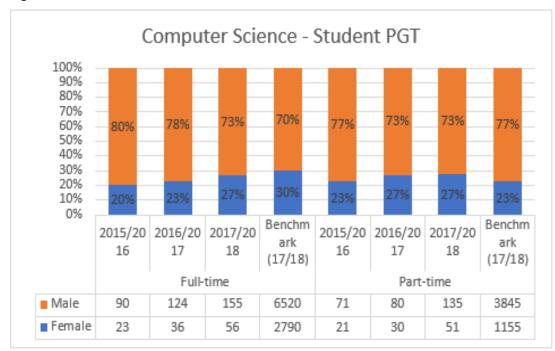
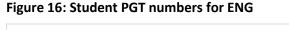
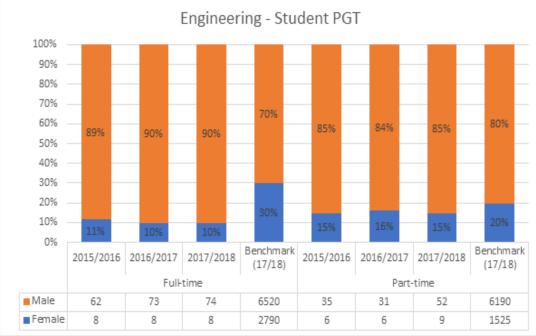


Figure 15: Student PGT numbers for CS





For CS (Figure 15), the %F is slightly under benchmark data for F/T while P/T %F are above. There has been a steady increase in %F F/T and absolute (small)



numbers of P/T females, as well as a rise in numbers of male P/T students. The numbers of female P/T students is generally small.

For ENG (Figure 16), the %F has remained consistent over the reporting period but is well below the benchmark for "general engineering" in each case. Emails are already sent to final year UGs to encourage them to think about Master's study provisions, but the majority of our students leave to take up careers in industry. Around 90% of our PGT students are non-UK nationals and therefore our promotional materials become even more important with regard to attracting more women **(See Action 4.1)**.

Degree Attainment

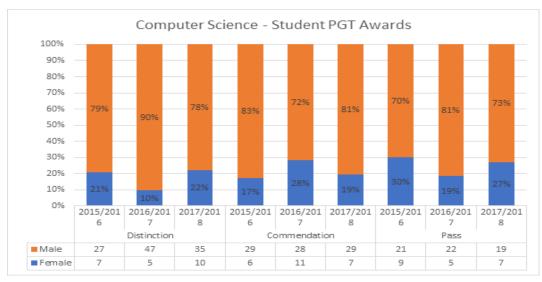
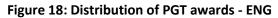
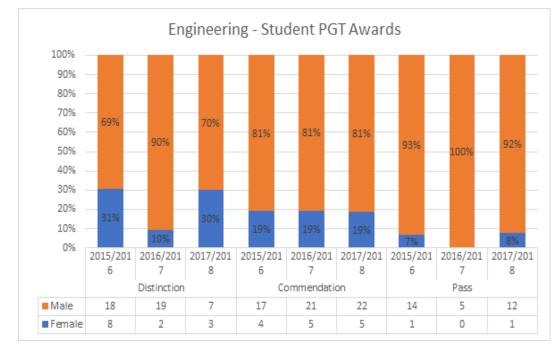


Figure 17: Distribution of PGT awards - CS





In Figures 17-18, the absolute number of students studying for PGT awards is small, and the %F particularly so, which may account for the wide variation of %F attainment at each classification between years. Performance of women is generally higher than for men. This issue is also being addressed by the Student Attainment Working Group (See Action 4.2).

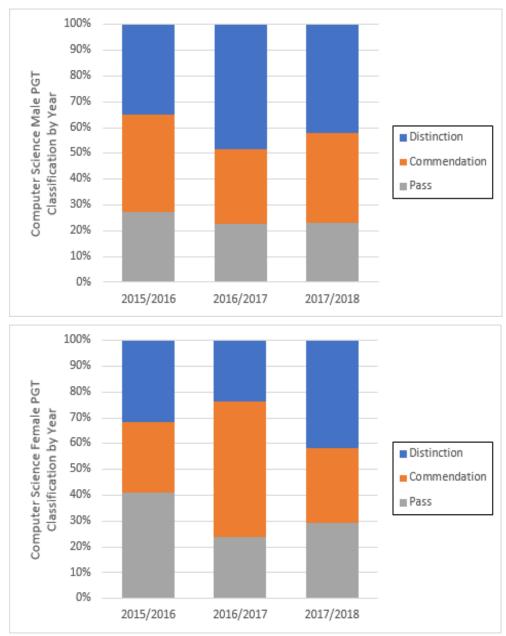


Figure 19: Student PGT numbers classification by gender - CS



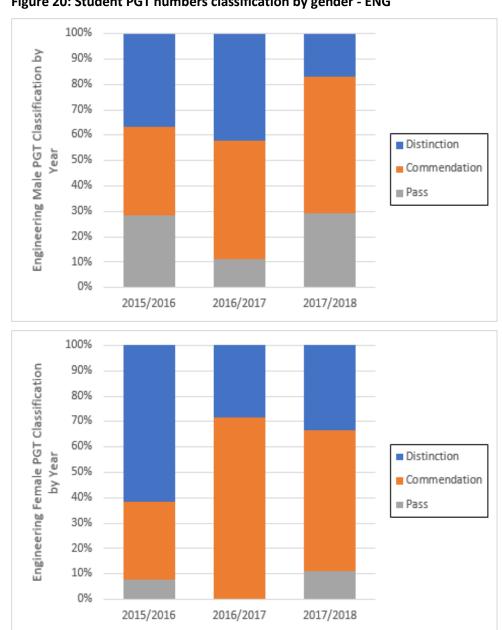


Figure 20: Student PGT numbers classification by gender - ENG

Applications, Offers and Acceptances

There has been a significant increase in applications to PGT courses in both CS and ENG (Figures 21-22) which has resulted in a three-fold increase in the number of PGT CS students and a doubling of PGT ENG students over the reporting period. In each School, %F applications/offers/acceptances has remained stable.



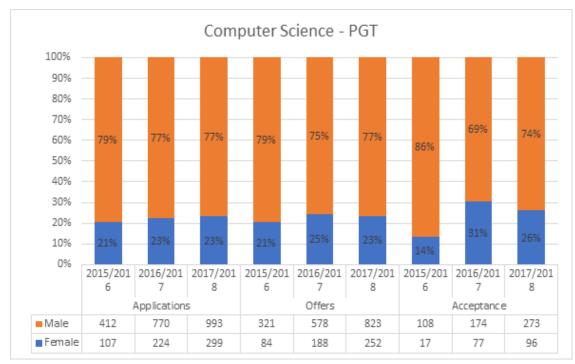
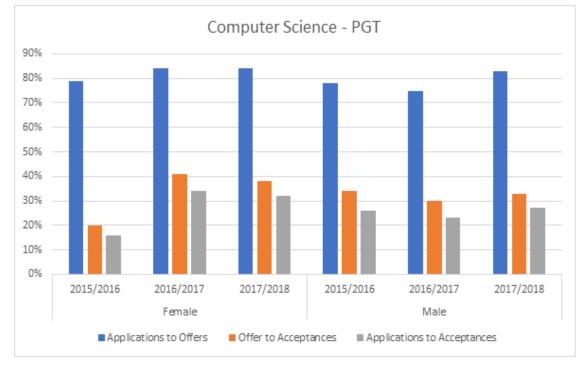
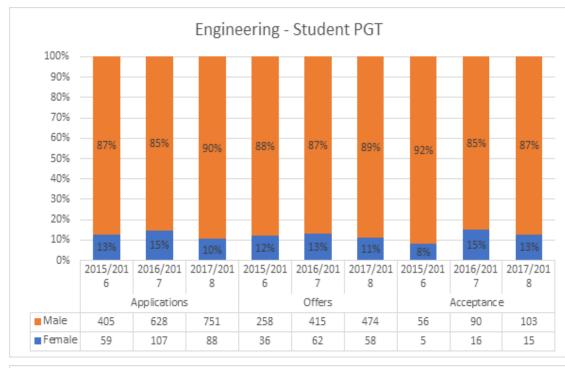
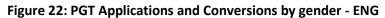
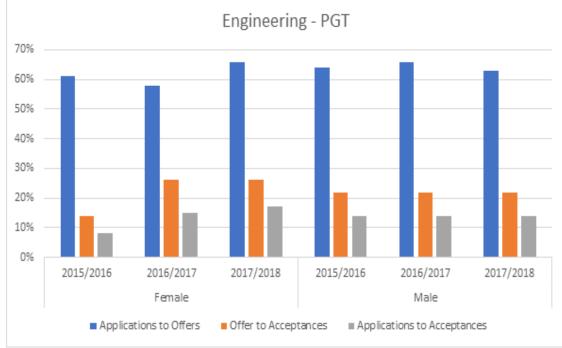


Figure 21: PGT Applications and Conversions by gender - CS











(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.

%F for CS PGR is above the benchmark for all years in both F/T and P/T study. ENG %F P/T is above benchmark but F/T is below.

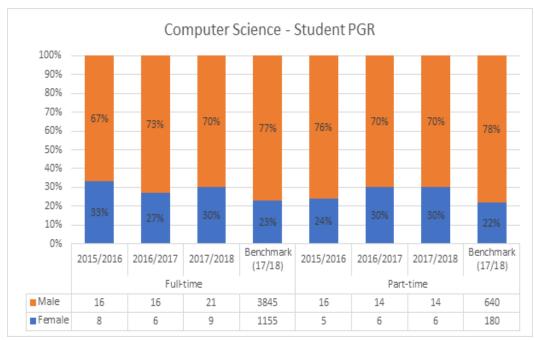


Figure 23: Student PGR numbers for CS

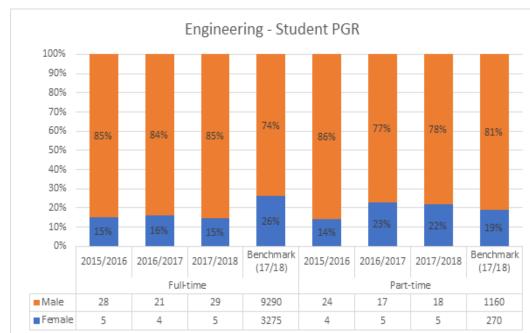


Figure 24: Student PGR numbers for ENG



Applications, Offers and Acceptances

Nearly 100% of students took up offers of PGR places made by both departments in the School (Figures 25-26), indicating that both women and men consider it to be an attractive place to undergo their PGR studies. We ensure that prospective female students meet other women during their visits (staff or other PGRs). All interview panels include at least one woman. In addition, we make potential and new PGRs aware of support for women scientists in the School.

Numbers are relatively small so there is some variation in %F year-to-year. It would be useful to attract more applications from women, particularly in ENG where F/T numbers are below benchmark (See Action 4.1).

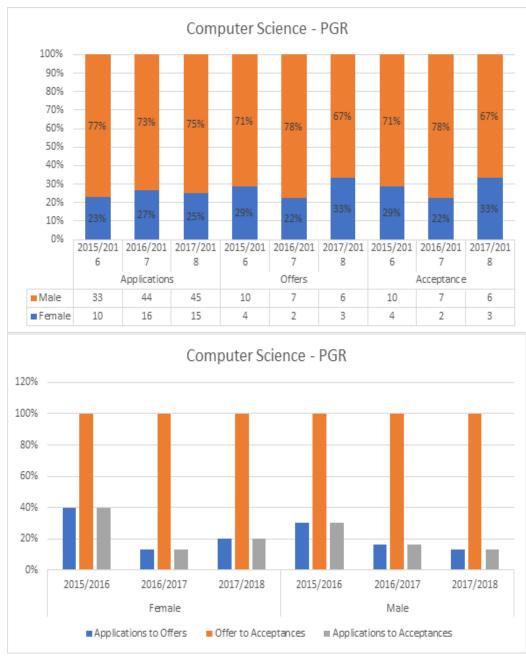


Figure 25: PGR Applications, offers and acceptances by gender - CS





Figure 26: PGR Applications, offers and acceptances by gender - ENG

Table 6: PhD and EngD completion by year and department

PhD/EngD Completions	Engineering	Computer Science
2015/2016	0	0
2016/2017	8 (all M)	8 (1F:7M)
2017/2018	8 (all M)	5 (1F:4M)

Our current PGR students are shown in Table 7. Positively, we have a higher representation of women in the current cohort.

Table 7: Current (2019) number of PGR students in ECS

Programme	Female	Male	Grand Total
Masters by Research	3	3	6
PhD	30	80	110
Professional Doctorate	1	13	14
Grand Total	34	96	130

(v) Progression pipeline between undergraduate and postgraduate student levels

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

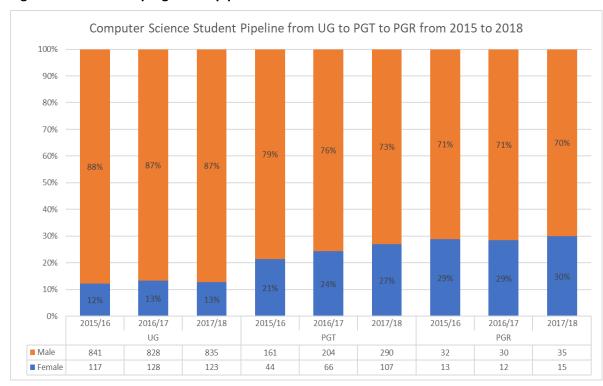
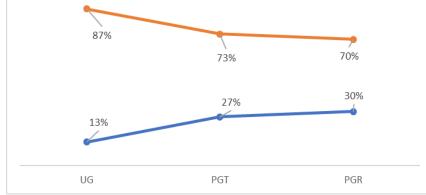


Figure 27: UG to PGR progression pipeline - CS







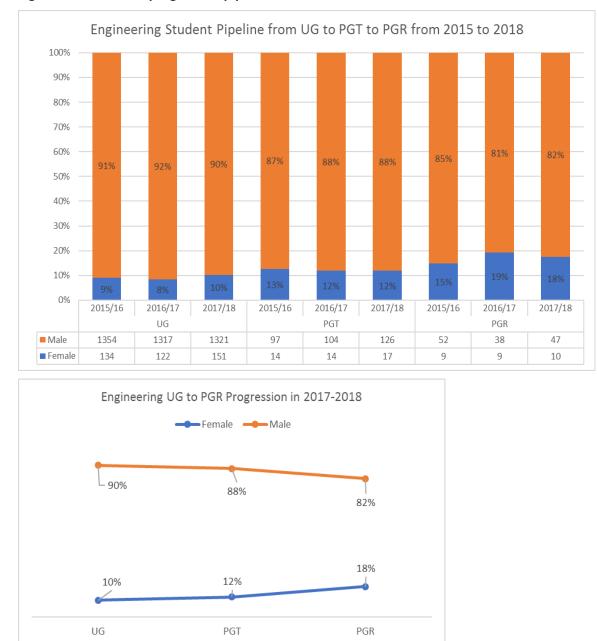


Figure 28: UG to PGR progression pipeline - ENG

There is a positive progression of female students between UG and PGR degrees in both departments. This confirms our approach to making a concerted effort at the UG stage (the beginning of the pipeline) to attract female applicants and to continue to promote female role models during recruitment at every level of study (See Action 4.1), whilst at the same time recognising that achieving social change of the required magnitude is a long-term activity.

(1,553 words)

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.

The University's grading scales are set out in Table 8, and the distribution of staff across grades in Figures 31-32.

Grade	Academic Posts	Research Posts
Academic Manager (AM)	Academic Managers including Deans of School/Heads of Department/Associate Deans	Professor
UH9	Principal Lecturer, Associate Professor (Teaching and Learning, Entrepreneurship)	Reader, Associate Professor (Research)
UH8	Senior Lecturer	Senior Research Fellow
UH7	Lecturer	Research Fellow
UH6		Research Associate
UH5 UH4		Research Assistant

Table 8: UH pay and grading scheme for salaried staff.

The HESA benchmark for the proportion of female staff in CS is 22%. Representation of women in teaching and research roles has remained constantly above the national average in recent years. There were no female staff on teaching only contracts in the reporting period.

HESA benchmark for females was 22% for General Engineering in 17/18. The number of women on Teaching and Research contracts remained constant and slightly below the national average while male numbers increased by 23% (43 to 53). There was a slight increase in men and women on research only contracts.



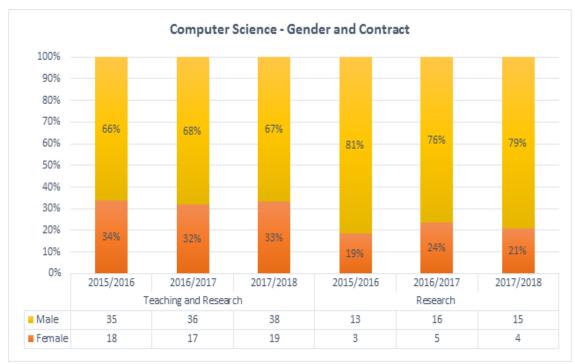


Figure 29: Distribution of staff in CS by contract function and gender

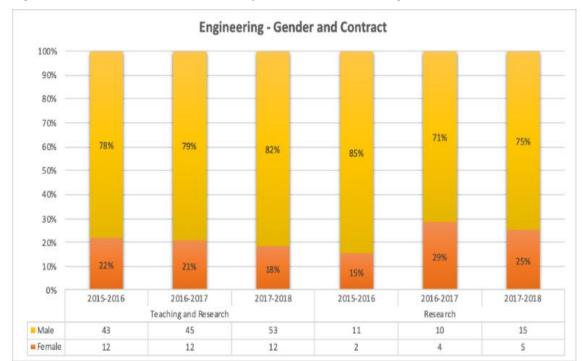


Figure 30: Distribution of staff in ENG by contract function and gender



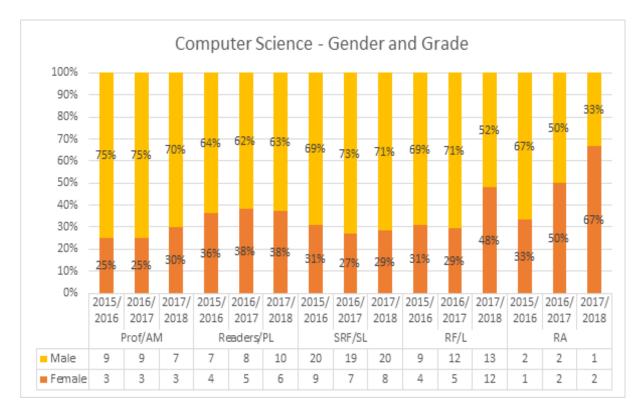


Figure 31: Distribution of staff in CS by contract function, grade and gender

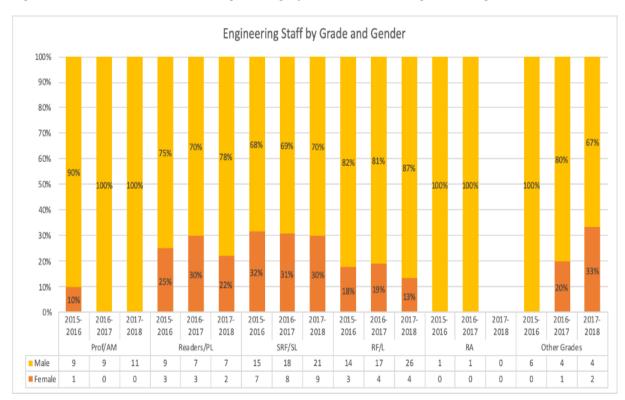


Figure 32: Distribution of staff in Engineering by contract function, grade and gender

In CS the proportion of women is not uniform across different grades and tends to concentrate around Lecturer level. In recent years we have had some success



at recruiting early career women at Lecturer and Research Associate grades on teaching and research contracts. We anticipate that this will help feed into the pipeline for more senior positions in the future.

There is a higher proportion of women at Reader/Principal Lecturer grades and three female professors out of 10-12 (25-33%), which is above the national average of 15% (HESA). UH does not have Chair positions. All staff that have the potential and desire to achieve promotion to professorship will be identified at appraisals and a plan of action will be put in place accordingly in consultation with line managers **(Action 4.3)**.

Action 4.3: Identify and support female staff progression to higher grades.

In ENG there is a non-uniform distribution of females, with the majority stagnating at Senior/Principal Lecturer and no female staff at Prof/AM grades in the reporting period. This has since changed, and 1F was promoted to AM grade as the DD and ADAQ and another is a VP in Aerospace. Nevertheless, HESA indicators for General Engineering show that 11% of professors in this area are female. We acknowledge that the workforce is quite static and may lead to frustration, particularly for women who may not have opportunities to progress. This highlights a need for discussions with women at that career stage to plan their progression to AM and to put the appropriate support in place (See Action 4.3).

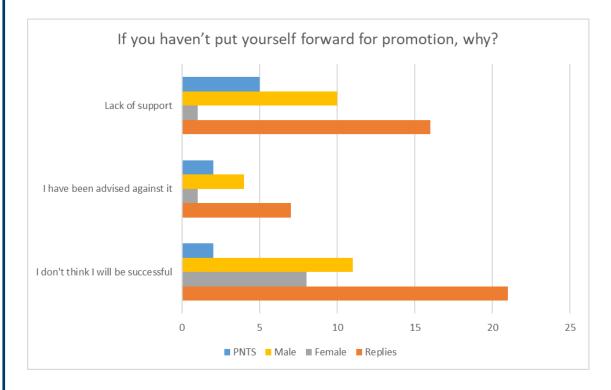


Figure 33: Survey results - If you haven't put yourself forward for promotion, why?

Furthermore, Staff Survey results showed that some respondents have not been sufficiently supported (Figure 33) to put themselves forward because of: (1) Lack



of support (31.4%, n=16); (2) they don't think they will be successful (41.2%, n=21); (3) they have been advised against it (15.7%, n=8). This needs to be addressed and more support put in place, particularly for women (See Action 4.3).

Research shows that women often will not apply for promotion into senior positions as they are not familiar with the "rules of the game" and "appropriate behaviour roles (Morley, 2013)² and that management is equated with "maleness" (Sinclair, 2001)³. This highlights that women may require further support to put themselves forward for management positions (Figure 34).

Figure 34: Survey results - I receive support and encouragement from my School to apply for promotions and internal jobs



***Please note not everyone answered this question.



⁴ Morley, L. (2013) 'The rules of the game: Women and the leaderist turn in higher education'. *Gender and Education. 25*(1) pp. 116-131.

³ Sinclair, A. The body and management pedagogy. Proceedings of the Gender, Work & Organization Conference. 22–29 June, Keele.

There are also fewer women at lower grades in ENG, indicating that recruitment action must be taken (See Section 5.1(i)). Whilst female Lecturers increased from 3 to 4 from 15/16 to 17/18, in the same reporting period male Lecturers increased from 14 to 26 thereby decreasing the male to female ratio from 21% in 2015 to 15% in 2017. That said, in 18/19 two more female Lecturers have been recruited in ENG.

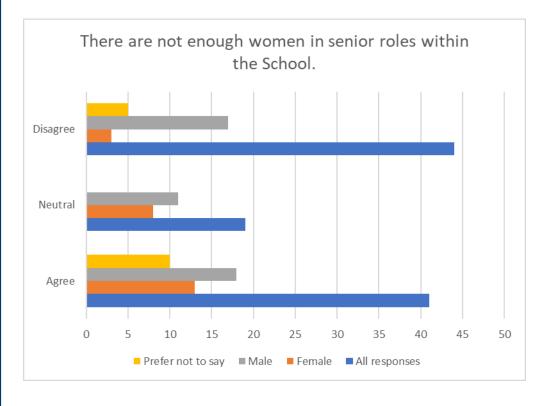
There has been no recruitment of females in the research-only grades; however, the two female staff in other grades are on a research-only contract.

The Staff Survey indicated positively that the majority of staff (65.9% agreed; 22.4% neutral; 11.8% disagreed) feel there are strong female role models within the School (Table 9). However, most staff (Figure 35) also think that there are not enough women in senior roles (48.2% agreed; 22.4% neutral; 29.4% disagreed), providing further justification for action to be taken.

Table 9: Survey result - There are strong female role models within the Scho	ol
--	----

	Female	Male	PNTS	All Responses
Agree	14	33	9	56
Neutral	6	9	4	19
Disagree	4	4	2	10

Figure 35: Survey results - There are not enough women in senior roles within the School





(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.

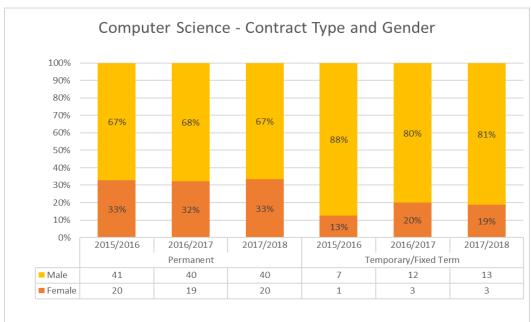


Figure 36: Permanent/Fixed term staff in CS by gender

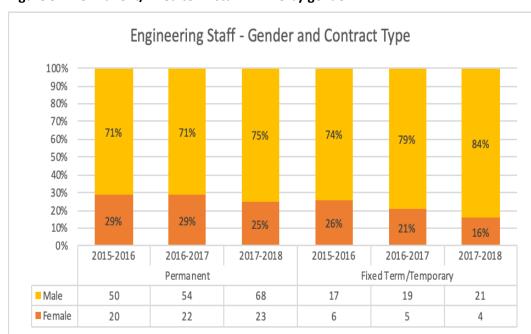


Figure 37: Permanent/Fixed term staff in ENG by gender

Most staff in CS are on permanent contracts; no staff are employed on zerohours contracts (Tables 10-11).



Year	Grade		Female	Male
		Perm	3	ç
	Professors/Managers	Fixed	0	(
2015-2016		Perm	4	-
	Readers/Principal Lecturer	Fixed	0	(
		Perm	9	20
	Senior Research Fellow/Senior Lecturer	Fixed	0	(
		Perm	4	3
	Research Fellow/Lecturer	Fixed	0	(
		Perm	0	-
	Research Assistant	Fixed	1	
		Perm	3	(
	Professors/Managers	Fixed	0	(
		Perm	5	5
	Readers/Principal Lecturer	Fixed	0	
2016-2017		Perm	7	1
	Senior Research Fellow/Senior Lecturer	Fixed	0	:
		Perm	4	
	Research Fellow/Lecturer	Fixed	1	8
		Perm	0	
	Research Assistant	Fixed	0	(
		Perm	3	-
	Professors/Managers	Fixed	0	
		Perm	6	1
2017-2018	Readers/Principal Lecturer	Fixed	0	
		Perm	8	1
	Senior Research Fellow/Senior Lecturer	Fixed	0	
		Perm	3	
	Research Fellow/Lecturer	Fixed	1	
		Perm	2	
	Research Assistant	Fixed	2	

Table 10: CS staff by grade, permanent/fixed-term and gender

Table 11: ENG staff by grade, Permanent/Fixed term and gender

Year	Grade		Female	Male
		Perm	0	4
	Professors/Managers	Fixed	1	5
		Perm	3	9
2015-2016	Readers/Principal Lecturer	Fixed	0	0
2013-2010		Perm	8	16
	Senior Research Fellow/Senior Lecturer	Fixed	0	0
		Perm	1	14
	Research Fellow/Lecturer	Fixed	3	6



		Perm	5	2
	Research Assistant	Fixed	1	1
		Perm	0	4
	Professors/Managers	Fixed	0	5
		Perm	3	7
	Readers/Principal Lecturer	Fixed	0	0
2016-2017		Perm	9	18
2010-2017	Senior Research Fellow/Senior Lecturer	Fixed	0	0
		Perm	1	15
	Research Fellow/Lecturer	Fixed	4	9
		Perm	6	3
	Research Assistant	Fixed	0	1
		Perm	0	6
	Professors/Managers	Fixed	0	5
		Perm	2	7
	Readers/Principal Lecturer	Fixed	0	0
2017-2018		Perm	10	21
2017-2018	Senior Research Fellow/Senior Lecturer	Fixed	0	2
		Perm	2	20
	Research Fellow/Lecturer	Fixed	2	10
		Perm	7	15
	Research Assistant	Fixed	0	0

We have a number of colleagues employed as Visiting Lecturers (VLs) (Table 12) who are mainly appointed to supervise projects and/or teach on modules where specialist skills are required. A number of our VLs are PhD candidates and active contributors to our Research-Informed Teaching practices as they bring elements of their research into our programmes of study. Internally, VLs are recruited via internal mailing lists. For external recruitment, we use the Jobs section on the University's website.

Table 12: VLs in ECS

2017						
F	28	35%				
м	51	65%				
	2018					
F	31	33%				
м	63	67%				
	2019					
F	33	33%				
м	67	67%				



(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.

Table 13: Total CS academic leavers by gender

	2015-2016		2016-2017		2017-2018	
Science (Total)	Female	Male	Female	Male	Female	Male
()	7	3	1	2	1	11

Grade (CS)	Year	Female	Male
Prof/AM	2015/2016	1	1
	2016/2017	0	0
	2017/2018	0	3
Readers/PL	2015/2016	2	1
	2016/2017	0	0
	2017/2018	0	1
SRF/SL	2015/2016	0	1
	2016/2017	0	2
	2017/2018	1	4
RF/L	2015/2016	3	0
	2016/2017	1	0
	2017/2018	0	3
RA	2015/2016	1	0
	2016/2017	0	0
	2017/2018	0	0
Contract	Year	Female	Male
Full-time	2015/2016	5	1
	2016/2017	0	3
	2017/2018	0	9
Part-time	2015/2016	2	3
	2016/2017	0	0
	2017/2018	1	2

Table 14: CS academic leavers by grade, contract and gender

Reasons for leaving in CS included: End of fixed-term contract (3M:3F), retirements (5M), resignation for career progression at other institutions (6M:6F) and death (2M).



Table 15: Total ENG academic leavers	by gender
--------------------------------------	-----------

• •	Engineering 2015-2016		2016-2017 2017			2018	
(Total)	Female	Male	Female	Male	Female	Male	
	0	5	0	6	2	11	

Table 16: ENG academic leavers by grade, contract and gender

Grade (ENG)	Year	Female	Male
Prof/AM	2015/2016	0	0
	2016/2017	0	1
	2017/2018	0	4
Readers/PL	2015/2016	0	0
	2016/2017	0	1
	2017/2018	1	2
SRF/SL	2015/2016	0	2
	2016/2017	0	2
	2017/2018	0	2
RF/L	2015/2016	0	0
	2016/2017	0	1
	2017/2018	1	3
RA	2015/2016	0	0
	2016/2017	0	1
	2017/2018	0	0
Other Grades	2015/2016	0	3
	2016/2017	0	0
	2017/2018	0	0
Contract	Year	Female	Male
Full-time	2015/2016	0	5
	2016/2017	0	6
	2017/2018	1	10
Part-time	2015/2016	0	0
	2016/2017	0	0
	2017/2018	0	1

Reasons for leaving in ENG included: Retirements (5M:1W), career progression at other institutions (10M), moving back to countries of origin (4M) and leaving academia (2M).

Leavers can choose to have an exit interview conducted by Human Resources (HR) but uptake has been low and the process is currently under review at the University level. Additionally, feedback from staff leavers is not cascaded down to the academic Schools, which is a point of concern we have raised. We intend to liaise further with HR to discuss how to improve the process and encourage staff to undertake exit interviews (Action 4.4).

Action 4.4: Liaise with HR on improving exit interview process, feedback dissemination and increasing staff uptake.

(896 words)

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.

ECS follows the University's strict policies on recruitment and selection. All those involved on decision-making committees and panels undergo mandatory training including E&D Essentials and Unconscious Bias, and panel Chairs must also attend Cultural Awareness. Interview panels must always include at least one woman. Our HR contact oversees the process and ensures that the University's Equal Opportunities Employment policy is adhered to.

The School is mindful that unconscious bias may play a role in recruitment processes; 90% of staff have already attended Unconscious Bias training. This is a direct result of our previous action to ensure all staff undertake this training and it is a mandatory part of the induction of new staff. From this year we are taking this one step further to make Unconscious Bias, E&D and Recruitment and Promotion training mandatory for *all* managers, including the SEG and Heads of Subject Groups across both departments (**Action 5.1**).

Action 5.1: Make Unconscious bias, E&D, Recruitment and Promotion training mandatory for all managers.

As shown in Table 17, when women do apply, they are generally more successful which suggests the recruitment process does not disadvantage them. However, even considering the gender split in the departments, applications from women are low compared to those from men.



		Applica	ations	Shor	tlisted	Succe	ssful
	Grade	Female	Male	Female	Male	Female	Male
	AM	10	69	4 (40%)	21 (30%)	1 (25%)	4 (19%)
	UH9	0	2	0	2 (100%)	0	0
2015/2016	UH8	17	108	0	10 (9%)	0	3 (30%)
	UH7	10	78	2 (20%)	13 (17%)	1 (50%)	3 (23%)
	AM	11	63	2 (18%)	13 (5%)	1 (50%)	4 (31%)
	UH9	1	13	1 (100%)	0	0	0
2016/2017	UH8	34	218	6 (18%)	29 (13%)	4 (67%)	8 (28%)
	UH7	34	188	2 (6%)	20 (11%)	0	9 (45%)
	AM	8	53	4 (50%)	18 (34%)	1 (25%)	5 (28%)
2017/2018	UH9	1	34	1 (100%)	10 (29%)	0	2 (20%)
	UH8	29	258	5 (17%)	66 (26%)	1 (20%)	16 (25%)
	UH7	22	197	5 (23%)	39 (18%)	2 (40%)	8 (21%)

Table 17: Academic applications, shortlisted and offers by gender and grade

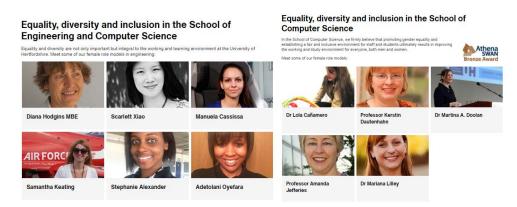
We acknowledge a challenge for ECS, as in the sector, is to attract more applications from female candidates and we have already implemented a series of actions to ensure women are attracted to apply for posts such as adopting a more inclusive set of statements for job adverts (all adverts express support for flexible working and offer job shares) and highlighting the other employee benefits available at UH (childcare facilities etc.) as well as our commitment to AS and E&D. To assist in writing adverts, a gender decoder software is also used. ECS is aware of the subtle linguistics which may put women off applying for jobs (Action 5.2).

Action 5.2: Monitor impact of recently implemented recruitment actions to increase number of female applicants, and subsequently staff, in ECS.

We have also included more female images on websites and other publicity to help demonstrate that our School is an inclusive working environment committed to the advancement of gender equality. Each department has its own EDI webpage with case studies (Figure 38); however, we need to bring these together as a reflection of the new merged School (Action 5.3).

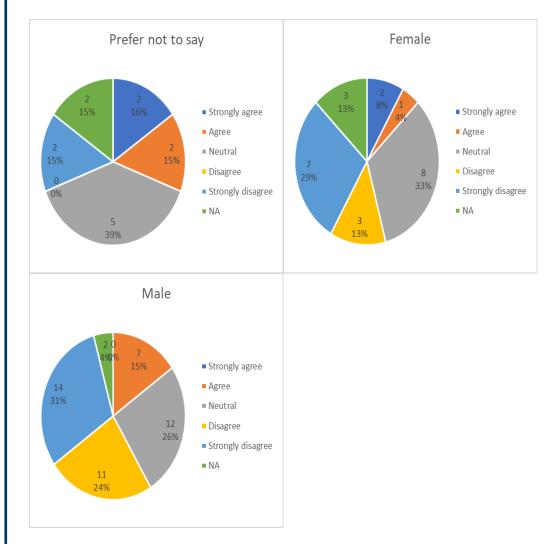
Action 5.3: Merge departmental E&D webpages to create single ECS webpage.

Figure 38: Engineering and Technology and Computer Science E&D webpages



All new roles for staff are advertised within the School and interested staff submit an expression of interest. The results of the Staff Survey are mixed regarding the impact on undertaking new roles on career development, but overall perception is similar across genders.

Figure 39: Survey results – I avoid taking on new roles as these impacts negatively on my career development.





(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.

New staff participate in a UH induction programme that includes mandatory E&D training (Table 18), as well as meeting regularly with their line manager. Three meetings are formally recorded during the probationary period (1 year), but normally many more take place to ensure that new staff are settling into their post. All necessary information can be found on the University intranet and links are included in the School welcome email to new staff. Staff are also provided with a handbook.

Table 18: Training and induction activities for staff

<i>Mandatory</i> for all new ECS staff (taken as part of Induction)	E&D-related optional training
Diversity in the Workplace (online)	Cultural Awareness
Equality and Diversity Essentials	Disability Awareness
Unconscious Bias	Dignity and Respect: Dealing with Bullying and Harassment
Data Protection	Transgender Awareness

Table 19: Attendance at Central Induction across ECS

Year	Female	Male	Total
2015-2016	6	10	16
2016-2017	5	14	19
2017-2018	7	26	33

A previous ENG action involved interviewing new staff about their local induction experiences with a view to improving the induction programme (Table 4, Section 3(ii)). Following the merger, there has been a focus on pooling together best practice related to induction across CS and ENG to tailor an induction pack and aide memoire which comprises two parts: (1) for line managers and (2) to assist new employees. We have begun to roll this out in the academic year 19/20.

In the Staff Survey, approximately half of staff expressed satisfaction with induction into their role. This was higher amongst those identified as female (Figure 40). We are hoping that recent changes will be reflected positively in a follow-up survey (Action 5.4).

Action 5.4: Monitor effectiveness of new induction process and identify areas for improvement, particularly for women.

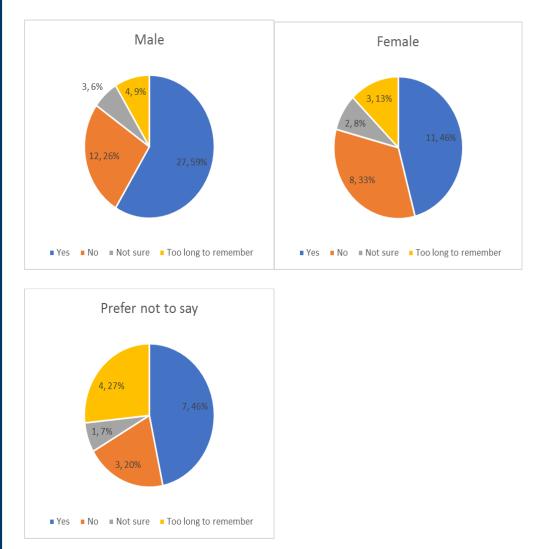


Figure 40: Survey results - Do you feel that your induction into your role was adequate?

(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.

Staff within the School can apply for positions advertised for Senior and Principal Lecturer, AD and Dean. Alternatively, staff can undergo an objective job evaluation process (EVALUATE) within HR. This involves the member of staff showing evidence that their duties and responsibilities are within a higher grade to their current one. This process is discussed during appraisal with the line manager, alongside promotion opportunities and action plans. This is assessed by HR before being approved by the accountable Pro Vice-Chancellor (PVC), to ensure consistency across UH.

Caffrey, Wyatt, Fudge, et al. (2016)⁴ and Gregory-Smith (2017)⁵ discuss the female bias of AS teams and Gregory-Smith (2017) highlights the perceived value of self-regulation and positive action for such charter mark applications. With this backdrop, the EDIT chair gave a presentation to the AS institutional SAT in January 2019. In attendance was the University Secretary and Registrar who agreed that the findings would be taken to senior committees and an Away Day would be arranged with senior managers to discuss how we could better recognise and value E&D work across the University. Recommendations included recognition and reward and actively demonstrating value for EDI roles by consideration within promotions. In the School, from this year E&D, BAME and AS work and support will be included in the consideration of promotion and progression (Action 5.5).

Action 5.5: Integrate E&D, BAME and AS work and support into promotion and progression criteria.

Table 20: Academic promotion in CS

(CS) Academic and Research Promotions	2015/2016	2016/2017	2017/2018
Female	5 (22%)	1 (6%)	2 (13%)
Male	5 (7%)	1 (2%)	5 (7%)
Total	10	2	7

Table 21: Academic promotion in ENG

(ENG) Academic Promotions Data	2015-2016	2016-2017	2017-2018
Female	2 (13%)	0	0
Male	8 (12%)	4 (6%)	8(12%)
Total	10	4	8

Table 20 shows that in CS women have done proportionally well in terms of promotions. Although it appears that significantly less women in ENG (Table 21) were promoted, this is proportionate in light of the gender imbalance in the department. Data around successful promotions is disseminated centrally by HR. Due to confidentiality and University policy, please note that *no data is held* accounting for the number of applications *submitted* for promotion.



⁴ Caffrey L, Wyatt D, Fudge N, et al. Gender equity programmes in academic medicine: a realist evaluation approach to Athena SWAN processes. BMJ Open 2016; 6:e012090. doi:10.1136/bmjopen-2016-012090

⁵ Gregory-Smith (2017) Positive Action Towards Gender Equality: Evidence form the Athena SWAN Charter in UK Medical Schools BJIR 56(3) pp 433-483

Over the reporting period, in CS two women were promoted to AM1, five to UH9 and 1 to UH8; whilst in ENG, one woman was promoted to UH9 and one to UH8.

The Staff Survey results (Figure 41) show that just under half of all staff (42%F:45% M) understand the promotion process. Responses also indicate that many staff do not view the process to be transparent and fair (Figure 42). As a matter of priority, this needs to be rectified **(See Action 4.3)**.



Figure 41: Survey results - I understand the promotion process and criteria





Figure 42: Survey results - I think the promotion process is transparent and fair

(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.

Engineering	Staff Submitted	Computer Science	Staff Submitted
Female	1 (25%)	Female	5 (20%)
Male	3 (75%)	Male	20 (80%)
Total	4	Total	25

Table 22: RAE 2008 staff submission



Engineering	Staff Submitted	Eligible Staff ET	Computer Science	Staff Submitted	Eligible Staff CS
Female	1 (7%)	4 (13%)	Female	7 (25%)	10 (22%)
Male	14 (93%)	28 (87%)	Male	21 (75%)	35 (78%)
Total	15	32	Total	28	45

Table 23: REF 2014 staff submission

As shown in Tables 22-23, the number of women being submitted for research exercises increased from 2008 to 2014 in CS but not ENG. Although there was a lower % of women in ENG submitted in 2014, this will increase in 2020 with 6F currently due to be submitted. The selection was based on a transparent University-wide process and led by the PVC Research in consultation with Schools. For the REF2014 this was over a two-year period and involved two mock exercises. The process was gender neutral as it was based on those research active staff who met the eligibility criteria. The Code of Practice on the selection of staff was published following consultation with all staff. E&D training were mandatory for all those involved in the selection process. Staff who had not progressed from the mocks due to not meeting UH's internal quality threshold were formally advised in writing and given the opportunity to discuss the decision with their ADR.

(1,196)

5.2. 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?

Table 24 shows the M/F uptake of staff training (CPD) over the reporting period.

Table 24: Uptake of training over report	rting period
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	2015/2016	2016/2017	2017/2018
Female	144 (39%)	112 (31%)	88 (28%)
Male	233 (61%)	245 (68%)	227 (72%)

Continuing Professional Development (CPD) is identified and agreed with line managers during appraisal and at other times depending on need. All staff training is recorded on the central system, visible by individual staff, their line manager and HR. There continues to be a wide variety of CPD courses on offer across UH to all staff (academic and professional). These range from Excel and



time-management workshops through to leadership training schemes and those on an ad hoc basis. Some of the courses are mandatory (Table 18 above). Staff within the School are regularly notified of opportunities via email through information available on the staff intranet. Results from Staff Survey questions (Figures 43-44) indicate that whilst staff awareness of these opportunities is very good, fewer staff (more so women than men) feel able to take advantage of them. It could be that staff do not see the training available to be relevant for their own career paths, but this needs to be investigated further **(Action 5.6)**.

Action 5.6: Further investigate why staff (particularly women) do not feel able to access CPD and put in place support for interested staff to take up these opportunities.

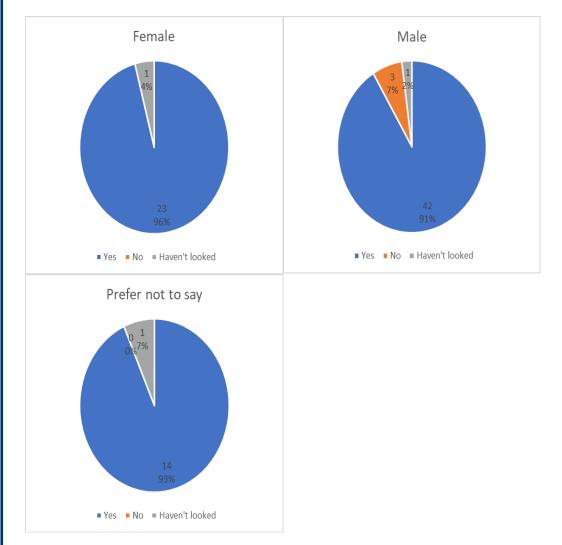


Figure 43: Survey Results - Do you know where to find information about UH development courses and opportunities?



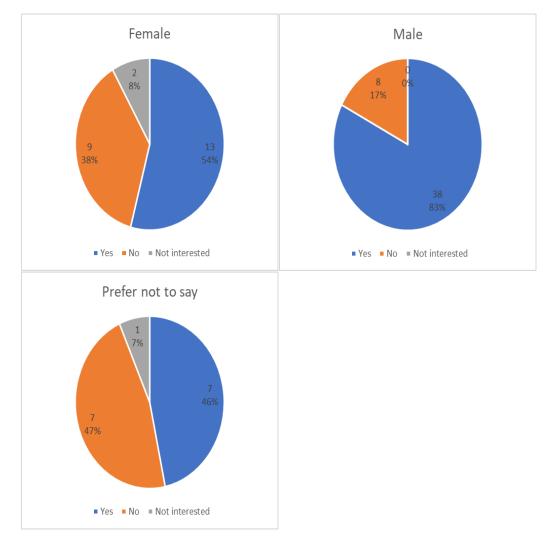


Figure 44: Survey results - Do you feel able to access training/development opportunities that would advance your career?

Since 2014, six women in ECS were selected from across UH to attend the Aurora Programme for Women into Leadership, designed to address the underrepresentation of women in senior HE positions. One participant was promoted to DD and ADAQ and is now a role model for both staff and students, influential in E&D matters locally and University-wide, and a member of the EDIT. The DD presents her experiences to encourage other women at every opportunity who are interested in managerial positions to consider applying and attending the programme. She originally came from industry and pursued a programme-lead role as a direct result of such encouragement and attending Aurora. The DD reflected on how Aurora has influenced her new position, *"I came to the self-realisation that demanding action was not always successful, leading by example led to buy-in from others"* (Action 5.7).

Action 5.7: Continue to raise awareness and encourage applications for the Aurora Programme and monitor impact on career progression.

The Researcher Development Framework (RDF) provides guidance for planning, promoting and supporting the personal, professional and career development of researchers. A programme of events runs throughout the year to provide support for staff and students including a series of talks organised by ECS and managed in ENG by a man, and in CS by a woman. Between October 2018 and September 2019 there were 25M and 17F speakers, which is reflected in acceptances of those offered to present their research. Courses for students and early-career researchers covering all subdomains of the RDF are bookable via the University intranet. Courses run at different times on different days to maximise attendance opportunities in addition to generic research training run by the University.

ECS continues to have long-standing internal procedures for academic and research staff career development. A staff development budget is set aside for this purpose and is used to support staff attendance at conferences and other external events. Annual appraisal within the School (See section below on appraisal) provides an opportunity to reflect on CPD, research progress and, with a senior member of staff, formulate future plans and allocate appropriate workload allowances which are published by the Dean.

(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.

All staff participate in an annual appraisal with their line manager and reviews take place every six months following the appraisal guidance set by UH. It is mandatory for line managers to attend appraisal training. The appraisal process provides an opportunity for all staff to engage in a dialogue about work priorities and personal and professional development needs which includes promotion and career objectives.

Results from the Staff Survey showed that 81% (n=69) of staff surveyed had had an appraisal in the last 12 months (Figure 45). From additional comments provided, around half of staff think that the appraisal is a tick-box exercise and has little impact on workload allocations, promotion or career direction whilst the other half have found the appraisal process useful and positive. Responses also indicated that women are particularly interested in receiving career advice and having more effective appraisals (Action 5.8 and see Action 4.3).

Action 5.8: Enhance appraisal process to make more relevant and meaningful for staff.



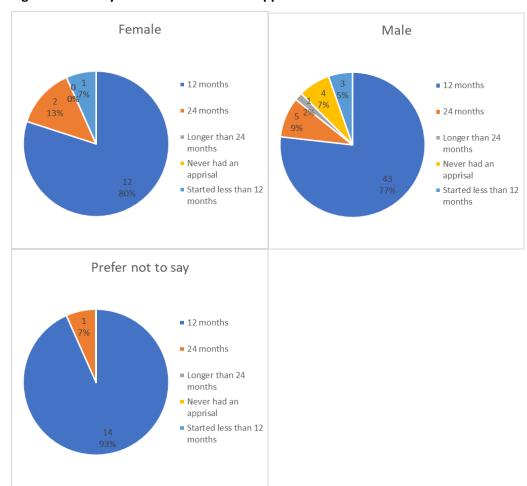


Figure 45: Survey results - I have had an appraisal in the last ...

(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.

In appraisals, staff are supported by their respective line managers and as outlined previously, appropriate CPD is identified. CPD offers are gender-neutral and expressions of interest for roles are advertised on a rolling basis predominately via email by the Dean as these become vacant and depending on the role. Such roles can potentially help colleagues in career progression. Programme leadership roles in CS are dominated by women (10F:2M); in contrast in ENG this is more evenly spread through considering the number of women in the department this is not proportional (6M:4F). Morley, (2013)⁶ demonstrates that women academics do much more of the 'institutional housekeeping' than



⁶ Morley, L. (2013) 'The rules of the game: Women and the leaderist turn in higher education'. *Gender and Education.* 25(1) pp. 116-131.

men arguably because men avoid them to do research (Fitzgerald, 2014)⁷ so this will be investigated to see if the same is happening in ECS (See Action 5.6).

Line managers also support staff in engaging with the EVALUATE process. Staff can apply for Reader and Professor at any time. On an annual basis over the past two years, staff have also been supported in applying for AP if they meet the criteria. As outlined previously, female colleagues are also supported in attending leadership programmes and attending external career development events as appropriate. The vast range of CPD on offer including leadership development within UH is free to attend.

Career progression is discussed in less than half of appraisals, more so for women than for men (Figure 46). This could be an effect of the perceived irrelevance of the process, or an individual may simply not wish to progress. As the appraisal process is intended to be a key means of explaining the process and criteria to staff, this may also contribute to the lack of awareness highlighted in Figure 47 **(See Action 5.8 in Appraisals)**.

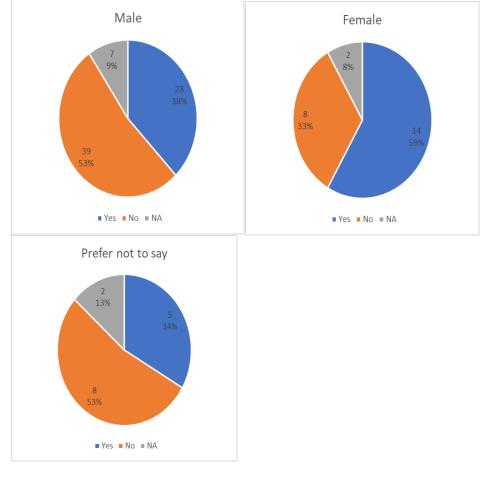


Figure 46: Survey results - My career progression is always discussed in my appraisal



⁷ Fitzgerald, T. (2104) *Women Leaders in Higher Education: Shattering the Myths*. London: Routledge.

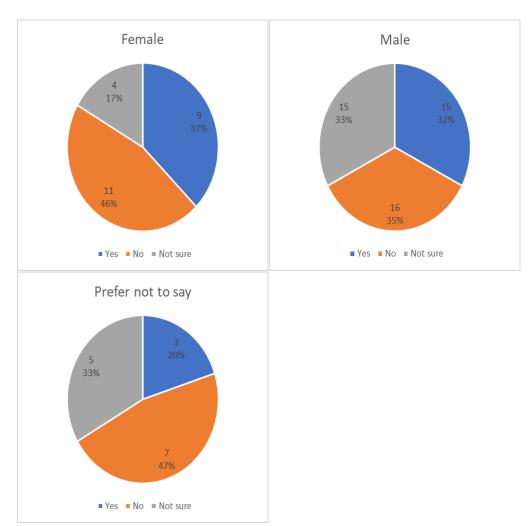


Figure 47: Survey results - Are the career development processes in the School clear and transparent?

Again, from the Staff Survey (Figure 48), there appears to be a clear imbalance between men and other staff in their perception of how many opportunities there are to take on new roles in order to further their careers. Nonetheless, most staff (particularly women) agree that the School could do more to encourage them to apply for promotions and internal posts (See Section 4.2(i) and Action 4.3, 5.7 and 5.8).



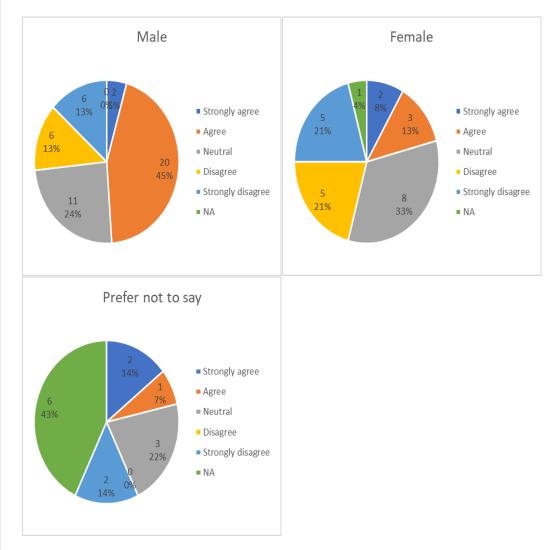


Figure 48: Survey results - I feel there are adequate opportunities to take on new roles within my current position (e.g. admissions tutor, programme tutor)

UH has held the European Commission HR Excellence in Research Award since 2010 which recognises our excellent initiatives in supporting those active in research. Under the Concordat's aegis, within the School researchers have opportunities for training and career development. All staff are given a central and local induction and are encouraged to access the academic staff development programme as well as the RDF (**See Action 5.16**).

Staff on research contracts are provided with a mentor and all new academic staff are assigned a mentor who supports them in the induction process and for the 6month probationary period. This may continue on an informal basis. The Staff Survey showed over 40% of all respondents – both women and men – expressed a wish to have a mentor in relation to career development and planning (Figure 49). This will also be addressed in appraisals and there are numerous University schemes being developed that staff can tap into, but these need to be better signposted (Action 5.9).

Action 5.9: Better signpost staff to new central mentoring and existing coaching opportunities.

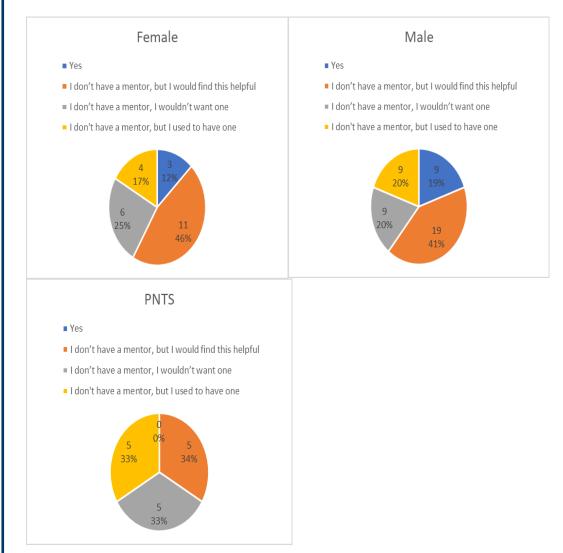


Figure 49: Survey results – Do you have a mentor, and would you like one?

ECS is also committed to helping staff and researchers become professionally registered, for example in ENG as chartered engineers and technicians with professional bodies such as the Institution of Engineering and Technology (IET) through: (1) Paying for membership registration and chartered engineer (CEng) application fees and (2) Organising and running professional registration workshops (together with the IET professional registration advisor) for staff to engage with the IET and prepare their CEng, IEng, EngTech or ICTTech applications. This initiative is driven by a female member of staff and as a result, in 2019 2F became chartered engineers. Additionally, 6F and 7M are already in the process and we envisage that they will all be chartered engineers in the next four to six months.

(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).

Through the RDP, research students are supported in the transition to teaching through the CPD provided institutionally. It is mandatory for students who wish to teach to attend the relevant modules. All engage in peer observation intended to provide feedback on best practice and to highlight development needs. Further support is provided by their respective supervisors. Students are also invited to attend the Learning and Teaching events hosted by the School which present an opportunity to discuss and share learning and teaching practice alongside experienced staff. Extracurricular experience and involvement in School operations is encouraged in a variety of ways, such as student representation on decision-making committees, for example the BSc/BEng, MSc/MEng and the EDIT.

Examples of barriers identified amongst ECRs from the 2017 INSPIRE Conference (See Table 4) included *"working unsociable hours."* As a result, we have reinforced the message of contracted working hours and the importance of a work/life balance. We have also shown how some of our women have a positive experience working in academia and a healthy work/life balance. An enabler included *"positive female role models"* of which we have many in our School who actively work alongside students (e.g. the Chair of the EDIT set up and sponsors the ACM student chapter and works in partnership with students to organise and host events (See Table 5)).

Careers and Employment Service and our School Employer Engagement Officer liaise to arrange visits by alumni and employers, and to employers' sites, to inform and encourage students in their career planning. Students may undertake a fullyear placement (Table 25) or travel overseas via the Erasmus programme following their second year of study. At level 5 we offer a programme of events and lectures specifically designed to help students secure a placement, in collaboration with the Careers and Employment team. Attendance is compulsory for all final year students.

UG Placements 2019-2020	Female	Male
Computer Science	19 (32%)	40 (68%)
Engineering	3 (18%)	14 (82%)

Table 25: Number of students on	placement for academic v	vear 2019-2020
Table 23: Number of Stauchts of	placement for academic	1 Cui 2013 2020

There are numerous events related to STEMM on offer such as WorkFest 2019. Also in 2019 two top-performing female students (one from Electrical and one from Automotive) were nominated for a competitive Santander Universities STEMship programme award which enabled them to attend the Silverstone Motor Sport Race, which is typically dominated by men. Additionally, talks are delivered by members of the School on their academic career path and PG students are provided with mentors. Those studying on the BSc and BEng have a personal tutor to help support their career choices. There continues to be an opportunity for female students to choose to have a female personal tutor and receive extra support during pregnancy.



The AD SE&P provides strategic leadership in providing a range of opportunities for students to develop their graduate attributes and employability and consults with students on behalf of the EDIT. Three key areas of work (peer-assisted learning, diversity and tech, and student voice) support students in gaining insights into academia and potentially in career progression. The Peer-Assisted Learning (PAL) programme aims to foster a learning community where all students feel valued and have equal access to learn. PAL leaders are at the heart of this work; they comprise second and final-year UG students who support firstyears in their transition into HE as well as in developing essential subject-specific knowledge and skills.

PAL leaders attend mandatory training prior to leading sessions. They are also paid for their work, as the School is committed to reducing financial barriers that could prevent engagement (we appreciate that many students need to work whilst studying). PAL sessions are open to all first-year students. Importantly, sessions are held in labs and also appear in the students' timetables to ensure that PAL leaders and their groups of first-year students have the appropriate time and lab resources for their sessions to succeed.

Diversity in Tech work in the School is actively and deeply committed to promoting E&D in tech for both students and staff (See Table 5 Section 3(ii)). We also work with other organisations to promote inclusivity and teamwork within our learning community, for example a workshop on teamwork with the Royal Aeronautical Society (RAeS) facilitated for our Aerospace Engineering students in September 2019.

As part of our student-staff partnership work, the School works very closely with student representatives and is committed to listening to the student voice. In 2018/19 across ECS we have 56 student reps (CS 16M, 9F; ENG 29M, 2F) which reflects the gender of students across the School. As part of the AS student consultations we liaised with the School Community Organisers (SCOs) and our BAME Student Advocate to ensure that students are enabled and empowered to

share views of their programmes of study. In addition to student membership of the EDIT and consultation with the SU, examples of these opportunities include student forums, Programme Committee Meetings (PCMs), regular meetings with ADs and anonymous surveys (e.g. mid-module feedback survey, National Student Survey, Postgraduate Taught Experience Survey, and Postgraduate Research Experience Survey). Our approach to student representation is very inclusive and open; students can put themselves forward for the role of student representative via a model of direct representation. Student representatives and SCOs take part in training offered by the SU so that they are well-equipped and empowered to fulfil their roles.

Such opportunities provide authentic experiences to help students make career choices related to academia as well as the provision provided centrally by the careers department. Student ambassadors are recruited centrally and are paid to undertake duties on behalf of the School, such as participation at Open Days. Such progression pathways historically have led to careers in academia, many of our staff have studied and progressed within the School. The Chair of the EDIT is a prime example.

(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.

The UH Research Office assists those applying for research funding and applications are also peer reviewed by other colleagues prior to submission. Research activity is supported at School level by an AD (Research), an independent reader who is not on the project team and research group leads are assigned to provide constructive feedback on proposals prior to submission. This not only provides support to those writing grant applications but helps to embed a sense of community within the School. There are training courses School-wide on research grant writing which provide support for those applying for the first time as well as those who have been unsuccessful and are more experienced. Such opportunities offer an additional support network. Only half of research-active staff (Figure 50) are satisfied with the support available. This could be in part because staff are not aware of all opportunities.

Since the survey was conducted, as part of UH AS initiatives the PVC Research is sponsoring an Away Day (2020) specifically for women researchers which will also provide an opportunity to network and find synergies to generate new research projects. These days are to be recorded as professional development opportunities, so that time can legitimately be taken off for it. For those who are more experienced and who are successfully awarded grants, the Away Day will involve mentoring the less experienced and provide a forum for feedback on one's own current grant bids in addition to the possibility for finding new research avenues across the group (Action 5.10).

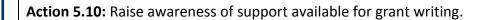
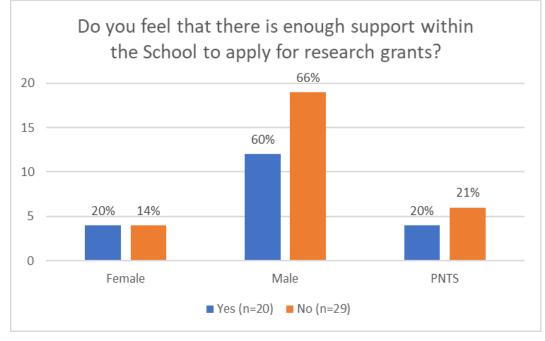


Figure 50: Survey results - Researchers only: Do you feel that there is enough support within the School to apply for research grants?



(2,518)

5.3. Flexible working and managing career breaks

(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.

Staff inform HR of their intention to go on maternity leave after which the Occupational Health Department perform a risk assessment of the employee in consultation with the relevant line manager. This includes a discussion on flexible working options such as an adjustment to work hours or duties, which may often need to be implemented before a staff member goes on maternity leave. Staff are also informed about breastfeeding facilities available on campus and HR sends a maternity package of information with policies and helpful advice, e.g. regarding the on-site nursery.

Discussions also take place with line managers about planning for leave, the use of Keeping in Touch (KIT) days, arrangements for reallocation of teaching and supervisory responsibilities during leave, and what arrangements can be made to support a positive return to work. Staff are signposted to the relevant policies on the staff intranet and one-to-one meetings with the HR Employee Support team are available. Table 26 shows those staff (all academic) who took maternity leave.

Maternity/Paternity Leave (ECS) 2015-2018	No. of Staff	Return	In employment after 6, 12 and 18 months
Maternity Leave	6 (4ENG, 2CS)	All	Yes
Paternity Leave	4 (3ENG, 1 CS)	All	Yes

Table 26: Maternity-Paternity leave taken and return rate

UH is also home to an active Working Parents' Network (WPN) which is available for any parent, expectant parent or grandparent among UH staff to join a community for additional social activities and support. Staff receive emails to raise awareness as well as event posters are made visible. Quite a few staff in ECS are members.

(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 are made aware of the opportunity to carry out work activities for up to 10 KIT days during the maternity, shared parental or adoption leave period, for which they receive compensation. This enables them to keep up-to-date and feel part of the School community. Work activities can be carried out any time after the first two weeks following the birth or adoption of a child. Of seven respondents to the staff survey section around maternity etc., only one woman took advantage of KIT days but did not find them useful. We need to ensure that staff are aware of KIT days and the potential benefits as well as recently-created University information documents on the intranet (**Action 5.11**). Cover for teaching duties during the maternity period is arranged in two different ways: (1) If adequate notice is given about full year intention, the post is advertised fixed-term for one year; (2) If less notice is provided and a full year will not be taken, this has traditionally been covered through bringing in VL support. Cover for maternity and adoption leave and support for returning staff is funded through the School staff budget.

Action 5.11: Ensure that staff embarking on maternity/adoption/shared parental leave are aware of KIT days, their use and potential benefits as well as (if applicable) shared parental leave, if not aware of it already.

(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 in consultation with their line manager have the opportunity to request flexibility on their return to work either on a formal or informal basis. Those with caring responsibilities are supported by offering flexibility in timetabling for



taught modules. There is on-site nursery provision. Positively, no respondents in the Staff Survey had any difficulties or problems when returning to work.

(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.

See Table 26 above.

All staff returned from leave and were still working in the School after 18 months.

(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 takeup of paternity leave and shared parental leave.

Paternity data is shown above in Table 26 above, there are no other instances of leave during the reporting period. Take-up of leave is arranged on a one-to-one basis with line managers who tell staff about their parental rights and university benefits as soon as they are made aware of staff circumstances (e.g. encouraging them to get on the waiting list for the University nursery, which fills up quickly).

In response to the survey question – "Are you aware of the new provision of shared parental leave?" The results showed that 44% (41%M:46%F) of the overall responses are aware of the new provision of shared parental leave while only 29% (41%M:20%F) are unaware of the new provisions, with 27% (17%M:42%F) of all responses have indicating that this question was not applicable to them **(See Action 5.11)**.

(vi) Flexible working

Provide information on the flexible working arrangements available.

In effect, all academic staff can work flexibly because there is no requirement to be at the University other than for scheduled activities. UH has a policy of 'anytime, anywhere, any device', operationalised through our Virtual Private Network (VPN) allowing staff to access email and folders remotely. Positively, professional staff also report that they have been supported to work flexibly (e.g. change in start/finish times etc.) in the School.

There is flexibility within UH policy to consider any requests for part-time, termtime or job sharing after a return from a career break, e.g. following maternity leave. This could be for a permanent or temporary period if agreed. Such requests, including for existing contractual change, are considered on an individual basis. The policy is available on the intranet and periodically colleagues are kept informed about this by email. Training is provided to all managers to raise awareness and discuss during appraisal.

Overall, colleagues in the survey and who were interviewed who had worked flexibly were very favourable about their experience and many confirmed that it positively impacted their career development and work/life balance:

"I work from home when I have no classes and no meetings at the Uni. I am very productive this way and appreciate the flexibility."

"Flexible working hours are a huge benefit for me. I have a complex range of activities both inside and outside of work and the ability to work fluidly has been extremely important. It has allowed me to attend to the complex family issues around bereavement and serious illness whilst still achieving my work tasks and targets."

(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.

There have not been any instances of staff working full-time before a career break returning to work part-time and then requesting to transition back to full-time. If this were the case, the School would adhere to UH policy on managing career breaks and would consider such a request in accordance with this.

(690 words)

5.4. 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.

ENG and CS have been committed to working towards the achievement of the AS Charter's aims as separate Schools since 2014. As subject areas where the representation of women has historically been low, it has been and continues to be essential to focus on gender equality, in particular removing the obstacles faced by women at major points of career development and progression (See Actions 4.3, 5.5, 5.6, 5.7, 5.8, 5.9 and 5.10). We see the merger as a means of strengthening this commitment, enabling the School to share good practice



across the departments and broaden their E&D work, and foster cooperation among formerly separate disciplines.

"Good working conditions such as office space which means we can close our door and get on with our work and have office hours for students"

In general, academic staff and student consultations have indicated high awareness of AS and a view that the merger is a positive step. But at the same time, we have not forgotten that we are bringing together two different departmental cultures and the process will take time. Past practices must be taken into consideration amongst the new. We are aware that divisions persist and there continues to be a lack of interaction between staff in ENG and CS. We have already begun to tackle this (e.g. through sharing programmes of study across departments) and intend to carry out further work as part of our ongoing commitment to AS.

We also acknowledge that advancing gender equality in ECS requires commitment and action from all levels, especially from those in senior roles. The Dean (M):

- Actively participates in EDIT meetings and the AS process;
- Runs monthly drop-in sessions to consult with staff and listen to concerns;
- Walks the corridors and drops in on staff regularly to enhance visibility;
- Circulates a monthly brief highlighting (amongst other initiatives) E&D actions taken;
- Encourages social activities to help with inclusivity and collegiality, which includes a Christmas lunch as well as various initiatives dedicated to staff wellbeing through a tailored 'active staff' programme.

The DD (ENG F) and AD SE&P (CS F) act as visible role models and actively participate in EDIT activities to foster collaboration and find commonalities. In interviews, staff have reported that they feel the School is inclusive and this is evident in the Dean's approach to managing the new merged School.

Furthermore, the School regularly engages with the UH Equality Office and all staff are trained in courses related to E&D (Table 18). In 2020, we will organise a School-wide Trans Awareness training as a commitment to Principle 7 (Action

5.12). Gender equality is also embedded in policy, pedagogy and planning. An example of pedagogy within CS programmes of study in the School includes "Mind the Gender Gap", a session about gender balance in IT and Leadership positions. The session provides training in unconscious bias and raises awareness of subtleties of nuance and bias impact as well as including numerous ways to reduce prejudice and help close the gender gap. This is part of the curriculum and is delivered to almost 500 Master students of whom 90% are international and up to 200 UGs.

Action 5.12: Hold School-wide Trans Awareness campaign to improve staff understanding of trans issues.

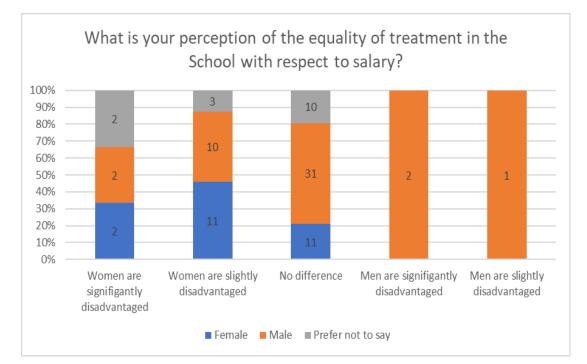


Figure 51: Survey results – What is your perception of equality of treatment in the School with respect to salary?

The responses to the survey question in Figure 51 showed that generally men and women have a similar perception regarding salaries with respect to gender within the School. Unfortunately, a sizeable number of staff surveyed consider women to be slightly or significantly disadvantaged in terms of salary. The School already is already working on a separate action plan to address the gender pay gap (Table 27) and this needs to be better communicated (**Action 5.13**).

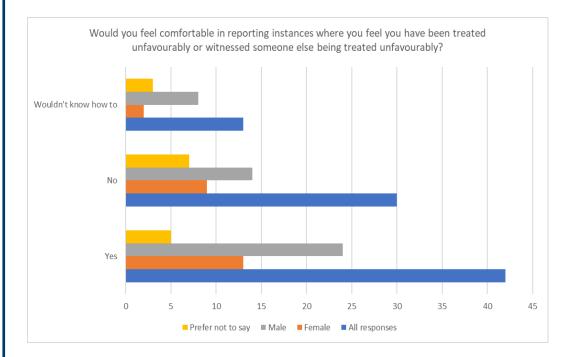
Action 5.13: Raise further awareness of School efforts to reduce the gender pay gap.

Table 27: Snapshot of CS and ENG gender pay gap

2017-2018	Mean Pay Gap	Median Pay Gap
Computer Science	11%	10%
Engineering	20%	29%

The 9% difference for ENG between their mean and median pay gap indicates that the data set is skewed. This could be because of the proportion of men on a higher pay scale to female in the School.

Figure 52: Survey results – Would you feel comfortable in reporting instances where you feel you have been treated unfavourably or witnessed someone else being treated unfavourably?



As a new School, we will continue to improve and expand the bond between our various subject areas through cross-fertilisation of teaching provision and general awareness of the synergy gains in close collaborative work within this new School. We will recognise staff for their motivating initiatives and living the University values (e.g. Celebrating student and staff success is to be promoted in smaller groups with individual Dean's letters and awards for success), but also by challenging and 'calling out' behaviours that do not meet our values. In the Staff Survey (Figure 52 above), half of staff reported confidence in reporting instances where they felt they have been treated unfavourably or witnessed someone else being treated unfavourably; however, 35% did not feel comfortable reporting and 15% said they would not know how to (**Action 5.14**).



Action 5.14: Build staff confidence and raise awareness of support in relation to reporting unfavourable treatment.

By setting clear goals and expectations, recognising staff contributions, ensuring they have a manageable workload (sub-section (v) below), have opportunities to demonstrate excellent teaching and research, and to progress in their career, we will make the School an attractive place to work. We hope that staff will be happier, more engaged, and this will feed into a caring and supportive environment for students.

"Culture of support amongst colleagues – e.g. if somebody needs to run off to hospital due to family emergencies another member of staff will cover your teaching/work with no question"

In the Staff Survey, the most cited description of the School as a place to work were: Supportive, Welcoming, Inclusive and Stressful. Amongst the female responses, the top three responses were Stressful (52%), followed by Supportive (44%) and Cliquey (44%). Although we are obviously pleased that staff find the School to be supportive, welcoming and inclusive, further interrogation is needed into the female perception of the School as 'stressful and cliquey' in order to ensure positive staff wellbeing. The notion of 'cliquey' obviously contradicts the notion of 'inclusive'.

Senior management are already aware of these issues and much activity has taken place to address them. For example, at the ECS Away Day in September 2019, the School Wellbeing Champion and a representative of the University's mental health team presented some guidance and tips on how to look after one's wellbeing to reduce stress. They also highlighted support available Universitywide. The Dean's encouragement of social activities mentioned above were also developed to address these issues.

This could also relate to the question on the survey: "How regularly do you work longer than your contracted hours?" where 71% (n=61) of staff indicated that they regularly work additional hours (63%F:76%M) to ensure that the work is done and 25% (n=21) said they sometimes do (**Action 5.15**). We hope that work in relation to fostering linkages across departments and rolling out the new workload model will also help with this (**See Action 5.17**).

Action 5.15: Monitor staff perception in relation to the view of the School as 'stressful and cliquey'.



(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.

ECS is active in ensuring that we follow developments in UH policy and practice. We also support our partners in developing consistency in policy application, through Link Tutors visits and robust Quality Assurance policy and practice. ECS monitors the consistency of HR policies on equality, dignity at work, bullying, harassment, grievance and disciplinary processes through the following systems:

- Changes to University Policies and Regulations, including those focusing on equality, are discussed at the School Academic Committee (SAC) and School Executive Group (SEG).
- Dean of ECS meets HR Business Partner (HRBP) to discuss policy implementation.
- Line managers consult HRBP for advice before implementing policy or meeting staff to discuss issues to ensure parity. HRBP provides support and advice for these processes and updates staff at SEG on any policy updates.
- Pre and post-appraisal meetings with all line managers set expectations for targets for staff and standardise the ways in which these expectations are implemented.

The Equality Office as well as the School HRBP are members of the EDIT (see Table 3) which supports our understanding of the implications of policy for the staff and students alike.

(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.

Committee representation is predominately by role and is gender-neutral. However, the merger has had a positive impact on the male/female ratio of the two main committees. For example, new roles were created such as the BAME Lead and E&D Representative. For the School Academic Committee (SAC), female student members were also actively recruited.



School Executive Group (SEG)										
Role	Female	Male	Total							
Dean	0	1	1							
Associate Dean	2	4	6							
Programme Leaders	6	13	19							
Admissions Group Leader	0	1	1							
Link Tutor	1	1	2							
School Admin Manager	1	0	1							
School Finance Officer	1	0	1							
School's HR Business Partner	1	0	1							
School Marketing Manager	0	1	1							
TOTAL	12 (38%)	20 (63%)	32							

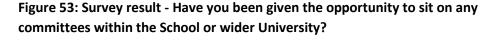
Table 28: Current ECS Executive Group composition by gender

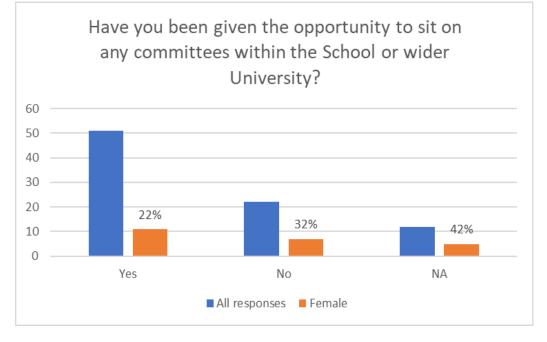
Table 29: School Academic Committee (SAC) composition by gender

	Compute	Engineering			
Year	Female	Male	Female	Male	
2015-2016	12 (55%)	10 (45%)	9 (38%)	15 (63%)	
2016-2017	12 (60%)	8 (40%)	7 (33%)	14 (67%)	
2017-2018	10 (48%)	11 (52%)	7 (30%)	16 (70%)	
	School of Engi	neering and Com	nputer Science		
	Fen	nale	Ma	ale	
2018-2019	14 (4	41%)	20 (59%)		

Figure 53 results indicate that women are generally less positive in their response to this question than the population as a whole (**Action 5.16**).

Action 5.16: Co-opt female observers onto groups and internal/external committees where permissible.





(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?

External posts are generally brought to the attention of staff via emails and individual staff are targeted on a one-to-one basis dependent on their role and expertise. For example:

- Dean regularly approaches staff to engage with the Engineering Professors Council (EPC).
- DD sends information about external examining opportunities.
- As standard, all women who apply are short-listed for external examining opportunities.
- Staff holding coordination and accreditation roles (3F:1M) who target staff and students through circulating information about professional bodies such as the IET.
- Further examples include two staff members also sit on political committees (1M:1F) and two are school Governors (1M:1F).



(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.

Figure 54 shows that more respondents do not agree that the workload model is fair and transparent, with women slightly more positive (53%F:42%M). One of the first orders of business at the beginning of the merger has been to enhance the transparency, consistency and consolidation of the workload model as this is considered to be a key area of concern. For example, the Dean recently circulated a document outlining the workload allowance for all School roles. There is also a full workload spreadsheet available for staff to view on the School shared drive with links to individual workload records. Heads of Departments are working within the University to pilot a new workload management system due for roll out in 2020 (Action 5.17).

Action 5.17: Monitor impact of changes to workload model and transparency in relation to staff experiences.

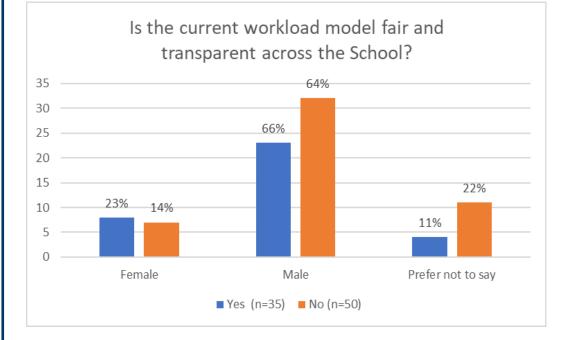


Figure 54: Survey results - Is the current workload model fair and transparent across the School?



(vi) Timing of departmental meetings and social gatherings

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

School meetings and activities start no earlier than 9:30am and finish by 4.30 pm, to accommodate staff with caring responsibilities who would not be able to attend late meetings or would miss out on post-event networking. This was an initiative from our previous AS work.

Positively, 73% of staff agreed that social events are held at appropriate times while virtually all staff (95.3%) agree that meetings in the School are either always (34.1%) or most of the time (61.2%) scheduled to be within the core hours of 9.30 – 16.30. There was no gender difference in responses.

(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.

ECS aims to promote an inclusive and progressive environment which is reflected in the School's webpages and marketing **(See Actions 4.1 and 5.3)**. The online images and videos all feature real staff and students from within the School, aptly representing the diverse nature of the staff and student bodies. Establishing role models and encouraging discussions on gender equality constitutes an important part of workplace culture in ECS. This is an area we are continuing to improve on and initiatives have included discussing the trial of the gender-neutral toilets with Student Representatives. Many of the initiatives and events mentioned in Table 4 Section 3(ii) have been dedicated to raising the profile of women in ENG and CS. Women are also always present at Open Days and the School actively pursues female candidates for Visiting Professorships.

The School held over 43 events across the reporting period. Events ranged from prestige lectures to research seminars with external speakers to targeted internal continuous professional development programmes. There were 64 invited speakers for these events, 14 (22%) of which were female. Concerted effort is made both internally and externally to recruit women for events and the School seminar series.



(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.

Across ECS there are a variety of outreach activities e.g. research exhibitions, events, competitions and school talks. Whilst visiting schools our main goal is to support underrepresented groups such as BAME and Girls in our catchment area (Table 30). We focus our activities on inspiring youngsters to take the necessary subjects for advancing study in CS and ENG and to demonstrate how our subject is exciting and accessible to all.

One example related to research, during UK Robotics Week in 2018 five members of staff (3F:2M) from the Adaptive Systems Research Group visited a local primary school to engage in a community outreach activity where the children learnt about the various aspects of robotics. A researcher and a school teacher worked with the children to assist them in programming Kaspar to perform particular behaviours. The event took place over six days with 175 children aged between 7 and 10. Each class was subdivided into groups and focused on an activity then rotated to the next activity until all the children had taken part in all of the activities. This ensured that all the children had the same experience. The event was conducted as part of the EPSRC Robotics and Autonomous Systems Network which organises events across the UK during the UK Robotics Week.



Kaspar robot

ECS does not currently monitor outreach and engagement activities data and this is something that will be implemented moving forward **(Action 5.18)**. Outreach activities undertaken by staff are recognised on workload allocations.

Additionally, recognition is by a personalised letter of thanks from the Dean and Heads of Departments following events. In some cases, small awards such as amazon vouchers are given (e.g. for large events such as the Big Bang Fair). The Dean also acknowledges staff efforts in the monthly staff newsletter distributed to all staff via email. There is also 'special thanks' given within School-wide forums.

Action 5.18: Monitor staff and student participation in outreach and engagement activities.

Date	Outreach Activity	To Whom	Where	Gender						
Computer Science										
2012	Careers in IT and how to get there	Students & parents (100+)	Barnet College	1M 1F						

Table 30: Outreach activities and events in ECS



2012	Careers in IT and	Students &	North Herts	1M
	how to get there	parents (100+)	College	1F
2013	Careers in IT and	Students &	Stanmore College	1M
	how to get there	parents (100+)		1F
2013	Object-Oriented	Students and	Meridian School	1M
	programming	teachers (50+)	· · · · ·	1F
2013	Object-Oriented	Students and	Fearnhill School	1M
	programming	teachers (50+)		1F
2014	CPD courses	Teachers	Science Learning	1M
			Centre	1F
			Consortium	
2016	Magic of	KS3 Students	Whitefriars	1M
	Computer	and Teachers	School	
	Science			
2017	Computing	GCSE Students	Watford UTC	1M
	Masterclass	and Teachers		
2017	M4-11	(20+)		4.5.4
2017	Working in IT	KS4/5	Highfields School	1M
2019	Magia of CC	Students (100+)	1111	1.5.4
2018	Magic of CS	Students from	UH	1M
		local secondary		
2010		schools (30+)	Ctouch a way walk	1.5.4
2018	UK Programming Week	Students and	Stanborough	1M
2010		Teachers (30+)	School Hatfield	1.5.4
2018	UK Programming Week	Students and		1M
	WEEK	Teachers (30+)	Community Free School	
2018 and	Big Bang Fair	Students and	UH	1M
2018 and 2019		Teachers from	on	TIM
2015		East of England		
		Schools (500+)		
2018	Presentation on	Students	Birchwood High	1M
	Computer	otadento	School	1
	Science			
2018	Robotics Talk	Students	St Albans Girls	1M
	and Presentation		School	
2019	Presentation on	Students	Hockerill Anglo	1M
	Computer		European College	
	Science			
2019	Presentation on	Students	Sandringham	1M
	Computer		School	
	Science			
2019	Robotics	Students	Hobletts Manor	2M
	Presentation and		Junior School	
	Demonstration			
2019	British Science	KS3 Students	Leventhorpe	N/A
		and Teachers	School	
	Week	and reachers		
	Week	(90+)		
2019	Week Talk on		Chancellors	N/A
2019		(90+)	Chancellors School	N/A



2019	Magic of CS	KS3 Students and Teachers (50+)	Abbot's Hill Girls School	N/A
2019	Magic of CS	Students and Teachers (30+)	UH	N/A
		Engineering		
2014-2019	Route into STEM – Engineering (2 sessions each year)	Engineering Student and Teachers from local secondary school	UH	2M 2F
2018	Girls in Engineering	Girls and Parents (100+)	UH	1M 1F
2018-2019	Big Bang Fair	Students and Teachers from East of England Schools (500+)	UH	1M 1F
2019	Engineering Taster Sessions organised by the Smallpiece Trust	Students and Teacher (150+)	UH	2M 2F
2019	Primary Engineer & Secondary Engineer Leaders Award competition & Award Ceremony	Schools across the East of England	UH & industry partner MBDA	N/A
2019	· · · · ·		Harlow College	1F

Figure 55: Girls in Engineering event in 2018



(2,131 words)

6. FURTHER INFORMATION

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

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

ECS remains committed to enhancing the experience of all its staff including academic, technical and professional. Technical and professional staff were included in the School-wide survey and interviews and sit on our EDIT. Furthermore, we have started to rebalance imbalance in our technical and administrative staffing, with more female technical staff, and more male administrative staff recruited.

UH is currently implementing a Student Administration Review (StAR) which will have significant impact on our professional staff moving forward, including moving them into three central University 'hubs' and out of the School itself in April 2020. This has made formulating actions through consultation activities very difficult and has also resulted in feelings of uncertainty for this staff group. We intend to engage further with professional staff in lead up to the StAR implementation in order to best support them through this period of transition **(Action 5.19)**.

Action 5.19: Engage further with professional staff in lead up to the StAR implementation in order to best support them through this period of transition.

(142 words)

7. ACTION PLAN

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

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

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

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



Athena SWAN Action Plan

High Priority Action	Mid Priority Action

	Planned action/			Key outputs and	Time	eline	Person	Success criteria and
Ref.	objective	Rationale		milestones	Start date	End date	responsible	outcome
Section	3: The Self-Assessment P	rocess						
3.1	Increase participation and raise awareness of the impact of the School's E&D initiatives and progress amongst staff and students.	Although 97.7% (n=83) of staff in the survey were aware that the School was working towards an AS award, less staff were clear on whether this had a positive effect (36.5% agreed; 51.8% neutral; 11.8% disagreed). We therefore need to focus on better communicating impact and progress of the School's E&D activities amongst staff and students.	•	Develop annual programme of awareness-raising and engagement events focused around E&D and women in science. Develop monitoring system for event attendance. Hold AS drop-in 'Tea and Chat' sessions to raise awareness of E&D work and gather staff/student input into various areas. Report results of evaluation of progress and impact to all ECS staff through posting of EDIT meeting minutes,	Nov 2019 Jan 2020 Sept 2019 Jun 2018	Annually May 2020 One per term Ongoing	AS Champion, Deputy AS Champion, EDIT team, UH Equality Office and AD SE&P Head of Marketing AS Champion, Deputy AS Champion AS Champion, Dean, Deputy Dean, EDIT Clerk	At least two E&D events run per year and monitoring system for event attendance developed. Participation increases incrementally year-on-year, positive feedback received. Increase to 50% of staff who agree that AS work has a positive impact in the School, as measured by next Staff Survey in 2022.

	Planned action/	tion/ Rey outputs and		Timeline		Person	Success criteria and
Ref.	Rationale		milestones	Start date	End date	responsible	outcome
			development opportunities, School meetings, and the inclusion of reference to AS in School induction events and staff training.				
			 Develop staff internal Sharepoint site to showcase work in relation to E&D in the School, events etc. 	Mar 2020	May 2020	AS Champion, Deputy AS Champion and AS Officer, Web Support	
3.2	Broaden remit of EDIT to encompass wider E&D agenda and develop synergy amongst E&D leads (old and new) to further embed and promote AS principles in the School.	The AS charter has broadened to encompass more of an intersectional focus that needs to be reflected in our approach. As well, we need to increasingly consider the wider E&D agenda at UH, including the Race Equality Charter and the University's Equality Objectives. New E&D roles (E&D SEG representative and BAME Champion) have been created in the School. In order to push forward initiatives, cooperation and	 AS lead to liaise and work with E&D representative and BAME Champion when in position and invite to join EDIT. Decide and document consensus on best practice in promoting and embedding AS principles and wider E&D issues into EDIT focus, taking into consideration best practice in other Schools and universities. 	Dec 2019 Feb 2020	Feb 2020 Mar 2020	AS Champion, Deputy AS Champion, BAME Champion, SEG E&D Rep & AS Officer	EDIT meetings to incorporate AS, Race Equality Charter, BAME attainment and other E&D considerations which affect the School.

	Planned action/		Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective	Rationale	milestones	Start date	End date	responsible	outcome
		contribution to the EDIT will be essential.	 Report and agree these with SEG and EDIT. 	Feb 2020	May 2020	AS Champion and SEG	
			 Review membership of the EDIT and key roles on an annual basis, regularly invite expressions of interest. 	Jun 2020	Exp of Int invited in Sept Annually	Dean	
3.3	Fund CPD E&D-related activities for Champions and EDIT	Currently, there is no standalone funding to support CPD in relation	 Allocate pool of funding for E&D- related activities. 	Apr 2020	Jul 2020	Heads of Departments	Dedicated funding secured for E&D activities and at least
	members.	to E&D activities for EDIT members.	 Organise and promote activities for EDIT members as they arise. 	Ongoing	Ongoing, funding- dependent	AS Champion, UH Equality Office	two EDIT members attend CPD opportunities per year.
3.4	Run regular staff/student surveys and focus groups to assess impact of action plan.	Initial joint ECS survey was run in 2019 and must be repeated in order to gauge impact of continuing merger and AS initiatives. Focus groups will help to shed further light on staff and student experiences.	 Conduct smaller interim 'bitesize surveys' to try to avoid 'survey fatigue' and track impact of initiatives around various targeted areas highlighted in ECS AS Staff Survey. 	Jan 2020 When needed	Jun 2023	EDIT survey working group, Dean to circulate to ensure participation	Gain better understanding of changes in staff perception through targeting specific issues. Increase full survey response-rate to 60%.
			 Re-run full staff survey. 	May 2022	Oct 2022	EDIT survey working group,	
			 Conduct focus groups to follow up on issues raised in the Staff Survey. 	Oct 2022	Dec 2022	AS Officer	

-	Planned action/		Key outputs	Key outputs and	Time	eline	Person	Success criteria and
Ref.	objective Rationale			milestones	Start date	End date	responsible	outcome
Sectior	4: A Picture of the Depar	tment						
				Students				
4.1	Ensure continued high visibility of women on outreach and recruitment activities,	The %F for UGs has remained reasonably consistent but is still under the benchmarks –	•	Run focus groups with F/T female UG students in both departments.	Oct 2020	May 2021	AD SE&P	Better understanding of female (UG and PGT) motivations for choosing ECS and recruitment
	including websites and promotional materials.	more markedly so in ENG than CS. For ENG, the %F has remained consistent over the reporting period but is	•	Conduct interviews with P/T female UG student in all ENG subjects.	Nov 2020	Nov 2020	Deputy Dean	tailored effectively. At least three women present at all Open Days.
		below the benchmark for "general engineering" for both F/T and P/T. It is important for us to better understand why	•	Interview female PGTs in ENG to understand why they chose to study with us to help to inform how to attract more female students.	Nov 2020	Nov 2020	Deputy Dean	
		women choose to study with us to see if there is scope for improving our recruitment practices. We also need to continue to ensure high visibility of women at key events and in	•	Interview female PGRs in both departments to understand why they have chosen to study with us to inform how to attract more female students, particularly in ENG.	Nov 2020	Nov 2020	AS Officer	
		promotional materials.	•	Integrate findings into recruitment approach.	Jun 2021	Feb 2022	Head of Marketing	
			•	Develop case studies for ECS webpage to encourage more women to study with us.	Jun 2021	Sept 2021	Central Marketing and Web Support team	

	Planned action/			Key outputs and	Time	eline	Person	Success criteria and outcome
Ref.	objective	Rationale		milestones	Start date	End date	responsible	
			v	nsure at least three vomen present at all Open Days.	Oct 2020	Ongoing	Admissions Tutor	
			-	ee Action on Dutreach (5.18).				
4.2	Monitor the degree attainment of UG and PGT men.	The level of attainment for UG men in ENG dipped significantly in 2016/17 and is still below that of other groups. This issue is already being tackled through a working group and corresponding action plan. The issue particularly affects UG BAME, BTEC and commuting students. Performance of women tends to be higher than for men across PGT programmes as well.	S V r	DIT to liaise with tudent Attainment Vorking Group with egard to gender ttainment gap.	Feb 2020	Annually	Deputy Dean and Associate Dean for Academic Quality, EDIT team	Issues identified and changes put in place lead to better attainment for men, particularly UG men in ENG and PGT men across both departments.
		programmes as well.		Staff				
4.3	Identify and support female staff progression to higher grades and raise further awareness and transparency of the promotion process.	The proportion of female staff in CS tends to concentrate at Lecturer level and there is a bottleneck at UH09. Whilst in ENG, the majority of women stagnate at Senior and Principal Lecturer grades	e a p a c n	Actively identify ligible staff at ppraisals and put in place plans of action ccordingly in onsultation with line nanagers. hterview individuals	Sept 2020 Apr 2020	Annually at appraisal Dec 2020	Line managers, Subject Group Leaders	Increase in senior academic women progressing to AM level in both Schools (10%) by 2025. This is in line with University Equality Objective targets.



	Planned action/		Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective	Rationale	milestones	Start date	End date	responsible	outcome
		and no female staff at Prof/AM grades. This is not in line with the national benchmark which shows 11% of Professors in this area are female. As well, the Staff Survey indicates that many staff	successful in achieving principal lecturer, readership and professorship to better understand how to help those who wish to progress and to understand any obstacles or barriers to promotion.			AS Champion, Deputy AS Champion	Awareness and perception of transparency of promotion process increases to 70% in next Staff Survey 2022.
		do not feel there are enough women in senior roles within the School. Staff survey results also show that just under half of all staff (42%F and 45%M) understand the	 Produce paper with case studies discussing barriers and how to support women in progressing. 	Apr 2021	Dec 2021	AS Champion, Deputy AS Champion	Paper accepted for publication and conference presentation.
		promotion process. Responses also indicate that many staff do not	 Hold workshops for staff at UH08 (to progress to UH09). 	Feb 2020	Annually	Dean	Attendance by 3 and 1 application for EQUATE by Nov annually.
		view the process to be transparent and fair. As	• Run sessions for UH07 (to progress to UH08).	Nov 2020	Annually	Heads of Department	Attendance by 3 and 1 application for EQUATE
		a matter of priority, this needs to be rectified.	Gather feedback from workshops.	Feb 2020 Nov 2020	Annually Annually	EA to Dean	by Feb annually.
		Those involved in Learning, Teaching and Enterprise routes (who tend to be women) are	 Track informal stages of application to help understand whether any biases exist. 	Jun 2020	Annually	AS Champion, Deputy AS Champion	Online survey completed by all workshops attendees. Present at SEG for discussion Mar & Dec annually.
		not being supported in the same way as those who research more traditional subjects.	 Run a workshop on promotion through Learning, Teaching and Enterprise routes. 	Dec 2020	Dec 2020	AS Champion, AD L&T	At least one promotion in area of Learning,

	Planned action/		Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective	Rationale	milestones	Start date	End date	responsible	outcome
			 Invite successful appointees to share experience. Line managers in ECS to be provided with more understanding of different routes through dedicated workshop. 	Dec 2020	Dec 2020	AS Champion, AD L&T	Teaching and Enterprise by 2023.
4.4	Liaise with HR on improving exit interview process, feedback dissemination and increasing staff uptake.	Leavers can choose to have an exit interview conducted by HR but uptake has been low and the process is currently under review at the University level. Feedback from staff leavers is also not cascaded down to the	 HRBP to report regularly to EDIT on central University exit interview review. Work to ensure that feedback from staff leavers cascades back to the School from HR for consideration. 	Feb 2020 Jan 2020	Tri- annually May 2020	HRBP HR and Dean	Feedback from leavers disseminated to School as standard. Better understanding of reasons for leaving to help feed into retaining existing staff.
		cascaded down to the academic Schools, which is a point of concern we have raised.	 Review leavers' feedback and address issues, if any. 	May 2020	Annually	Dean	
Sectior	1 5: Supporting and Advan	cing Women's Careers					
5.1	Make Unconscious bias, E&D, Recruitment and Promotion training mandatory for all managers.	The majority of staff have already attended Unconscious Bias training. From this year we are taking this one step further to make Unconscious Bias, E&D and Recruitment and	 Hire external provider for dedicated School manager Unconscious Bias training sessions. Inform managers of new mandatory requirements and send information 	Mar 2020	Twice per year until achieved	UH Equality Office and AS Champion Dean	100% of managers have undertaken all required training by Nov 2023.

	Planned action/		Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective	Rationale		Start date	End date	responsible	outcome
		Promotion training mandatory for all managers, including the SEG and Heads of Subject Groups across both departments.	about central UH courses. Attendance to be monitored.				
5.2	Monitor impact of recently implemented recruitment actions to increase number of female applicants, and subsequently staff, in ECS.	Applications from women are low compared to those from men. We acknowledge a challenge for ECS is to attract more applications from female candidates and we have already implemented a series of actions to ensure women are attracted to apply for posts. This needs to be monitored to see if it is having the desired effect.	 Analyse data in relation to recruitment by gender on an annual basis. Report findings to EDIT for further consideration. Further enhance recruitment practices by putting in place best practice from AS Gold award members (e.g. Aston University). 	Sept 2020	Annually	Heads of Departments, Head of Marketing, Deputy Dean	Increase number of applications from women by 5% by 2023.
5.3	Merge departmental E&D webpages to create single ECS webpage.	Each department has its own equality, diversity and inclusion webpage with case studies; however, we need to bring these together as a reflection of the newly merged School.	 Liaise with Marketing and Communications team to discuss refreshing webpage and better communication information about E&D work. Advertise webpage and E&D activities to 	Oct 2019 Sept 2020	Aug 2020 Annually	AS Champion, AS Officer, Marcomms AD SE&P	Single webpage created and increase in number of hits.

	Planned action/		Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective	Rationale	milestones	Start date	End date	responsible	outcome
			 through School inductions. Check number of website hits periodically to gauge views. 	Sept 2021	Annually	AS Champion, Web Support	
5.4	Monitor effectiveness of new induction process and identify areas for improvement, particularly for	New resources were developed, and a new local induction programme was rolled out in academic year 2019/20 as a result of	 Heads to meet with all new staff following probationary period to gauge perceptions around revised induction process. 	Dec 2019	Following complete probation, regular basis	Head of Departments	90% of staff agree that induction into their role was adequate, as measured through Staff Survey 2022.
	women.	negative staff feedback (slightly more so for women than for men) around previous induction practices. This	 Include question about induction in next Staff Survey and review responses. 	May 2022	Oct 2022	AS Champion, Deputy AS Champion	
		needs to be monitored to ensure positive experiences for new staff.	 Address any issues that arise from staff consultation. 	Nov 2022	Aug 2023	Deputy Dean	
5.5	Integrate E&D, BAME and AS work and support into promotion and progression criteria.	Following a presentation by the School AS Champion at the institutional AS SAT in relation to recognising	 Continue to Champion recognising and valuing E&D work across the University and participate in 	Jan 2019	Ongoing	AS Champion	E&D work added to promotional criteria at School and University level.
		and valuing E&D work, which was taken on board by the central Secretary and Registrar, from this year E&D,	central Away Day on the topic.Add E&D work to promotional criteria	Jan 2020	Ongoing	Dean and Deputy Dean	At least one successful promotion partly attributed to E&D work.
		BAME and AS work and					those involved in E&D

	Planned action/		Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective	Rationale	milestones	Start date	End date	responsible	outcome
		support will be included in the consideration of promotion and progression.	 and lobby for changes at the central level. School to ensure work is recognised in appraisals. 	Oct 2021	Ongoing	Dean and Deputy Dean	work shows recognition in appraisals.
5.6	Further investigate why staff (particularly women) do not feel able to access CPD and put in place support for interested staff to take up these opportunities.	Results from Staff Survey questions indicate that whilst awareness of opportunities is very good, fewer staff (more so women than men) feel able to take advantage of them. Also, programme leadership roles in CS are dominated by women (10F:2M); in contrast in ENG this is more evenly spread through considering the number of women in the department this is not proportional (6M:4F). Research shows that women academics do much more of the 'institutional housekeeping' than men arguably because men avoid them to do research. Therefore, this could also have an	 Hold 'Tea and Chat' drop-in session to discuss CPD with staff to better understand ways of providing further support as well as assessing whether uptake of certain roles by female academics disadvantages them in terms of career progression. Report findings if relevant to EDIT and senior management. Line managers to discuss adequate support for CPD activities with interested staff during appraisal. 	Feb 2020 May 2020 Sept 2020	Feb 2020 May 2020 Annually	AS Champion AS Champion Line managers	Increase in women feeling able to take advantage of CPD opportunities to 70% in next Staff Survey 2022.

	Planned action/		Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective	Rationale	milestones	Start date	End date	responsible	outcome
		impact on taking up CPD opportunities.					
5.7	Continue to raise awareness and encourage applications for the Aurora Programme and monitor impact on career progression.	Since 2014, six women in ECS were selected from across the University to attend the Aurora Programme. One participant was promoted to Deputy Dean and Associate Dean of Academic Quality and encourages others to attend. It is important to track the impact of Aurora on	 Email opportunities and encourage applications from female staff – academic, professional and technical. Produce case studies and hold workshop to share participant experiences. Track participant 	Sept 2020, as they arise Dec 2021 Oct 2020	Annually Dec 2021 Aug 2023	Deputy Dean AS Champion, Deputy AS Champion, AS Office, Aurora participants	At least three women from the School apply to participate until 2023. At least one success story from a participant (such as promotion, change of role etc.) by 2023.
		other colleague career trajectories.	experiences over next 3 years.				
5.8	Enhance appraisal process to make more relevant and meaningful for staff.	42% (n=16) of staff think that appraisal is a tick- box exercise and has little impact on workload allocations, promotion or career direction. Responses to the staff	 Explore ways of improving appraisal process in the School, such as through discussing at 'Tea and Chat' drop-in session (See Action 5.7). 	Feb 2020	Feb 2020	AS Champion	Improvement in response rate to 70% of staff who find appraisal process beneficial.
		survey also show that women are particularly (more so than the general population) interested in receiving career advice and having more effective appraisals.	• Train appraisers in career progression criteria etc. as well as ensuring that they encourage and support all staff to plan their careers.	May 2021	Every 3 years	HRBP, Learning and Org. Dev. team, and Line managers	

	Planned action/	Rationale		Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective			Start date	End date	responsible	outcome	
			•	Revise approach to appraisal process based on findings and liaise with School of PAM who updated their process to share best practice.	Mar 2020	Apr 2021	Dean and Deputy Dean	
			•	Monitor appraisal uptake and gather feedback to gauge improvements.	Dec 2021	Annually	Dean and Admin support team	
5.9	Better signpost staff to new central mentoring and existing coaching opportunities.	The ECS staff survey shows over 40% of all respondents – both women and men – expressed a wish to have a mentor in relation to career development and planning. This can also be addressed in appraisals and there are numerous University schemes being developed that staff can tap into, but these need to be better signposted.	•	Refer staff to existing L&OD coaching scheme for support. Signpost staff to new central Women and Professors Network (encompassing Associate Professors, Readers and Professors) who have a pool of existing mentors and to Academic Women's Advancement Group. Also signpost new central BAME Mentorship and LGBT+ Mentor schemes (once rolled out) for interested staff.	Nov 2019 Jan 2020	Ongoing	AS Champion, Deputy AS Champion	Interim 'bite size' survey in 2021 shows staff uptake and satisfaction of central mentorship and coaching opportunities. Full Staff Survey 2022 will show decrease in number of staff wishing to have a mentor to 20%.

	Planned action/	Rationale	Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective			Start date	End date	responsible	outcome
			 Post information on local Sharepoint webpage. 	Mar 2020	Ongoing		
5.10	Raise awareness of support available for grant writing.	Only half of research- active staff are satisfied with the support available for grant writing.	 Inform staff about new grant writing opportunities being organised such as a workshop by the Academic Women's Advancement Group. Hold local grant writing workshop for those who cannot attend central events. Gather feedback from staff who have 	Nov 2019 Mar 2021 Mar 2020	Ongoing Mar 2021 Apr 2021	AS Champion and Deputy AS Champion AD Research Deputy AS	 70% of staff are satisfied with level of grant writing support available in next Staff Survey 2022. At least five members of research-active staff attend central University grant writing workshop and give positive feedback.
Section	n 5.5: Flexible working and	managing career breaks	attended events.			Champion	
5.11	Ensure that staff			Mar 2020	Annually	L&OD, Line	Of staff who take
5.11	embarking on maternity/adoption/ shared parental leave are aware of KIT days, their use and potential benefits as well as (if applicable) shared parental leave, if not aware of it already.	Of seven respondents to the staff survey section around maternity etc., only one woman took advantage of KIT days but did not find them useful. We need to ensure that staff are aware of KIT days and the potential benefits as well as recently-created University information	 Ensure line managers are fully trained in providing maternity guidance and signposting to University support. Send regular email to line managers highlighting pertinent information. 		Annually	Dean	maternity leave from 2020-2023 (if any), interviews reveal that they were provided with adequate advice around KIT days and shared parental leave (increase to 70% in Staff Survey 2022)) by line managers and HR.

	Planned action/		Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective	Rationale	milestones	Start date	End date	responsible	outcome
Sectio	n 5.6: Organisation and cu	documents on the intranet. Only 44% of staff were aware of shared parental leave.					
5.12	Hold School-wide Trans Awareness campaign to improve staff understanding of trans issues.	All staff are trained in courses related to E&D. However, ECS will organise an additional School-wide Trans Awareness training as this is not offered centrally on a regular basis and will help raise colleague awareness of trans issues.	 Run awareness campaign to coincide with University rolling out Gender Neutral Toilets (two of which will be located in the ENG corridor) and completed Trans Guidance. Bring in external provider to run Trans Awareness training for staff in School to attend, particularly 	Apr 2020	Apr 2020 Jun 2020	AS Champion and AS Officer	Understanding of trans issues gauged through short evaluation survey of Trans Awareness campaign.
5.13	Raise further awareness of School efforts to reduce the gender pay gap.	Responses to the Staff Survey showed that generally males and females have a similar perception regarding salaries with respect to gender within ECS. Unfortunately, a sizeable number of staff surveyed still consider women to be slightly or	 EDIT team members. Complete gender pay gap action plan, in coordination with HR. Continue to work with Female staff to encourage and support the lack of action to submit to EQUATE process (Also see Action 4.3). 	Feb 2020 Mar 2020	Apr 2020 Bi-annually	Dean, Deputy Dean and HR Heads of Departments, Heads of Subject Groups and HR	Perception of unequal pay by gender reduces, as measured in Staff Survey 2022. Pay gap reduces by 10% in ENG and 5% in CS by 2023.

	Planned action/			Key outputs and	Time	eline	Person	Success criteria and
Ref.	objective	Rationale	milestones		Start date	End date	responsible	outcome
		significantly disadvantaged in terms of salary. ECS is already working on an action plan to address the gender pay gap and this needs to be better communicated.	•	Publicise information widely to all staff and regularly report on progress to EDIT and SEG.	Mar 2020		Dean and Deputy Dean	
5.14	Build staff confidence and raise awareness of support in relation to reporting unfavourable treatment.	In the Staff Survey, half of staff reported confidence in reporting instances where they felt they have been treated unfavourably or witnessed someone else	•	Run two staff sessions relating to bullying, harassment and discrimination that will be mandatory for all staff to attend. Hang posters in key	Nov 2020 May 2020	Apr 2021 Reminder	AS Champion, Equality Office, HRBP and Dean AS Champion	75% of staff feel comfortable reporting unfavourable treatment and 95% know how to report any instances, as measured through follow-up 'bite size'
	35% did not feel comfortable reporting and 15% said they wou	unfavourably; however, 35% did not feel	•	locations and send around information about University's Dignity and Respect Advisors.	May 2020	emails sent annually	and Dean	survey questions in Nov 2021.
		needs to be addressed.	•	Dedicate one AS 'Tea and Chat' drop-in session to this issue to gather thoughts from staff.	Feb 2021	Feb 2021	AS Champion	
			•	Send out short 'bite size' survey in relation to this issue to gauge impact around improving staff	Nov 2021	Dec 2021	AS Deputy Champion and Dean	

	Planned action/		Key outputs and	Tim	eline	Person	Success criteria and
Ref.	objective	Rationale		Start date	End date	responsible	outcome
			awareness and confidence.				
5.15	Monitor staff perception in relation to the view of the School as 'stressful and cliquey'.	In the Staff Survey, the most cited description of the School as a place to work were: Supportive, inclusive, welcoming and stressful. Further interrogation is needed into the perception of the School as 'stressful' in order to ensure	 Further discuss characterisations of the School as 'stressful' and 'cliquey' with staff in 'Tea and Chat' drop-in session. Add question to Staff Survey in relation to 	Feb 2020 May 2022	Feb 2020 Oct 2022	AS Champion AS Champion and AS Officer	Reduction in number of staff (particularly women) who view the School as stressful (down to 20%) and cliquey (down to 20%).
		positive staff wellbeing.	staff views of School culture.				
5.16	Co-opt female observers onto groups and internal/external committees where permissible.	Women are generally less positive in their response to the Staff Survey question, "Have you been given the opportunity to sit on any committees within the School or wider University?"	 All SEG members to take female staff as observers to internal and external committees for experience, where permissible. 	Jan 2020	Ongoing	SEG members	Women gain greater appreciation of School and central committees. Increase in positive responses to question in relation to Staff Survey 2022 by 15%.
5.17	Monitor impact of changes to workload model and transparency in relation to staff experiences.	60% of all respondents in the Staff Survey do not agree that the workload model is fair and transparent. A review of the workload already took place in June 2019 and module workload for ENG was published	 HoDs attend UH Working Group for a standard workload database to be introduced in 2020. Publication of each role and the hours it attracts are published when Expressions of 	Jan 2019 Ongoing	Ongoing	Heads of Departments, Heads of Subjects and Line managers	Decrease in number of staff (40%) who do not agree that the workload model is fair and transparent. To be measured in next Staff Survey 2022.

	Planned action/		Key outputs and	Time	eline	Person	Success criteria and	
Ref.	objective	Rationale	milestones	Start date	End date	responsible	outcome	
		for all staff to view. CS continues using the	Interest are asked for new openings.					
	internally developed SWAT system.	 Conduct smaller interim 'bitesize surveys' to try to avoid 'survey fatigue' and track impact of workload model. 	Jan 2020	Jun 2023	AS Champion, Deputy AS champion, AS Officer			
			 Communicate message to reinforce that a workload can be discussed at any time within line management. 	Jan 2020	Annually	Dean		
			• Re-r		May 2022	22 Oct 2022	AS Champion, Deputy AS champion, AS	
			• Conduct focus groups to follow up on issues raised in the Staff Survey.	Oct 2022	Dec 2022	Officer		
5.18	Monitor staff and student participation in outreach and engagement activities.	ECS does not currently monitor outreach and engagement activities data.	 Create 'Blog and Log' web blog similar to Institute of Integrative Biology University of Liverpool in order to further celebrate, reflect on, share and record the outreach activities of students, post-docs, 	Sept 2020	Sept 2021	Outreach team and Web Support team	Web blog created and all staff engaged in outreach post regularly, enabling activities to be monitored.	

Ref.	Planned action/ objective	Rationale	Key outputs and milestones	Timeline		Person	Success criteria and
				Start date	End date	responsible	outcome
5.19	Engage further with professional staff in lead up to the StAR implementation in order to best support them through this period of transition.	UH is currently implementing a Student Administration Review (StAR) which will have significant impact on our professional staff moving forward. This has resulted in feelings of uncertainty for this staff group. We intend to	 milestones researchers and academics from ECS. At least two individual meetings with each member of administrative staff to discuss concerns and issues moving forward. Conduct de-briefs with all staff following consultation with 	Nov 2019 A	Apr 2020	School Administration Manager and SEG member	Professional staff provided with adequate support in lead up to StAR implementation.
		engage further with professional staff in lead up to the StAR implementation in order to best support them through this period of transition.	 senior management. Signpost staff to Employee Assistance Programme for legal and wellbeing support. 				

