Athena SWAN Bronze department award application

Name of university: The University of Essex

Department: The School of Computer Science and Engineering

Date of application: November 2016
Date of university Bronze and/or Silver SWAN award: University Bronze award 2013

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Athena SWAN **Bronze Department** awards recognise that in addition to university-wide policies the department is working to promote gender equality and to address challenges particular to the discipline.

Not all institutions use the term 'department' and there are many equivalent academic groupings with different names, sizes and compositions. The definition of a 'department' for SWAN purposes can be found on the Athena SWAN website. If in doubt, contact the Athena SWAN Officer well in advance to check eligibility.

It is essential that the contact person for the application is based in the department.

Sections to be included

At the end of each section state the number of words used. Click here for additional guidance on completing the template.

Glossary

AS	Athena Swan
CS	Computer Science
CSEE	The School of Computer Science and Electronic Engineering
E&D	Equality and Diversity
EE	Electronic Engineering
GLA	Graduate Laboratory Assistant
GTA	Graduate Teaching Assistant
FHEA	Fellow of the Higher Education Academy
FTE	Full Time Equivalent
HHS	School of Health and Human Sciences, University of Essex
HoS	Head of School
HR	Human Resources
IADS	Institute for Analytics and Data Science
IEEE ComSoc	Institute of Electrical and Electronics Engineers, Communications Society
IGGI	EPSRC Centre for Doctoral Training in Intelligent Games and Game Intelligence
NSS	National Student Survey
PGCE	Post Graduate Certificate of Education
PGR	Post Graduate Research student
PGT	Post Graduate Taught student
PT	Part Time
PVC	Pro-Vice Chancellor
SAT	Self-Assessment-Team
RO	Research Officer
SRO	Senior Research Officer
WICE	Women in Communications Engineering
WAM	Workload Allocation Model
WWCSP	Women's Workshop in Communications and Signal Processing

Key to symbols used in the document:

- ✓ Current good practice
- ◈ For future action (as detailed in the Action Plan).

Throughout this application we are using the most recent figures that were available at the time of writing each section. The data is presented by academic year 2012/13, 2013/14, 2014/15. Please note that when we describe our current data, this refers to the academic year 2015/16. When we state 'our most recent staff survey' we are referring to the latest questionnaire undertaken in June 2016 as part of this application.

When we refer to the Athena Swan (AS) Bronze Award we are referring to the University's institutional Bronze Award that we received in September 2013. The University also achieved a Gender Equality Charter Mark (GEM) in November 2014.

1. Letter of endorsement from the head of department: maximum 500 words

University of Essex

Dear Senior Policy Advisor (Athena SWAN)

I am delighted to express my deepest support for this application from the School of Computer Science and Electronic Engineering (CSEE) at the University of Essex for a Bronze Athena SWAN award. The application is the result of many hundreds of hours of effort from our Self Assessment Team. The team's detailed assessment of our current status has already resulted in some policy improvements, such as a firmer commitment to achieving a better gender balance in our seminar series and student profiles on the Web, and ensuring that advertisements for all academic posts and PhD Studentships include a statement to encourage female applicants.

The CSEE subject area is male-dominated throughout the world, and the UK is no exception. As Head of School I am committed to change this for the better and attract more women into the subject area as students and as faculty. Within the last year we have appointed two new female academic staff (one as lecturer, one as reader) taking us to four in total, approximately 10% of our FTE. This is still too low, and we are taking measures to address this, such as actively mentoring PhD students and research staff to help improve their research profiles by publishing more papers, setting up public profiles on Google Scholar and being sure to cite their own work where appropriate. There is some evidence that women tend to be less self-promoting than men, so this encouragement will help to boost their profiles, making it more likely that we can short-list them for academic posts.

In addition to ensuring a good gender balance in our seminar series we also apply this in public facing events such as open days and industry days. There is some evidence that our new advertisement policy of clearly welcoming female applicants for academic posts and PhD studentships is beginning to have an effect. For example, the female:male ratio of our new PhD students (October 2016 intake) is 4:6 (40%), which is the best gender balance yet for CSEE.

On the wider international stage, I and other staff take active steps to ensure that any conference we are involved in organising has a fair representation of women on the organising and program committees, as well as having female keynote and tutorial speakers. I have done this personally within the IEEE Computational Intelligence Society conferences committee, and other staff have taken similar measures.

As a school we are fully supportive of maternity leave, going beyond legal requirements in offering staff and PhD students flexible ways of working upon their return.

Finally, I firmly believe that our submission meets the criteria of a bronze award: we have given an accurate assessment of where we are. Our ideal would be to have an even gender balance at all levels in CSEE; this goal will not be achieved any day soon, but we are taking all reasonable steps to work towards it.

Yours sincerely

Professor Simon Lucas

Head of CSEE

497 Words

2. The self-assessment process: maximum 1000 words

a) A description of the self assessment team: members' roles (both within the department and as part of the team) and their experiences of work-life balance.

The SAT was chosen to represent a wide cross section of the School with, early career and senior staff who have experience of The School's recruitment and promotion processes, PT staff, staff with flexible working arrangements, and PG students to bring the student perspective. Core membership was 5:4 female:male.

Dr Arsenia (Ersi) Chorti: Lecturer in Communications/Networks, involved in many professional groups/initiatives promoting gender equality. She participated in the 1st and was on the organising committee of the 2nd WWCSP (2012, 2013), on the Program Committee of the womENcourage workshop (2016), member of: WICE (IEEE ComSoc); the Women's Security Society (UK). She went on maternity leave July 2015 returning to full-time work June 2016.

Raluca Gaina: MSc Computer Games student. She contributed a student perspective and assisted with the analysis of post-graduate data and gave experiential feedback.

Dr Jialin Liu is a recently appointed RO within the school. A council member of the Women in Computational Intelligence Sub-Committee (IEEE CIS). She provided experiential feedback.

Dr Annie Louis: Lecturer; Part of the Language and Computation group, and IGGI. Annie serves as an area chair for top conferences, a reviewer for many journals/conferences, and is involved in workshop organization. She also serves as an officer on the Academic Offenses Committee. She contributed to the section on Supporting and advancing women's careers.

Professor Simon Lucas is HoS and provided input on School policy.

Ana Matran-Fernandez is an RO. During her PhD studies in Essex she worked as a GLA/GTA and became an associate fellow of the Higher Education Academy. She provided analysis of Post-Graduate student data and experiential feedback.

Dr Diego Perez-Liebana: Lecturer in CSEE. He is currently supervising several MSc and PhD students, both male and female. He contributed to the section on Student Data.

Keith Primrose: Senior Lecturer with 20 years' industrial experience and 17 years teaching; holds a PGCE and FHEA. He has been closely involved in work to improve student employability. A member of the University's AS Group and the submission coordinator.

Dr Martin Reed: Senior Lecturer with 18 years of teaching and research experience. He currently leads the curriculum in CSEE. He also provides experiential input as he combines full-time work with a caring role as a single-parent of 2 children.

The following made input in an advisory/consultative capacity:

Gemma Aitchison: CSEE Examinations and Finance Manager (PT), having returned from maternity leave November 2015. Previously, full-time School Administrator, but now balances work with caring for her child. Gemma is involved in key projects, such as AS.

Professor Maria Fasli: Director of the Institute of Data Analytics and Data Science and shortly to become the first UNESCO Chair in Analytics and Data Science. She was previously HoS in CSEE and a member of the University's SAT.

Julia Greenwood: is the University's AS lead and a PT working mother. Julia worked closely with the SAT, providing guidance about AS criteria and feedback on the application.

Jo Matthias: Faculty HR Officer. A PT working mother. Joanna advised on staffing issues and HR policies / practices.

Alex Seabrook: Faculty Manager, Faculty of Science and Health. She was a member of the University's SAT and advised on Faculty policy.

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b) an account of the self assessment process: details of the self assessment team meetings, including any consultation with staff or individuals outside of the university, and how these have fed into the submission.

HoS established the SAT, January - February 2016. The team were selected after discussions between HoS, Keith Primrose, and individual members as to whether they were interested and willing to join the team.

The first meeting was held on 25th February 2016 and subsequently monthly (with a gap during August).

The SAT team was split into sub-teams (depending on interest and experience) to write, and review different sections of the application.

✓ There has been consultation, since the start, with SAT team members of other University departments that have already received Athena SWAN awards, particularly Professor Gill Green in HHS and Dr. Corrine Whitby in Biological Sciences.

✓ Within the Faculty, members of departmental SWAN teams working towards Bronze and Silver awards, have met to discuss the process and review each other's submissions (via an internal SWAN user group).

✓ Departmental staff were informed of the application progress. Athena SWAN is a standing agenda item on the School termly meeting agenda.

✓ A draft version of the application and action plan was reviewed by the UoE Steering Group.

✓ For advice from outside, Dr Su White of the School of Electronics and Computer Science (ECS), Southampton University, was consulted. ECS hold an AS Bronze award.

The University achieved an Institutional Bronze SWAN Award in 2013 and much of the progress of CSEE to date has been made with reference to that Action Plan.

✓ One example is the CSEE Athena SWAN website. Which is also linked prominently from the front page of the School website (Figure 1).
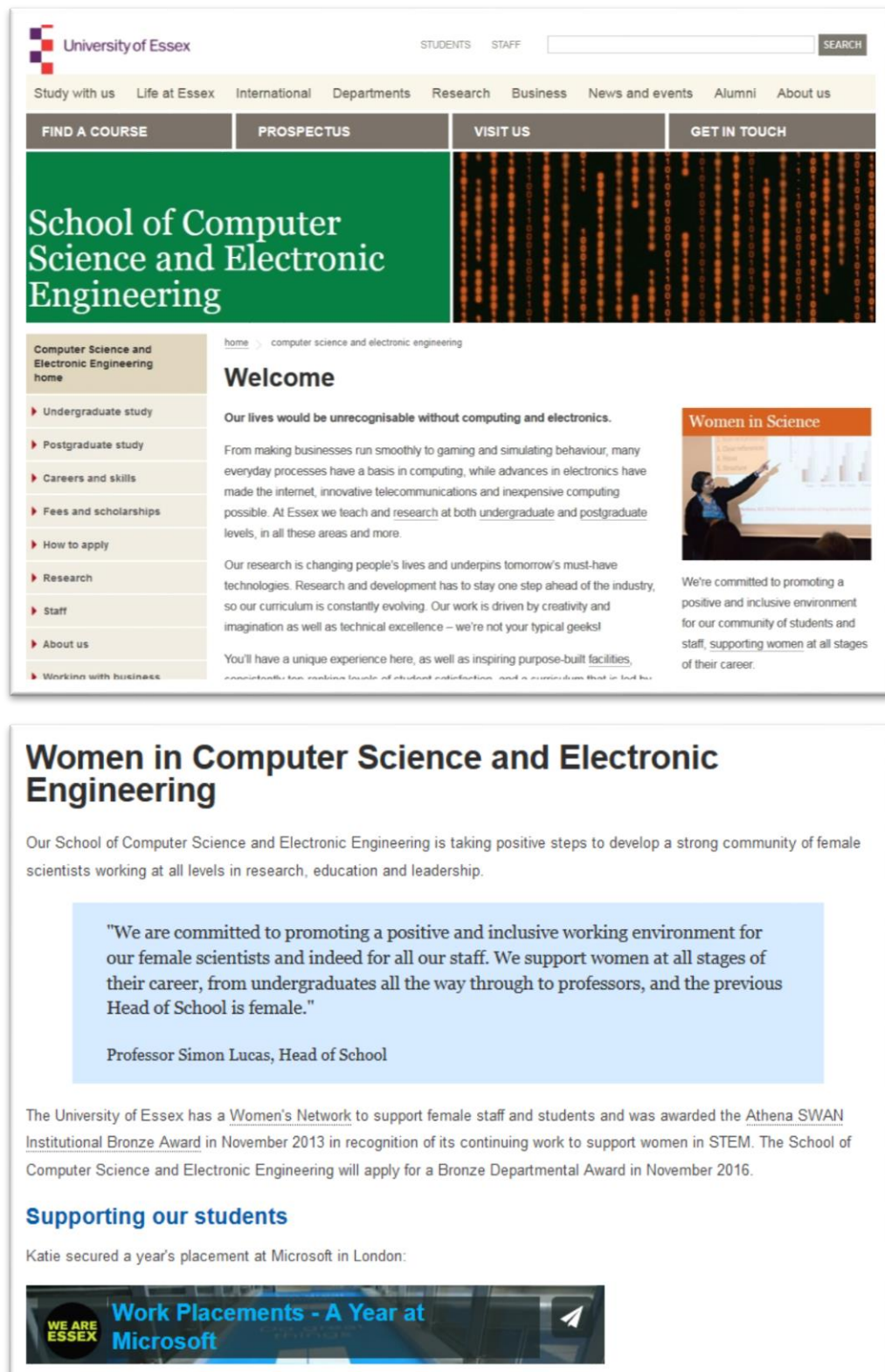

Figure 1

- ✓ Female students and staff were encouraged to attend 'Women in STEM' a half day conference focussed on opportunities for women graduating in STEM subjects.

- ✓ Feedback from surveys of both students and staff conducted in the summer term 2015-16 has informed the Action Plan. Response rates were 38% and 64% respectively and can therefore be considered representative.

c) Plans for the future of the self assessment team, such as how often the team will continue to meet, any reporting mechanisms and in particular how the self assessment team intends to monitor implementation of the action plan.

- ◆ 2.1 The SAT will meet at least once a term to monitor the progress of the Action Plan and will meet monthly closer to the next submission.

- ◆ 2.2 The SAT Chair will provide a termly update to the University SWAN Steering Group (which reports into the HR & Equality and Diversity Group which is an advisory group for the University Steering Group).

- ◆ 2.3 Progress will be reported annually to the HoS, to The University SWAN team, and to departmental meetings.

- ◆ 2.4 Staff and student surveys will be carried out annually to measure progress against AS goals and an effort will be made to achieve a higher response rate from students. The results will be reported to departmental meetings.

- ◆ 2.5 The SAT will continue to promote the AS agenda and members will act as SWAN champions within the University.

- ◆ 2.6 Responsibility for items in the action plan will be delegated to team members who will report to the SAT Chair

Figure 2 The CSEE SAT at work

1000 Words

3. **A picture of the department: maximum 2000 words**

   a) Provide a pen-picture of the department to set the context for the application, outlining in particular any significant and relevant features.

The School is at the forefront of research and teaching in both computer science and electronic engineering. Throughout its history it has launched innovative new courses with curricula at the cutting edge of technology.

The original Departments, of Computer Science and Electronic Systems Engineering were both founded in 1966. The departments merged in 2007 into the School of Computer Science and Electronic Engineering.

It was clear, at that time, that there was an increasing overlap between the disciplines, and that though the extremes were very distinct, the bulge of activity in the middle was shared.

As a consequence, and because of the difficulty of clearly identifying the boundary between the two disciplines we have chosen to aggregate the numbers when reporting data. Many staff teach across both areas. In addition, the student numbers are heavily skewed towards computing related courses and the number for distinctly electronics related degrees would be too small to draw significant conclusions in any of the aspects studied in this application.

The School is based in two adjacent buildings, on the University's Colchester Campus, which house all academic, technical support, and administrative staff, teaching laboratories, and the majority of research facilities. The permanent academic staff now number 3 female (7%) and 40 male (93%) FTE. As of January 2017 we will have 4 female (9%) and 39 male (91%) FTE.

In recent years we have attracted many highly research active staff and we are conducting world-leading research in areas such as evolutionary computation, brain-computer interfacing, intelligent inhabited environments and financial forecasting. Our robotics research group is the largest of its kind in the UK. Our academics have also invented a streamlined protocol system for worldwide high speed optical communications.

b) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

Student data

(i) **Numbers of males and females on access or foundation courses** – comment on the data and describe any initiatives taken to attract women to the courses.
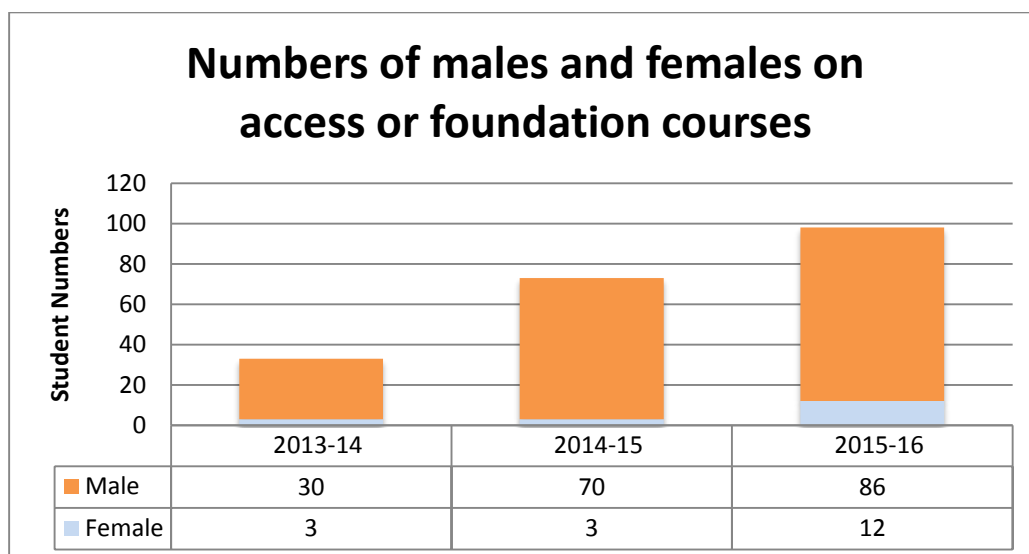

Numbers of males and females on access or foundation courses

	2013-14	2014-15	2015-16
Male	30	70	86
Female	3	3	12

Figure 3

The University offers foundation courses in Computer Science and Computers with Electronics but these courses are administered by the University's International Academy. During the last three years, the number of students in these courses has increased, both for male and female students, although the increment is more pronounced for males (Figure 3). Female students are under-represented in foundation courses.

◈ 3.1 The School will aim to address this issue through outreach events and by discussions with the International Academy.

(ii) **Undergraduate male and female numbers** – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the impact to date. Comment upon any plans for the future.
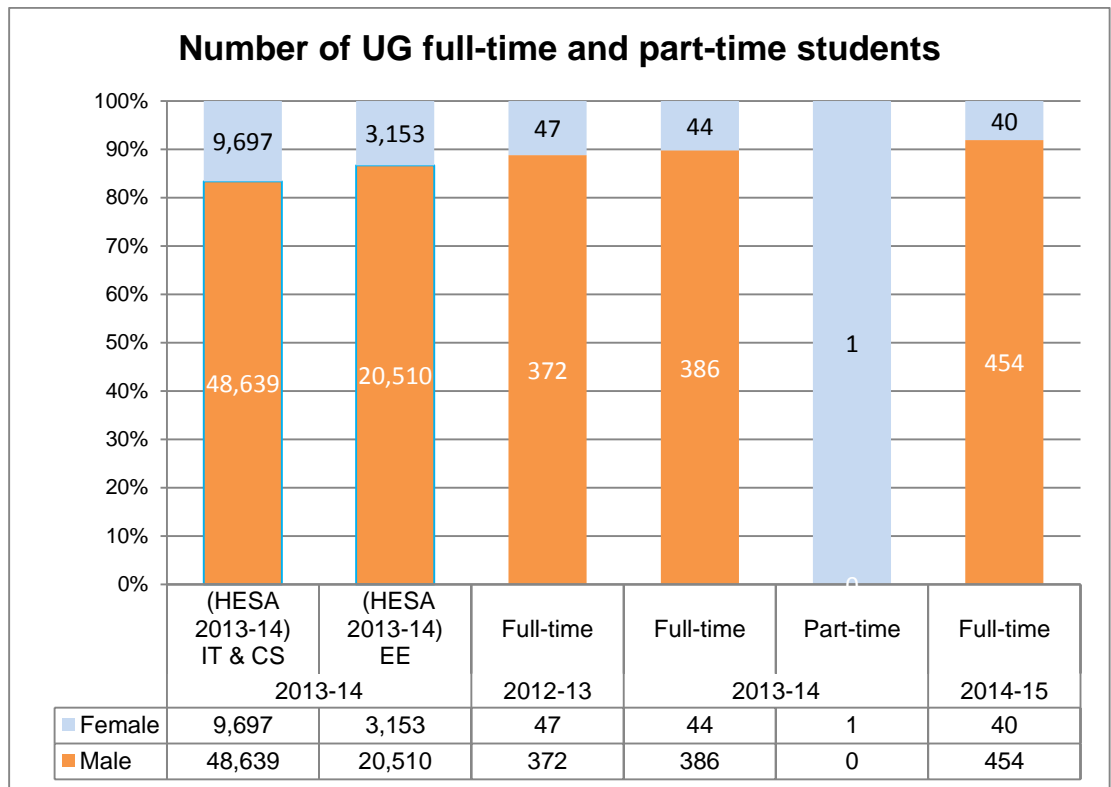
Number of UG full-time and part-time students

	(HESA 2013-14) IT & CS 2013-14	(HESA 2013-14) EE 2013-14	Full-time 2012-13	Full-time 2013-14	Part-time 2013-14	Full-time 2014-15
Female	9,697	3,153	47	44	1	40
Male	48,639	20,510	372	386	0	454

Figure 4

In the last three years, 9.8% of all full time and part time undergraduate students have been female (11.2%, 10.4% and 8.1% for 2012-13, 2013-14, 2014-15 respectively (Figure 4)). Only one student (female) studied part-time, while all the rest studied full-time.

This is a few points lower than the national figure for Computer Science and Electronic Engineering in the last two academic years (15.2% and 15.1% for full time, 16.5% and 16.8% for part time, in 2013-14 and 2014-15 respectively).

There was a significant increase in the number of male students in the year 2014-2015. The intake of female students remained approximately the same as before.

✓ In the School, we have provided several mechanisms to maximise flexibility for students, such as online resources via Moodle, video materials in some lectures, and Listen Again, which gives the students access to the audio recordings of the lectures, so they are able to revise them at a time that best suits them, thus facilitating a high quality learning experience for students with various family care responsibilities.

◈ 3.2 The SAT will investigate whether sub disciplines within the subjects recruit more young women than others and make recommendations to the curriculum committee as a result of the findings.

(iii) **Postgraduate male and female numbers completing taught courses** – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

Number of PGT full-time and part-time students

	(HESA 2013-14) IT & CS	(HESA 2013-14) EE	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
	2013-14		2012-13		2013-14		2014-15	
Female	2,086	808	24	2	21	1	26	1
Male	5,482	2,957	109	2	75	5	77	16

Figure 5

Figure 5 shows female and male students in taught postgraduate degrees for academic years 2012-13, 2013-14, 2014-15, separated into full-time and part-time students. The national female:male ratio for the CSEE disciplines in 2013-14 was 25.5% female. In CSEE this ratio was 18.9%, 21.6% and 22.5%.

(iv) **Postgraduate male and female numbers on research degrees** – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.
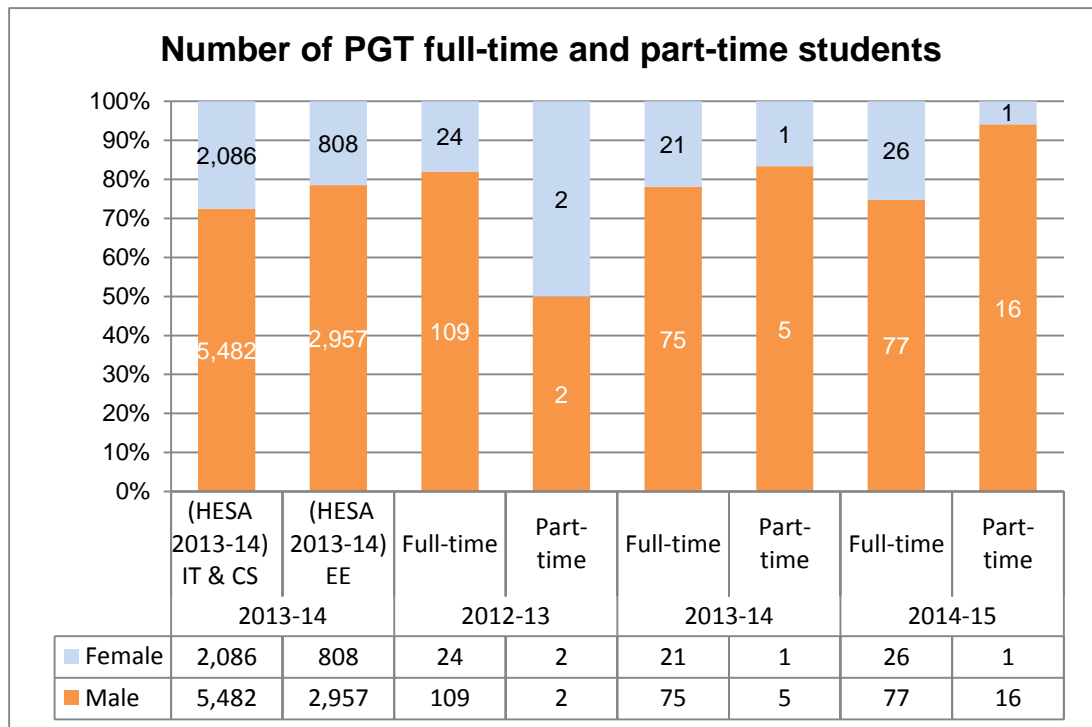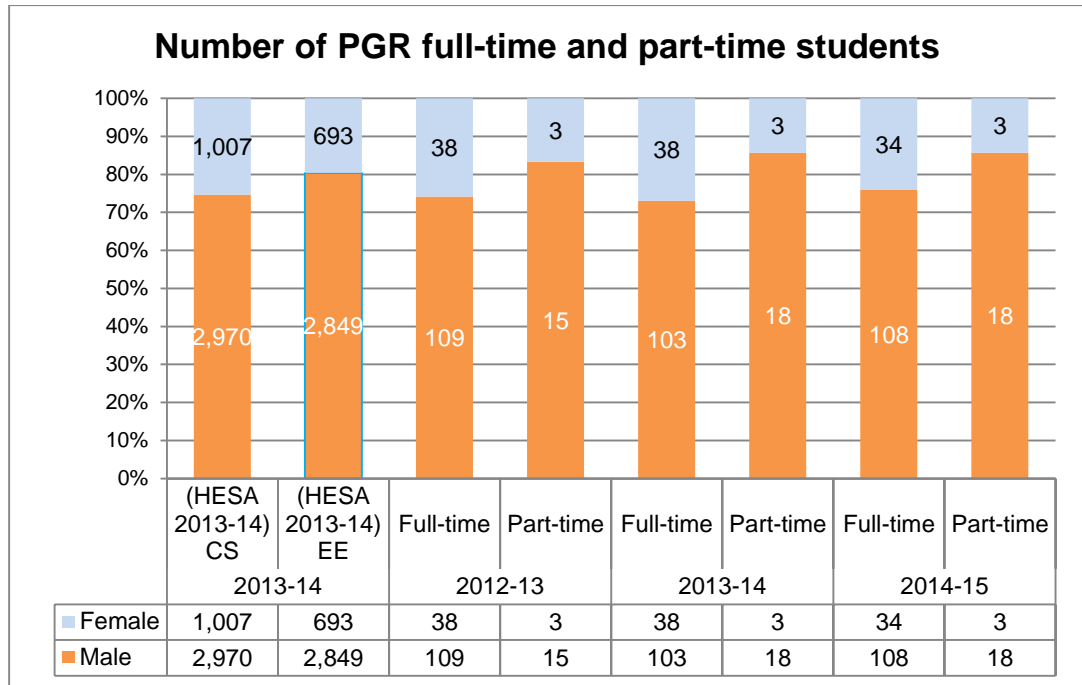

Number of PGR full-time and part-time students

	(HESA 2013-14) CS	(HESA 2013-14) EE	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
	2013-14		2012-13		2013-14		2014-15	
Female	1,007	693	38	3	38	3	34	3
Male	2,970	2,849	109	15	103	18	108	18

Figure 6

Figure 6 shows female and male students in postgraduate research degrees in the academic years 2012-13, 2013-14 and 2014-15, separated into full-time and part-time students. The national female:male ratio for the CSEE discipline in 2013-14 was 22.6% female. In CSEE this ratio was 24.8%, 25.3% and 22.7%. In contrast, the female:male ratio drops to about 2% in the case of PT students. However, the limited number of PT students means that conclusions cannot be drawn from such figures.

◈ 3.3 At least nine female postgraduate students who gained their doctorate during this time went on to research or academic careers. The School will do more to promote these achievements and to encourage other females to go into academia.

(v) **Ratio of course applications to offers and acceptances by gender for undergraduate, postgraduate taught and postgraduate research degrees** – comment on the differences between male and female application and success rates and describe any initiatives taken to address any imbalance and their effect to date. Comment upon any plans for the future.
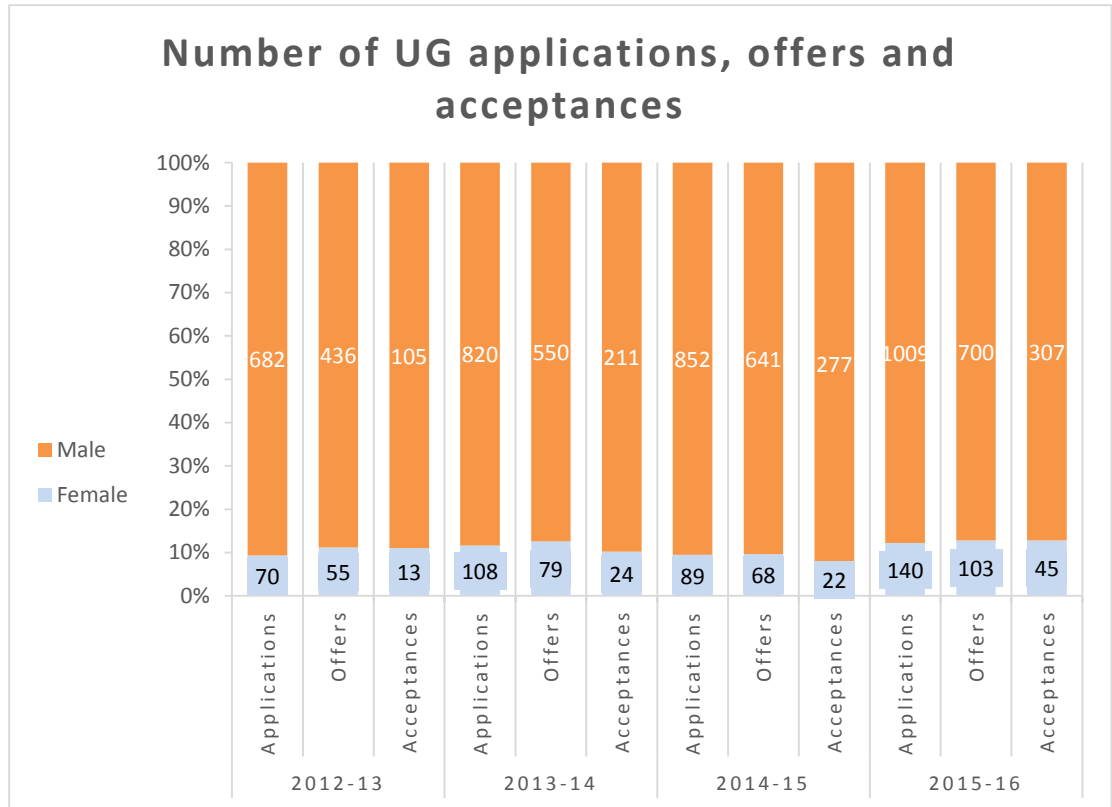

Figure 7

Figure 7 shows the ratio of applications to offers to acceptances for undergraduate applications from 2012-13 to 2015-16.

The ratio of offers to applications for female students (78%, 73%, 76%, 74%) was higher than that for males (64%, 67%, 75%, 69%).

The ratio of acceptances to offers for female students (23%, 30%, 32%, 43%) was slightly lower than for males (24%, 38%, 43%, 44%).
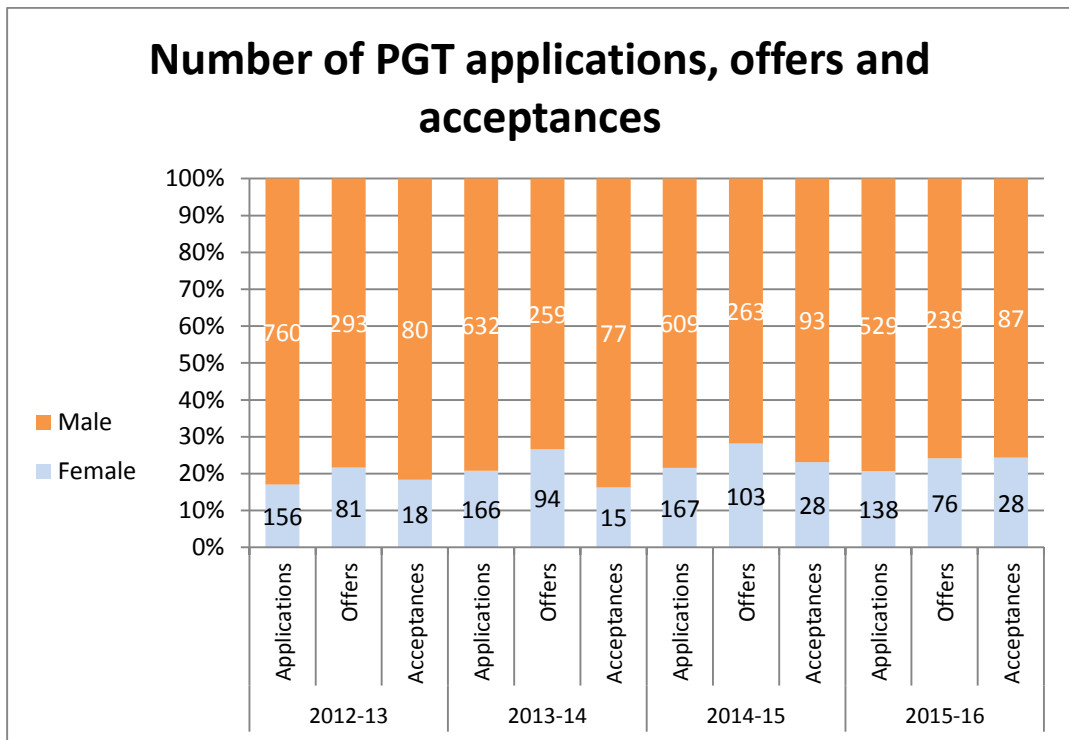
Number of PGT applications, offers and acceptances

Figure 8

Figure 8 shows the ratio of applications to offers to acceptances for postgraduate taught applications from 2012-13 to 2015-16.

The ratio of offers to applications for female students (52%, 56%, 62%, 55%) was higher than that for males (38%, 40%, 43%, 45%).

The ratio of acceptances to offers for female students (22%, 15%, 27%, 36%) was slightly lower than for males (29%, 30%, 35%, 36%).
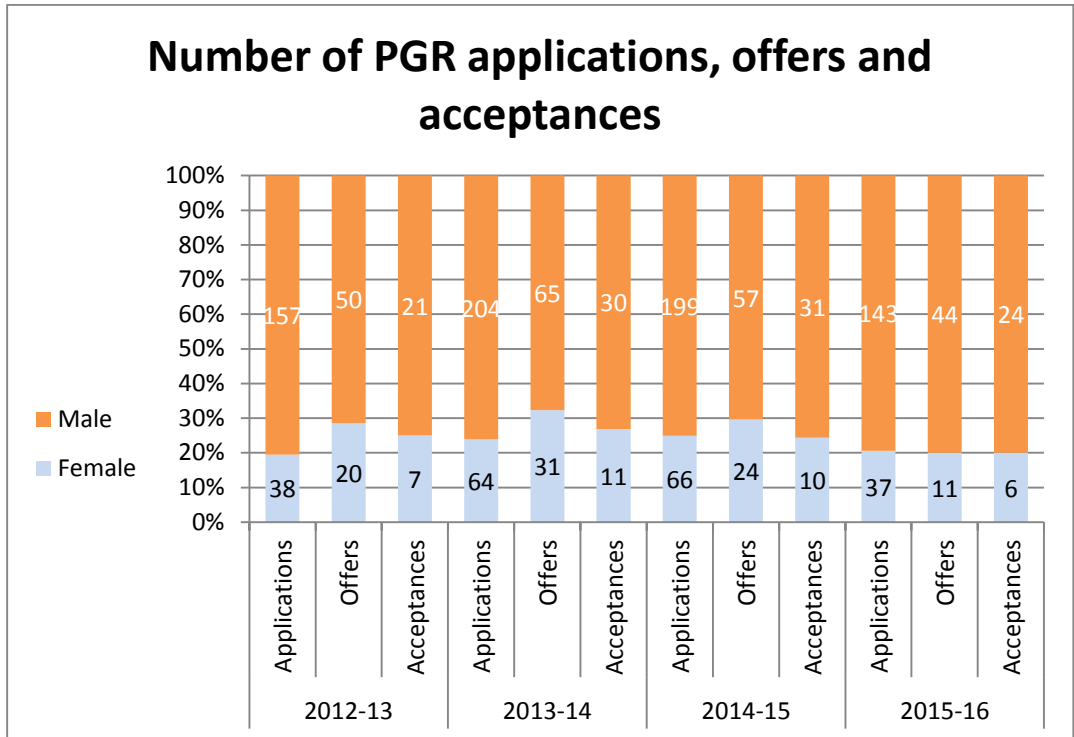
Number of PGR applications, offers and acceptances

	2012-13			2013-14			2014-15			2015-16		
Male	157	50	21	204	65	30	199	57	31	143	44	24
Female	38	20	7	64	31	11	66	24	10	37	11	6

Figure 9

Figure 9 shows the ratio of applications to offers to acceptances for postgraduate research applications from 2012-13 to 2015-16.

The ratio of offers to applications for female students (52%, 48%, 36%, 30%) was higher than that for males (31%, 31%, 28%, 30%) although it has fallen over the years.

The ratio of acceptances to offers for female students (35%, 35%, 41%, 54%) was slightly lower than for males (42%, 46%, 54%, 54%) although the figures seem to be converging.

(vi) **Degree classification by gender** – comment on any differences in degree attainment between males and females and describe what actions are being taken to address any imbalance.
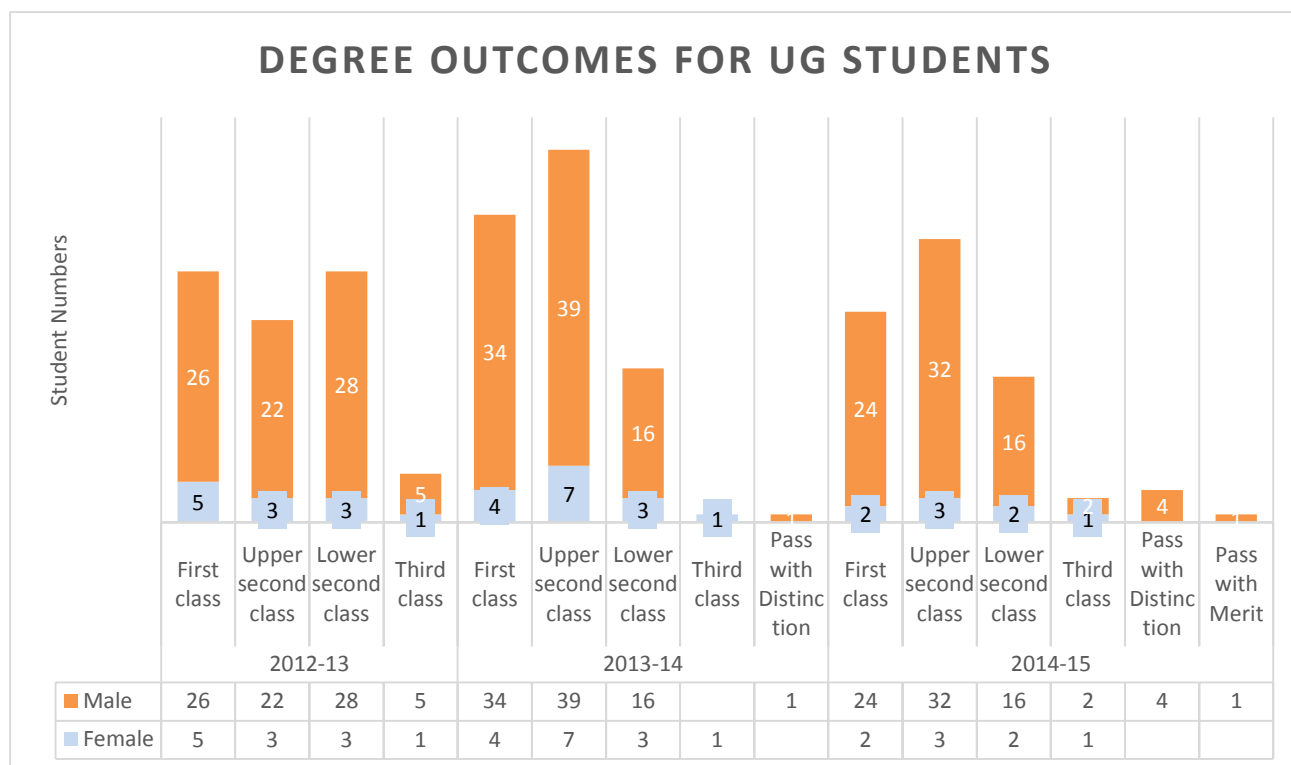

Figure 10

	Female	Male	Total	Female %	Male %
2012-13	**12**	**81**	**93**		
First class	5	26	31	**41.67**	32.10
Upper second class	3	22	25	25.00	27.16
Lower second class	3	28	31	25.00	**34.57**
Third class	1	5	6	8.33	6.17

2013-14	15	90	105		
First class	4	34	38	26.67	37.78
Upper second class	7	39	46	**46.67**	**43.33**
Lower second class	3	16	19	20.00	17.78
Third class	1		1	6.67	0.00
Pass with Distinction (MSci/MEng)		1	1	0.00	1.11
2014-15	8	79	87		
First class	2	24	26	25.00	30.38
Upper second class	3	32	35	**37.50**	**40.51**
Lower second class	2	16	18	25.00	20.25
Third class	1	2	3	12.50	2.53
Pass with Distinction (MSci/MEng)		4	4	0.00	5.06
Pass with Merit (MSci/MEng)		1	1	0.00	1.27

Table 1

Figure 10, and Table 1, show the number of male and female students and their final degree classifications. The last two columns of the table indicate the percentage of male and female students that obtained each degree within their cohort.

In this case, no major differences in the degrees obtained can be observed between males and females, with representatives of both genders in the different classes.

Although women are under-represented in these cohorts, this fact does not affect how the final degrees awarded are distributed.

One notable fact, not shown here, is that in 2013-2014 and 2014-15, 100% of female graduates gained full time, graduate level, employment within six months of graduation or went on to higher study. This compares to a departmental average of 92% and 97% for the same years.

❖ 3.4 The School will promote the success of female graduates by adding profiles of successful female graduates to the School web pages and link to those posts from the Schools Athena SWAN page.

Staff data

(vii) **Female:male ratio of academic staff and research staff** – researcher, lecturer, senior lecturer, reader, professor (or equivalent). comment on any differences in numbers between males and females and say what action is being taken to address any underrepresentation at particular grades/levels
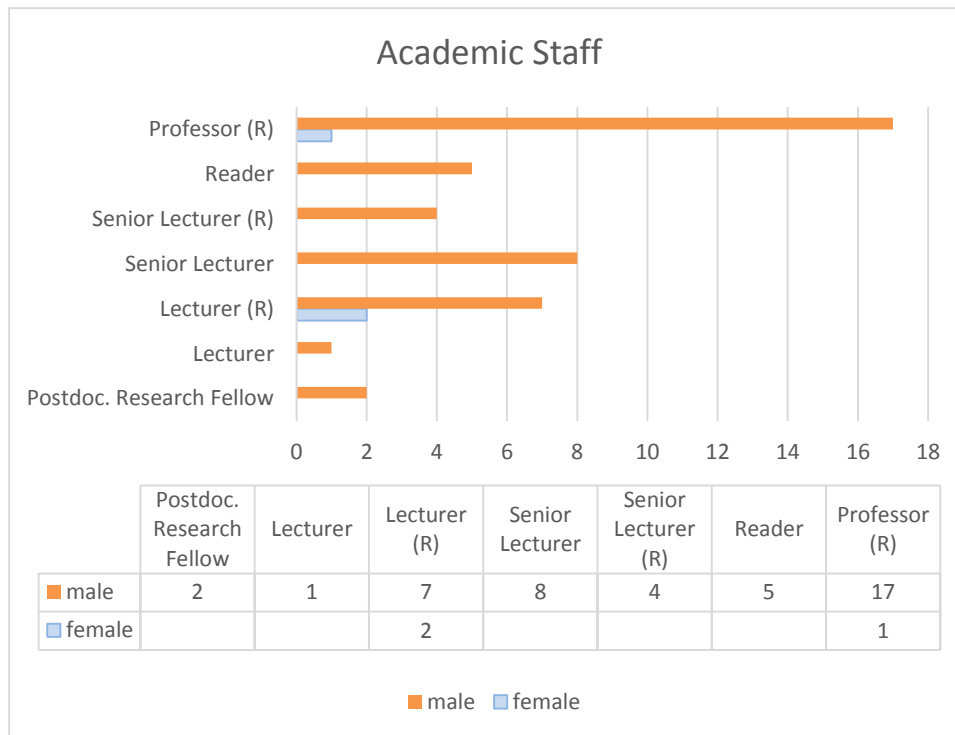

	Postdoc. Research Fellow	Lecturer	Lecturer (R)	Senior Lecturer	Senior Lecturer (R)	Reader	Professor (R)
■ male	2	1	7	8	4	5	17
□ female			2				1

■ male   □ female

Figure 11

Figure 11 shows the number of permanent academic staff currently employed within the School by position and gender.

In addition, there are two male lecturers; twenty male research officers; and six female research officers on short term contracts.

Currently 7% of academic staff and 21% of research staff are female.

We will shortly be joined by four new members of staff, one of whom is female. This will bring the percentage of female staff to 9%

(viii) **Turnover by grade and gender** – comment on any differences between men and women in turnover and say what is being done to address this. Where the number of staff leaving is small, comment on the reasons why particular individuals left.
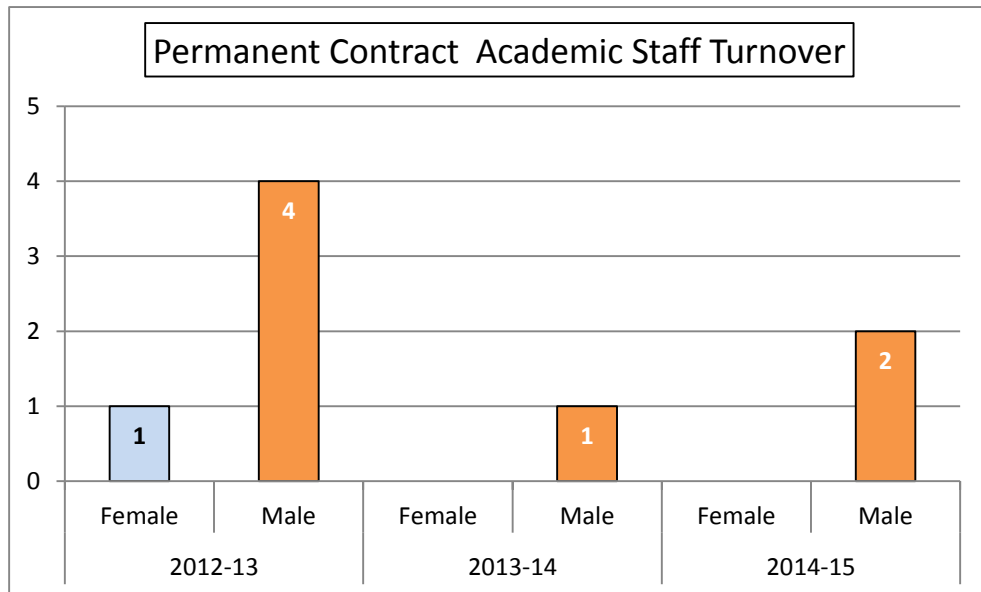

Figure 12

Figure 12. Shows staff turnover from 2012 through to 2015. Our academic staff turnover is reasonably low, reflecting the fact that CSEE is a desirable place to work.

During the census period we had one female and seven male members of staff leave.

HR automatically send an exit questionnaire to all staff but not all individuals reply and currently the university does not offer individuals an exit interview. The School is aware that the female staff member left to take up an outstanding opportunity at a higher-ranked university. The male staff members left for a number of different reasons, with the majority taking retirement. At this time, we do not feel we need to specifically address turnover beyond monitoring.

◈ 3.5 The School will monitor turnover of staff and consider offering exit interviews so as to better understand any issues that arise.

1485 words

4. Supporting and advancing women's careers: maximum 5000 words

Key career transition points

a) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

   (i) **Job application and success rates by gender and grade** – comment on any differences in recruitment between men and women at any level and say what action is being taken to address this.

The following graphs show statistics for all roles over 6 months and for which hiring decisions are made by the School. They include (postdoctoral) research officers (grades 7 and 8), lecturers (grade 9), senior lecturers (grade 10), readers (grade 10), and professors (grade 11). This data does not include fixed term contracts of 6 months or less.
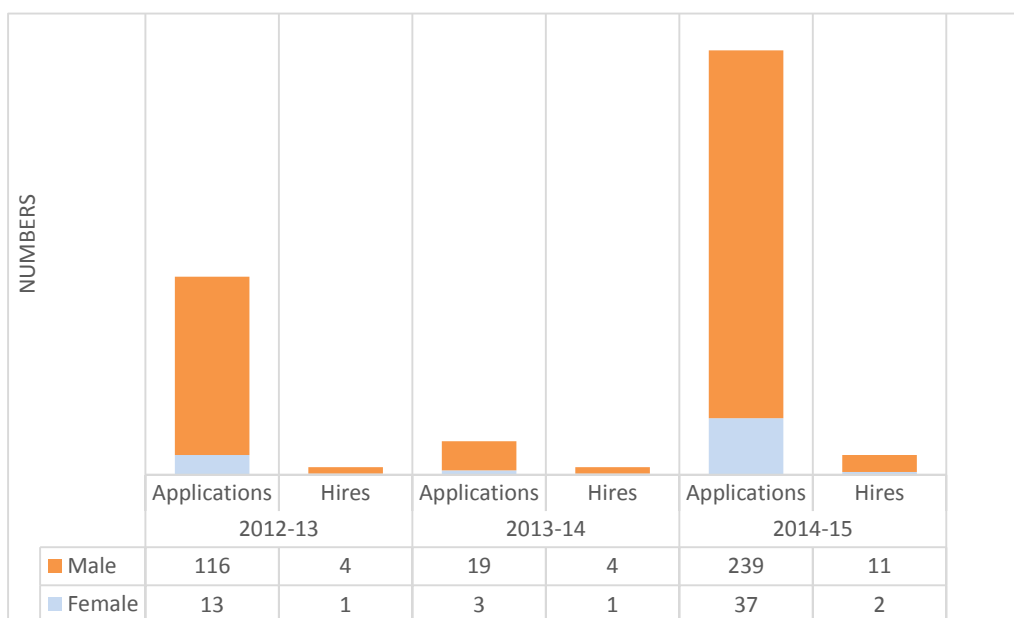

	Applications	Hires	Applications	Hires	Applications	Hires
	2012-13		2013-14		2014-15	
■ Male	116	4	19	4	239	11
■ Female	13	1	3	1	37	2

Figure 13

Figure 13 shows a detailed split for job applications and hires in years 2012 to 2015 together with the number of male and female candidates who were hired in each cycle.

The proportion of female applications is overall very low (12.4%). However, we are finding that the proportion of female applicants is increasing through the years. In 2012 to 2013, there were 10% women applicants and this absolute percentage increased to 13.4% in 2013 to 2015.

The success rates for applicants is presented in Figure 14.

	2012-2013	2013-2014	2014-2015	All
Male	3.4%	21.0%	4.6%	5.1%
Female	7.6%	33.3%	5.4%	7.5%

Figure 14

There is no significant difference in success rates for women versus men. In fact, the success rate is higher for women in all the years we considered. This finding shows that high quality female applicants have a good chance of succeeding in our interview process. Our selection committees and interview panels are created in accordance with university guidelines which require at least two women to be included. Panelists take a course on equality, diversity, and unconscious bias. Whenever possible members from under-represented groups are included in panels.

Given these observations, we believe the way forward is to take concrete steps to increase the number of female applicants.

✓ In our recent 2016 round of faculty recruitments, we included the following statement encouraging women to apply:
"We encourage applications from women as they are under-represented in this area."

✓ We use the Bronze institutional logo on all recruitment advertising to show that our institution has a Bronze award.

◈ 4.1 In future advertisements, we will also include pointers to our Women in CS webpage to showcase the profile and experiences of current female researchers and academics.

◈ 4.2 We will also aim to target female researchers on the job market in the field to apply using our professional networks as well as social media.

(ii)   **Applications for promotion and success rates by gender and grade** – comment on whether these differ for men and women and if they do explain what action may be taken. Where the number of women is small applicants may comment on specific examples of where women have been through the promotion process. Explain how potential candidates are identified.

Figure 15 shows the number of successful promotions from 2012 to 2015 and Figure 16 records the unsuccessful cases.
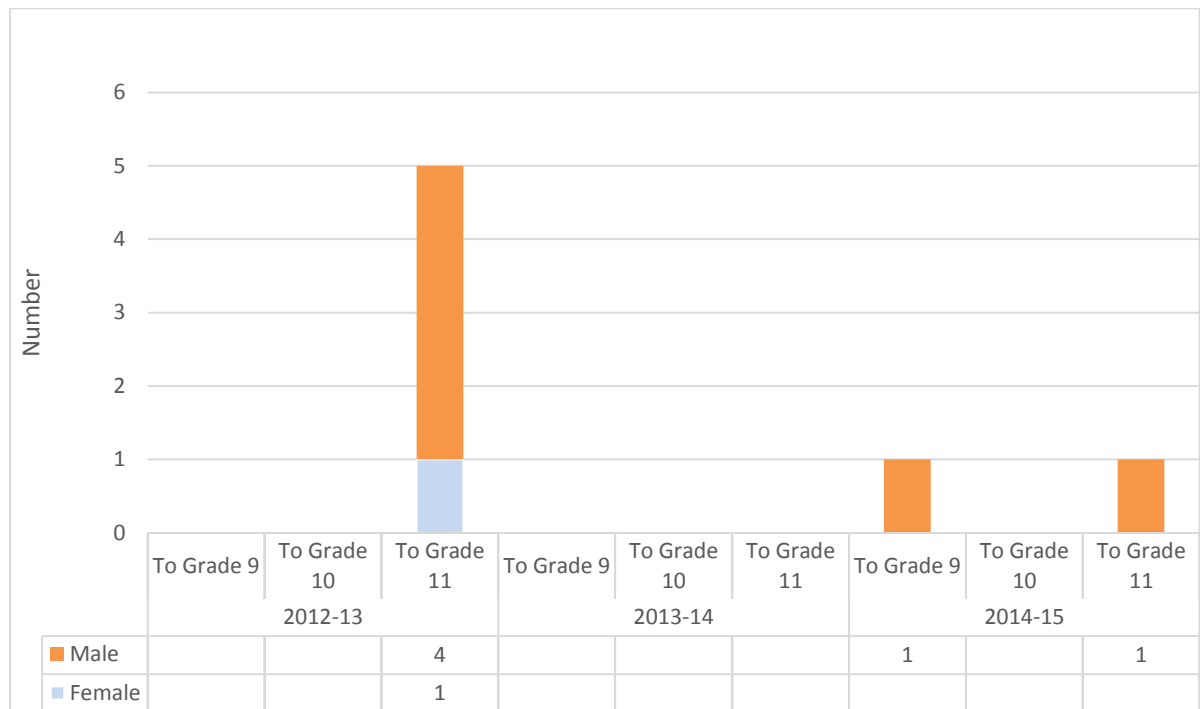
	To Grade 9	To Grade 10	To Grade 11	To Grade 9	To Grade 10	To Grade 11	To Grade 9	To Grade 10	To Grade 11
		2012-13			2013-14			2014-15	
Male			4				1		1
Female			1						

Figure 15 Successful promotions of staff in years 2012 to 2015

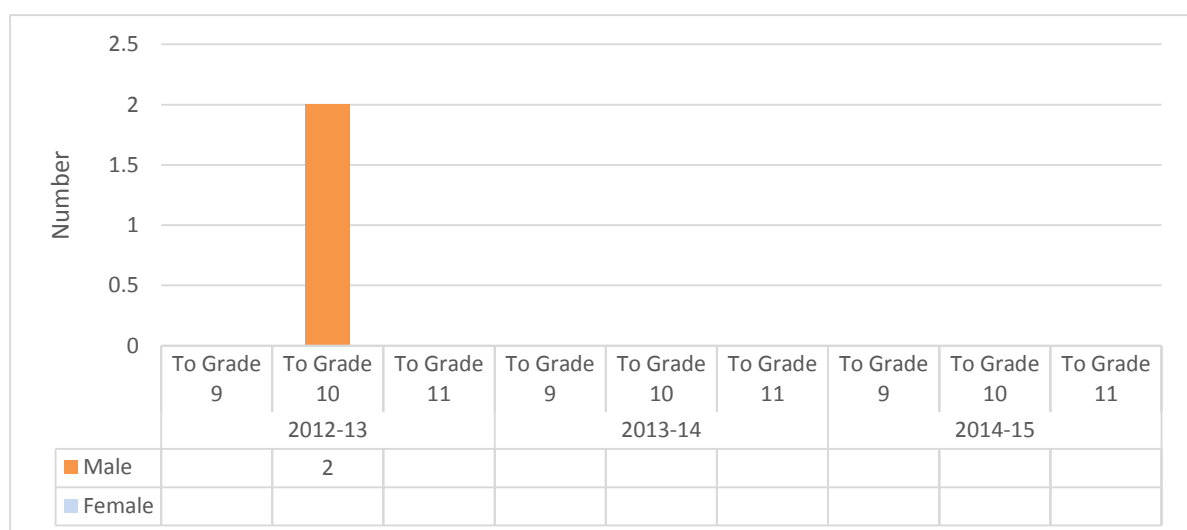|	To Grade 9	To Grade 10	To Grade 11	To Grade 9	To Grade 10	To Grade 11	To Grade 9	To Grade 10	To Grade 11
		2012-13			2013-14			2014-15	
Male		2							
Female									

Figure 16 Unsuccessful promotion applications of staff in years 2012 to 2015

In 2012, there was one promotion application to professor by a woman member of staff which was successful. Given the small number of female academics in the school, we are unable to comment on the promotion success rates for women versus men.

Therefore, we detail the career path of one female professor, who started as a PhD student at the university, went on to develop an academic career, and is currently a professor in our school. She started as a Senior Research Officer (1999) and became Lecturer (2000), Senior Lecturer (2007) and Professor (2012). She was also HoS (08/2009-12/2014) and is, currently, (2014-) the director of the multi-disciplinary Institute for Analytics and Data Science.

Our school has striven to improve support for promotion applicants over the years. Our current senior staffing committee comprises all senior staff within the School (Senior Lecturers, Readers and Professors) and they consider every application in terms of merit. The school also has an annual appraisal process which aims to provide feedback as well as identify areas where a candidate could strengthen themselves as they work towards promotion.

b) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

   (i)   **Recruitment of staff** – comment on how the department's recruitment processes ensure that female candidates are attracted to apply, and how the department ensures its short listing, selection processes and criteria comply with the university's equal opportunities policies

We are continually taking steps to increase the number of female applicants. In our recruitment this year, we sought to fill eight positions at lecturer and reader levels across both computer science and electronic engineering.

✓ We included the following statement in all our advertisements:

'We encourage applications from women as they are underrepresented in this area."

✓ The SWAN logo is displayed on all CSEE advertising on the University's own website to reflect the University being the holder of a Bronze award.

✓ All staff on the selection panel undergo a recruitment and selection training which aims to inform about equality and diversity, legal compliance as well as avoid unconscious bias in selections. There are also a minimum of two women on the panel.

(ii)   **Support for staff at key career transition points** – having identified key areas of attrition of female staff in the department, comment on any interventions, programmes and activities that support women at the crucial stages, such as personal development training, opportunities for networking, mentoring programmes and leadership training. Identify which have been found to work best at the different career stages.

The university runs a workshop for candidates preparing for promotion "Annual staffing review: preparing for permanency and promotion". In this one-hour session, staff gain insights into the process of applying for promotion and permanency and are encouraged to think about steps to meet the criteria necessary to succeed in an application. Staff also learn how the staffing committee in charge of promotion applications work and the procedures which they follow.

The University has a women's network that was established to provide a forum for women to share ideas and provide mutual support. By acting as a forum for discussion and a unified voice, it should help to raise issues and address career challenges that women face. It is open to all staff and also to PhD students

◈ 4.3 The postgraduate survey indicated that many female postgraduates were not aware of the network. We will ensure that we publicize the network to current students and in future include details as part of the induction process.

The University has a parent's network which gives members an opportunity to chat with other staff parents, provide supportive advice, share useful web links and useful articles.

The University also has a parent mentor scheme which provides support and advice for new parents returning from maternity leave.

✓ One member of the SAT, who has recently returned to work after maternity leave has both joined the parent's network and volunteered to become a parent mentor.

✓ The school also has a mentoring scheme which assigns a senior faculty mentor to every staff member. But given the small number of women within the school, currently, it is not always possible to give female staff a female mentor.

◈ 4.4 There is anecdotal evidence to show that women often do not put themselves forward for promotion. To tackle this issue, we aim to empower female academics with tangible promotion guidance as part of the appraisal process. We hope that a stronger appraisal process will go a long way towards identifying all staff who can make a case for promotion and have a positive effect on promotions for women and minorities.

◈ 4.5 We will focus on taking steps to improve this situation. The school, with the help of Human Resources, will aim to pair junior female staff with a female mentor from a different department in addition to a mentor from the school. We envision that such a setup will provide multiple avenues for junior female staff to obtain feedback on their

career profiles and CV from senior members of staff who have experience with the promotion process.

Career development

a) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

(i) **Promotion and career development** – comment on the appraisal and career development process, and promotion criteria and whether these take into consideration responsibilities for teaching, research, administration, pastoral work and outreach work; is quality of work emphasised over quantity of work?

The annual appraisal (Personal Development Review, or PDR) is an opportunity for staff to review their role, discuss progress against objectives and discuss future plans. If required, revisions are made to staff workload and flexible working requests are considered.

Before the PDR, individual members of staff complete a pro-forma covering the past year and future plans. Mutually-agreed action points are recorded upon the conclusion of the meeting before it is signed off by the HoS.

(ii) **Induction and training** – describe the support provided to new staff at all levels, as well as details of any gender equality training. To what extent are good employment practices in the institution, such as opportunities for networking, the flexible working policy, and professional and personal development opportunities promoted to staff from the outset?

In addition to a probationary mentor, all staff can apply for a mentor through the University's mentoring and coaching scheme, which provides a mentor, often from a different department.

From Feb 2015 (in response to the University's Institutional SWAN Action plan) all new members of staff have access to induction information on Moodle (an online learning platform) to enhance their induction. The line manager is responsible for ensuring that this induction has been completed.

(iii) **Support for female students** – describe the support (formal and informal) provided for female students to enable them to make the transition to a sustainable academic career, particularly from postgraduate to researcher, such as mentoring, seminars and pastoral support and the right to request a female personal tutor. Comment on whether these activities are run by female staff and how this work is formally recognised by the department.

All students are assigned a Personal Tutor, a member of teaching staff who provides regular face-to-face academic and pastoral support. Personal Tutors are not selected on the basis of their gender, although all students are made aware that they can change their tutor should they wish.

◈ 4.6 As the number of female faculty has grown, the School will try to ensure that female students have a female tutor if they so wish.

Doctoral students participate in, and are present at, departmental seminars. It is perhaps a reflection of the gender balance of the discipline, but a very limited number of women have given seminars.

◈ 4.7 The School will increase the number of external female speakers in seminars to provide a role model for female postgraduate students.

The University offers a suite of learning and development opportunities to all students including career workshops. Some are specifically aimed at postgraduate research students, e.g. 'applying for academic posts', 'getting published in top journals', 'making an impact with your research', etc. Only a small number of postgraduate students have taken advantage of these sessions.

◈ 4.8 The School will survey postgraduate students to discover the reasons for the low attendance and encourage all postgraduates to take advantage of the courses on offer.

✓ Postgraduate students are all automatically registered for Proficio an innovative professional development scheme for postgraduate research students, unique to Essex.

Proficio is designed to provide students with the resources to maintain the highest levels of research skills, plan their research degrees effectively and tackle problems common to researchers. Proficio courses offer students the opportunity to develop their skills and articulate them to either academic or non-academic employers confidently and effectively. They also enable networking with other postgraduate research students.

In the postgraduate student survey conducted in the summer of 2016, 67% of students agreed with the statement "The School, and The University, offers me advice, training, mentoring and support, to help me progress into an academic career in my chosen discipline." with under 4% disagreeing.

Organisation and culture

a) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

(i) **Male and female representation on committees** – provide a breakdown by committee and explain any differences between male and female representation. Explain how potential members are identified.

Figures showing the male/female composition of the key decision making committees within the School are shown in Figures 17 to 27. The figures shown only include members of the committee, secretaries to the committee are not included; in all cases the committee secretary was a female member of staff. It should be noted that all although, during the census period covered by the data, there was only one female member of staff, there were female members of the senior administrative team that had decision making roles on the committees. Commentary on the figures is given after Figure 27.
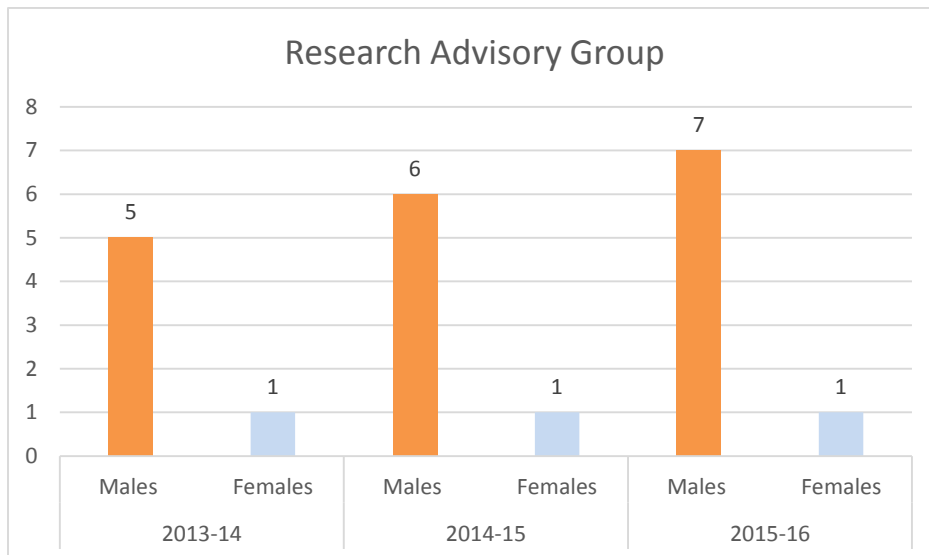
Figure 17 Membership of the Research Advisory Group 2013/14-2015/16

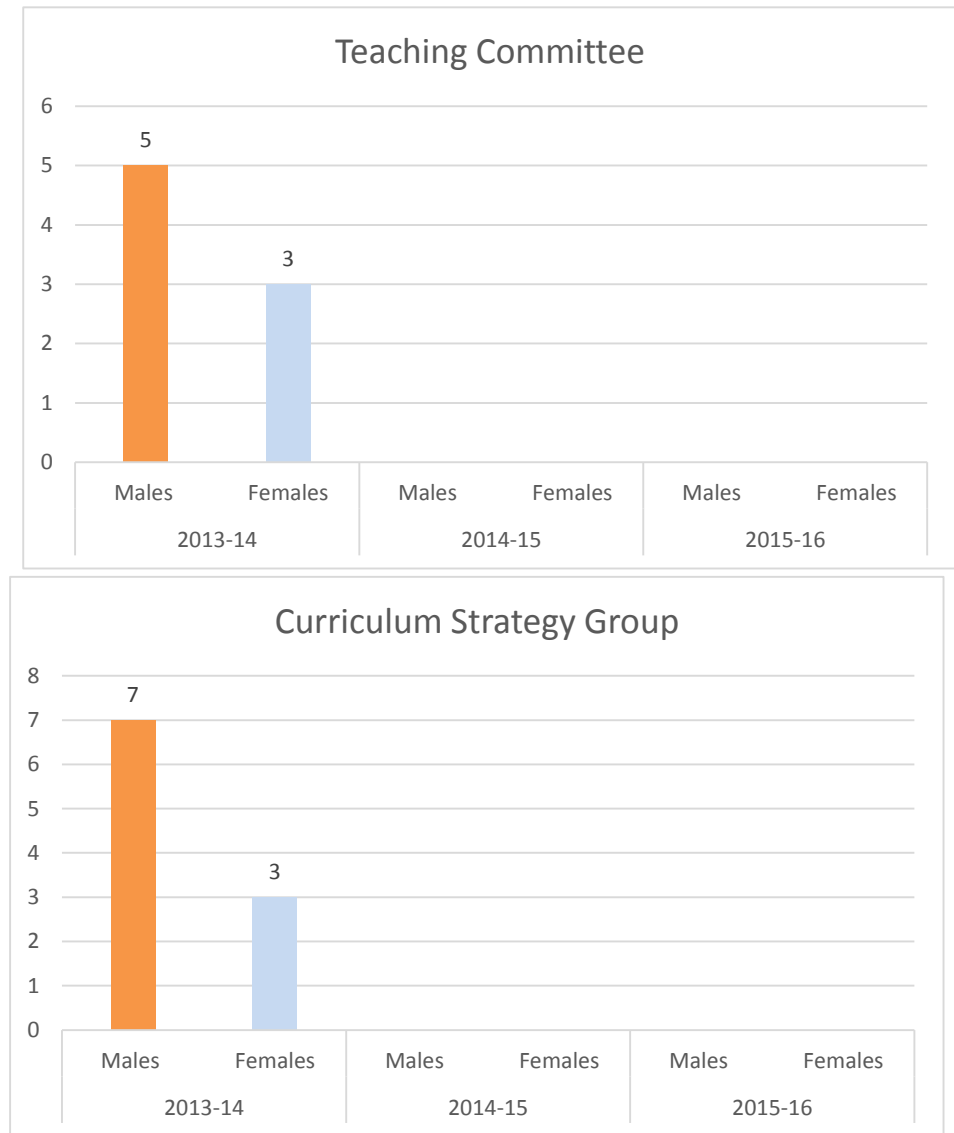*Figure 18 Membership of Teaching Committee 2013/14 (later subsumed into Education Committee)*

Teaching Committee

	2013-14	2014-15	2015-16
Males	5		
Females	3		

Curriculum Strategy Group

	2013-14	2014-15	2015-16
Males	7		
Females	3		

Figure 19 Membership of Curriculum Strategy Group 2013/14 (later subsumed into Education Committee)
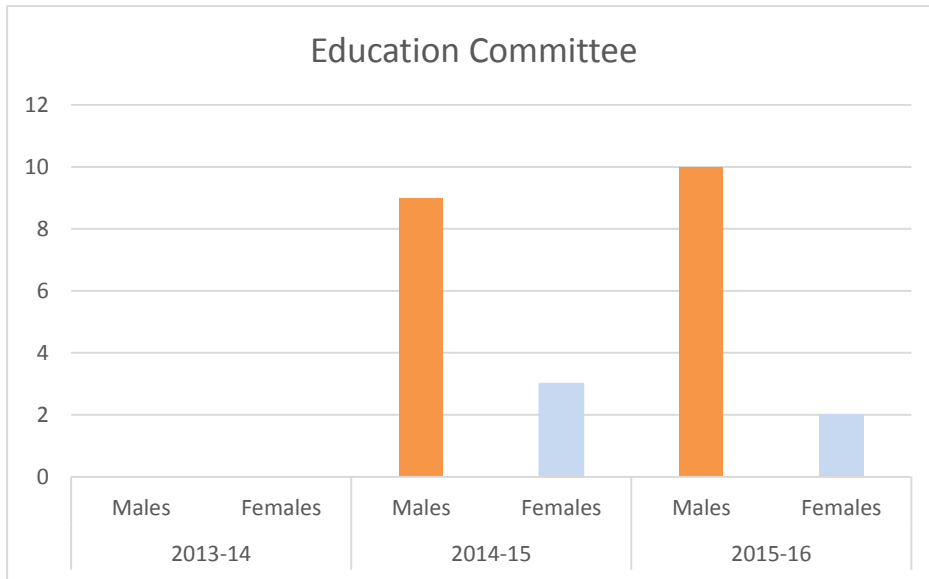

Education Committee

Figure 20 Membership of Education Committee 2014/15-2015/16 (a new committee in 2014/15)

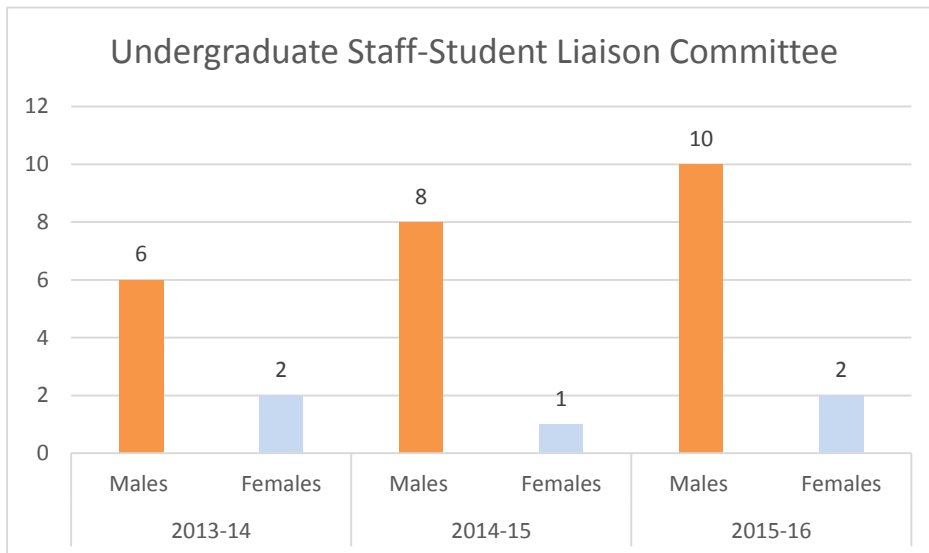**Undergraduate Staff-Student Liaison Committee**

Figure 21 Membership of Undergraduate Staff-Student Liaison Committee 2013/14-2015/16
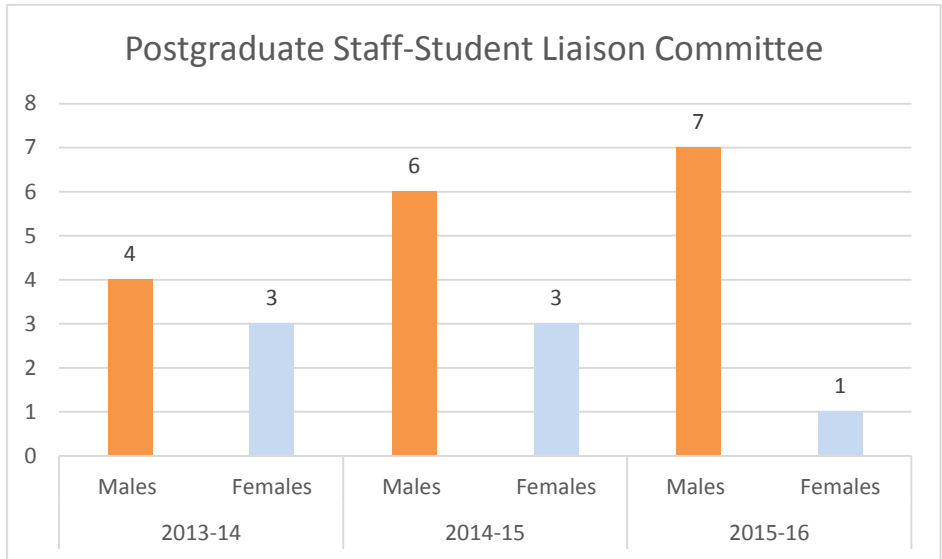
Figure 22 Membership of Postgraduate Staff-Student Liaison Committee 2013/14-2015/16
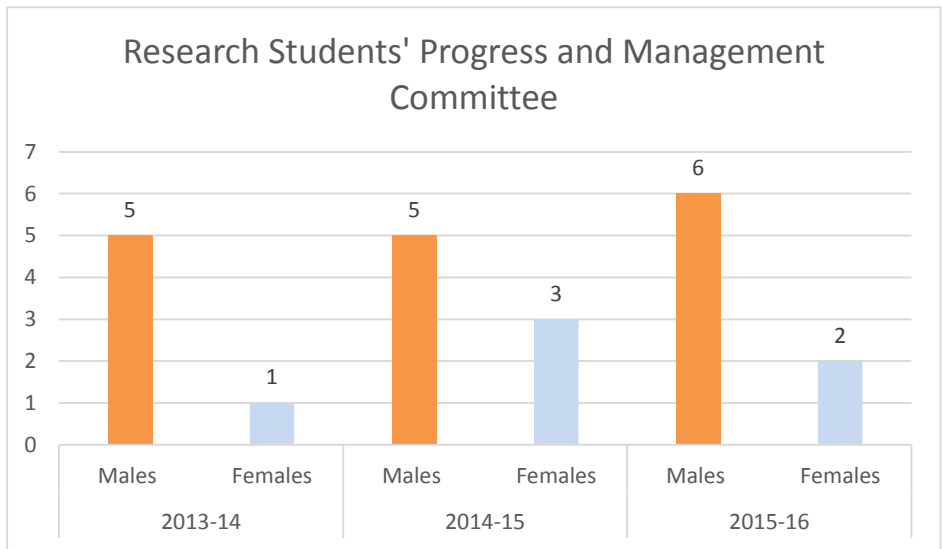

Figure 23 Membership of Research Students' Progress and Management Committee 2013/14-2015/16
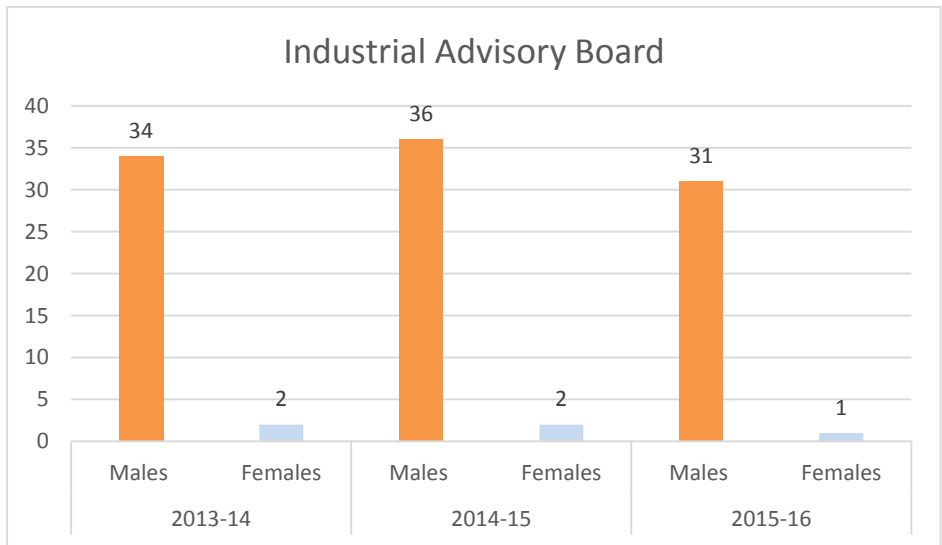
Figure 24 Membership of Industrial Advisory Board 2013/14-2015/16

Athena SWAN

	2013-14		2014-15		2015-16	
	Males	Females	Males	Females	Males	Females
					4	6
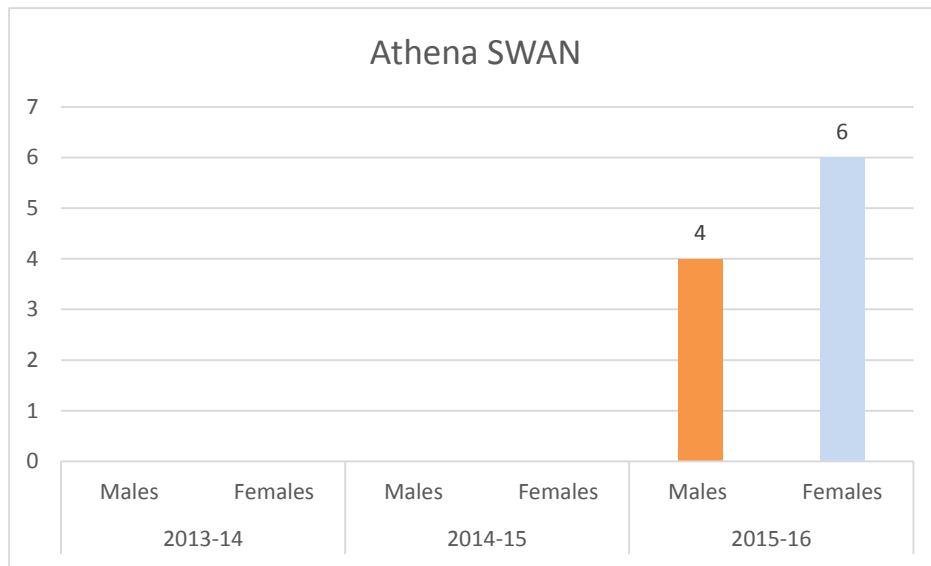
Figure 25 Membership of Athena Swan committee 2015/16 (the first year that it operated)

Departmental Meeting

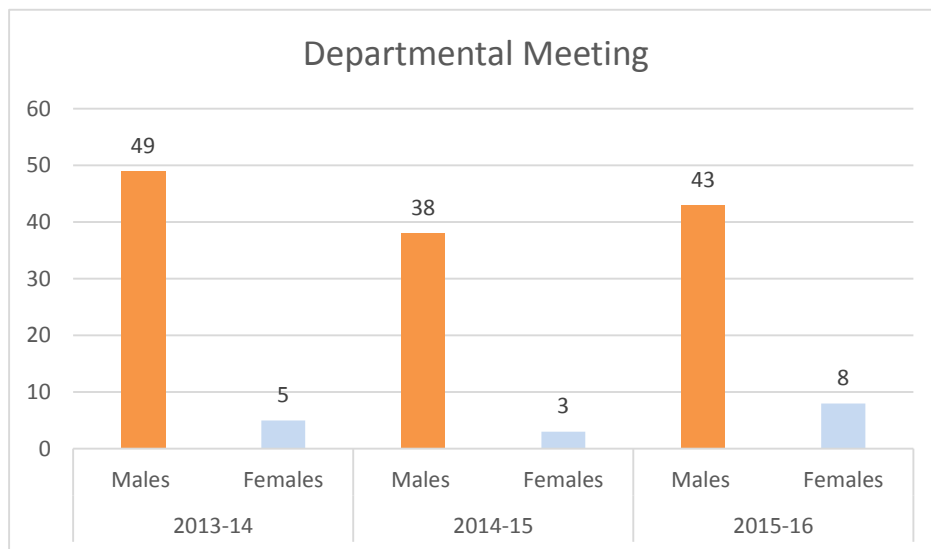|	2013-14		2014-15		2015-16	
	Males	Females	Males	Females	Males	Females
	49	5	38	3	43	8

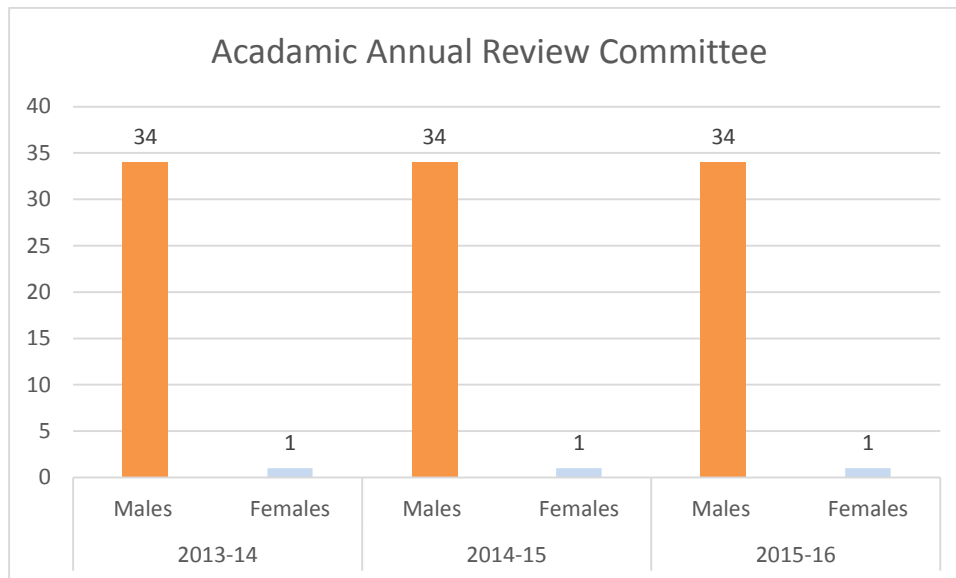*Figure 26 Membership of the Departmental Meeting 2013/14-2015/16*

Figure 27 Membership of the Academic Annual Review Committee 2013/14-2015/16

The composition of the committees very much reflects the gender ratio in the School showing that female members are both represented in the decision making process but also not unfairly burdened with committee membership. Membership of committees follows directly from administrative responsibilities within the school so the committee membership reflects the gender composition of these roles. As the School has a small number of female staff any change in these roles can have a big change on the statistics. For example, for a number of years up to 2013-14 the School had a female Head of School who would be present in all the main decision making committees but after stepping down as Head she was automatically relieved from these committees. The membership of the Academic Annual Review Committee reflects the fact that there is only one senior member of staff (Senior Lecturer or above) that is female; in time this will change as there are newer female members of staff that we expect to be promoted and potentially new female members of staff may be recruited to more senior roles. One issue with committee membership that was noted is with regard to the composition of the School's Industrial Advisory Board. This board is mainly made up of industry contacts and has been largely male. That has led to the following action plan point:

◈ 4.9 We will take steps ensure that the next, and following Industrial Advisory Boards, have a gender constituency that more closely reflects the gender mix of employees in the CSEE sector.

Female:male ratio of academic and research staff on fixed-term contracts and open-ended (permanent) contracts – comment on any differences between male and female staff representation on fixed-term contracts and say what is being done to address them.

CSEE Staff By Grade and Job Function	2012-13	2013-14	2014-15

Category	Grade	Female	Male	Total	Female	Male	Total	Female	Male	Total
ASE	Lecturer UEG09		2	2		1	1		1	1
	Reader UEG10		1	1		1	1		1	1
	Senior Lecturer UEG10		8	8		8	8		8	8
	Senior Lecturer UEG11		1	1		1	1		1	1
ASER	Lecturer (R) UEG09		3	3	1	5	6	1	5	6
	Reader UEG10		4	4		4	4		4	4
	Senior Lecturer (R) UEG10		6	6		6	6		5	5
	Professor (R) UEG11	1	17	18	1	17	18	1	16	17
ASR	Research Officer UEG07	1	1	2		2	2		5	5
	Temporary Research Officer UEG07		1	1			0			0
	Senior Research Officer UEG08		8	8	0	8	8	1	6	7
	Research Fellow (Internat.) UEG09		1	1		1	1			0
	Research Fellow UEG09	1	3	4	1	1	2	1	2	3
Total Staff		3	56	59	3	55	58	4	54	58

Figure 28 Male/Female composition of academic staff 2012/14-2015/16

The gender of all academic staff in the school is shown in Figure 28. Due to the small number of female staff it is not possible to evaluate or comment on differences in the ratio of female:male staff on either fixed term or open-ended contracts. However, it should be noted that the University Athena SWAN action plan has a target to reduce fixed-term contracts by 50% and this being monitored at Faculty level.

At a School level line-managers of staff on fixed-term contracts are aware of the issues and work towards career planning well before the end of the contract and working towards moving staff to permanent contracts where this is possible.

b) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

(i) **Representation on decision-making committees** – comment on evidence of gender equality in the mechanism for selecting representatives. What evidence is there that women are encouraged to sit on a range of influential committees inside and outside the department? How is the issue of 'committee overload' addressed where there are small numbers of female staff?

CSEE has had a female member of staff (previous HoS) on many of the key decision making committees within the University (e.g. Senate and Faculty board). As noted above, this representation comes with the job role (e.g. HoS) and allocated administrative duties rather than an ad-hoc allocation to committees. The allocation of duties is part of the workload model which provides a fair, and transparent, method of allocating roles and gives an opportunity for staff to see the range of activities that are possible (see section below). During Appraisal and Personal Development meetings staff are actively encouraged to discuss opportunities to contribute to wider activities that will help with their personal development (and promotion opportunities).

(ii) **Workload model** – describe the systems in place to ensure that workload allocations, including pastoral and administrative responsibilities (including the responsibility for work on women and science) are taken into account at appraisal and in promotion criteria. Comment on the rotation of responsibilities e.g. responsibilities with a heavy workload and those that are seen as good for an individual's career.

The assignment of administrative roles arises is carried out by HoS; this assignment has increasingly been informed through the workload allocation model (WAM) that was introduced in 2013. The WAM was partly introduced by the University in response to the Athena SWAN Bronze award and captures a range of activities of staff including: scholarly, administrative, teaching and research. These activities align with categories of activities that contribute to cases for promotion thus ensuring that individuals build a portfolio of experience that works towards good cases for promotion. The WAM is open and transparent. It is published on the intranet, and allows all individuals see the range of activities that they are contributing to and those of others, this helps ensure that gender equality is maintained across workload.

(iii) **Timing of departmental meetings and social gatherings** – provide evidence of consideration for those with family responsibilities, for example what the department considers to be core hours and whether there is a more flexible system in place.

Meetings in the School are advertised with plenty of notice, typically before the start of the School year and this gives staff plenty of opportunity to make suitable arrangements for example if there are childcare responsibilities. Meetings within the School are generally between the hours of 9:30 am – 4:00 pm, this is partly to allow for members of staff with childcare responsibilities to be able to make the meetings. Recently (July 2016), all staff in the school were asked about their opinion on core hours for meetings, there were 9 responses with the following range of times: three people for 10-2; individuals with suggestions of 9:30-4, 9:30-1, 10-4 and the rest with no clear response. There is ongoing discussion on whether the current core hours for meetings can be constrained to help those with childcare (or other personal) responsibilities. It is generally the case that if staff cannot make meetings they can ask other staff to make representations for them and follow up with others that were in the meeting to catch up on issues raised during the meeting. One member of staff with flexible working (for childcare responsibilities) has commented that these arrangements have worked well.

◈ 4.10 We will continue to monitor meeting time arrangements and staff attitudes to the timing of meetings.

(iv) **Culture** –demonstrate how the department is female-friendly and inclusive. 'Culture' refers to the language, behaviours and other informal interactions that characterise the atmosphere of the department, and includes all staff and students.

The culture in the School follows a highly professional attitude and behaviour in the School reflects this as evidenced by the staff-survey where, from 33 respondents there was overwhelming agreement (28 strongly agreed or agreed, no respondents disagreed) that: "The School of Computer Science and Electronic Engineering makes it clear that unsupportive language and behaviour are not acceptable (e.g. condescending or intimidating language, ridicule, overly familiar behaviour, jokes/banter that stereotype women or men or focus on their appearance)." When considering informal interactions again there was uniform agreement among survey respondents (27 strongly agreed or agreed, no respondents disagreed) "Work related social activities in the School of Computer Science and Electronic Engineering, such as staff parties, team building or networking events, are welcoming to both women and men (e.g. consider whether venues, activities and times are appropriate to both women and men)." The School has recently installed electronic notice boards and will be using these to both promote good female role models including things like: female members of staff (and PhD students) that have made research contributions (by showing their work); news items such as this Athena SWAN application; and, other suitable material.

(v)   **Outreach activities** – comment on the level of participation by female and male staff in outreach activities with schools and colleges and other centres. Describe who the programmes are aimed at, and how this activity is formally recognised as part of the workload model and in appraisal and promotion processes.

The School's outreach programme involves a number of activities aimed at promoting STEM to local schools and colleges. While the School actively works with a range of schools and colleges, it should be noted that the school with the most number of visits in 2015/16 (6 visits with 60 or more students in each visit) was the Colchester County High School for Girls; this provides evidence that the School (CSEE) is actively engaged in promoting STEM subjects as a career path for women.
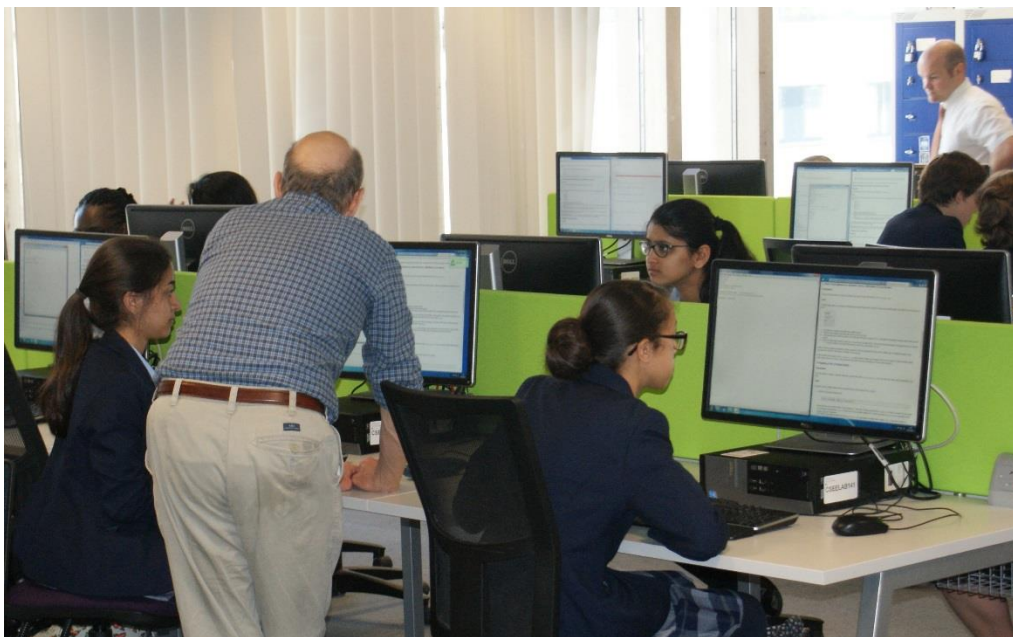

Figure 29 Students from Colchester County High School visit CSEE

A specific example (one of the six mentioned) was a visit of 80 female school pupils to CSEE on National Women in Engineering Day (23rd June 2016).

A female member of staff (Prof. Maria Fasli from CSEE) has given a number of talks at such events to provide a positive role model. The outreach work is part of the workload allocation model and is formally recognised in the promotion criteria. While the main outreach organisation (and much of the work) is carried out by a male member of staff, who has long-running success in this area, all members of staff are encouraged to participate in these activities.

✓ As part of the "Inspiring the Future" initiative, one female CSEE research officer will be carrying out outreach activities at local schools where she will be challenging young peoples' perception about gender and work roles, including being a visible representation of a female role model from CSEE.

◈ 4.11 The school will monitor the gender balance of outreach activities (to include such events as open days).

◈ 4.12 HoS will encourage female members of staff to get involved with outreach activities and these activities will be reflected in the WAM.

◈ 4.13 SAT will monitor the impact of the "Inspiring the Future" initiative and the tasks undertaken.

✓ One member of SAT recently attended a talk from a representative of an organisation called "Generating Genius", which aims at showing Afro-Caribbean youngsters that they can actually achieve anything they want. In particular, the speaker mentioned that 70% of the kids are girls and GG are actively trying to encourage them to pursue careers in engineering.

◈ 4.14 A member of SAT will investigate the possibility of working together with "Generating Genius" and promoting computer science and electronic engineering to their audience.

Flexibility and managing career breaks

a) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

    (i)   **Maternity return rate** – comment on whether maternity return rate in the department has improved or deteriorated and any plans for further improvement. If the department is unable to provide a maternity return rate, please explain why.

Staff Group	Maternity leave 2013-16	Maternity return 2013-16

Academic	*1*	*1 (100%)*
Researcher	*none*	*none*

The maternity leave data for the period 2013-2016 indicate 100% return rate for Academic staff. The primary reason for the small number of academic staff that have taken maternity leave is the limited number of female academic staff in the School.

Based on the feedback to the SWAN team provided by the female staff that has taken maternity leave, she found that both the School and The University had a well-structured procedure to allow for her re-integration into her working environment. A few examples of good practice in her opinion include:

In order to prepare for her maternity leave, she was offered a meeting with an HR officer to discuss The University's maternity package and one initial meeting with the HoS to discuss provisions regarding cover for her teaching and supervision duties while she was absent. Additionally, the HoS arranged two further meetings with her and two other members of staff to discuss various options for covering her teaching during her absence.

She was offered, and actively encouraged to take, ten keeping-in-touch (KIT) dates during her maternity leave. She did not use them, because during her maternity leave she moved to a different city and commuting was difficult.

During maternity she extensively discussed with the HoS the possibility to return part-time to her teaching duties. When she decided not to, and in-line with the discussions before her maternity leave, her modules were undertaken by senior members of staff who had taught them in the past and who required minimum preparation to undertake the task. As a result, she was able to take them back without clashing with other members of staff when she returned.

Her probation period was automatically extended by the time of her maternity leave. Internal University deadlines with respect to research output were accordingly re-adjusted.

◈ 4.15 We will monitor what extra measures are taken beyond the legal requirements to facilitate female academic staff going on maternity leave for a smooth transition back to work.

(ii)   **Paternity, adoption and parental leave uptake** – comment on the uptake of paternity leave by grade and parental and adoption leave by gender and grade. Has this improved or deteriorated and what plans are there to improve further.

One member of the academic staff at Professorial level has applied for, and taken, paternity leave in the period 2013-2016.

Based on his feedback, the application procedure was straightforward and he was able to get the dates of his choice. Before applying he was fully aware of his entitlement and found

that the paternity leave was very helpful as he was able to concentrate on his family without interruption (including having to answer emails). Overall, he reported that in his experience there are no major issues with the procedure in place.

Upon discussion within the SAT group, it was felt that other informal arrangements for paternity leave have been made previously and not recorded formally. It was felt that if paternity leave fell during non-term time, academics may not feel the need to apply formally. The School are supportive of an informal approach but want to encourage formal requests to be made in future to be able to monitor the uptake and support staff to have a complete break from work during this time.

◆ 4.16 We should ensure all paternity leave is formally recorded in future to monitor uptake and ensure consistency.

When staff were asked whether the school actively supports male staff to take paternity leave, 3% of staff disagreed. Although this is a small percentage, when taking into account the age profile of the school, this would be a high percentage of those staff likely to require paternity leave. However, it should be noted that around 40% of staff agreed with the statement but it is clear that further awareness needs to be made.

◆ 4.17 We will raise awareness of paternity entitlement further by including it in the induction process and mentioning family friendly policies at regular Departmental meetings.

(iii)   **Numbers of applications and success rates for flexible working by gender and grade** – comment on any disparities. Where the number of women in the department is small applicants may wish to comment on specific examples.

There was one flexible working request in this time period, by a male employee. This was approved.

There are two further flexible working requests being made by male employees currently. Both the School and the Faculty have supported these applications and they are likely to be in place for the 2016-17 academic year.

It was felt that only male applications had been received due to the small number of female academics within the School but is was acknowledged that the policy was available to all. The flexible working requests have been due to different reasons, not just childcare, which demonstrates the School's willingness to support individual needs. This is reflected in the staff survey in which no staff disagreed with the statement 'My Head of School is supportive of requests for flexible working'.

b) For each of the areas below, explain what the key issues are in the department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

(i) **Flexible working** – comment on the numbers of staff working flexibly and their grades and gender, whether there is a formal or informal system, the support and training provided for managers in promoting and managing flexible working arrangements, and how the department raises awareness of the options available.

There is currently only one male senior lecturer who has a formal flexible working agreement in place, with two more due to start in the current academic year both of whom are male and senior lecturers.

Apart from the formal cases of flexible working (as discussed above), the School also has an informal flexible working system in place. All members of the academic staff are entitled to one day per week free from teaching and admin duties to concentrate on their research. This is formally taken into account in the School timetabling and many – but not all – members of the academic staff make use of it (for example they do not arrange meetings on a specific day of the week).
Furthermore, it is largely accepted that people can work from home when their research is not lab-based; it is noted that for many members of the academic staff their research is primarily theoretical and does not require the use of specialised equipment. The working hours for academic research staff therefore appear to be highly flexible already.

It is mandatory that the HoS attends an induction course which covers their responsibility to promote flexible working and family friendly policies to staff (since July 2016) , informing them of how to deal with requests consistently and fairly. The new work life balance policy and guidance (Jul 2016) includes role models showcasing a variety of flexible working arrangements.

Details of flexible working and family friendly policies are made available to potential job applicants. Furthermore, new staff are informed of work life balance options during the university induction process.

Despite the above, according to the staff survey, only 51.6% of staff felt they had been informed of the University's family friendly policies during the induction process, therefore further awareness may increase the uptake of formal flexible working requests.

◈ 4.18 We will raise awareness of the University's work life balance policy during the induction process and monitor gender balance and outreach activities.

◈ 4.19 Although the informal flexible working arrangements are working well, in the future it will be considered whether some of these provisions can be made formal.

(ii) **Cover for maternity and adoption leave and support on return** – explain what the department does, beyond the university maternity policy package, to support female staff before they go on maternity leave, arrangements for covering work during absence, and to help them achieve a suitable work-life balance on their return.

Case study on the maternity leave during the period 2013-2016:

In order to cover work during maternity leave absence the HoS has had several meetings with the female member of staff and some of her colleagues in order to discuss possible alternatives. In the end, it was agreed that her teaching load would be distributed to senior members of staff who had in the past taught the modules in question. This allowed a smooth coverage of the teaching load without putting much extra pressure on other members of staff. Regarding the reallocation of student supervision, this has been handled based on the overall work-load and expertise of other members of staff and in consultation both with the female member of staff and the students involved.

The HoS remained in regular contact with the individual during her maternity leave. Upon return to work, the option of flexible and part-time phased return was clearly stated. It was the decision of the female member of staff not to utilize these options. A major factor that enabled her to return full time is that it is an informal practice of the School that the academic staff have flexibility in organizing their daily schedule so that they can accommodate both work and child care responsibilities.

In terms of university led activities, a number of support groups and mentoring schemes are in place. These include university-led "parents-to-be seminars", a "parent support network", a "women's network" and a" parent career development fund", designed to cover childcare expenses when attending conferences / working outside official working hours. There is also a university booklet for staff going on maternity leave with tips, case studies and signposting to family friendly policies. The school signposts to all of the above University support facilities via its 'Women in CSEE' webpage, and actively encourages staff to make use of them by email reminders and updates at departmental meetings.

The University also has an on-site Nursery, and children's holiday clubs, which the school promotes through its webpage. Furthermore, childcare vouchers are offered as an alternative to members of staff who do not use the Nursery; the female academic staff on maternity leave has used them since June 2016 when she returned to work full-time.

✓ The Faculty of Science and Health has a Returning Parent Career Development Fund exclusively for staff within the STEMM departments.

4902 Words

5. Any other comments: maximum 500 words

Please comment here on any other elements which are relevant to the application, e.g. other SET-specific initiatives of special interest that have not been covered in the previous sections. Include any other relevant data (e.g. results from staff surveys), provide a commentary on it and indicate how it is planned to address any gender disparities identified.

6. Action plan

Provide an action plan as an appendix. An action plan template is available on the Athena SWAN website.

The Action Plan should be a table or a spreadsheet comprising actions to address the priorities identified by the analysis of relevant data presented in this application, success/outcome measures, the post holder responsible for each action and a timeline for completion. The plan should cover current initiatives and your aspirations **for the next three years**.

The action plan does not need to cover all areas at Bronze; however the expectation is that the department will have the organisational structure to move forward, including collecting the necessary data.

Ref.	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe Start Date	Timeframe End Date	Person(s) Responsible (incl Job Title)	Success Criteria & Outcome
2.1	The SAT will initially meet at least once a term to monitor the progress against the Action Plan. A year before the next submission date the frequency will be increased to monthly.	To ensure our Action Plan is fulfilled and to continue to discuss new initiatives to raise the profile of women within the School	Minutes from the termly meetings	Dec-16	Ongoing	SAT lead SAT administrator	Completion of the Action Plan
2.2	Following on from 2.1, SAT lead will provide an update to the University SWAN Steering Group (which reports into the HR & Equality and Diversity Group).		Reports submitted	Dec-16	Repeat termly	SAT lead	Reports submitted and positive feedback from University team
2.3	Progress will be reported annually to the HoS, to The University SWAN Steering Group, and to departmental meetings.		Reports submitted	Dec-16	Repeat annually	SAT lead SAT administrator	Reports submitted and positive feedback from University team
2.4	Carry out annual surveys of Staff and Students	To measure progress against Athena SWAN goals and report results to departmental meetings	Survey results published annually	Jan-17	Repeat annually	Nominated members of SAT SAT lead	Surveys progressed and results published. Increased response rate. Improving awareness of SWAN principles.
2.4.1	Carry out focus groups with undergraduate, postgraduate taught, and postgraduate research students	To establish the reasons why students have not previously engaged with surveys and to establish what might motivate better participation	Focus groups to be established early in 2017	Jan-17	Survey launch date	Nominated members of SAT SAT lead	A better understanding of the most efficient ways to promote the AS agenda to students at all levels.

Ref.	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person(s) Responsible (incl Job Title)	Success Criteria & Outcome
				Start Date	End Date		
2.4.2	Promote surveys to students through appropriate media as indicated by the results of focus groups (2.4.1)	To encourage a higher response rate from students.	Promotion of surveys through whatever means the focus groups (2.4.1) indicate would be best.	Month before surveys	Survey launch date	To be arranged between HoS and SAT lead	Greater participation in surveys by students at all levels. Increase to a minimum of 50% by 2017-18
2.5	The SAT will continue to promote the SWAN agenda and members will act as SWAN champions within the University.	Increase the profile of Athena SWAN within the School and further afield	Promotion of SWAN agenda by SAT members using a wide range of channels	Dec-16	Ongoing	SAT Members	Representation from CSEE at International Women's Day events, Big Bang fair etc.
2.5.1	Arrange events on or around Ada Lovelace Day		A specific plan of activity for October 2017 to be produced by July 2017. Promotion of the event through departmental and University channels in September 2017	Dec-16	Oct 2017 and then annually	SAT members	A specific event organised to celebrate Ada Lovelace day and to promote the SWAN agenda
2.6	SAT lead to delegate responsibility for follow up of actions to SAT members	Ensure that actions are progressed	All actions delegated to members of SAT	Dec-16	Ongoing	SAT lead	At the first Athena Swan Committee meeting of 2017, responsibility for actions to be agreed and documented in minutes. Actions to be circulated after the meeting.
3.1	Discuss gender balance on Foundation courses, and possible outreach events, with International Academy	Recruitment of females to the foundation year is poor.	Discussions held and actions planned to jointly try to improve recruitment of females into IA	Jan-17	-	IA Liaison	Gain clear understanding of reasons for poor IA recruitment of females

Ref.	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person(s) Responsible (incl Job Title)	Success Criteria & Outcome
				Start Date	End Date		
3.2	The SAT will investigate whether sub disciplines within the subjects recruit more young women than others and make recommendations to the curriculum committee as a result of the findings.	According to HESA figures, the School is recruiting proportionally fewer female students than at other institutions	A report to the curriculum committee with recommendations as to possible changes to courses	Jan-17	Jul-17	Nominated members of SAT	Gain clearer understanding of which sub disciplines are better at recruiting young women and what we might do to address this.
3.3	The School will do more to promote the achievements of female postgraduates who have gone on to research careers	The postgraduate survey indicated that females were less likely to be planning a career in research or academia		Dec-16	-	Director of Research School Web Officer	Reporting and publishing more research success stories for female PG students on our webpages.
3.4	Add profiles of successful female graduates to the School web pages	To promote the success of female graduates and thus encourage more female student applications	Profiles posted and regularly updated to maintain currency and relevance	Dec-16	Jan-17 Updated regularly	School Web Officer	Updated success stories published regularly
3.5	Monitor turnover of staff and consider offering exit interviews	To better understand any issues that may arise	Discussions held by School management team and reported by to SAT by HoS	Dec-16	by Jun-17	HoS	Outcome of discussions reported to SAT and policy introduced.
4.1	Include pointers to Women in CS webpage in future job advertisements			Dec-16	-	HR Links HoS	Women in CS page linked from future job advertisements
4.2	When recruiting, target female researchers on the job market in the field to apply using our professional networks as well as social media	A desire to increase the number of female applicants responding to job vacancies	Next recruitment round	-	-	All research active staff prompted by HoS and Director of Research	An increase in female applicants generated from personal contacts

Ref.	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person(s) Responsible (incl Job Title)	Success Criteria & Outcome
				Start Date	End Date		
4.3	Publicize the Women's network to current postgraduate students and in future include details as part of the induction process.	2016 survey indicated that many female postgraduates were not aware of the network	Periodically publicise the Network via email to PG students within the School and include in the next induction programme for new students.	Dec-16	-	SAT Team	%80 of female postgraduate students joining the Women's network
4.4	Provide tangible promotion guidance to junior staff as part of the appraisal process.	Anecdotal evidence showing that women often do not put themselves forward for promotion.	During appraisal process, ensure female staff are encouraged to put themselves forward for promotion, where appropriate to do so. For those not ready for promotion, give guidance on how to meet the criteria and set suitable objectives, to help them achieve promotion in the coming years	Jan-17	-	Line Managers (HoS)	More women putting themselves forward for promotion and successfully achieving promotions
4.5	Pair junior female staff with a suitable, more senior, female mentor from a different department in addition to a mentor from the school.	Given the current gender balance in the school it is not always possible to provide a female mentor with appropriate experience for new female staff		Dec-16	42887	HR Link	Mentoring links in place
4.6	Ensure that female students have a female tutor if they so wish	Female students may prefer to have a female member of staff as a tutor	Provide this option to all new female UG/PGT/PGR students and monitor / record requests for evaluation by the SAT	2017-18 Onwards	Monitor annually	School Administrator	

Ref.	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person(s) Responsible (incl Job Title)	Success Criteria & Outcome
				Start Date	End Date		
4.6.1	Monitor and record number of requests and report to SAT	If the number of female students were to rise significantly without a corresponding increase in female staff, then the problem of staff overload might reoccur		2017-18 Onwards		School Administrator	No female member of staff with an unreasonable number of tutees when compared to other members of staff
4.7	Increase the number of external female speakers in seminars	To showcase the accomplishments of successful female academics/researchers to our UG and PG students		Dec-16	Monitor annually	Seminar series coordinators	An increased number of relevant female speakers
4.8	Carry out focus groups with postgraduate students to discover reasons for low take-up of Learning and Development courses	Poor take-up reported by Learning and Development team	Feedback from focus groups	Jan-17	Monitor annually	Nominated members of SAT	Improved uptake of L&D opportunities by postgraduate students
4.9	Take steps ensure that the next, and following Industrial Advisory Boards, have a gender constituency that more closely reflects the gender mix of employees in the CSEE sector.	Currently only one female member of IAB	Actively recruit more female members from industry to be involved with the Schools' IAB.	Dec-16	-	Director of Impact and HoS	An increased female representation on the IAB
4.10	Monitor meeting time arrangements and staff attitudes to the timing of meetings.	School does not currently operate core hours and discussions in departmental meetings and the staff survey have favoured maintaining the status quo.	A record of scheduled meetings within the School	Feb-17	-	Nominated member of SAT School administrator.	Continued satisfaction with current ad-hoc arrangements as indicated by staff surveys.

Ref.	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person(s) Responsible (incl Job Title)	Success Criteria & Outcome
				Start Date	End Date		
4.11	The department will monitor the gender balance of outreach activities (to include such events as open days)	Some aspects of outreach male dominated - for historical reasons	An annual audit of participation in outreach events	Nov-16	-	Director of Undergraduate Admissions Visit Day Coordinator Schools Liaison Coordinator	A balance of staff participating in outreach events of all kinds
4.11.1	The department will endeavour to ensure that female applicants coming for interview will get to meet or be interviewed by a female member of staff	Meeting with a successful female academic may encourage female applicants to make Essex their first choice	For each visit day, arrange for female applicants to meet with a female academic or researcher within the School	Jan-17		Director of Undergraduate Admissions and Visit Day Coordinator	All female applicants who attend for interview at least meeting with a female academic
4.12	HoS will encourage female members of staff to get involved with outreach activities	Some aspects of outreach male dominated - for historical reasons	HoS to report back to SAT annually	Jan-17	-	HoS	An increased female representation on outreach activities
4.13	SAT will monitor the impact of the "Inspiring the Future" initiative and the tasks undertaken.	New initiative within the School. Will need to evaluate to see if it is a worthwhile initiative to participate in	Report to SAT from staff involved as to the effectiveness of this activity	Jan-17		Nominated member of SAT	Clear understanding of the effectiveness of this campaign
4.14	SAT will investigate the possibility of working together with "Generating Genius" and promoting computer science and electronic engineering to their audience.	70% of GG's audience is female and GG are actively encouraging them to pursue careers in STEM subjects.		Jan-17	Mar-17	Nominated member of SAT	Connection establish with GG and targeted outreach activities begun.

Ref.	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person(s) Responsible (incl Job Title)	Success Criteria & Outcome
				Start Date	End Date		
4.15	Monitor extra measures, above and beyond legal requirement, to facilitate staff taking maternity/paternity leave to ensure a smooth transition back to work and adjust if appropriate.	To encourage staff to take full maternity / paternity leave entitlement and support them back into the work place	Next case of maternity / paternity leave within the School	Nov-16	-	HR personnel HoS	Increased awareness of policies indicated by Staff Surveys
4.16	Formally record all paternity leave	To ensure consistency and that records are available		Nov-16	-	HR personnel HoS	Better recording in future
4.17	Raise awareness of paternity entitlement by including it in the induction process for new staff and reference to family friendly policies at Departmental Meetings	To raise awareness amongst staff		Nov-16	-	HR personnel HoS	Increased awareness of policies indicated by Staff Surveys
4.18	Raise awareness of University's work life balance policy during induction.	To raise awareness amongst staff		Nov-16	-	HR personnel HoS	Increased awareness noted in Staff Surveys
4.19	Consider whether informal working arrangements should be formalised	To ensure consistency	To be considered on a case by case basis, as and when cases arise	Nov-16	-	HR personnel HoS	Reduction in informal arrangements