



## **Athena SWAN Bronze department award application**

**Name of university: University of Lincoln**

**Department: School of Computer Science**

**Date of application: April 2015**

**Date of university Bronze and/or Silver SWAN award:**

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## 1. Letter of endorsement from the head of department

3<sup>rd</sup> March 2015

Ms Sarah Dickinson  
Athena SWAN Manager  
Equality Challenge Unit  
Queen's House  
55-56 Lincoln's Inn Fields  
London WC2A 3LJ



**UNIVERSITY OF  
LINCOLN**

Dear Ms Dickinson

Computer Science is a subject area that has traditionally seen a gender imbalance between men and women in student numbers, academic staff and researchers. The School of Computer Science is determined to address this and therefore is fully committed to the Athena Swan Charter as a key element of understanding the underlying issues and informing our strategy in this mission.

The School has always taken this issue seriously and has over many years put policies in place and undertaken various initiatives to seek to increase the participation rate and improve the working environment of women in Computer Science at the University of Lincoln. Our involvement in the Athena SWAN application process has been extremely helpful in that it has provided a clearer focus for the work we are undertaking and a more formalised framework for thinking through the issues and deciding what action we should take as a result. This is informing the strategic thinking that is mapping out the direction of the School and can be seen in the action plans that fall out of the School's strategy. As an example, we are currently writing a new Research Strategy post REF 2014. The Athena SWAN action plan is allowing us to develop a much more effective strategy by contextualising the thinking about our research environment in a more inclusive and supportive way.

As Head of School it is important for the team to see this activity has my personal support to confirm our commitment. I have therefore taken a personal interest in this crucial development from the outset. At the institutional level I have participated fully in events such as WiSE@Lincoln designed to underpin the six key principles of Athena SWAN. I have also taken great pleasure in ensuring that the School of Computer Science has always been the first to help organise and then participate in events aimed at promoting a more equal interest in technology subjects in younger age groups in our local primary and secondary Schools.

I would like to commend all the female members of the team who have worked on this challenge. In particular Dr Xujiong Ye who has chaired the School's Athena SWAN steering group and worked tirelessly to ensure the success of this activity. Also Dr Kathrin Gerling and Dr Wenting Duan, who have combined this activity with the challenge of starting their first lecturing post as early careers academics and Helen Webster who has worked throughout the process as an hourly paid lecturer, a role that brings with it very particular circumstances. All have been enormously helpful in giving their time and assistance by working on the steering group and on the wider agenda.

Although there have been many STEMM activities that have helped develop our thinking, strategy and plans, I would like in particular to highlight the engagement with local Schools. It has been a particular delight to work with the young technologists of the future and help encourage their interest in our subject. Although there are many improvements we can bring about in working with our colleagues and peers, it is with the next generation where the best chance of success lies. As educationalists we will continue to prioritise these activities.



Dr. David Cobham | Head of School of Computer Science  
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## 2. The self-assessment process

The School of Computer Science Athena SWAN Self-Assessment Team (ASSAT) comprises 9 members (4 female and 5 male) with different roles and a wide range of experiences of career and work-life balance:

**Xujiong Ye** is a Reader at the School of Computer Science, where she has worked since 2012. She chairs the ASSAT. Over the past 10 years, she has supervised and mentored many female researchers. She is married with one daughter at secondary school, and sometimes schedules work for attending school events or parent meetings.

**David Cobham** is Head of the School of Computer Science. He has worked in various senior management positions at the University of Lincoln since 2000 and is a full and active member of the ASSAT. His personal experience of work life balance is largely informed by his wife's transition between part time work and child care responsibilities as his three children have moved through compulsory to University education. His professional experience has been in supporting, advising and guiding members of the teams he has managed to ensure a good balance is achieved.

**Amr Ahmed** is a Senior Lecturer in the school of Computer Science since 2006. He is a member of the ASSAT. Amr is the Program Leader for Postgraduates by Research (PhD and MSc). He has supervised a number of PostDocs, PhD and MSc researchers. Amr is also the organiser of the Annual Showcase event for all student work of the school (UG and PG). He is married and has three children.

**Wenting Duan** joined the School of Computer Science as a lecturer (early career researcher) in Jan 2012. She is a member of the ASSAT. Apart from lecturing and carrying out research, she also holds several administrative roles including managing the School's equality and diversity strategy, module coordinator and deputy program leader for Computer Science.

**Kathrin Gerling** is an early careers lecturer who joined the School of Computer Science in February 2014. She is the outreach coordinator for the School, and is a member of the ASSAT. She is also part of the School's workload working group.

**Tryphon Lambrou** is a Senior Lecturer with the School of Computer Science; he joined the School as a Lecturer in November 2012. Since September 2014, he has been the Programme Leader for Computer Science. He has supervised to completion two PhD students, and worked closely with more than ten PhD students and a large number of BSc and MSc students.

**John Shearer** is a Senior Lecturer in Games Computing at the School of Computer Science. He joined the University of Lincoln in January 2014. He is programme leader for the Games Computing programme and is a member of the ASSAT, and part of the School's resources working group. John is passionate about equality and diversity.

**Helen Webster** joined the School of Computer Science as a part-time lecturer in September 2008. Helen is an active member of the ASSAT and balances her working life by looking after her young daughter who will turn two in July.

**Shigang Yue** is a Professor in the School of Computer Science. He is the coordinator for several EU projects and is supervising a large research group with 8 PhD students and a similar number of Researchers. He is the coordinator for two master level modules. He has been involved in College Ethics Committee since 2010. He is married and has two children in primary and secondary education.

The Self-Assessment Team was set up in April, 2014, with the full support of the Head of School. After an open call for expressions of interest, the team was put together ensuring that its membership represented a range of career levels and different work-life experience. The team has held regular meetings since then to:

- 1) identify and discuss the objectives of the Athena SWAN initiative and establish the data required to formulate a working plan leading up to our submission;
- 2) identify areas of good practice and areas where improvements may be made to ensure equality of opportunity in the school.
- 3) put together a plan of action leading up to the submission, and a subsequent plan for implementation over the subsequent years.

During the earlier meetings, the importance of women in STEM, the gender balance in the school and wider issues of work-life balance were discussed, and we decided to carry out an online survey for all the staff and PhD students to assess the current organisational culture across the School. The team worked through the HE STEM surveys provided by the UKRC. The questionnaire ran from May 2014- July 2014 and had a response rate of approximately 50%. All the survey results were extensively analysed by the team in an ASSAT meeting and the summary of responses was presented by the chair to all staff members at the school away-day meeting held on the 8<sup>th</sup> September 2014. This was followed-up by three focus-group discussions with staff members including both academic and administrative staff. The focus groups were chaired by the Head of School with three ASSAT team members in each group responsible for leading the discussion and taking notes. The discussion provided valuable comments and helped the ASSAT to formulate our action plan.

Since 2014, the ASSAT team has overseen the work to build up good practice in accordance with the Athena SWAN principles, and has made good progress in the School’s Athena SWAN engagement. **Table 1** shows the progress the team has made in addressing the key gender-related concerns in the School. The team has contributed individually and jointly to the development of the final submission document, through the external peer review and utilizing the Athena SWAN East Midlands Network.

**Table 1** The School’s progress in addressing the key gender-related concerns in the School

Key Gender-Related Concerns Identified	Key Actions Implemented
Low numbers of female undergraduates	<ul style="list-style-type: none"> <li>• Organized a number of activities targeting local and regional schools to encourage young girls to retain science subjects, including a workshop for the ‘Newton Academy-the Science Club for Girls ’in 2014.</li> <li>• A new web-enabled student tutoring and monitoring system has been created in the School to allow us to better follow the progress of our female students for engagement, progression and academic success and provide better support.</li> <li>• Reviewed the curriculum considering how the diversity of the intake might be affected by changes to the portfolio including which programmes might be more or less attractive to women. Introduced a new BSc/MComp programme in Social Computing. The data from the first round of applications to this programme does appear to be a better gender balance, with 17.6% of female applications for Social Computing, compared to our other undergraduate programmes, with only 7.3% of female applications</li> </ul>
Low numbers of female PGR/PGT students	<ul style="list-style-type: none"> <li>• School made significant efforts on international student recruitment</li> <li>• Updated School’s research pages to showcase work of the female members on School web site.</li> <li>• Postgraduate opportunities/research topics have been marketed to undergraduate students</li> </ul>
Low numbers of female applicants for the School academic posts	<ul style="list-style-type: none"> <li>• Introduced the Charlotte Angas Scott Research Fellowship to encourage more postdoctoral women in the fields of computer science and engineering.</li> <li>• Promoted the University’s new pipeline mentoring scheme and support female PhD/Postdoctoral researchers considering a career in academia</li> </ul>

In the future, the team will continue to meet on bi-monthly basis, and monitor the implementation of the action plan, in particular, student/staff recruitment, statistics of gender balance of students, researchers and staff. This is reflected in **Actions 1.1-4.6** of the Action Plan.

**WORD COUNT = 983/1000**

### 3. A picture of the department

The School of Computer Science has been in its current form for approximately 10 years, and was created by the merging of two former departments that were based at different sites. Since consolidating and locating at the University's main Brayford Pool campus in the centre of the City of Lincoln, the School has followed a path of rapid growth that has seen the number of staff and students nearly treble and its research activity grow from a close-to-zero base to the point where approximately two thirds of the academic staff were submitted to the recent Research Excellence Framework. External income has risen rapidly to approaching £2M per year with grants won from the main RCUK and European funding sources for Computer Science as well as KTP schemes, industry sponsorship and external educational contracts. The quality of students, evidenced by admission entry requirements, has risen dramatically over the period with a consequent increase in good honours and increase in employability and graduate salaries.

Undergraduate taught programmes range from the more technical in Computer Science through to business-focused subject areas such as Information Systems. Programmes are offered in both three year BSc and four year Integrated Masters (MComp) variants with an optional sandwich placement year. At postgraduate level the School offers an MSc in Computer Science and other MSc programmes that are work based and feature distance learning. The School has an increasing population of postgraduate research students, some following MSc but the majority studying on PhD research programmes. This year's Destination of Leavers from Higher Education survey showed that over 93% of our graduates were in work (or further study) six months after completing their degree. As in previous years, our rate of graduate employment was around 10% above the computing sector average.

Research in the School is carried out in three University recognised Centres: the Lincoln Centre for Autonomous Systems (L-CAS), the Lincoln Social Computing Research Centre (LiSC) and the Laboratory of Vision Engineering (LoVE). In addition the School hosts a number of locally organised research groups to highlight clusters of activity that might become the research centres of the future. Most of the School's research is multidisciplinary in nature and staff collaborate across the University's Schools and Colleges.

The University champions a philosophy called "Student as Producer". This provides an underpinning for our engagement with students that encourages research-engaged teaching and learning in a rich and productive way. In the School of Computer Science, students work with staff on research projects either for interest or sometimes as a paid intern and many have written up and presented their findings at leading conferences in their subject area. The scheme is being rolled out to include outreach and other community activities. Senior students also participate in buddy schemes, assisting their juniors and all students are encouraged to be student helpers for Open Days and external events.

The School always describes itself as being an "academic community" where staff and students work together collaboratively, often indistinguishably, on research and outreach activities. The resulting environment is supportive, friendly, accessible and highly productive.

## Student data

### (i) Numbers of males and females on access or foundation courses

There are no foundation courses within the School at present, however the University operates an on-campus international Year 1 in partnership with an external provider. This offers overseas students an alternative route to improve their English language alongside the first year of their degree programme leading to advanced entry onto Level 2. Although recruitment to this programme is controlled by the external partner, we have put into place a link tutor whose remit includes advising on publicity material. Through this coordinator we are continuing to monitor the publicity material for a number of issues including diversity.

The School has a long standing partnership with two local further education colleges. These deliver HND and Foundation degree programmes, the curriculum of which is entirely comprised of the first two years of the equivalent on-campus degree programme. This allows students to study closer to their home for the start of their programme and transfer to the final year (or two years for MComp) at the University. This arrangement contributed to the School's widening participation activities for students who might not otherwise be able to complete a degree programme. The ratio of females to males in the partner college intake is usually higher than for those studying the full three years on campus leading to a small improvement in our overall gender balance.

### (ii) Undergraduate male and female numbers

The proportion of female full-time and part-time undergraduate students is presented in **Fig.1**.

#### Key Observations, Trends, and Areas of Concern

The School has seen a large increase in the total undergraduate (UG) numbers over the past four years. Compared to National benchmarks for proportion of full-time female UG students (14.0%) and for proportion of part-time female UG students (16.5%), the percentages of female undergraduates in the school is well below the thresholds, with only 6.3% of full-time female, 0% of part-time female in 2010-11; while 6.6% of full-time, 0% of part-time in 2011-12 and 7.4% of full-time, 7.1% of part-time in 2012-13, and 6.7% of full-time and 0% of part-time in 2013-14 (**Fig.1**).

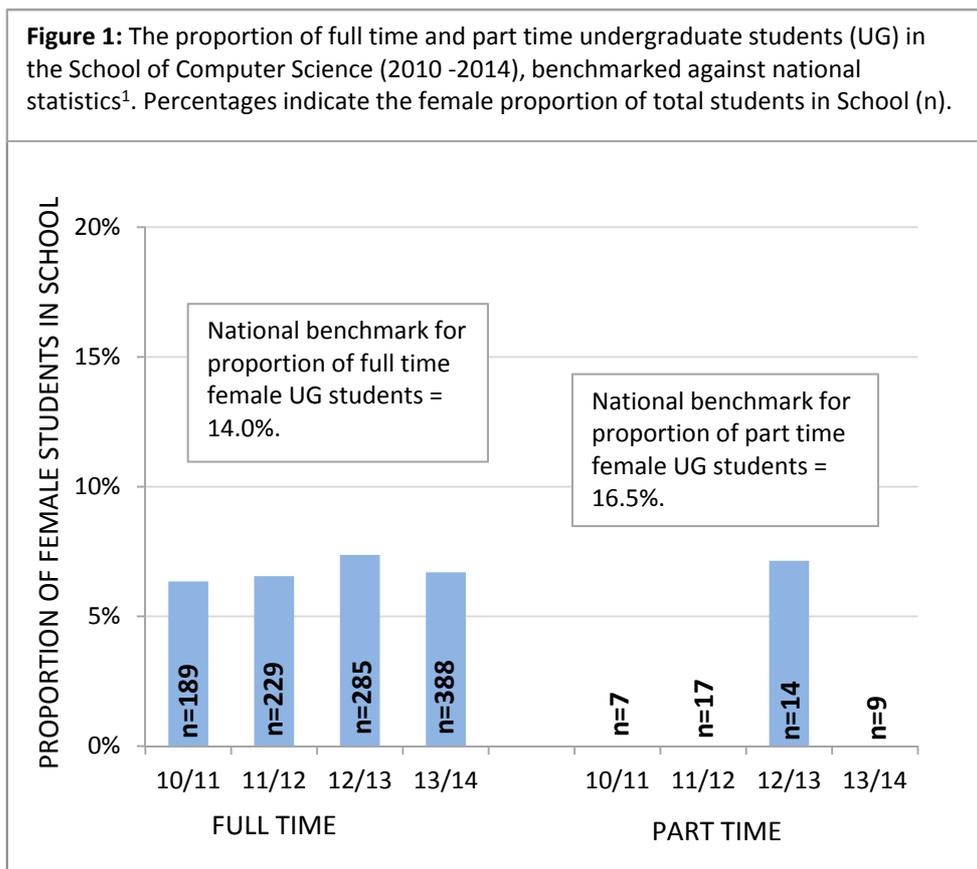
#### Initiatives in Place and Impact

The School has for a long time concluded that the long-term solution to increasing this imbalance lies with enthusing and inspiring girls whilst they are in the early stages of compulsory education, targeting local and regional schools to encourage young women to retain science subjects when options are chosen and to consider studying and seeking a career in technology. The School has organised a number of activities to support this drive such as a workshop for the University's locally created 'Newton Academy-the Science Club for Girls' in June 2014, with the aim of getting young girls to experience science subjects and thus spark their interest. This event was very well received, well attended and made a great success.

In addition the School frequently reviews the curriculum and considers how the diversity of the intake might be affected by changes to the portfolio including which programmes might be more or less attractive to women. The decision to introduce a new BSc/MComp programme in Social Computing last year was, in part informed by this thinking. Although it is too early to judge with certainty, in the first round of applications to this programme there does appear to be a better gender balance, with 17.6% of female applications for Social Computing, compared to our other undergraduate programmes, with only 7.3% of female applications.

### Planned Actions

- ✓ Increase engagement with local and regional secondary schools and maximise the School's profile of existing outreach and widening participation opportunities for females (**Action 1.1-1.3**)
- ✓ Introduce School female mentor scheme to support female students (**Actions 1.4 and 2.2**)



<sup>1</sup>Source data: Heidi 2012/13, JACS Code I (Computer Science and Gaming) across all UK Universities

(iii) **Postgraduate male and female numbers completing taught courses**

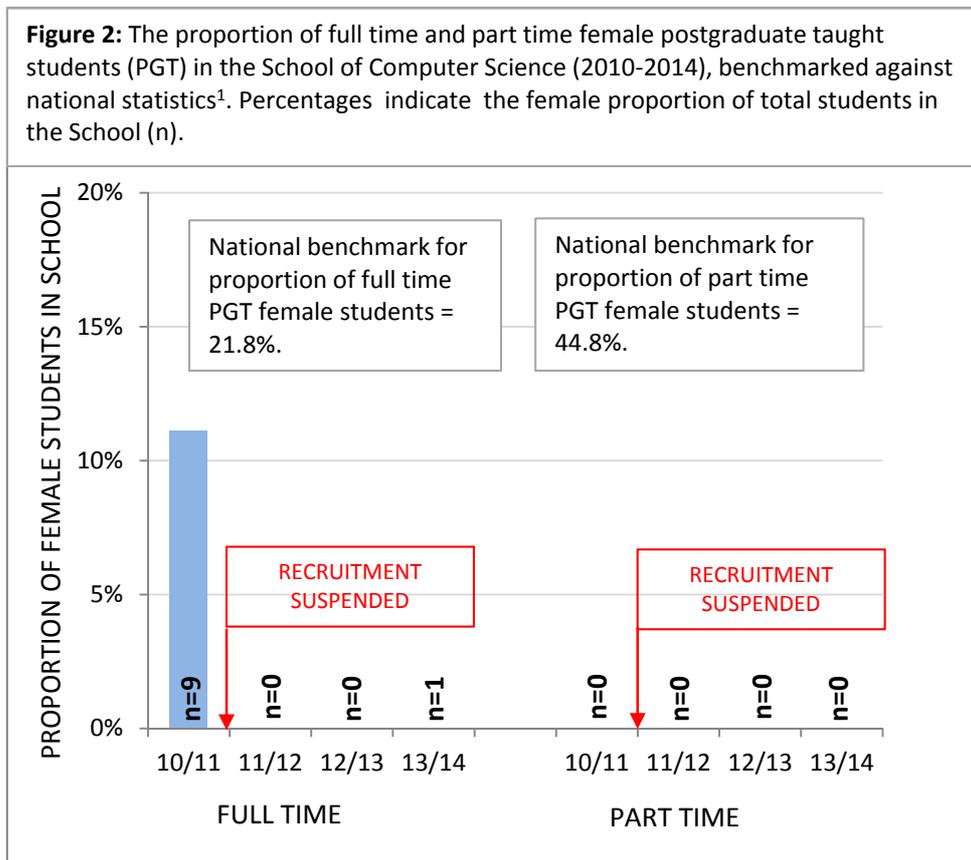
The proportion of female postgraduate students completing taught courses is presented in **Fig.2**.

**Key Observations**

The School's MSc in Computer Science attracted relatively low numbers of students. As a result, recruitment was suspended between 2011-14 to allow time to reflect on the programme content and re-present it.

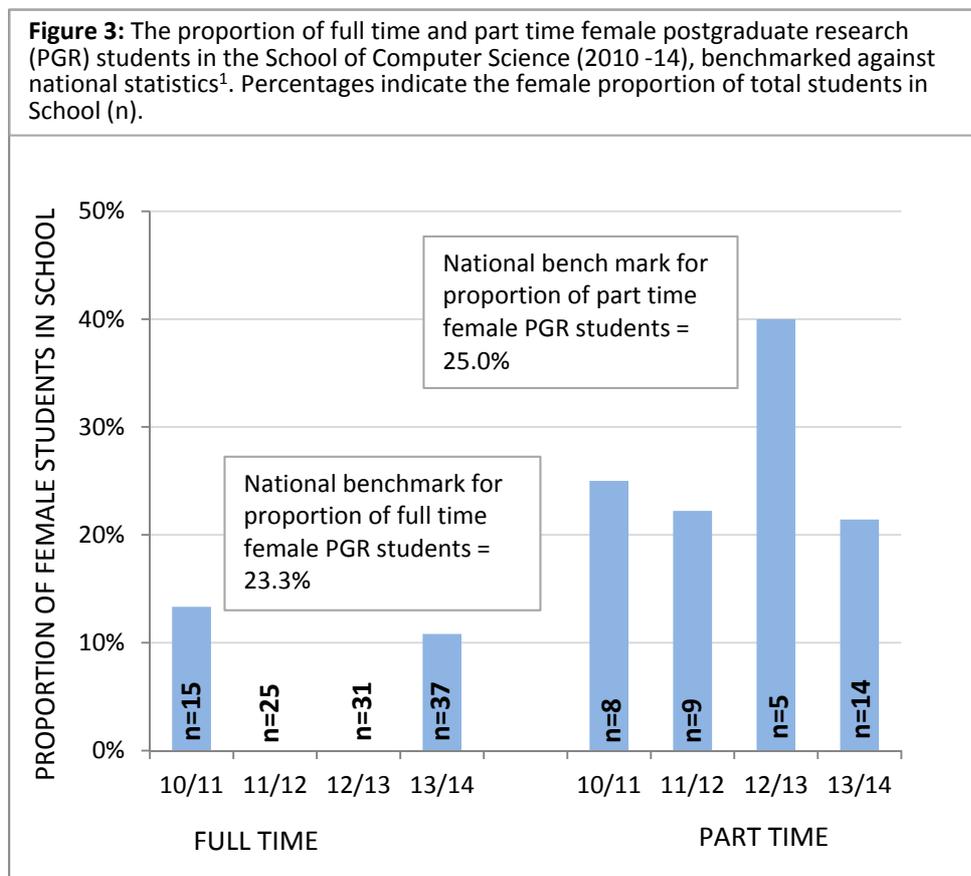
**Initiatives in Place**

A newly developed programme was re-launched this academic year and is expected to recruit well particularly with international students. The School is working with three international partners to promote recruitment to this programme and is aware that the gender balance of the cohorts being targeted is better than our own. It is hoped that this will lead to increased recruitment of women to the programme.



(iv) **Postgraduate male and female numbers on research degrees**

The proportion of female postgraduate students on research degrees is presented in **Fig.3**.



**Key Observations, Trends, Areas of Concern and Actions**

The school has seen a relatively low proportion of women taking full time postgraduate research degrees (PGR) in recent years. The percentage of full time female students is 13.3% in 2010-11 (2 female; 13 male), but there were no female students in 2011/12 and 2012/13. The number has increased to 10.8% in 2013/14 (4 female; 33 male).

The overall proportion of females undertaking part-time PGR study has been better (above 20%), reaching 40% in 2012-13, which exceeds the national benchmark (25%).

**Initiatives in Place**

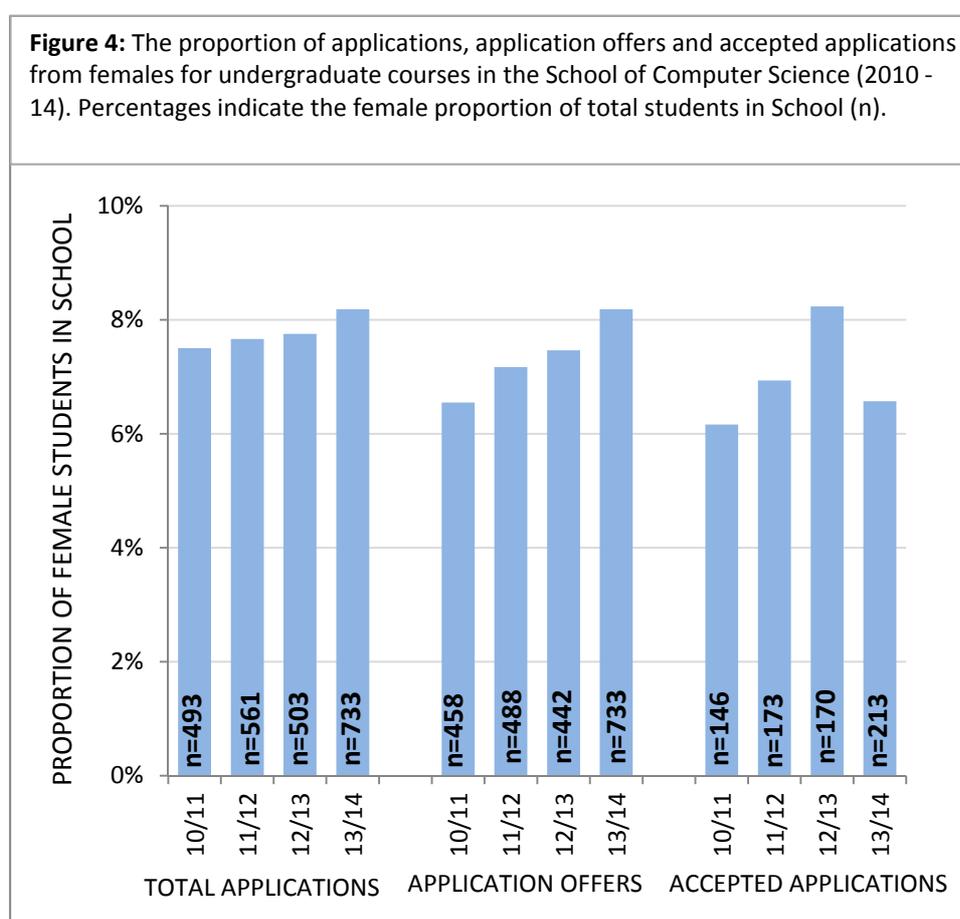
The School has reviewed its marketing and publicity material and in particular has updated all its research pages to showcase work of the female members of those groupings. Postgraduate opportunities have been marketed to undergraduate students to attempt to increase numbers participating.

### Planned Actions

- ✓ Emphasise the School's commitment to the advancement of women in Computer Science at postgraduate open days and internationalise the curriculum through content and student experience (**Action 2.1**)
- ✓ Hold focus group with female UG students to raise awareness of opportunities for, and the benefits of undertaking, postgraduate taught degrees. (**Action 2.2**)

(v) **Ratio of course applications to offers and acceptances by gender for undergraduate, postgraduate taught and postgraduate research degrees**

a) *Undergraduate Applications*



### Key Observations, Trends, Areas of Concern

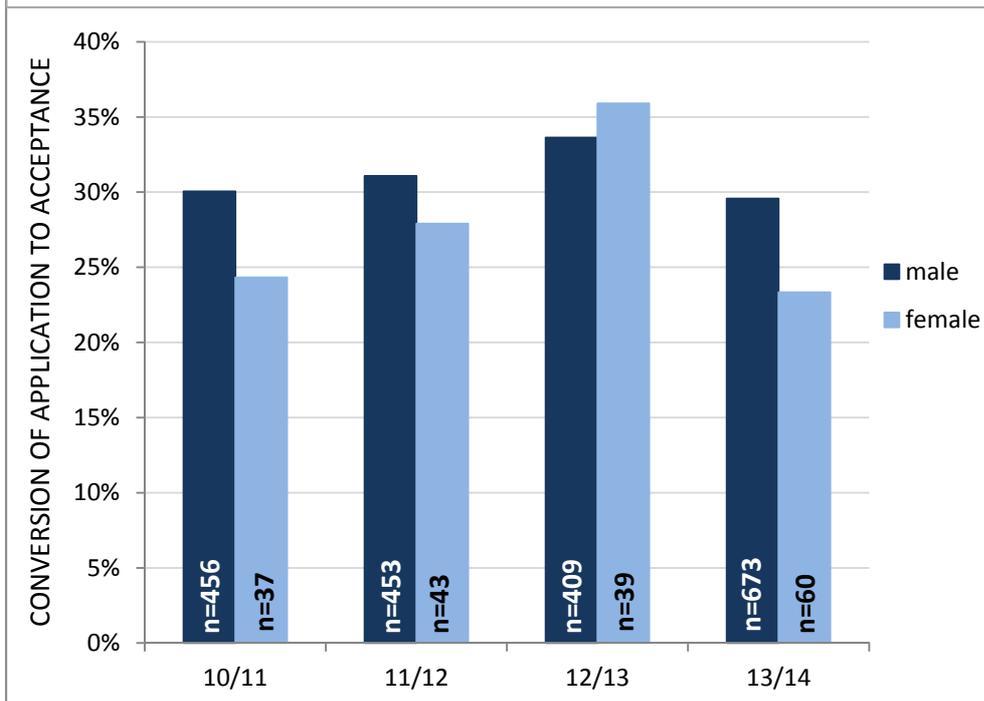
Although the overall number of female undergraduate students in the school over the past four years is quite low, the percentage of applications, offers and acceptances by women has mostly improved year on year, shown in **Fig.4**. The undergraduate application to offer rate has been very high for female applicants over the last four years, with the success rate (application to offer) averaging 88% for the reporting period of 2010-2014, seen in **Table 2**. The conversion rate for female applicants (28%) is very similar to that for male applicants (31%) (**Fig.5**).

**Table 2:** The proportion of applications, application offers and accepted applications for undergraduate courses in the School of Computer Science.

Year	FEMALE			MALE		
	Applied	Offered	F %	Applied	Offered	M %
10/11	37	30	81.1%	456	428	93.9%
11/12	43	35	81.4%	518	453	87.5%
12/13	39	33	84.6%	464	409	88.1%
13/14	60	60	100.0%	673	673	100.0%

Year	Applied	Accepted	F %	Applied	Accepted	M %
10/11	37	9	24.3%	456	137	30.0%
11/12	43	12	27.9%	518	161	31.1%
12/13	39	14	35.9%	464	156	33.6%
13/14	60	14	23.3%	673	199	29.6%

**Figure 5:** Conversion rates from application to acceptance for UG courses in the School of Computer Science by gender (2010 -2014). The total number of applications received by each gender are given (n)



## b) POSTGRADUATE TAUGHT APPLICATIONS

**Table 3:** The proportion of applications, application offers and accepted applications for postgraduate taught courses in the School of Computer Science.

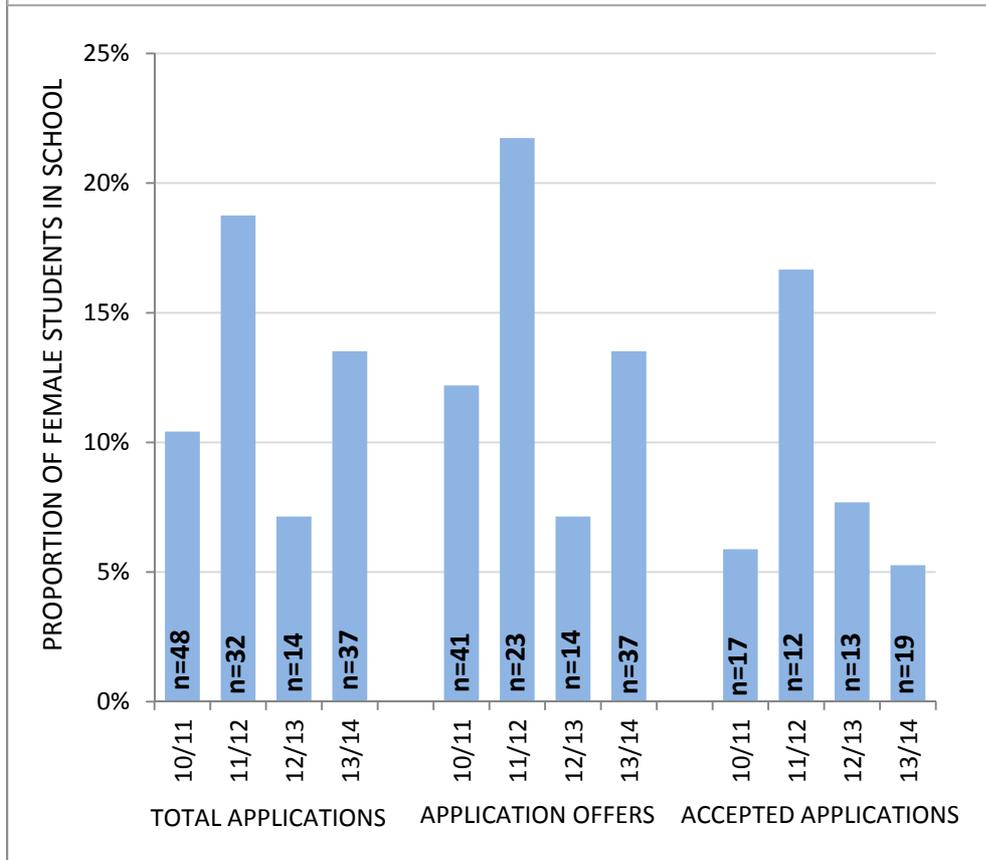
Year	FEMALE			MALE		
	Applied	Offered	F %	Applied	Offered	M %
10/11	5	5	100.0%	43	36	83.7%
11/12	6	5	83.3%	26	18	69.2%
12/13	1	1	100.0%	13	13	100.0%
13/14	5	5	100.0%	32	32	100.0%

Year	Applied	Accepted	F %	Applied	Accepted	M %
10/11	5	1	20.0%	43	16	37.2%
11/12	6	2	33.3%	26	10	38.5%
12/13	1	1	100.0%	13	12	92.3%
13/14	5	1	20.0%	32	18	56.3%

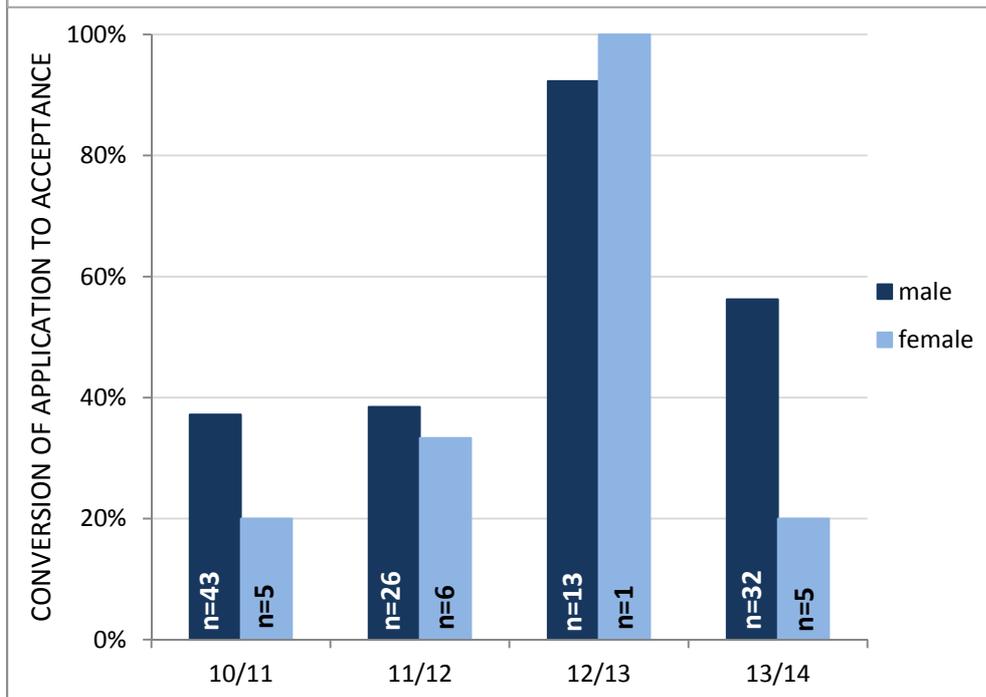
### Key Observations, Trends, Areas of Concern

The postgraduate taught course ‘application to offer’ rate has been very high for female applicants over the last four years – almost all the female applicants have been made offers, with the percentage success rate (application to offer) for females at an average of 94% from 2010-2014 (**Table 3**). However, the average proportion of female applications to PGT is low – about 12.5%, and the conversion rates (application to acceptance) generally remain lower for females than males (**Fig.6** and **Fig.7**).

**Figure 6:** The proportion of applications, application offers and accepted applications from females for postgraduate taught courses in the School of Computer Science (2010 -14). Percentages indicate the female proportion of total students in School (n).



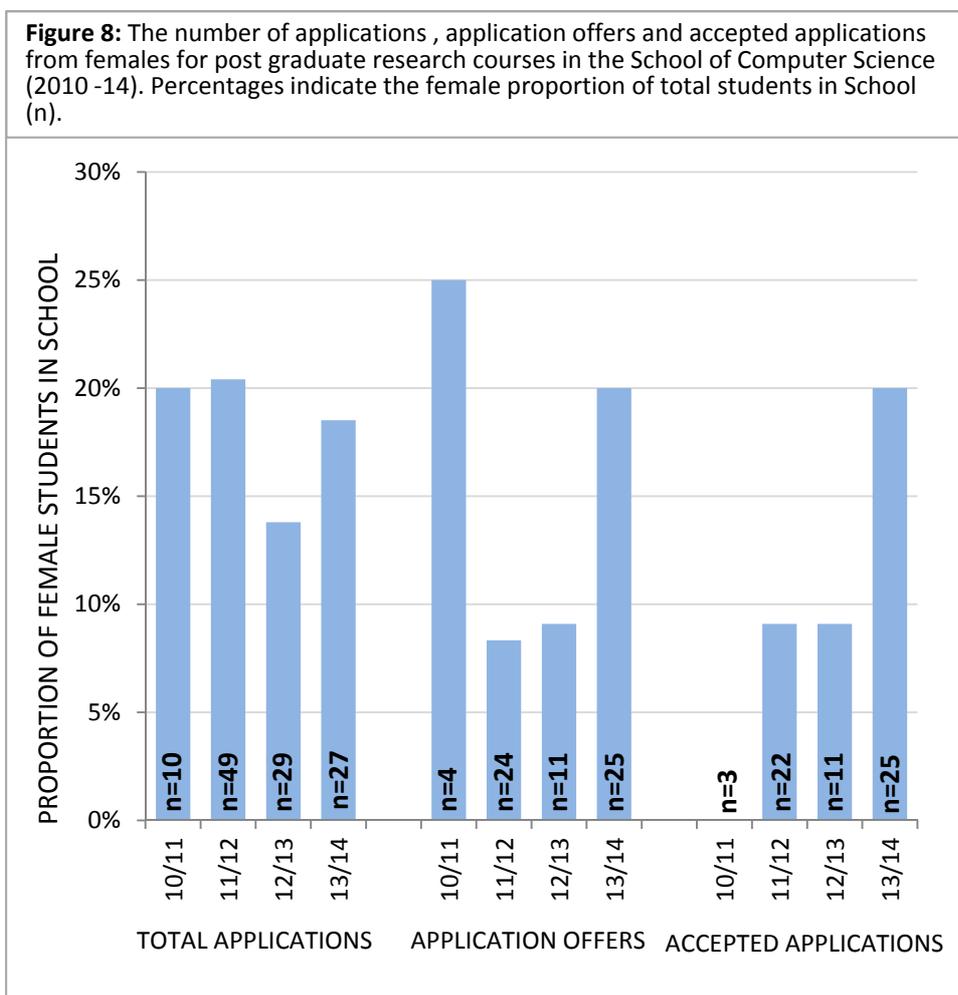
**Figure 7:** Conversion rates from application to acceptance for PGT courses in the School of Computer Science by gender (2010 -2014). The total number of applications received by each gender are given (n)



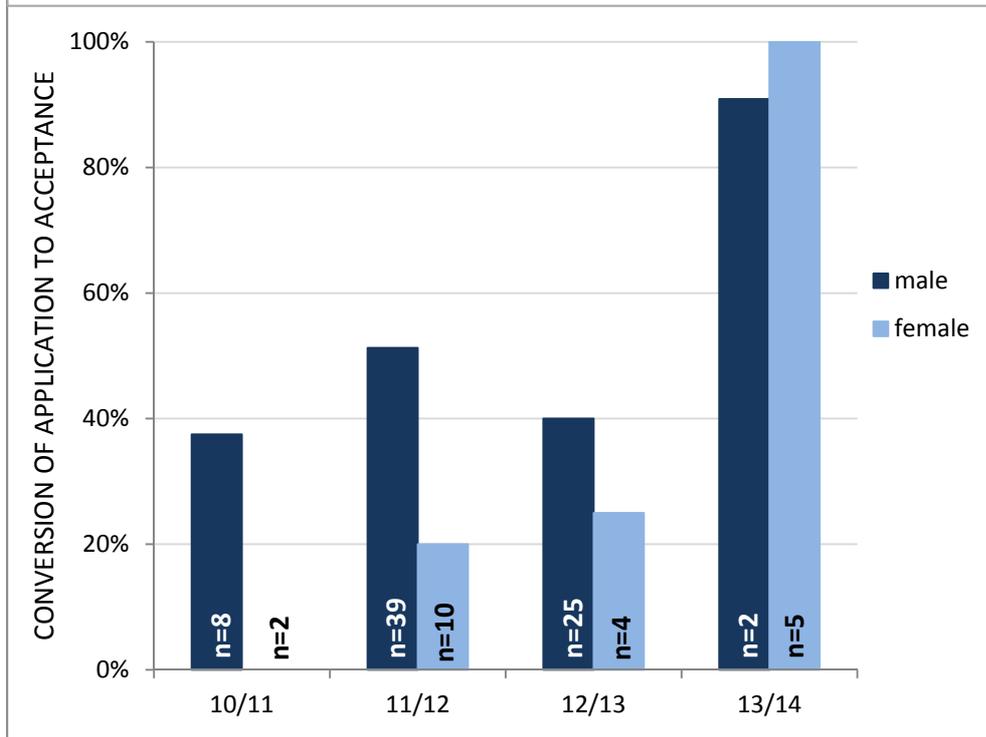
c) *POSTGRADUATE RESEARCH APPLICATIONS*

The proportion of female applicants to postgraduate research has been approximately 20% over the first two years period (in 2010-12). However, the ratio has dropped to 13.8% in 2012-13, and then increased to 18.5% in 2013-14, as shown in **Fig.8**. The conversion rate for female applicants is about 89% across the four years against that of 96% for male applicants (in **Fig.9**). In 2013-14, the percentage of female students undertaking research degree has achieved 20%, which is very encouraging (**Table 4**).

Across the School, the main challenge appears to be attracting female applicants to our courses. Those who do apply have excellent offer rates.



**Figure 9:** Conversion rates from application to acceptance for PGR courses in the School of Computer Science by gender (2010 -2014). The total number of applications received by each gender are given (n)



**Table 4:** The proportion of applications, application offers and accepted applications for postgraduate research courses in the School of Computer Science.

Year	FEMALE			MALE		
	Applied	Offered	F %	Applied	Offered	M %
10/11	2	1	50.0%	8	3	37.5%
11/12	10	2	20.0%	39	22	56.4%
12/13	4	1	25.0%	25	10	40.0%
13/14	5	5	100.0%	22	20	90.9%

Year	Applied	Accepted	F %	Applied	Accepted	M %
10/11	2	0	0.0%	8	3	37.5%
11/12	10	2	20.0%	39	20	51.3%
12/13	4	1	25.0%	25	10	40.0%
13/14	5	5	100.0%	22	20	90.9%

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### Planned Actions

- ✓ Improve marketing of School's Athena SWAN activities within national/international recruitment initiatives (**Action 2.1**).
  - ✓ Work closely with the University International Office to improve the numbers of female applicants by further developing international partnerships and internationalising the curriculum through content and student experience (**Action 2.1**)
  - ✓ Promote research opportunities and encourage our own UG students to consider PG courses (**Action 2.2**)
- 

(vi) **Degree classification by gender**

Degree classification data are presented in **Fig.10**.

### Key Observations, Trends and Areas of Concern

Overall our female students have performed well over the past four years in achieving good honours. Fig. 10 shows the proportion of female students achieving degree classifications of 2:1 and above is higher than that of male students with an average of 62% of female students achieving first degree or 2:1 compared to 55% of male students. However, in 2013-14, among 5 female students, no one obtained a First class degree, while 1 female student each achieved 2:1, 2:2, third and 2 obtaining pass degrees.

Although the total number of female students, compared to male students, is too small to draw meaningful conclusions, we will continue to monitor performance by gender throughout the degree to determine which factors are important and how these might affect our course structure and methods of assessment.

### Initiatives in Place

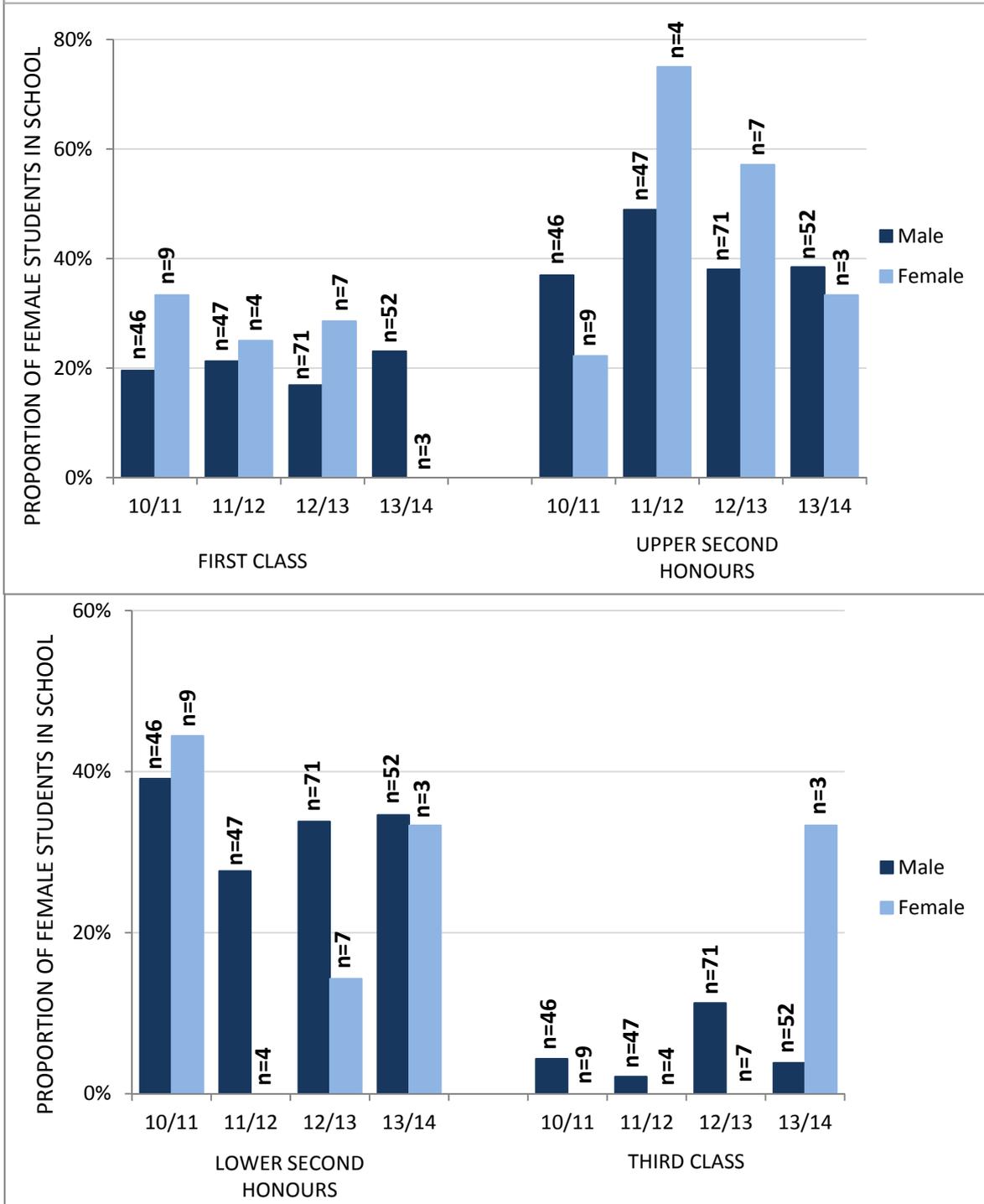
Initiatives to encourage applications include the review of marketing and publicity material and the events targeted at local Schools. The success of our female students has always been celebrated and there are numerous examples of our graduates appearing in University prospectuses, periodic School magazines, Open Day presentations, blogs and other social media sites etc. A new web-enabled student tutoring and monitoring system has been created to allow us to better follow the progress of our female students for engagement, progression and academic success.

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### Planned Actions

- ✓ Continue to monitor performance by gender throughout the degree to determine which factors are important and how these might affect our course structure and methods of assessment (**Action 1.3**)
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**Figure 10:** Degree classifications on undergraduate courses in the School of Computer Science (2010 - 14). Percentages indicate the male and female proportion of total students in the School (n).



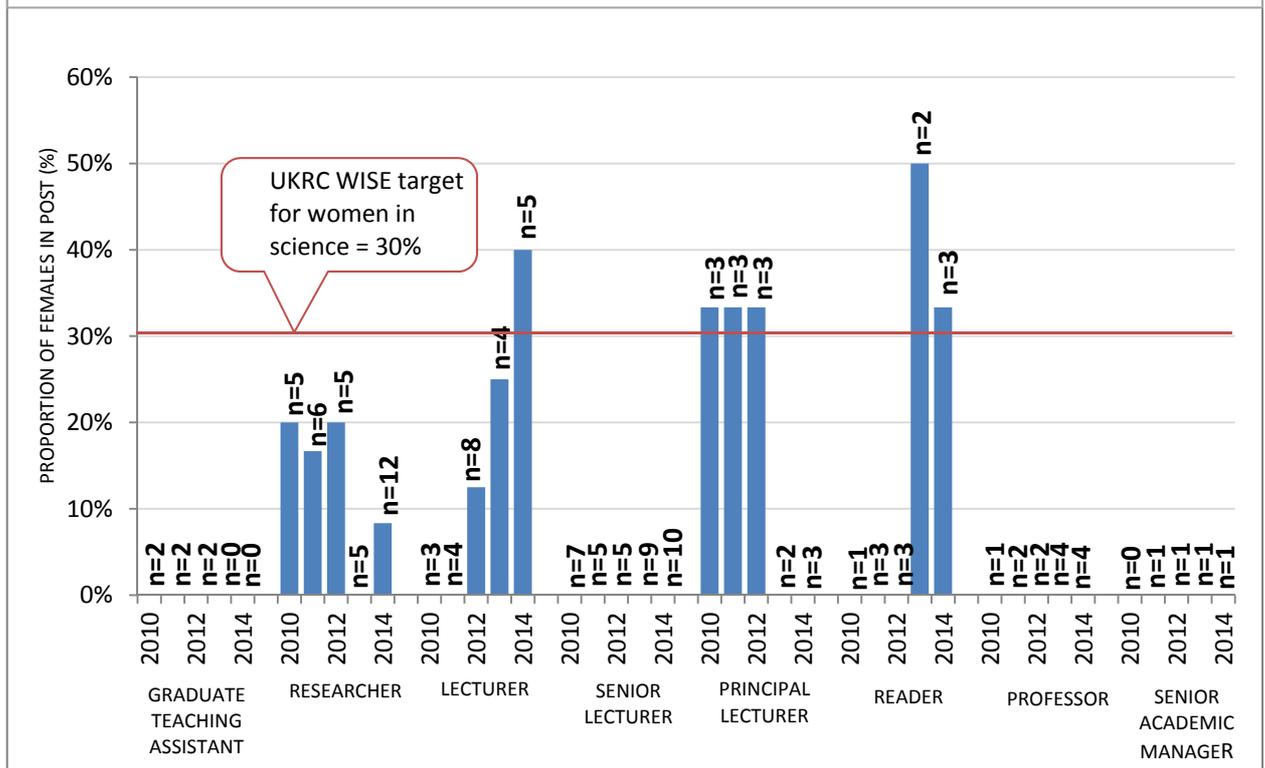
## Staff data

### (vii) Female:male ratio of academic staff and research staff

**Table 5:** Number and percentage of female staff in Computer Science per staff grade

	2010		2011		2012		2013		2014	
	Female	%	Female	%	Female	%	Female	%	Female	%
<b>Researcher</b>	1	20	1	16.7	1	20	0	0	1	8.3
<b>Lecturer</b>	0	0	0	0	1	12.5	1	25	2	40
<b>Senior Lecturer</b>	0	0	0	0	0	0	0	0	0	0
<b>Principal Lecturer</b>	1	33.3	1	33.3	1	33.3	0	0	0	0
<b>Reader</b>	0	0	0	0	0	0	1	50	1	33.3
<b>Professor</b>	0	0	0	0	0	0	0	0	0	0

**Figure 11:** Gender-distribution in the School of Computer Science (2010-2014). Percentages indicate the female proportion of the total academic staff in post.



### Key Observations and Areas of Concern

The proportion of female academic staff in the School (11%) is below the national average for the subject of 22% (Hesa Staff Record 2012/13). The School currently has very small numbers of full-time female staff with only one female reader, two lecturers and 1 researcher (**Table 5**). **Fig. 11** shows academic staff gender-

distribution in the School. The school will continue to work on a range of initiatives/activities to attract more female research and academic staff.

### **Actions Taken**

- Reviewing the wording of advertisements and job descriptions to ensure that they are free from unconscious gender bias; including a statement on advertisements for academic posts welcoming female applicants.
  - Publicising our work undertaken for the Athena SWAN initiative
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### **Planned Actions**

- ✓ Further promotion and marketing of the School's Athena SWAN activities and in advertisement packs to help improve the number of female applicants for academic posts. (**Actions 3.1**)
  - ✓ illustrating the School's full support of female academics and their career development (**Action 3.2**)
  - ✓ Promote fellowship opportunities targeting female early career academics. (**Actions 3.3**)
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## (viii) **Turnover by grade and gender**

### **Key Observations**

There are no significant gender differences in turnover. During the reporting period (2012-2014), turnover of academics and research staff is very small: only two academic staff left the school: one male senior lecturer (left in 2014 due to career movement) and one female principal lecturer (retired in 2012). For research staff, in total two female and three male researchers left the school from 2012-2014 (fixed term). Therefore, there are no issues with retention of female staff, and the School will endeavour to ensure that we maintain this healthy position.

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### **Planned Actions**

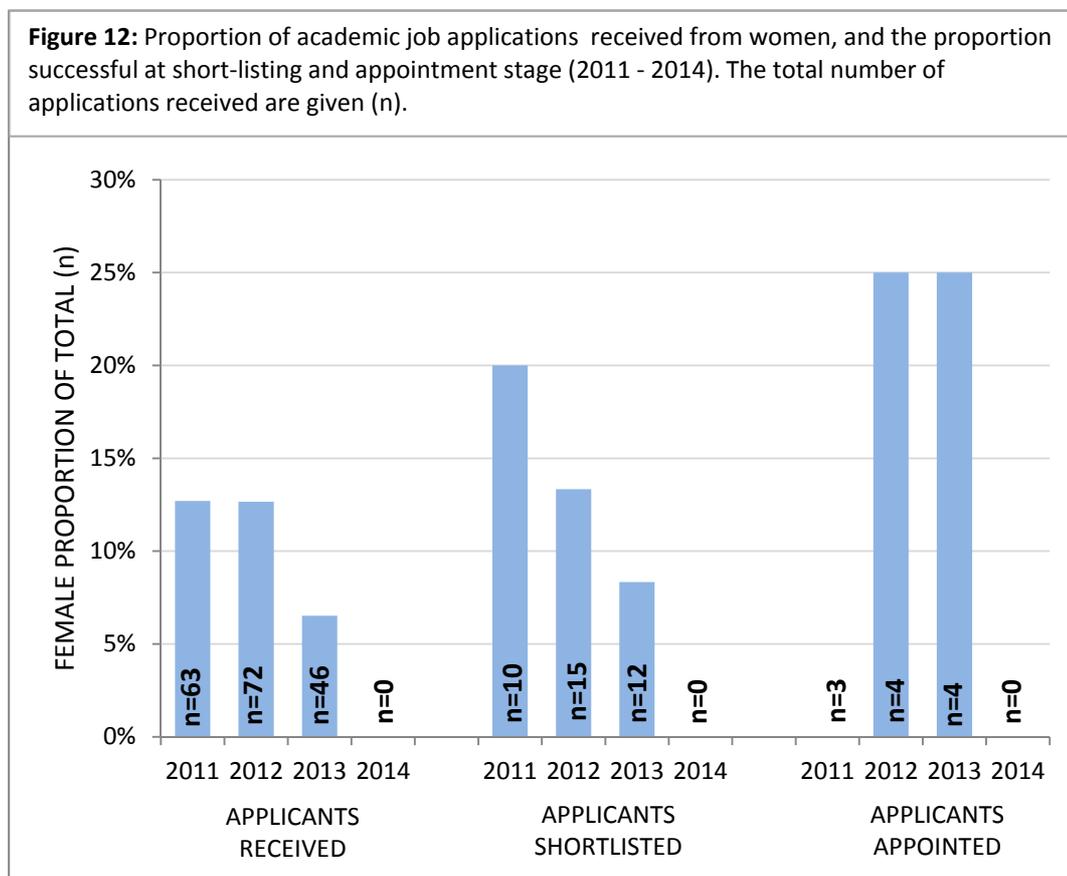
- ✓ Continue to work on a number of initiatives to support female postdoctoral researchers considering a career in academia. (**Actions 3.2 and 3.3**)
- 

**WORD COUNT = 1999/2000**

#### 4. Supporting and advancing women’s careers

##### 4.1 Key career transition points

###### (i) Job application and success rates by gender and grade



**Table 6:** Academic post application success rate by gender in Computer Science

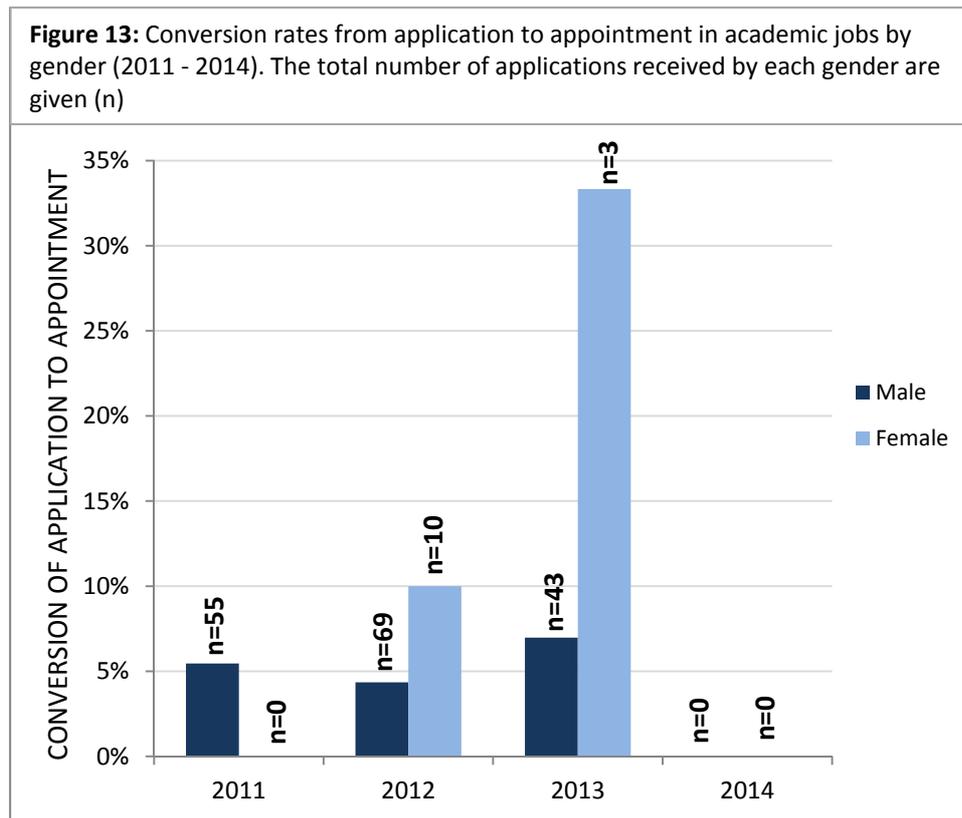
Year	FEMALE			MALE		
	Applied	Offered	F %	Applied	Offered	M %
2011	8	2	25.0%	55	8	14.5%
2012	10	2	20.0%	69	13	18.8%
2013	3	1	33.3%	43	11	25.6%
2014	0	0		0	0	

Year	Applied	Accepted	F %	Applied	Accepted	M %
2011	8	0	0.0%	55	3	5.5%
2012	10	1	10.0%	69	3	4.3%
2013	3	1	33.3%	43	3	7.0%
2014	0	0		0	0	

##### Key Observations, Trends, Areas of Concern and Actions

In total eleven academic posts have been advertised at the school from 2011-14. The proportion of women applying for, shortlisted, and subsequently appointed to academic posts since 2011 is shown in **Fig.12** and **Table 6**. Overall, for all the posts, there has been a disappointingly low proportion of female applicants. For example,

there were 12.7% female applicants for the seven posts in 2011 and 2012; while in 2013, only 6.5% female applications for the four academic posts. However, for each post, female applicants had a higher shortlisting rate, with an average rate of 26% against a shortlisting rate of 20% for the male applicants. We also found that, for the eight posts in 2012 and 2013, female candidates compared to males had a much higher success rate in being shortlisted. For example, in 2012, one in two of the females shortlisted was offered the post; while in 2013, one in one female was offered the post. However, in 2011, all the three posts were offered to male applicants, although two females were shortlisted (**Fig.13**).



On average over the four years, the female success rate (9.5%) is higher than for males (i.e. 5.4%). This suggests that overall females are more successful in relation to the overall ratio of female applicants. However, in 2013, the number of applications from females for academic posts has declined to only three, against forty-three male applications.

### Initiatives in Place

- The School has arranged a number of initiatives to encourage more female applicants including reviewing our recruitment documentation to ensure images used show a gender balance and that the requirements of the person specification are worded in a way to encourage female applicants.
- Introduced the Charlotte Angas Scott Research Fellowship to encourage more postdoctoral women in the fields of computer science and engineering.

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### Planned Actions

- ✓ Further promotion and marketing of the School's Athena SWAN activities and in advertisement packs to help improve the number of female applicants for academic posts. **(Actions 3.1)**
  - ✓ Continue to work on a number of initiatives to support female postdoctoral researchers considering a career in academia. **(Actions 3.2)**
  - ✓ Promote fellowship opportunities targeting female early career academics. **(Actions 3.3)**
- 

### (ii) Applications for promotion and success rates by gender and

**Table 7:** The number of academic staff applications received and appointments made by gender over a three-year period (2011-2014)

	Year	Female	Male
<b>Applied</b>	2011/12	0	1
<b>Successful</b>		0	0
<b>Applied</b>	2012/13	0	0
<b>Successful</b>		0	0
<b>Applied</b>	2013/14	0	2
<b>Successful</b>		0	2

### Key Observations and Actions Taken

All three female academics were recruited during the period of 2012-14. Over the past three years, no female academics applied for promotion (**Table 7**). The School applies the University's *improved academic promotions procedure* and the *Pipeline mentoring scheme* and has mechanisms in place to discuss, encourage and support individuals to apply for promotion. Potential candidates are identified through discussions at their annual appraisal meetings so that they can get essential support and advice on their Academic CVs. In addition to this, advice can also be sought directly from the Head of School or from a mentor.

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### Planned Action

- ✓ Continue to monitor the promotion and success rates by gender.
-

### (iii) Recruitment of staff

#### Initiatives in Place

The University adopted an industry best-practice *e-recruitment* system in 2011, which helps mitigate gender bias at the short-listing stage, by imposing assessment of applications against explicit criteria. The School applies the University's Recruitment and Selection policy and new *Key Performance Indicator* (KPI), with the aim of attracting and recruiting a person who is best suited to meet the job-related criteria for a post. Equality and diversity (E&D) principles are integral to all stages of the recruitment and selection process, ensuring that all applicants are treated fairly and transparently at every stage of the process. All staff involved in recruitment panels have undertaken E&D training, which covers gender awareness. Although the School has small numbers of female academic staff, we have made efforts to ensure that most recruitment panels have at least one female representative.

The wording of all advertisements is checked by our HR link officer for gender impartiality. To further encourage female applicants for academic positions, we have implemented a number of initiatives, including:

- Reviewing the School's promotional material to ensure it is free from any unconscious gender bias, particularly in use of language;
- Ensuring potential applicants are aware of the University benefits and family friendly suite of policies;
- Setting up School Athena SWAN webpage (linked directly from the University home page);
- Showcasing "Women in Science" (*WiSEblog*) prominently on the School's homepage;
- Ensuring we feature our female researchers and their work on the School's research centre web pages.

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#### Planned Actions

- ✓ Further promoting our involvement in Athena SWAN and illustrating the School's full support of female academics and their career development to improve the numbers of female applicants. (Actions 3.1-3.3)
  - ✓ Continue working with subject networks and with our own HR department to identify particular outlets to target when advertising posts. This work is receiving increasing attention as the low number of applications from females is seen as one of the key blocks to recruiting more women to the School. (Action 3.1)
-

#### (iv) **Support for staff at key career transition points**

To help all staff to develop to their full potential, there is already a wide range of personal development, training and networking opportunities on offer from the University and within the School. From our feedback from the 2014 Research Excellence Framework (REF), the School was singled out for its good practice in staff development and support at different stages, in particular:

- **Mentoring:** All new members of academic staff are provided with a mentor during their probation period, who is a senior member of staff from within the School. Research Centre leaders also provide mentoring to staff, usually focusing on the research aspects of the role. Female staff are encouraged to join the University's Pipeline mentoring scheme, which is specifically designed to support women at key career transition points.
- **Appraisal:** the School applies the University's annual Achievement Development Appraisal (ADA) process. Staff at all levels are given the opportunity to receive clear and consistent advice on career progression and continuing professional development through the appraisal process. This encourages appraisers to meet with staff on a regular basis throughout the year to review staff progress.
- **Personal Development Training:** The University's Staff development programmes offers a vast range of courses to PhD students, research staff and academic staff covering personal and career development, communications, research and enterprise skills, and supervision /management training. The University also provides Continuing Personal and Professional Development (CPPD) scheme which has been designed as a holistic and inclusive framework to enable all staff at the University to plan and further their careers.
- **Opportunities for Networking:** The School runs monthly seminar series, monthly PGR meetings, and regular School away days, all of which provides forums for staff and PhD students to network.
- **Female Research Fellowship:** A joint Charlotte Angas Scott Research Fellowship has been established to encourage more postdoctoral women in the fields of computer science and engineering.
- **Leadership Training:** Specific Leadership and management development programmes are offered by Professional Development for academic staff. The School also promotes development opportunities, such as the Aurora programme, which is a new women-only leadership development initiative. Dr. Ye is currently attending this leadership training course.

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### **Planned Actions**

- ✓ Further enhancement of the School's mentoring scheme for female early career researchers and demonstrating the School's positive attitude to flexible working arrangements (**Action 3.2**)
  - ✓ Promote and support fellowship applications (**Action 3.3**)
  - ✓ Continue to encourage more social and professional networking among PhD and academic staff. (**Action 4.5**)
- 

## **4.2 Career development**

### **(i) Promotion and career development**

The School follows the University annual Achievement Development Appraisal (ADA) process for Personal Development and Performance Review (PDPR). The ADA includes discussions on mentoring opportunities, promotion and career path development. During the ADA meetings, staff are given clear and consistent advice on how to advance their careers and how to identify and request any development training needs. Objectives and targets for the forthcoming year are identified and any training and development needed to support this is planned. Staff who express an interest in promotion or, who in the reviewer's opinion should be considering a promotion application are given the opportunity to discuss the process during their appraisal meeting. The formal process for initiating promotion is triggered by the individual submitting a request to the University run promotion scheme.

The School also follows the University's Competencies framework. Competencies are those critical factors that 'really make the difference' in distinguishing between average and outstanding performance. The Competencies Framework is now incorporated into the University Continuing Personal and Professional Development Framework (CPPD). This aims to support individuals in reflecting on, discussing and developing behavioural aspects of how they carry out their role and enable staff to strategically plan for career progression.

We have a dedicated HR advisor (Helen Rice), whose role includes the provision of School-specific staff training and also advice on various HR related policies and procedures.

The academic profiles used to inform the promotion process include: research contributions; performance, management and leadership in education; contribution to School management, e.g. administrative duties; pastoral responsibilities; recognised external University roles; and participation in community outreach programmes. The School has also introduced a career review for researchers when they move to a new fixed term contract, to ensure the new contract is in their best interests and to recommend re-grading and appointment to an open-ended contract where appropriate.

(ii) **Induction and training**

The School follows the University guidelines on staff induction to ensure that all employees begin their work in a positive and supportive environment. The University has a mandatory e-learning programme, such as Equality and Diversity, Introduction to Health and Safety, Stress Management for All Staff. All new staff in the School are expected to attend the University induction day and complete the e-learning programme as part of their induction. The School also runs its own in-house induction covering aspects of research, teaching and learning, administrative duties. Line managers are responsible for the induction to be carried out at an appropriate level and for identifying any initial training development needs.

Despite these efforts, in our recent Staff survey, only 56% of School of Computer Science Staff strongly/slightly agreed that “they are aware of the University’s policies in relation to gender equality (e.g., on discrimination, parental leave, carer's leave, flexible working).” In response and also based on the focus group discussion, the School has decided to improve signposting through their webpage, making the University’s online, family-friendly policies more available, including information on diversity and equality and flexible working, parental leave, and crèche facilities. These policies, together with the current and planned Athena SWAN activities through the WISEblog will also be discussed, in the regular school meetings. **(Actions 4.1 and 4.4).**

The University has provided a vast range of training to all staff covering personal and career development, communications, research and enterprise skills, and supervision /management training. The University’s Continuing Personal and Professional Development (CPPD) scheme is also designed as a holistic and inclusive framework to enable all staff at the University to plan and further their careers. Staff reported that they feel they have good access to training and attendance at such events is encouraged by line managers.

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**Planned Actions**

- ✓ The up-to-date work/life policies, together with the current and planned Athena SWAN activities will be discussed, in the regular school meetings to raise awareness of the University’s policies **(Action 4.1)**
  - ✓ Develop improved induction procedures **(Action 4.4)**
- 

(iii) **Support for female students**

The University’s student Graduate School supports the development of research skills and research careers, both in and out of academia, via a large annual programme of workshops and courses.

Significant support is also available to undergraduate and postgraduate students in the School including personal tutors for all students, project supervisors, PhD supervisors (at least two supervisors are allocated to each student). We also

provide other supporting activities, such as Programming sessions, Drop-in sessions, listening. These are informal and optional, and are well publicised through emails and posters throughout the School building.

Female academics in the School have, to date, provided informal mentoring and career development advice, to female UG / PGR students and research staff. Further plans to support female students include offering career development training courses that specifically target female PhD students and research staff, providing clearer indication of potential research topics. We are also giving serious consideration to allowing female students to opt for a female personal tutor or, while our number of female academics is building up, to provide a named female tutor that any female student can approach in addition to the other support provided.

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#### **Planned Actions**

- ✓ Introduce female mentor scheme to allow female students to opt for a female personal tutor or, while our numbers of female academics is building up, to provide a named female tutor that any female student can approach (**Action 1.4**)
  - ✓ Promote research opportunities and provide clearer indication of potential research topics (**Actions 2.2 and 2.3**)
  - ✓ Further promote the University's new pipeline mentoring scheme (**Action 3.2**)
  - ✓ Promote fellowship opportunities targeting female early career academics (**Action 3.3**)
- 

### **4.3 Organisation and culture**

#### **(i) Male and female representation on committees**

Important matters of School policy and development are always discussed in our monthly School meeting that all staff attend and contribute to. The other significant committee in the School is the Research Steering Group comprised of those with senior roles, including the Head of School, Research Directors, College Research Manager. The female: male ratio for the School Research Committee is 2:5.

As new committees and groupings are formed, the School is aware of the danger of overloading the existing female staff whilst at the same attempting to preserve the female to male proportion. An example is the expectation to have female representation on all interview panels. The small number of female staff means the load placed on them is potentially very heavy. A possible strategy to address this is to invite other female staff within the College or from across the University to sit on some of these committees. This is addressed in the Action plan (**Action 3.4**)

Our staff survey showed a strong positive response (81%) to the statement that "I am encouraged and given opportunities to represent my School externally and/ or internally (e.g., on committees or boards, as chair or speaker at conferences)".

(ii) **Female: male ratio of academic and research staff on fixed-term contracts and open-ended (permanent) contracts**

Overall there is a very low number of females on both fixed-term contracts and permanent contracts. All fixed-term staff are encouraged to consider their long-term plans and given support to position themselves effectively to obtain permanent posts. **Table 8** shows the total number of male and female staff on Fixed-Term contracts and permanent contracts within the School. **Table 9** shows the percentages of total male and female staff on Fixed-Term contracts. **Action 3.2** in the Action Plan particularly considers how female researchers considering a career in academia can be supported.

**Table 8:** Total number of male and female staff on Fixed-Term contracts and permanent contracts within the School of Computer Science (2011 - 2014),

Year	Female		Male	
	Fixed-term	Permanent	Fixed-term	Permanent
2011	1	1	6	20
2012	0	2	4	21
2013	2	2	9	28
2014	1	3	11	23

**Table 9:** Comparison of academic staff (as a proportion of all staff in gender group) on fixed-term contracts within the School of Computer Science (2011 - 2014), benchmarked against national data.

	FEMALE		MALE		ALL STAFF TOTALS	
	No.	%	No.	%	Female	Male
<b>National Benchmark data</b> (averaged over all UK Universities <sup>1</sup> )		<b>45.8</b>		<b>54.2</b>		
2011	1	50.0	6	23.1	2	26
2012	0	0.0	4	16.0	2	25
2013	2	50.0	9	24.3	4	37
2014	3	37.5	19	21.6	8	88

<sup>1</sup>Hesa Staff Record 2012/13 (all UK SET departments)

(iii) **Representation on decision-making committees**

Through the appraisal process, female academics are encouraged to participate in influential committees at the College level (such as College Board of Studies, College Research Committee) and University Level committees such as Academic Board, Academic Affairs Committee. In some cases membership is achieved through elections, in other cases there is a nomination process. For internal committees, until the School has an increased number of female academics, a joint scheme can be employed where female academics from other schools within the college will be invited to establish female representation on some committees. This is addressed in the Action plan (**Action 3.4**)

(iv) **Workload model**

The School operates the University' new workload model to capture the various duties carried out by its academic members of staff. Duties are allocated by the Head of School based on the workload model. The workload data includes teaching duties, details of project supervision, research activity including management of grants and research projects, research student supervision, personal tutoring, main administrative roles. The aim of the model is to assist a fair and appropriate distribution of workload and ensure that the allocation maintains equality. The model is reviewed once per year at the School meeting. A proposal has been made to introduce a workload committee to 1) Review and make recommendations about the tariffs applied to various activities; 2) Review the application of the tariffs in allocating actual workload; and 3) Develop policies and procedures to make most effective use of the academic staff resource. It is intended that this committee will ensure equitable allocation of work incorporating the existing attention paid to flexible working requests.

**Initiatives in Place**

To ensure transparency of the School's workload model, data are published to all the staff and each member has copies of all staff workload profiles and the individual profile. New appointees initially start with low teaching allocations to allow them to establish their academic careers. Typically this has meant increasing to a full teaching contribution during the first year of appointment.

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

The School supports broader attitudes and approaches to flexible ways of working, which can include part-time working, compressed working hours, and working from home. We promote "core hours" of 10am – 4pm in consideration of staff with child-care commitments. School meetings are always held within these hours. Our usual tools for arranging meetings/gatherings flexibly and at suitable times for those involved are 'Doodlepolls'.

A recent staff survey showed that 85% of respondents agreed with the statement "Meetings in my School are completed in core hours to enable those with caring responsibilities to attend. (Hours, for example, 10am to 4pm, during which flexitime workers must be engaged in work)."

Social gatherings are a good way to facilitate communication among staff and students in a relaxed and friendly atmosphere. Many of these events are held during the day at coffee / lunch in the school sofa area or the University Atrium. Sometimes the events are held either immediately after work or at weekends so that staff can bring along their families.

(vi) **Culture**

The School endeavours to create a supportive and people friendly environment to enable individuals to work flexibly and meet the challenges of the future. The Head of School is available for consultation by all staff. The School's culture of

accommodating informal flexible working hours is particularly attractive for staff with children and other caring responsibilities.

To enable individuals to work flexibly and be able to attend other professional activities, the School allows academics to have one-day free of teaching per week. This is taken into account in timetabling. In addition requests for amendments to the working day are also sought and included. At the start of the timetabling process the School timetabling manager sends an email to all members asking whether they would prefer a teaching-free day and any requirements to avoid certain times of the day. If so, this will be factored in when the timetable is drawn up.

(vii) **Outreach activities**

The School participates in a wide range of outreach activities that are targeted at increasing engagement with future students and the general public. Generally, these activities are designed to appeal to persons of all genders, and we regularly review our outreach materials to ensure suitability. To increase accessibility of outreach activities for females, we aim to increase the participation of female demonstrators/student helpers, and female members of staff whenever possible, whilst maintaining realistic workload given the small number of female staff.

Particularly addressing outreach activities targeting females, the School has organised a number of activities aimed at encouraging local high school pupils to study Computer Science. These involve activities specially targeted at schoolgirls. Dr. John Murray (Principal lecturer in the School), worked together with the ASSAT to run a workshop for the 'Newton Academy-the Science Club for Girls' in June 2014, with the aim of getting young girls to experience science subjects and to spark interest. This event was very well received, and has paved the way for further activities in this area.

Dr Amr Ahmed (member of the ASSAT) is currently organizing our School showcase event. This is an annual event that attracts visitors from industry and colleagues across the University. The aim is to facilitate exposure to our students and for them to show the good work that they have been doing and to increase the opportunities for student placements and employability. The event also gives us very useful feedback from our guests. We also invite local schools to visit the showcase event. The idea is that they can see the range of topics and activities, what students can achieve within the school, and encourage them to consider studying Computer Science.

#### 4.4 Flexibility and managing career breaks

##### (i) Maternity return rate

**Table 10:** Summary of the numbers of academic staff within the School of Computer Science taking maternity leave and returner information (2010 - 2014)

	Status on leaving		Status on returning				
	F/T	P/T	RETURNED	RETURNED	DID NOT	Left via TUPE	Still on leave
			F/T	P/T	RETURN		
2010/11	0	0	0	0	0	0	0
2011/12	0	0	0	0	0	0	0
2012/13	0	1	0	1	0	0	0
2103/14	1	0	1	0	0	0	0

One member of staff, a permanent hourly paid lecturer, took maternity leave during the reporting period, shown in Table 10. She has returned to the post. The opportunity to make amendments to working pattern in this case was discussed and taken up.

The School follows the University's work-life balance policies and procedures, which offers a comprehensive set of provisions to support staff with parental responsibilities, including maternity, paternity and adoption leave that goes beyond the minimum statutory requirements. These are all part of the university suite of work-life balance policies. As part of the parental leave provision, keep-in-touch days are offered (up to 10 days at the normal rate of pay) that allow staff to stay in contact with the workplace and support their smooth transition back to work after a period of maternity leave. The University also introduced a R2F scheme (Returner's Research Fund) to help to sustain research activities during and/or after maternity leave. Each eligible member of staff can apply for up to £10,000 of funding. The R2F scheme has been advised on the School website through the University's WiSEblog. All female full- and part-time staff and postdoctoral researchers who are embarking upon, or returning to work after a period of maternity leave are encouraged to apply for the funding.

Although the School feels that currently we have no issues with maternity leave, we will, however, continue to monitor maternity return rate (**Action 4.2**).

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##### Planned Actions

- ✓ Continue to monitor maternity return rate (**Action 4.2**)
-

(ii) **Paternity, adoption and parental leave uptake**

**Table 11:** Academic staff within School of Computer Science who took adoptive, parental or paternity leave

Year	Adoptive Leave	Parental Leave	Paternity Leave	Total
2011	0	0	0	0
2012	0	0	1	1
2013	0	0	0	0
2014	0	0	2	2

As discussed above, the University offers a comprehensive set of provisions to support staff with parental responsibilities. During the reporting period (2011-14), one member of staff took paternity leave in 2012, and two members of staff took paternity leave in 2014 (**Table 11**). All three staff members have since returned to work. The School offers flexible working for staff to work shorter hours or work from home, if needed.

(iii) **Flexible working**

There have been no formal applications from academics for flexible working in the School. Flexible working is accommodated if possible, and is often an informal arrangement between the individual and Head of School, including working from home, flexible hours and timetable scheduling, due to childcare commitments.

**Initiatives in Place**

To support individuals to work flexibly and be able to attend other professional activities, the School allows academics to have one-day free of teaching per week. This is taken into account in timetabling. In addition requests for amendments to the working day are also sought and included. At the start of the timetabling process the School timetabling manager sends an email to all members asking whether they would prefer a teaching-free day and any requirements to avoid certain times of the day. This is then factored in when the timetable is drawn up.

(iv) **Cover for maternity and adoption leave and support on return**

Support for maternity and adoption leave and support on return is achieved in conjunction with HR, and is also part of the University's suite of work-life balance policies. Although the School has had a very small number of staff taking maternity leave, we recognise that we need to raise awareness of the support that is available to enable a smooth return to work and to retain valued members of staff following their return. Raising staff awareness about this is now being facilitated through the induction process, mentorship and annual review meetings. Academic duties cover is achieved by reducing workload and re-allocating the duties between other staff members. All PhD students have at least two supervisors in the School. Supervisors can therefore share responsibility for the student when one supervisor is on leave. The School encourages all eligible members of staff to apply for the University R2F fund to help to sustain research activities during and/or after maternity leave.

**WORD COUNT = 4649/5000**

## 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.

The Staff Survey conducted within the School showed that both male and female staff feel supported in the key areas identified in the question set. For example:

- 88.5% of respondents agreed that “Staff are treated on their merits irrespective of their gender (e.g. both women and men are actively encouraged to apply for promotion and take up training opportunities)”
- 84% of respondents (16% neither agree nor disagree) agreed that “ Inappropriate images that stereotype women or men are not acceptable in the School)
- The majority of staff (92%) confirm their understanding of the School’s reasons for taking positive action on gender equality.
- 80% of respondents (16% neither agree nor disagree) agreed that their line manager / supervisor is supportive of requests for flexible working).
- Generally, staff ‘feel’ confident that their line manager would deal effectively with any complaints about harassment, bullying or offensive behaviour (80% of respondents agreed with this statement).
- 81% of respondents agreed that “I believe that in my School, men and women are paid an equal amount for doing the same work or work of equal value.”

However, the analysis of the survey also presented a number of issues and open questions. For example, Staff survey question on “My School has made it clear to me what its policies are in relation to gender equality (e.g., on discrimination, parental leave, carer’s leave, flexible working).” 36% of respondents strongly or slightly disagreed with this statement. Some concerns are also raised during the School meetings which are related to how the school can improve social interaction between staff and how we can encourage networking among PhD students and academic staff.

The ASSAT decided that these should be followed up by focus groups. Three focus groups were set up and in total twenty-six staff including both academic staff and administrative staff participated in the discussions. The session was chaired by the Head of School with three ASSAT team members in each group responsible for leading the discussion and taking notes. The key issues mentioned above structured the session. These were discussed in turn with the aim of identifying potential solutions/next steps, in order to help the ASSAT to formulate our action plan.

The team has found the process of preparing for this Athena SWAN submission extremely valuable. It has helped us assess the current School culture and develop a coherent approach to improving the work environment and ensuring equality of opportunity for all our staff in the School. The work of our Athena SWAN team has also benefited greatly from the direct involvement of the Head of the School.

**WORD COUNT = 485/500**

## 6. School of Computer Science Athena SWAN Action Plan (2015-2018)

Action	Description of Action	Actions Taken	Future Actions	Progress Log	Responsibility	TimeLine	Success Measure
<b>1</b>	<b>GENDER BALANCE IN UG STUDENT POPULATION</b>						
<b>1.1</b>	Annual monitoring of applicant data by gender	Data collected and analysed for 2010-2014	- Collect and analyse data by gender each year. Incorporate results into Annual Monitoring of Programmes and Periodic Academic Review	Data collection is ongoing	- School Marketing Team (SMT) - Head of School (HoS) - School Director of Teaching and Learning	On-going	Data available to help inform proposed activities and key areas to target.
<b>1.2</b>	Attract female students to UG courses.	- Images in publicity materials reviewed to ensure no unconscious gender bias. Current female staff, PGRs and UGs are highly visible in all of the School's promotional materials. -Organized a number of activities targeting local and regional schools to encourage young girls to retain science subjects, including a workshop for the 'Newton Academy-the Science Club for Girls 'in 2014.	- Increase engagement with local and regional secondary schools to spark interest in Computer Science. - maximise the School's profile of existing outreach and widening participation opportunities for females		- SMT - HoS - School Outreach Coordinator	July 2015 for the first review, then ongoing 2016-18	Year-on-year 20% increase the proportion of female undergraduates, reaching national benchmark by 2018.

Action	Description of Action	Actions Taken	Future Actions	Progress Log	Responsibility	TimeLine	Success Measure
1.3	Monitor the progression statistics and final degree achievement by gender	Data collected and analysed for 2010-2014	Collect and analyse data by gender each year. Incorporate results and actions into Annual Monitoring of Programmes and Periodic Academic Review		- Program Leaders - HoS - School Director of Teaching and Learning	On-going	Data available to help identify problem areas and propose development.
1.4	Provide support for UG students and retain female undergraduate students	A new web-enabled student tutoring and monitoring system has been created to allow us to better follow the progress of our female students for engagement, progression and academic success.	Introduce female mentor who can be approached by female students instead of personal tutor if student would like to discuss with person of the same gender	For the last two years (2012-2014), the School has about 95% completed rate for both female and male students	- HoS -Program Leaders	September 2015	Increase female students completed rate to 100% by 2018
<b>2</b>	<b>GENDER BALANCE IN PG STUDENT POPULATION</b>						
2.1	Diversify recruitment to increase female postgraduate (PGT/PGR) number	- Review of publicity materials (as .1 above) - School efforts on international student recruitment - Updated School's research pages to showcase work of the female members on School web site -Postgraduate opportunities have been marketed to undergraduate students.	-Improve marketing of School's Athena SWAN activities within international recruitment initiatives. - Increase international engagement piggy-backing onto existing activity and exploiting existing contacts wherever possible - Internationalise the curriculum through content and student experience		- HoS -SMT -Programme Leader for PGR students	September 2016	Year-on-year 20% increase in number and proportion of female students on PGT/PGR courses.

Action	Description of Action	Actions Taken	Future Actions	Progress Log	Responsibility	TimeLine	Success Measure
			- Emphasise the School's commitment to the advancement of women in Computer Science at postgraduate open days and on the School's web-site				
<b>2.2</b>	Promote research opportunities and encourage our own UG students to consider PG study		- hold focus group with female UG students to raise awareness of opportunities for and the benefits of undertaking, postgraduate taught degrees. - PGR research seminar open to second/third year UG students		- Final year project supervisor - Programme Leader for PGRs - HoS - ASSAT	2015-2018	-Minutes of focus group discussion
<b>3</b>	<b>GENDER BALANCE IN STAFF</b>						
<b>3.1</b>	Address poor female application rate for academic positions	-Review the wording of advertisements and job descriptions to ensure that they are free from unconscious gender bias; including a statement on advertisements for academic posts welcoming female applicants - Publicising our work undertaken for the Athena SWAN initiative	-Further promotion and marketing of the School's Athena SWAN activities on Website and in advertisement packs  - Continue working with our HR to identify particular outlets to target when advertising posts.		-HoS - School Director of research - Research Centre Directors	As vacancies arise	-Increase the proportion of female applicants for academic posts 30% by 2017

Action	Description of Action	Actions Taken	Future Actions	Progress Log	Responsibility	TimeLine	Success Measure
3.2	Support female PhD/Postdoctoral researchers considering a career in academia	<ul style="list-style-type: none"> <li>-Encourage PhD/Post-doc females to avail of school mentoring scheme.</li> <li>-Promote the University's new pipeline mentoring scheme</li> </ul>	<ul style="list-style-type: none"> <li>-Promote University Career development Programmes</li> <li>-Further enhance the School's mentoring scheme for female early career researchers</li> <li>-offering career development training courses that specifically target female PhDs and researchers</li> </ul>		<ul style="list-style-type: none"> <li>-Supervisor</li> <li>- HoS</li> <li>- School Director of Research</li> </ul>	2015-2018	Increase the proportion of female PhD/Post-doc applying for academic posts to 30% by 2018
3.3	Promote and support fellowship applications	Introduced the Charlotte Angas Scott Research Fellowship to encourage more postdoctoral women in the fields of computer science and engineering.	The School will actively promote fellowship opportunities targeting female early career academics		<ul style="list-style-type: none"> <li>- HoS</li> <li>-- School Director of research</li> </ul>	2015-2018	New fellowship opportunities created and recruited
3.4	Improve female representation on School Committees	<ul style="list-style-type: none"> <li>-Female representation on School Committees reviewed</li> <li>-Taken part in Aurora programme, which is a new women-only leadership development initiative.</li> </ul>	<ul style="list-style-type: none"> <li>-Invite other female staff within the college to sit in some of the School committees</li> <li>-Encourage staff to take an active involvement in leadership training workshop specifically for female staff</li> </ul>	Annual review Committee membership	-HoS	September 2016	All committees have at least one female staff member mindful of not overloading those in post

Action	Description of Action	Actions Taken	Future Actions	Progress Log	Responsibility	TimeLine	Success Measure
<b>4</b>	<b>SCHOOL CULTURE</b>						
<b>4.1</b>	Keep staff informed of Athena SWAN activities and promote and raise awareness of healthy work /life balance policies	The School's webpage has provided a link through the University WiSEblog signposting to the University's work/life online policies	The up-to-date family-friendly policies, together with the current and planned Athena SWAN activities, will be discussed in the regular school meetings		-Chair of ASSAT -HoS	September 2015	Minutes of School Meetings report updates
<b>4.2</b>	Monitor the maternity return data	Data collected and analysed for 2010-2014	Continue to monitor maternity return rate		-Chair of ASSAT -HoS	On-going	Data available for the analysis
<b>4.3</b>	Promote School's image as a female friendly workplace.	Review of presentation of female achievements	Continue to promote female staff, PGRs and UGs (highly visible) in all of the School's promotional materials.		-HoS -- School Outreach Coordinator		- Outcome from staff survey
<b>4.4</b>	Develop improved induction procedures		-Prepare one single information sheet pointing to relevant policies, key contact people in relation to certain topics to ensure new staff easy access and fully aware of School's policy and procedures		HoS School Administrator	February 2016	Improved School introduction sheet is available
<b>4.5</b>	Encourage social and professional networking among academic	-Encouraged staff to attend PGR/PhD monthly seminars	--Organize more social activities (i.e. Friday cakes, Coffee morning, Sports events, etc)	On-going	-HoS -Programme Leader for PGR -Supervisor		Increased participation in networking between PhD and

Action	Description of Action	Actions Taken	Future Actions	Progress Log	Responsibility	TimeLine	Success Measure
	staff and PhDs		<ul style="list-style-type: none"> <li>-Invite PGR /PhD representatives to parts of the School Staff meetings</li> <li>- Staff engagement with the PGRs activities (e.g. monthly seminars / career development options).</li> <li>-Provide ring-fenced budget for research students to make initiatives and organise events and invite staff to attend</li> </ul>				Academics (measured from staff survey)
4.6	Continue ASSAT meetings and implement Athena SWAN principles		Support for all the activities outlined above, which may in turn reveal the need for additional actions contributing to our progression towards greater gender equality.		Chair of Athena ASSAT		Bronze Award earned and progression onto Silver application