Results of the Women In Engineering Questionnaire

Introduction

A very short questionnaire was sent to all female academic and research staff (239 staff) within the Faculty of Engineering on the 21 October 2013. A response rate of 50% was achieved (119 staff). The aim of the questionnaire was to get a view on what our female academic and research staff would like to see from the inauguration of a regular Imperial Women In Engineering Forum and indeed whether it was felt this was warranted at all.

The results are outlined below together with any key comments to note or summary from the open responses. The actual responses are detailed in the appendices for further information.

1. How do you hope to benefit from attending?

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Do not wish to attend such an event</td>
<td>8%</td>
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<tr>
<td>Inform College of initiatives/working practices that would be beneficial to career</td>
<td>42%</td>
</tr>
<tr>
<td>Develop skills and confidence to have impact</td>
<td>51%</td>
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<tr>
<td>Hear about current research from our female staff</td>
<td>38%</td>
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<tr>
<td>Hear from non-academic staff on new initiatives/topics of interest e.g Postdoc Development Centre</td>
<td>43%</td>
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<tr>
<td>Hear from high profile internal speakers</td>
<td>58%</td>
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<tr>
<td>Hear from high profile external speakers</td>
<td>58%</td>
</tr>
<tr>
<td>Network with colleagues from other departments</td>
<td>77%</td>
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<tr>
<td>Other</td>
<td>7%</td>
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The majority of staff welcomed the event for the purposes of aiding networking amongst female colleagues in other engineering departments. This was followed by wishing to hear from high profile internal and external speakers. It is interesting and useful to note that over 51% of staff also wanted the event to have a training content to assist in developing skills in confidence and impact.

Comments of note include:

- Specifically I would like to see confident role models who are assertive and effectual.. and still nice colleagues.
- To meet and be encouraged by more senior women in other departments (lack of senior women here)
- I have already had my (very enjoyable) career. Now being a Senior Research Investigator I would come to see if I can support others.
- To learn about funding opportunities specific to young researchers, and to learn about other institutions where people have worked with an eye towards future employment opportunities.
- To discuss how College could improve working conditions for diverse workforce
• To hear successful career stories, how other women manage maternity leave, dual career couples, other factors affecting retention of women in academia
• To talk and share with experienced women in engineering and learn from them
• Also to find out about outreach strategies of other departments particularly targeted to increase the involvement of young women in Engineering.

2. What areas of support and guidance in your career do you feel can be addressed at the forum?

The most common topics in relation to areas of support and guidance include:

- How to achieve a work-life balance as a female academic
- How to build a successful career in academia
- How to promote own work through building confidence and networking skills
- What are the different pathways to establishing careers and moving to industry
- Understanding practices in other departments

3. Have you any suggestions for speakers/subjects you would like to see addressed at the forum?

Suggestions include:

- Advice on general work ethics
- Advice on grant applications
- Hearing from senior female academics and how they have succeeded in their careers
- How to speed read and perform effective searches
- Hearing about the academic environment in other European countries

4. How long would you like the forum to be?

<table>
<thead>
<tr>
<th>Duration</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1 hour</td>
<td>53%</td>
</tr>
<tr>
<td>2 hours</td>
<td>47%</td>
</tr>
<tr>
<td>3 hours</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
</tbody>
</table>

There was a fairly even split between staff wanting the session to be either 1 or 2 hours in duration.
A comment of note:

- I can envisage a topical forum with 0.75-1 hours guest lecturer + questions, 20 min guided discussion, then 40 min socialization. It would be cool to have the scientific focus lead into a social topic...like having a biochemist discuss her how her research led to a pharmaceutical collaboration. Having the appropriate resources available for the socialization would be quite slick: e.g. inviting industry reps, consultants, imperial innovations, HR, etc. depending on the topic. Wine and cheese and fruit for mixing? Maybe a poster session for senior PhD students with projects related to the topic?

5. How frequently should the forum be held?

![Chart showing frequency preferences]

The vast majority stated they would be happy with a termly event.

6. When would you like the forum to be held in the day?

![Chart showing time preferences]

The vast majority were happy for the forum to run over lunch time. 22% were happy for the forums to run in the evenings instead.

Comments of note include:

- Make it social and interactive
- I would say probably 4pm-5pm or a lunchtime, because these seem to be when more people feel they can stop for a bit.
• The forum should take place during working hours (9-5) so that parents with kids can attend!
  Or evening, 5pm onwards. If it is once a term, we can manage even in the evening.
• Don’t really have a view on this .... so lunchtimes or evenings would be best for those who teach.

7. If you are currently on maternity leave or work part-time and wanted to attend, would you require crèche facilities for this and other events?

Of those on maternity leave 21% stated yes or maybe in relation to the provision of crèche facilities for such forums.

A comment of note:

• Thank YOU! It would be helpful to have some sort of solution so that we can attend seminars and other important meetings. At the moment, the mother needs to pay a private nanny to take care of the child, this is not possible for short periods of time and is very expensive.

8. Have you any other suggestions/ comments in relation to the forum?

Suggestions include:

- Examine how Imperial can better serve female academics who want to work part-time or more flexibly- especially those on fixed term contracts.
- Building own confidence to compete with male colleagues
- Discuss how future academics divide their time between teaching and research

9. If you do not wish to attend such session please state why.

13% of respondents stated they did not wish to attend such an event.

Reasons given include:

- Not feeling there is a need for a women only forum
- The feeling that women only forums may marginalise them further
- Busy/lack of time
- Unsure if this would be useful
**Recommendations**

Following the results of the survey the recommendations for future forums are as follows:

- The event should be held termly (towards the end when potentially not as busy)
- The event should be held over lunchtime and include lunch
- The event should be no longer than 2 hours
- High profile speakers should be invited – internal and external
- On occasion there should be a training and development slot within the forum- e.g confidence building, assertiveness and having impact
- Responses from this survey together with discussions at the forums will be used to inform topics of future forums.

**Appendices**

**Open Question Responses**

**Appendix 1**

**Question 2: What areas of support and guidance in your career do you feel can be addressed at the forum?**

- Work-life balance
- Tips (success stories) for women not to be looked down simply because they are female. Male academics have not necessarily thought that female academics struggle and require specific supports. Dissemination of the facts that female academics actually need support and guidance to be successful and that we are making efforts as minority may be effective.
- It would be great to see examples of researchers who are effectively managing large interdisciplinary collaborations. Specifically, I would like to see confident role models, who are assertive and effectual...and still nice colleagues.
- How to build a successful career in academia, the do's and don'ts review of current UK and worldwide grants and opportunities for women
- Inspirational talks and hearing about our researchers work
- A bi-monthly informal meeting and discussion of various aspects of research techniques and areas of interest would greatly help
- Applying for funding
- Job shares with other postdocs with young families if possible. Working part-time on an externally funded grant if possible (so the PI of the project co-operates on this matter if the funding bodies also approve of such an arrangement...currently funding bodies do not support the idea of working part time on a research project)
- Promoting one's work
- Networking outside of my own department. Understanding practice outside of my department. Networking/getting to know other faces around College.
- How to move to industry
- Area covering how to move to an independent position with own funding
- Time management
- I have already had my (very enjoyable) career! Now being a Senior Research Investigator I would come to see if I can support others.
- Advancing in academia as a woman scientist
- Providing role models for younger researchers
Different pathways for establishing career and attaining high-level positions
General promotions advice
Networking skills for women
It would be interesting to know which new effective opportunities are available for females wishing to progress in their career.
Examples of women’s career paths in engineering and how they got their current role
Discussion of good practice in different departments that may help women in particular but likely others as well in their work and progression in their careers and could be implemented more broadly.
How to encourage female applicants in male dominated departments. How can you avoid being used as the female representative (and workhorse) in a male dominated department without limiting the attraction effect it might have on other women? How does one make a mentoring scheme more useful and how is such a scheme different between men and women?
Maternity leave: how to manage time, how to negotiate teaching load, how to get back on track with research, how to manage research group while away
How to move from academia to industry; maternity leave
I don’t feel there are any major gender-specific issues currently affecting my career progress, though I would be quite interested to hear from other women managing an all-male or mostly-male research group, in case there are any potential issues that I could be missing! Incidentally, I’d very much like to find a female-friendly senior mentor to chat to occasionally about longer-term strategies and issues, but I realise that’s probably outside the scope of the forum!
I always get something out of meeting colleagues from other depts in college - if nothing else to hear that other people share the same concerns etc. It doesn’t really matter so much what the "theme" is - and the gender issue doesn’t matter either. Some female events turn into child-care forums - which is really tedious. However I do recognise that there are personally-types that struggle in the "Imperial Ocean" and there are probably a higher percentage of women than men with this issue.
Detailed information regarding the support provided by Imperial for women in science (the childcare voucher scheme, information for post-docs regarding paternity/maternity leave and how this works if they are on contracts etc.); an informal session from successful women academics from within the department giving their experience of work/life balance and any advice that they can give/wish that they had had at the beginning of their careers.
How to balance work and personal life, and how to manage the uncertainty of a fixed term contract, and how other women are coping with it
development of personal skills
How to increase the international impact of the research outcomes, when international travels have to be limited due to family commitments, in terms of: i) invitation to keynote presentations ii) invitation to be program chair of international conferences 2) Inter-departmental collaborations through increasing the attendance at college research seminars and events
Part-time jobs; Internal/External Research Opportunities
Development for achieving future goals: which training could be suitable for me, which examples I could follow, which skills I need to develop further
Woman in Academia and how to manage family and work successfully
assertiveness and self confidence
How to talk about something confidently even if you don't feel that confident about it (aka bullshitting). Apparently this is something men are often better at.
How to act as an agent for change in a department with little support for female academics, and in the absence of strong female mentors.

Appendix 2

Question 3: Have you any suggestions for speakers/subjects you would like to see addressed at the forum?

- women in science, general working ethics expected
- helpful pointers from senior faculty on research grant applications and general pointers on how to handle it
- research funding schemes available specifically to female scientists
- Internal and external speakers who can suggest how did they make their careers successful in academia.
- How to do speed reading to help us read the relevant journals faster and get the most out of them. How to perform effective search of available search engines and find the relevant publications. How to gain other skills (other than research) in the event of being unable to secure a new grant...there will be another area to apply to in order to stay in employment (career progression and opportunities)
- I’m just about to return from maternity leave so interested in finding out about funding/grant opportunities for women who have had career breaks
- High profile academic women
- What is the academic environment like in other European countries? What are the indicators for topics that will have impact in the next decade?
- Internal women speakers
- A few individuals (mainly alumni) have approached me about talking to female researchers and faculty members. I would be happy to pass their details on.
- How can we help younger women in their careers (students, PDRAs)? - what holds back woman in career advancement at IC, and examples of how this can be overcome
- Female Professors from Imperial sharing their experiences
- I’d like to hear from high-profile women working in any area of engineering, simply because there aren’t many female role models out there.
- I would be interested in speakers outside academia e.g Gillian Tett. But then, such speakers should be interesting to everybody - not just women.
- As above, women academics from within the department.
- I would like to hear from Professors, Readers and Lecturers in the Faculty about their experience as women in engineering
- Internal and external speakers from academics and industry to share experience about how to develop a professional career
- Not any one in particular. My research interests are in the area of artificial intelligence and applications to network security, healthcare, smart city and bioengineering.
- Research platform of the different departments: -- What is the state of the art of the current research in Aeronautics, Chemistry, Mechanical departments for instance. --Who is doing what. --Possibilities of joining projects of different departments. ‘Merging research platforms of different departments”, i.e. Aero-Chemistry project, etc..
- Assertiveness and self confidence
- Always good to hear from highly successful women.
Appendix 3

Question 8: Have you any other suggestions/comments in relation to the forum?

- Networking in the Imperial is interesting but we could also network with similar forums that are organized in other institutions. The more we are the more influence we will have.
- It is good if it is with free-lunch. Then I guess more people will come.
- xxxxxxxx returning from maternity leave and wanting to go part time (four days) I had to argue very forcibly for my contract to be extended to account for the 1 day a week research time I would miss. It would be good to examine the maternity/part time working policy to see how Imperial could better serve women who want to work flexibly - especially those on short term contracts.
- Creating an internet footprint that announces the forum and publishes key related information - Inviting women from other universities in London
- I would definitely prefer a forum that does not strongly involve a discussion of babies or work-life balance...I've heard too much of that already. And I don't want to hear that all I need is more confidence to compete with my idiotically over-confident male counterparts. I want to discuss how we are going to push for an academic environment that rewards brilliance, industriousness, and perseverance rather than bravado and pretty pictures. And how will future academics divide their time between research and teaching? Will the university of 2040 have separate teachers and researchers? And how are we, as women, able to perceive and address these problems more holistically than the stereotypical male science academic?
- I think it is a good initiative - the trick will be to get people to commit to coming and not find something more important to do. I think the main aim should be networking so younger staff meet colleagues who can become friends and possibly mentors.
- Comments on questions Q4: it actually depends on the contents. If it is a formal talk by an invited internal or external guest, then it should not extend beyond 1 hr. However if it would be a poster session (by female academics, RAs and PhD students mainly) then it can be longer: 2 hrs, 2 1/2 hrs. Q5: too often and one runs quickly out of steam Q6: These session should not interfere with teaching duties.
- At the first meeting make a survey as to where people are, eg how many women in their 30s in each department, ho many with small children, how many use the day nursery etc.
- Thank you for organising this.
- 5 pm is also ok as an alternative to lunch time
Appendix 4

Question 9: If you do not wish to attend such an event please state why?

- I do not attend these sessions now as I did not find the topics/programme very beneficial to my career.
- I fully respect that some women may find it useful to attend a forum of women in engineering, but I am personally not one of them. Life is just fine without having to attend another meeting.
- I don’t think this type of event has any positive effect on my career, and may in fact be marginalizing women further.
- Currently my research is based in the ESE department because I use some of the analytical techniques there. However, I am not an engineer and my background is very far away from that of the Engineering faculties. This is one of the major hurdles that researches on multidisciplinary studies face at Imperial. The talks will be of little use/interest for me, and the networking opportunities virtually meaningless. At least that has been my experience so far when attending similar events. No alternatives are provided from the Post Doc centre for us to benefit from the resources of the faculties closest to our background.
- Sorry, I feel a bit of a killjoy saying that I don’t wish to attend. I think perhaps I have been incredibly lucky but I don’t feel like I need any extra.
- Currently I would try to come. However, the reasons I might not attend in future: * unable to come due to timetable * too busy and this session is the easiest thing to ditch to free up time * if I felt that this probably wouldn’t achieve anything useful * if I go once and it is not very good I might not go again.
- Busy.
- Is nice to meet other women in engineering. However, many small and large things already take up our time, so can only justify attending such an event if it takes little time and has a clear benefit. So would suggest to start with a relatively short event, with a focused discussion topic. Possibly with just one half hour talk, or two 15 minute ones to initiate discussion and then some mix and chat over tea/biscuits where those discussions can be continued while meeting women from other departments.
- I don’t think that women should be segregated from male engineers, irrespective of gender; we have the same tasks and we in the end perform similarly.
- Because I am not an engineer. The fact that I am currently working at the Engineering Faculty only responds to my need of using the facilities for my research. This belongs to the field of plant science. Every time I have attended to departmental seminars or networking events, these have proven absolutely useless and uninteresting for me. Instead, I would very much appreciate to have access to similar events as organised by other faculties more relevant to my background.
- I am not clear whether I want to come, because I am not sure what the purpose would be. I believe that women are indeed at a slight disadvantage, but not as much as other groups. Moreover, I believe that the greatest help to women is offered through the provision of childcare facilities, and better conditions for them when they get maternity leave. The other great source of help for women is friends/supporters in the Departments. Mine happened to be a woman.
- I do wish to attend to these sessions, but sometimes if you are in the middle of an hectic day it can be quite difficult to find the time.
• I do not see any benefits for myself to meet exclusively with female colleagues.
• Unsure if this will be useful.