



MSc title: Acoustic representation of images for the visually impaired: the human bat	Host University:HW
	Supervisor: ARH

Brief description of the project:

This project will explore a concept for acoustically representing visual images recorded using a conventional imaging system. This project will start from the simplest concept of exploring how the most simple image components, such as lines, edges and points can be represented as stereo acoustic signals that can be interpreted by a trained user to visualise the represented scene. This will involve development of a scheme (eg mapping left right location into stereo position and height onto frequency) followed by appraisal with human users followed by refinement. The student will be expected to use an appropriate computer programming language (eg MatLab, Mathematica) for conversion of images into interpretable stereo sounds. For more information see www.ece.eps.hw.ac.uk/~arharvey.

Software/Hardware needs:

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Special remarks:

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Submit a single page proposal.

Host University: Bourgogne/Heriot-Watt/Girona

Software/Hardware needs: Detail the programming platform (matlab, C++, etc) and the lab facilities required for the project (cameras, acquisition cards, lasers, etc).