Board of Studies Paper: Joint Computer Science and Electronics Degrees

Background

There are currently four joint Computer Science and Electronics Degrees in the University of Edinburgh with around 60 undergraduate students in total following these programmes:

- *Computer Science and Electronics BEng (run by School of Informatics)*
- *Electronics and Computer Science MEng (run by School of Engineering)*
- *Electronics and Software Engineering BEng (run by School of Engineering)*
- *Electronics and Software Engineering MEng (run by School of Engineering)*

The DPTs for the Computer Science and Software Engineering variants are virtually identical, except for two compulsory course selections in third year to provide either a general Computer Science or more specific Software Engineering flavour.

Current Problems and Issues

The fact that the Computer Science BEng and MEng degrees are run by different schools makes it potentially more awkward to transfer between programmes.

Both schools are finding that our accreditation bodies (BCS for Informatics, IET for E&EE) are adding increasing constraints, to the point that it is now very difficult to have both IET and BCS accrediting our joint degrees. Outcomes from recent accreditations that are causing some difficulty are as follows:

- **BCS** will not accredit joint degrees unless Projects involve a substantial software component. There is some concern for students taking a project in Engineering where it may be hard to guarantee this 100%, e.g. for an industry-based project, where the company defines the work programme.
- **IET** only permits compensation in honours years for 20 credits of failed courses and has now asked that students achieve a minimum mark of 30% in all honours courses.

There was a meeting in June 2015 of relevant Informatics Staff (Colin Stirling, Ian Stark, John Longley) and Engineering Staff (John Thompson, Les Haworth) to discuss the situation. The proposed outcome is below.

Proposal

We plan to rationalise our course structure to have one BEng and MEng joint Engineering/Informatics degree with suggested titles as follows:

- *Electronics and Computer Science BEng*
- *Electronics and Computer Science MEng*

These programmes will be accredited by the IET only. This means the School of Engineering would look after both degrees, with continued involvement of Informatics colleagues in course delivery and Board of Examiners meetings. Ian Stark is currently the Informatics rep on the Engineering Board of Examiners and he would continue in this role for the proposed new programmes.

It is suggested that the DPTs for each programme would be a combination of the existing Computer Science DPTs and Software Engineering DPTs, so that students can still follow either route.

Impact

This proposal will simplify programme and course administration plus accreditation for both schools and is believed to have minimal overall impact on students, as follows:

- This simplification would have no impact on the courses that the students can take and will hopefully not affect overall recruitment significantly.
- Students who graduate on these IET accredited degrees can subsequently join the BCS as their professional body if they wish.

The School of Informatics is considering some changes to its programmes, so it will be important to maintain contact between the schools to ensure that the DPT of the joint degrees can remain up-to-date and that there are no timetabling issues, etc. The suggestion is to organise a meeting of Engineering and Informatics staff on an annual basis (e.g. in June) to review the two joint degrees.