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Paper

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Implementing and Embedding Effective Learning Technologies across an Engineering Faculty

In the Engineering Faculty at Loughborough University, UK we have been effective in supporting the embedding of a broad range of C&IT materials into the curriculum. The widespread use of Learning Technologies has been adopted by all Engineering departments and is delivered to a large and diverse student cohort.

This paper will discuss how this embedding has been facilitated through the development of a Faculty of Engineering based teaching and learning support centre. This centre staffing has grown from three to twelve in four years, working on a variety of learning and teaching related projects, which has resulted in a build up of critical mass and effected a collaborative working environment. This had led to the centre`s wider development and national credibility including involvement in ten national and international projects, including the hosting of LTSN Engineering at Loughborough which provides subject based learning and teaching support for the UK higher education engineering community.

The paper will describe how the centre staff work effectively with academics to deliver high quality teaching resources. The use of a system where engineering academics bid for the centre staff`s time to develop Learning Technology based resources will be highlighted. The advantages of this methodology includes; appropriate use of academic staff time in developing content, efficient production of materials by the Learning Technologists, reuse of existing materials, development of generic shells, embedding evaluation into the implementation process and ensuring good pedagogic practice. The applications of the resources have been wide ranging including, models, simulations, teaching administration tools, online submission and marking of coursework, interactive software and a range of formative and summative computer aided assessment packages. The resources have been delivered by WWW, CD, the University Intranet and even stand-alone software on floppy disc for learners studying in developing countries. The paper will describe the development project methodology through examples of the process and resulting resources.

One of the key factors of the centres success is the unique skills mix of the staff, all have a science or engineering background, appropriate technological and software skills and most have previous experience of teaching and research in higher education. Hence centre staff have an understanding of pressures on the academic, which helps ensure effective communication and has resulted in efficient development of C&IT learning and teaching resources. The reasons for the success of the centre will be highlighted and can be attributed to the strategic approach adopted, ongoing support from the Engineering Faculty and the skills of the staff working in the centre.