

Flinders Engineering and ICT Industry Advisory Board
MEETING 3/20 – 5th November 2020

FOR APPROVAL

MINUTES OF MEETING 3/20

A meeting of the **Flinders Engineering and ICT Industry Advisory Board** was held at Tonsley, Meeting Room 5.29 at 8.30am on Thursday 5th November 2020

Apologies

Don Watton
Max Ratcliffe
Paul Gelston
Paul Johnson
Karen Reynolds
Jon Schutz
Gerry Doyle
Adrian Smith
Alistair Rendell

In Attendance

Anna Shillabeer
Anne-Louise Smith
Anthony Kittel
Anthony Skeats
John Roddick
Karen Burke Da Silva
Marty Gauvin
Olivia Samardzic
Oscar Fiorinotto
Sherry Randhawa
Victoria Allen (Minutes)

2. General Discussion

- Anthony thanked Peter Chaplin for his 12 year service to the Board.
- Welcomed Oscar from Supashock to the Advisory Board. Oscar described his company <https://supashock.com/about/>

3. Minutes of the Previous Meeting

Please see attached updated minutes. Meeting minutes 2/20 accepted with corrections.

**4. Reporting Back
Engineering**

Progress of changes to Engineering Awards

Master of Engineering Management

- Reviewed *Attachment A – SATAC Applications for 2021*
- Merging Electrical and Electronic and Computing and Network Systems courses has seen a 90% increase in applications for Electrical and Electronic Engineering.
- Karen acknowledged COVID has not had a huge financial impact on Flinders primarily due to the recent restructure and less dependence on international students. Flinders reinstated face-to-face teaching in semester 2 and kept our domestic students engaged. Our international expectation of enrolments is still going to be far below the target.
- Flinders, along with 2 other South Australian universities, has joined the first pilot to bring in international students and if we are successful with the transition of the students then hopefully more international students can return next year.
- Flinders is about to appoint a Chair in Electronic Systems and Security. We have already appointed staff in Engineering Management.

ICT

Progress of changes to ICT Awards

- Anna advised preferences are slightly down for Computing, IT and Maths (particularly the online degrees). The challenge is converting preferences into enrolments. The downturn is also due to the fact we have lost students due to the discontinuation of the Digital Media and Digital Health degrees.
- Maths preferences have doubled for next year.

- New degrees: AI, Game Development (formerly Simulation and Serious Games). Numbers have gone up significantly in those areas.
- We don't want to be known as the online university - we are known for having the personal touch.
- The challenge with semester one is we were not providing an online course we were undertaking emergency online teaching. To develop a fully online program is very difficult. We are moving towards a flexible delivery approach. Lecture content is offered online and students may visit the campus twice a semester for lab or practical work but they also have the flexibility of an online course.
- CSE is moving into an online space through industry focused certificates which are pre-degree and provide a pathway into undergraduate degrees. The Cyber Security offering was top 5 in the College.
- Oscar suggested a combined Robotics and AI degree.
- Anna advised this is only the second year we have had an AI degree and it does require promotion.
- Next year will recruit a staff member with expertise in AI and Mechatronics.
- Considering including an undergraduate materials option into the Mechanical degree.
- John advised the Master of Engineering Management degree has been approved and there is a Diploma of Graduate Certificate below it and there is some interest in the Graduate Certificate from industry.

5. **Other Matters Arising**

Please see item 13

6. **Current SATAC application numbers (attached)**

Discussed in item 4

7. **Proxy Report from the Vice President and Executive Dean – Professor Alistair Rendell (by Heads of Discipline in his place)**

Not discussed

8. **8. Accreditations**

a. Australian Computer Society – November 16/17

- This will be a 100% virtual panel visit.
- There are teaching resourcing issues but CSE is currently in a recruitment drive and has a strategic plan.
- For professional accreditation ACS now require students to have 2 years industry experience prior to coming to Flinders which isn't currently the case for our Masters degrees. The Masters degrees will be accredited just not at the higher level at the current time.
- The Cybersecurity offerings now have a different level of accreditation. We won't be able to pursue this because it requires 8 topics within a Cybersecurity offering to be accredited separately and we don't have 8 topics within our Networks and Cybersecurity degree.

b. Engineers Australia – April 14-16

- John is writing the documentation and the panel will visit in April.
- The panel will meet the Industry Board in the evening for drinks, potentially the 14th April.

9. **Reports from Heads of Discipline (not otherwise covered)**

a. Engineering, Professor John Roddick

b. Information and Communication Technology, Dr Anna Shillabeer

- Anna advised the College is about to submit the first documents for the Computer Science and IT programs to the ACS for accreditation. The ACS will visit the College mid- November.
- ACS will need to meet with our industry representatives aligning with the ICT space.
- All students are back on campus in semester 2 with the exception of lectures.

10. **Round the Table - Opportunity to discuss any issues that members think are appropriate**

- Anthony Kittel suggested linkages to the Cyber Centre in Lot 14. They are offering companies opportunities to take servers and test our facilities. How can we leverage from them to get potential students? Anna advised we are moving towards that.
- Anna discussed the Cisco certifications embedded within our degrees targeted at industry. We have the opportunity to offer Fortanet security from next year.
- Olivia advised they can't fill and retain grads in the Cyber and Electronic warfare division. They have strategically partnered with Flinders for the Cyber Electronic Degree as the majority of students are local and this will help with retention.
- Anthony suggested collaboration with Andy Keough and SAAB. Utilise the expertise to book industry guest lecturers.
- The Board suggested the Student Expo be virtual next year.
- Anna advised we are going to have a standardised honours year across the college and for this to be a direct pipeline into a PhD. All students will study a 22.5 thesis and only 2 coursework topics. There will be learning within the 22.5 thesis in their area of specialisation. The 2 coursework topics will be more flexible.
- We have expanded our Masters offerings - a general Masters and a continuing Masters with a specialisation.
- Flinders have a new Data Science offering which adds strength into our stats offering.
- Marty: MatLab is only used in universities. We need a modern set of tools. Not seeing the right skills in excel. Want students to have critical thinking.
- Oscar: How do you get more engagement in pure maths? Students need to be able to calculate by hand. How to make maths more appealing by offering more advanced tools and education around tools. Use a reputable program (e.g. Math Cad). More focus on maths and deeper learning.
- Anthony: encourage engineering students to take a second degree in mathematics to focus on data science, algorithm development.
- Oscar: One of the real advantages that Flinders has in their graduate program is the 20 week program offering. This is the real key. The 20 week program gives you enough time to gauge the calibre of the graduate and this is something that should be promoted. The Flinders program is the most successful because at 20 weeks we know after pre-selection whether they are going to get a job and about 65-75% is the ratio that turns from intern to full-time employment and Flinders has by far the highest ratio. Our company has a very good relationship with Flinders.
- Anthony: we continue to do lots of work with Flinders. I have been very impressed with the calibre of the candidates. Not just their academic capability but the way they fit in and I give them challenging work to do and it is very different to what they have been learning but they are able to structure the whole project and their problem solving capability is terrific and this is very important.
- Anne-Louise: we were fortunate to have 6 x 20 week placement students and they have excelled. We are pleased with the quality of the students and what they have been able to take on.
- Anthony Kittel: I hired a Flinders 20 week undergrad. Once completed he joined us for a day per week in his final year. He stayed on and completed his Masters with us and is now in his final stages of his PhD. He is a high quality student. In the last 6 years there seems to have been a shift in the students at Flinders. They are far more problem solvers that can communicate, integrate well into the work force and they are a pleasure to have in the work force. I look forward to every July when they come as the dynamics in the business changes as there is an influx of young people. Flinders is doing a great job and we would employ everyone if we could.
- Olivia: if you look at a lot of the senior cohort at DST we are all from Flinders. What you get at Flinders that you don't get at other universities is that engagement with others and knowing how to work collaboratively and feel like you are making a contribute.

11. AOB

- The train station at Tonsley will be completed early December and will connect to the station at Flinders FMC.
- The Flinders Village is in progress: <https://www.flinders.edu.au/flinders-village>

12. **Next Meeting**
Next meeting February TBA

13. **Business arising from the minutes**

Item	Details	Responsibility	Status
8	Meeting 2_20 John to circulate the membership matrix and the Board to add their initials to the areas of disciplines that relate to them. This will give John and Anthony an idea of where we have strengths on the Board and where we might need to appoint people. John and Anthony to discuss at the next meeting.	John Roddick	In Progress
8.	Meeting 2_20 Ensure that the Industry sub-committees, particularly the ICT subcommittee, are meeting. This is a requirement for accreditation. The matrix will guide the reignition of the sub committees.	John Roddick	In Progress
10	Meeting 3_20 Industry to research further the math skills that graduates are to be taught at Flinders and provide feedback to Anna.	Board	
10	Meeting 3_20 Karen suggested one of our WIL coordinators to become members on this Board as they communicate with industry.		