



Minutes of the SEMS Industrial Advisory Board Meeting of 5/3/2025

Meeting details and attendance

Date: 5/3/2025

Time: 15:00 – 17.00

Location: UG1, G.O. Jones Building

Link to recording:

Chair: Martin Thomas (AWE)

In-person attendees:

Martin Thomas	AWE
Helen Green	QMUL
Florence Huynh	Polymateria
Stefaan Verbruggen	QMUL
Jae Hwan Park	QMUL
Sanaa Hafeez	QMUL
Kshitij Sabnis	QMUL
Oliver Fenwick	QMUL
Nikita Chebotarevskiy	AECOM
Kiane Johnson	QMUL (Student Voice Committee)
MR (Mike Reece? Maria Romero-Gonzalez?)	QMUL
KJ?	
EB (Edo Boek?)	QMUL
Guy Newcombe	Archipelago Technology
N.B. In person register was not handed back in so there may be some missing names of attendees.	

Online Attendees:

Royston Jones	Altair Engineering
Douglas Watson	Weir Advanced Research Centre
Ravi Prabakaran	Advanced Healthcare Ltd.
Markys Cain	Electrosiences Ltd.
Roberto Volpe	QMUL
Bhupen Lodhia	Stealth AI
Chris Chapman	QMUL
Florence Huynh	Polymateria
Phil Kennedy	Ex 3M
Krishna Keerthana Chiruvolu	
Danielle De Villiers	MatOrtho
Sally Beken	Innovate UK
Mahmood Zulshan	Ford
Lei Fang	QMUL (Maths)

Minutes of meeting

1. Introduction (MT)

MT asked new members to introduce themselves. Apologies from those not able to attend given.

2. Review of last meeting (Olly Fenwick)

Minutes of the last meeting were reviewed and accepted without changes.

3. Placement and employability activities (Helen Green)

HG provided a concise summary of the activities she has been leading, including the 30 students currently on placement and a summary of initiatives being organised for the future. She invited support for these initiatives from IAB members.

FH: What kind of career stage would be most useful for a speaker to these events?

HG: It depends on the particular event but, in general, speakers at any career stage can be very helpful. It is not always about the big company names either, input from SMEs can also be extremely effective.

SV: There was a really successful input as a guest lecture in a Biomedical Engineering module from Siemens Healthineers (who are hosting SEMS for a site visit), is it common to link industrial site visits to module teaching in other programmes? This approach can be very effective.

HG: Agree that this can be effective. We are very keen to form links between module teaching where possible. All of the placement companies and site visit hosts could be integrated into modules, this has also recently been done in Chemical Engineering.

4. Engineering Management MSc (Sara Hajekazemi & Jae Hwan Park)

JHP and SH explained the structure of the Engineering Management MSc, with a focus on the topics of extended projects currently in progress. They invited input from IAB members on how best to involve industry in the extended projects or a standalone workshop. For example, students could develop solutions to problems posed by companies based on current challenges.

MT: How much cost and resource would this require – are you requesting project funding from the companies? It is worth being clear on this aspect from the outset.

JHP and OF: We are not asking to fund these projects unless the company proposes a project which involves consumables, travel to the company site, etc. In general, what we are after is proposal of a project and/or engagement with the student supervision.

MT: Would this be your project or a project that the company proposes?

SH: Either of these options could work.

MT: What about the resource to manage the project?

KSa: How much resource could be justified by companies for involvement in projects like this?

MT: It depends hugely on the particular project, the importance to the company and the personal availability of the staff member. In any case, I would be useful to have a rough idea of what SEMS is after to initiate discussions.

SH and JHP: Reports of past data with a couple of meetings to explain the project could be useful. Alternatively, a regular meeting every 2 or 3 weeks may be more effective.

OF: There is a huge variation in the extent of company involvement across the school. This ranges from 2 hours in total across the entire project or provision of information of the outset of the project (minimal involvement from a company seeking mainly to raise its profile amongst graduates) to companies being fully

involved and following through on research outputs. One efficient approach is for companies to run a cluster of projects on similar themes, which allows staff members to interact with several students in a single meeting.

PU: Would it be possible to run a project on a sensitive subject such as defence?

JHP and OF: We would not run a project like this at undergraduate or MSc level, but things are a bit different for PhD research.

MT: Who would own the IP?

JHP: This aspect could be discussed with QMUL's business development team once a project has been developed.

OF: In general, for a research project, the university would own the IP and set up a licencing agreement for the company. This may work slightly different for MSc projects, so would need to be clarified.

NC: Are the topics fixed or is there an opportunity for the company to come up with its own problems?

SH and JHP: There are plenty of opportunities for companies to propose their own projects, and these could even be integrated into this year's cohort. For the input of several student at once, a workshop arrangement may also be effective.

RJ: How have you decided on the project topics? Are these based on historical areas of expertise for the university?

SH: Because these projects look at problems from a managerial rather than technical perspective, the actual topic areas do not require historical technical expertise.

MT: Given that this is the first time running these projects, how many students would you like to attract?

JHP: There are 40 students in this year's cohort and, based on applications, next year's cohort will be even bigger.

MT: To ensure that projects are ready to go at the start of the university year, when should industry talking to you?

JHP: As soon as possible, but would certainly be useful to have this discussion over the summer.

MT: The categories presented seem excellent, with plenty of potential for industry involvement.

5. Student voice (Student Staff Liaison Committee Members)

The Chair introduced the Student Voice agenda item as an opportunity for students to express their opinions on the SEMS programmes and to ask questions from IAB members. The only student present, Kiane Johnson introduced herself as the course representative for 3rd year Biomedical Engineering studies. OF invited her to speak to attendees from industry.

KJ: How is graduate recruitment changing as a result of AI?

MT: AWE do not use AI at all, and there are no immediate plans to start using it.

NC: There is a recent worrying trend of receiving very good paper applications but, at interview, the candidate does not know the content of their own cover letter. AECOM have therefore started using software to check whether an application was written by AI. As we may be missing out on good candidates this way, it is not clear whether the filter software is a good or bad thing. As a recommendation, to be safe, I would suggest not using AI at all when writing your applications.

KJ: In the future, will recruitment process change to protect against students using AI?

NC: In the future, a cover letter might not be needed. This is a challenge across industry, but it is perhaps easier for smaller companies where lower volumes of applications allow recruiters to actually talk to candidates.

MT: Really big companies automate the entire process, and do not make use of CVs or cover letters at all.

SV: What employers want in terms of proficiency with AI?

MT: No specific requirements, but it would just be seen as a tool like any other.

OF invited questions for the student body from IAB members.

MT: Compared to what you thought your programme would be, what has most surprised you?

KJ: The degree to which we work collaboratively, for example our first ever activity was a group-based experimental module as first thing. For Biomedical Engineering specifically, the fact that the programme covered a wide range of different areas rather than being focused on one topic (as is common at some universities).

NC: As a group of students, is there growing dissatisfaction of any one aspect of your university experience?

KJ: A big common frustration is group members not collaborating or engaging well with the course. In fairness, QMUL has done a good job of tackling this, for example through peer review of group submissions.

NC: What is students' relationship with AI? Do they use AI?

KJ: I myself have never really used AI, but a large population of the student body do regularly use AI to varying degrees

MR: How can academics help students better use AI as a tool?

KJ: Academics don't talk about AI in modules, apart from in the context of academic integrity. Ideally we would be taught how to use AI as a tool

KSh: QMUL just started Centre for Excellence for AI in Education, so this is a really relevant topic which is likely to feed into our teaching in due course.

GN: QMUL is based in heart of London, but this is not where many engineering companies are based.

Anecdotally, we have never had a female student from QMUL that has stayed overnight in Cambridge. Is it more difficult to encourage female students to do placements outside London compared to male students? If so, what can and should we do about it?

KJ: A lot of London-based students don't want to up and leave their lives. Personally limited search to outskirts of London

6. How AI literate are academic staff? (Presentation by Lei Feng)

Lei Feng from the School of Mathematical Sciences, provided an input based on a recent research paper on the topic of "How AI literate are academic staff are?" She provided an example of feedback generated by AI and discussed perceived benefits and challenges of the use of AI in education.

KSa: Did you get any feedback from students on how they perceived the quality of feedback that was generated by AI?

LF: Students were generally very satisfied by AI-generated feedback, stating that it was better than previous feedback received from staff under excessive workloads.

EB: The QR code to join the Centre for Excellence as an affiliate member does not work, so it would be appreciated if a link could be circulated after this meeting.

OF provided a summary of AI discussion from the last IAB meeting, focusing on industrial impressions of how AI will be used, what level engineers interact with AI, and how we can assess students in their ability to use AI for engineering. Some discussion ensued on focusing on use of AI around design tasks and clarifying the

limits of AI at exploring out the box. OF pointed out that, as the area is moving quickly and university processes can be slow, it is worth generating ideas sooner rather than later.

The Board split into breakout groups to discuss assessment of AI capabilities, and fed summaries back to OF.

7. Any other business

There was no AOB

8. MT closed the meeting

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