2020 Minerva Informatics Equality Award

Nominated Department - contact details

Name of university: University College London (UCL)

Department: Computer Science (CS)

Date of application: June 2020

Contacts for application: Steve Hailes (Head of Department), Ivana Drobnjak and

Ifat Yasin (Athena Swan team co-leads).

Note: In the UK, the Athena SWAN Charter was established in 2005 to encourage and recognise commitment to advancing the careers of women in science, technology, engineering, maths and medicine (STEMM) employment in higher education and research. The CS department at UCL has an Athena Swan self-evaluation team.

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Brief Summary

The Computer Science (CS) Department at University College London has been promoting initiatives in the last years to encourage and support the careers of women in CS. We have been promoting Computer Science among girls at school, improving our messages to attract women to apply to UCL and, once part of our community, to support and encourage their work and careers. These activities include workshops and mentoring for fellowship applications for PhD students and postdocs, and the Proleptic Fellowships scheme to encourage women to remain within academia in permanent careers.

Note: We agree that the submission can be considered as a runner up (if it does not win the award) and can be included as an exemplar of best practice in future Informatics Europe publications.

Description of initiative

The **2020 Minerva Award** is devoted to gender equality initiatives and policies supporting the transition of female PhD and postdoctoral researchers into faculty positions.

In what follows we describe two initiatives of the Computer Science Department at University College London for which we have evidence of having had a measurable impact on the careers of women within the institution. These initiatives have been running for over 5 years now and are already serving as beacons of best practices within the UK academic community, and have the potential to be widely adopted by other institutions.

- **1. Fellowship Workshop Series** contributing to the Computer Science Department's very high fellowship numbers.
- 2. Proleptic Lecturer Scheme which increased female academic staff by 10%.

We will describe these two initiatives within the wider context they take place: the activities of the Athena Swan Self-Assessment Team. In the UK, the Athena SWAN Charter was established in 2005 to encourage and recognise commitment to advancing the careers of women in science, technology, engineering, maths and medicine (STEMM) employment in higher education and research. We are one of only six CS Departments in the UK to have achieved an Athena Swan Silver Award which we successfully renewed in 2019. The Silver Award recognises that we have gone beyond simply identifying problem areas in relation to gender inequality, but that we have been successful in implementing strategies that address these issues and furthermore have been able to measure our progress towards our goals. Our commitment to gender initiatives was also recognised by the Minerva Award in 2016 for activities to develop the careers of female faculty (namely for activities increasing transparency of promotion criteria and ensuring fair and proactive advancement of women through the ranks from assistant professor to full professor). Our departmental strategy and academic mission is to continue working towards full gender balance at all levels. To achieve this, we have been promoting Computer Science among girls at school, improving our messages to attract women to apply to UCL and, once part of our community, to support and encourage their work and careers. Our approach is structured around five key areas:

- ARRIVE: changing perceptions of CS in both girls and boys aged 9-18.
- ASPIRE: showcasing CS role models and presenting diverse career paths in CS.
- ACHIEVE: providing training and support to women in CS so they can achieve their potential.
- ADVANCE: increasing pathways to advancement in academic and professional careers in CS.
- AMPLIFY: sharing best practices, scaling up and broadening our outreach for national and international impact.

This framework has also proved invaluable in disseminating our activities to other Universities/Organisations within and outside of the UK. All five initiatives have been designed from a long-term perspective and each has a set of action goals for a 4-year

period, to be replaced with new ones at completion. Particularly relevant to this application are activities taken place in the ACHIEVE and ADVANCE tracks of the above activities.

1. Fellowship Workshop Series (ACHIEVE activity)

The Departmental Athena Swan team has organised and run a series of highly successful Fellowship Writing Workshops (Figure 1). Since 2017, five workshops have been organised with approximately 20 participants each, with a roughly equal split of men and women. We have received very positive feedback on the workshop structure, and, in particular, the opportunity to speak one-to-one with successful Fellows (see Impact section for more details).

In addition, we organise a range of mock panels in preparation for fellowship interviews. These strategies combined ensure that our Department has a very high number of fellowships: we currently hold 19 total, 6 female and 13 male. They come from a range of funding bodies, including the ERC, EPSRC, Leverhulme Trust, Royal Society, Royal Academy of Engineering.





Figure 1: Fellowship Workshops Series created to help Postdocs write fellowship applications and guide them into permanent academic careers.

2. Proleptic Lecturer Scheme (ADVANCE activity)

The departmental ADVANCE strategy uses a Proleptic Lectureship Scheme (PLS), developed by the Departmental Athena Swan team in 2012, to help Postdocs transition to permanent academic posts. PLS enables Postdocs that hold independent external Fellowships to be guaranteed permanent academic posts after their fellowships end. The scheme is open to all female and male researchers and, together with a range of other actions, has significantly increased the number of our female academic staff – from 12% in 2011 to 21% in 2019, see the impact section below. To maximize the impact of the scheme, all heads of research groups are encouraged to advertise its existence to senior PhD students and postdocs, as well as to relevant external contacts in their network. The scheme is also advertised in the fellowship writing workshops and discussed with fellowship holders. The proleptic lecturer scheme is enhanced with the existence of **post-break awards** (for maternity or carer leave) and **emergency childcare**. All these measures together make the CS Department at UCL a uniquely attractive workplace for female academics.

Evidence of its impact

In the below we provide evidence of impact for each of the activities, through objective results of surveys of staff experience and increasing numbers of female faculty, which demonstrate that both activities have led to improved career development for female PhD students and postdocs.

1. Fellowship Workshop Series (ACHIEVE activity)

We have received very positive feedback on the workshop structure, and, in particular, the opportunity to speak one-to-one with successful Fellows. The results of the surveys on the workshop speak for themselves:

"Would you recommend the workshop?" 100% - Yes.

"How helpful was the workshop?" 67% - Very Helpful, 33% - Helpful and 0% - Not Helpful.



We have also gathered feedback from participants, eg:

"The fellowship writing workshop helped me to realise the importance of better highlighting my strengths and ensure that reviewers understand what makes me a great candidate" – Postdoc Giulia Barbareschi.



"The department and the faculty have an excellent support system for applying for research grants. There are also one-to-one sessions available to review one's draft. (...) The department organised a mock panel for me, which further helped me prepare for the then successful interview." – Principal Research Fellow Justyna Petke.

2. Proleptic Lecturer Scheme (ADVANCE activity)

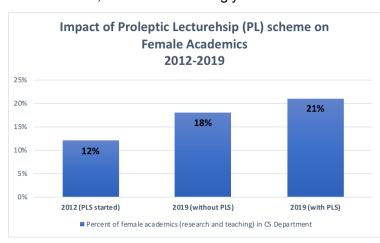
The Proleptic Lectureship Scheme (PLS) is a way of promoting talented Research Fellows (researchers on independent external fellowships) within the department and wider, to a Proleptic Lectureship post, which automatically turns into an Academic post once their fellowship is finished. Not every Research Fellow will obtain a Proleptic Lectureship, the selection is based on the academic merits expected for that stage in the individual's career. The scheme is open to both women and men.

The scheme was started in 2012 and in the period 2012-2019, there were 12 proleptic lectureships awarded, 5 to women and 7 to men. An analysis of the total number of academics in 2012 (when PLS started) and 2019 shows the very positive impact this scheme has had in increasing the percentage of female academics. A table with absolute numbers of academic staff in the period 2012-2019 is included below. Below, we also depict the graph showing the evolution of % of female academics from 2012 to 2019 and how the presence of PLS has had a positive impact. Starting with 12% female academics in 2012 we

would have reached 18% (without the proleptic lectureship scheme) but with it we reached 21% female academic staff in 2019. Two things should be noted here: on the one hand, the rise to 18% is a result of substantial efforts made to devise fairer and more inclusive hiring processes (eg: the way job adverts are written, promoting

	Women	Men	Women (%)
2012 (PLS started)	7	49	12
2019 (without PLS)	17	75	18
2019 (with PLS)	22	82	21

active scouting by hiring managers, etc); on the other hand, despite these substantial efforts, we were pleased to observe that the proleptic lectureship scheme boosted the impact by 3%. All in all, we believe strongly that the access to the proleptic scheme increased the



confidence of female applicants in being able to reach stability earlier than they would have had otherwise. See testimonials below of two members of academic staff that were hired as part of this scheme and reflect on the advantages the scheme brought to their career and on the personal impact it has had for them.

We would like to conclude by mentioning two additional opportunities enhancing the existence of PLS and overall improving the quality of life of female academics within our Department. First, the **Post-Break Award**, introduced in 2012 to provide support after long breaks, such as maternity leave. It is a £10,000 discretionary grant, meant to help the awardee's research getting back up to speed after an extended break. Second, **Emergency Childcare Cover** was introduced in 2017, for all staff in need of childcare cover to attend a meeting or a conference.



"The child support I received enabled me to attend a very important event for my career. It is very challenging to attend international events when having a small child as it normally implies extra costs. Support like this one makes a real difference for parents and mothers in particular." Janaina Mourao-Miranda. Professorial Research Fellow.



"During both my maternity leaves at UCL, I had the opportunity to keep in touch with my research, while upon my return I was able to work flexible hours and from home when needed. The most support came directly from the group I work with, in particular my line manager and my colleagues. Now with two children and working full time, I feel comfortable with the childcare schemes that are in place, especially the one for emergency childcare support." – Senior Research Fellow Laura Panagiotaki.

Letters of Support



Dr Ivana Drobnjak, Associate Professor and co-chair of the Departmental Athena Swan Self-Assessment Team

I joined the department as a Postdoc in 2009 and was awarded a Leverhulme Trust Fellowship in 2012. A crucial point in my career at this time was the transition from Postdoc to a permanent Academic post. The Leverhulme Trust Fellowship enabled me to become a Proleptic Lecturer which guaranteed me a permanent Lecturer position at the end of my fellowship. I didn't have to apply for a permanent job elsewhere or move location. I could spend some time focusing on starting my family – I was 9 months pregnant when I interviewed for the Proleptic Lecturer position. In 2017 I was promoted to Associate Professor.

I now have three children, Nina (8 years) and twins Alex and Marianne (6 years). The Department has been extremely supportive throughout, enabling me to develop both my career and maintain my family life. In addition to the excellent structure that encouraged my career path, it is an extremely friendly and supportive place for people with children. I took 2 fully paid maternity leaves for both my pregnancies and was advised by very friendly administrative staff throughout. I received the Department's Post-Break award of £10,000 for people who are coming back from a prolonged break, after both my maternity leaves and this was enormously helpful. I was able to hire a research assistant for a few months to get up to speed with my research. I always felt that having a baby was looked upon with kindness and shared excitement. After both maternity leaves I chose to work full time but had quite a few days working flexibly from home.

I believe strongly in Athena Swan values and have been involved in the Departmental Athena Swan self-assessment team (SAT) since its beginning, putting myself forward to be a chair in 2015. However half-way through my tenure I was diagnosed with a serious medical condition and had to take medical leave in 2017 and 2018. The Department supported me strongly throughout: we found a replacement for my work responsibilities (including a co-chair for SAT) and I went on extended medical leaves fully paid by the University. On my return, the Department granted me a PhD student and money for conferences since I could not apply for grants due to my leaves. My health is still continuously monitored and I have to have almost weekly visits to the hospital, so UCL Occupational Health advised me that I can choose to have a reduced workload if I wish. But this is easier said than done for someone of my personality. I teach two subjects, run my research group and am a chair of two committees for the largest international research study group in my field.

I love my family and my work and strive to be balanced in everything I do. It is certainly a challenge to do so as a woman with a full-time academic post, medical conditions and three

small children. However, I am forever grateful to my Department for making it all more possible, a little bit easier and endlessly friendly and fun.



Dr. Justyna Petke, Principal Research Fellow and Proleptic Associate Professor

I joined the department as a Research Associate in 2012. Throughout my time at UCL I have been regularly encouraged and supported in promotion applications. First to Senior Research Associate, then to Principal Research Associate. In 2017 I decided to apply for a fellowship to become a more independent researcher. I was supported both within the group, with time given to make the application, and within the department throughout the application process. I found that the department and the faculty have an excellent support system for applying for research grants. They organise workshop sessions

on how to write grants, which include people who received such grants in the past. There are also one-to-one sessions available to review one's draft. I applied for two schemes: EPSRC Early Career Fellowship and the University Research Fellowship, and moved to the next stage for both. I was first invited for an interview for the EPSRC fellowship. The department organised a mock panel for me, which further helped me prepare for the then successful interview. Shortly after I received the fellowship I applied for a lectureship. I was awarded a Proleptic Senior Lectureship (now called Proleptic Associate Professorship). This gave me a piece of mind in terms of future appointments and not having to look for a new job during my fellowship, thus fully focusing on research efforts. Both positions started at the same time and a year in I started teaching an MSc module on Research Methods in Software Engineering, which I was asked to re-design. Through this module I've had more contact with students and some of them later chose to do research projects with me over the summer. This is an opportunity that was provided to me through the proleptic appointment. Moreover, I believe that this position will help me transition to taking on full lectureship responsibilities at the end of my fellowship.

On a more personal note, since the end of 2017 I have been struggling with a chronic health condition that has affected all aspects of my life. That being said, the department, and especially my research group, has been supportive, making adjustments so that I could take time off when need be, with a fellow lecturer stepping in to do the teaching if needed, and the department providing working space appropriate to my needs.