

Minutes of the School of Engineering and Materials Science (SEMS) Industrial Advisory Board (IAB) Materials Division – Spring 2017

Date: Thursday 2nd March 2017

Location: Graduate Centre

Start: 1pm

1a. Attendance

Internal (SEMS) members:

Prof. James Busfield (JB), Dr. Andy Busby (AB), Prof. Magda Titirici (MT), Prof Ton Peijs (TP).

External members:

Last Name	First Name	Initials	Company	Role
Bennett	Martyn	MB	ARTIS	Chief Scientist
McElroy	Liam	LM	Advanced Healthcare Ltd	R&T Manager
Small	Carolyn	CS	Arconic	Development Manager
Thornton	Matthew	MTh	Haydale Composite Solutions	Senior Manager
Dowden*	Tom	TD	Sugru	Principal Researcher

* New appointment since the previous meeting

1b. Apologies

Last name	First Name	Company	Role
Cain	Markys	Electrosiences Ltd.	Director
Hallett	Joe	Fenner Precision	Senior Development
Kinsella	Tony	Lucideon Ltd	Chief Executive
Roohpour*	Nima	GSK	Principal Scientist
Stevens	Chris	NGF Europe	Technical Manager
Whear	Roly	Jaguar & Land Rover	Principal Technical Specialist
Wood	Alan	THE POLYMER SOCIETY, IOM3	Chairman

* New appointment since the previous meeting

JB reported no new resignations since the last meeting.

1c. Expanding Membership

The IAB is not an exclusive club. Membership is open to any organisation which is willing to engage in the teaching led or research led activities within the school. JB reported that Tom Dowden and Nima Roohpour have been added to the membership since November 2016. Tom was able to join the meeting also.

2. Review the Role of the IAB and the company benefits

JB reminded the membership of the role of IAB. He also explained that priority for the small number of half funded PhD student projects would be given to IAB partners. This might attract new partners to the IAB and it might provide a real incentive for broader QMUL / Industrial collaboration.

3. Review and Approve the Minutes of the Previous Meeting from the 29th November 2017

The minutes were approved. The following matters from the minutes were arising:

i. New programme updates

AB reported that the two new Joint Programmes with NPU in Xian (China) were progressing well. New staff appointments to teach on the programme are underway and admin support staff have now been recruited. The first students are being recruited for a start in Sept 2017.

JB reported that the new programmes in Chemical Engineering in SEMS were progressing well and had attracted a huge number of applications. Leadership for this programme was being recruited in the next month and existing staff are helping to develop the core elements of the programme already.

ii. Outreach and WP update

JB reported that taster courses in materials were being reintroduced. Both LM and TD expressed an interest in getting involved with these activities to either help supply materials and expertise. JB to link Outreach and Recruitment Officer in SEMS with both companies
(Action JB)

JB also reported the arrival of the FABLab bus on campus with the potential to run a whole raft of taster course related to design, additive manufacture or other programmes in materials. Again both LM and TD were keen to support this activity.

iii. Accreditation Update

JB reported that the IOM3 accreditation visit was due to take place the following week from the 7th – 8th March 2017. The IOM3 had not requested the participation of any of the IAB during the meeting. CS (as chair) agreed that she would be available by phone if required during the second day of the visit.

5. Research and Teaching Facilities Update

MT reported that a wide range of bids for equipment funding had been successful since November 2016. This included QMUL “Strategic Faculty Investment Fund” that had agreed to fund within the Materials Research Institute a new high throughput XRD system, a Raman microscope system and an X-ray photoelectron spectroscopy system. This was in addition to upgrading the NMR in Chemistry and the purchase of a new low temperature capable DSC in the school. In addition, the school had agreed to fund a dedicated and robust DSC for teaching purposes. The IAB was impressed by the extent of equipment funding secured since the last meeting.

6. Doctoral training Centres

TP and MT explained the value of securing an EPSRC funded DTC in the materials theme area in 2018. Two potential DTCs were discussed. A DTC in Smart Fabrics was explained by TP and a DTC in Energy and Environmental Sustainability was explained by MT. MB explained that both wearable energy storage and recyclability were key themes for ARTIS. MTh indicated that Haydale were also interested in smart materials. MTh suggested that we should engage with Robert Quareshi of KTN Ltd if we planned to launch a DTC bid in Smart Fabrics as they have a large industrial network already established in this area.

JB encouraged IAB members to reflect on the requirements for a DTC and feedback ideas through him for consideration in the Materials Division.

7. Exploring further collaboration opportunities.

Each IAB member explained how they have collaborated with SEMS in the past and how that might develop in the future:

- CS reported that Arconic (formerly a division of Alcoa) had delivered a case study and guest lecture as part of MAT602 in 2016 and was willing to repeat this in 2017. Having had a series of placement students for many years this was the first year that no student was in position. However, there were plans to recruit up to three students from summer 2017.

- MB reported that ARTIS (a subsidiary company of Avon) had delivered case studies for MAT602 on several occasions in the past and were willing to do so again in 2017. ARTIS have funded several PhD projects including a half-funded studentship with Dr Hedi Zahabi in the Soft Matter Group who had completed in the last few months. ARTIS have also supported an annual work placement in the past and were looking to recruit a student in 2017 again.
- MTh reported that Haydale Composite Solutions Ltd was working on a £60k collaboration with Nanoforce that was ongoing. He was willing to explore other modes of interaction in the future.
- LM reported that Advanced Healthcare Ltd had been hosting student site visits for many years now. They had also supported post-doctoral research on micro-leakage in the recent past. LM indicated that he was willing to support guest lectures on either surfaces and interfaces or dental materials modules. In the future, the potential to have collaborative taster courses on dental materials was to be discussed.
- TD reported that the product Sugru was originally developed in the Nanoforce labs at QMUL. There had been extensive collaboration since in terms of supporting PBL activities, ILF activities, design case studies. Several students had been on work experience and several had secured their first graduate role working at FormFormForm. A KTP had been secured and was due to start imminently and a new PhD studentship was also in the pipeline.

8. Any other business.

None

9. Date of next meeting

JB circulated a table of timescales for industrial actions over the next year. This included the dates for the next two IAB meetings as 22nd November 2017 and 7th March 2018.

Summary of Action plan

Action	By
Explore possibilities for co-funded Doctoral Research Projects	All externals
Examine potential opportunities for Guest Lectures (JB with MB and CS: KH with LM)	All externals
Review existing project ideas and suggest topics for potential Doctoral Training Centres in Materials Division.	All externals
Link the Outreach and Recruitment Officer (Vicky Rockell) with LM & TD with regards to Taster Courses and Fablab initiatives	JB & Vicky Rockell

Meeting Finished: 3pm

Minutes Recorded by: James Busfield