Fully funded PhD Studentships in urban sound environment, from multidisciplinary backgrounds

Details

- Title: PhD Studentships (full time) in urban sound environment
- Supervisor: Professor Jian Kang, UCL Institute for Environmental Design and Engineering, The Bartlett. A second supervisor will also be appointed from other disciplines (see below)
- Stipend: £21,837 for 2018-19. Increases based on UCL recommended rates will be applied for the second and third years of the PhD
- Fees: The student will be responsible for paying their own fees, which for 2018-19 are set at the UCL standard rate of £5,060. These fees will increase year on year in line with UCL's standard rate
- Start Date: September/October 2018
- Funding Duration: 3 years
- Eligibility please check: https://www.ucl.ac.uk/prospective-students/graduate/research/requirements

The UCL Institute for Environmental Design and Engineering invites applications for four fully funded PhD studentships covering UK/EU fees plus stipend to work on a prestigious EU ERC project on soundscape indices.

Project description

Eighty million EU citizens are suffering from excessive environmental noise and billions of Euros are being spent on noise control under the EU Directive on Environmental Noise. Unfortunately, the conventional approach, i.e. reduction of 'sound level', simply does not deliver the required improvements in quality of life. The growing field of 'soundscape studies' is addressing this gap by considering sound environment from an interdisciplinary approach. However, soundscapes are hugely complex and measuring them as a basis for environmental design requires a step-change to the discipline. This research aims to achieve a ground-breaking development through the establishment of 'soundscape indices' (SSID). This aims to adequately reflect levels of human comfort, the impact of which will be reminiscent of that of the Decibel scale created by Bell Systems a century ago. This will provide the underpinning science for soundscape in the field of built environment, with wider intellectual goals of moving from noise control to soundscape creation. Key objectives in achieving this goal are: (1) To characterise soundscapes by capturing soundscapes and establishing a comprehensive database, which will be a cornerstone for the proposed analysis and an invaluable resource for scientists for years to come. (2) To determine key factors and their influence on soundscape quality based on the database by conducting laboratory psychological evaluation, physical/psychoacoustic factors analysis, and more importantly to research at a physiological/biological level. This research will include the use of functional magnetic resonance imaging. (3) To develop, test and validate the soundscape indices through analysis of the influence of various factors using a number of inter- & trans-disciplinary approaches. (4) To demonstrate the applicability of the soundscape indices in practice by establishing frameworks for soundscape prediction, design, and standardisation.

The project team

The project team will be led by the project's Principal Investigator Professor J. Kang and will include three research assistants/associates, four PhD students and a number of visiting researchers. Each PhD student will concentrate on one aspect of soundscape research such as physiological/biological, fMRI, psychological/sociological, and physical/psychoacoustic/signal processing approaches.

Person specifications

- A Masters degree (or a combination of qualifications and/or experience equivalent to that level) in one of the following disciplines (or related disciplines): physiology/audiology, fMRI, environmental psychology/sociology, physics/acoustics/signal processing, engineering, planning;
- Enthusiastic and passionate about conducting research, quantitatively and/or qualitatively;

- Ability to use own initiative and prioritise workload;
- Good interpersonal and communication skills (oral and written).

Application Procedure

Stage 1 - Pre-application documents including: (1) CV (up to 3 pages A4), (2) academic transcripts, and (3) 1-page personal statement outlining motivation, interest and eligibility for the post - should be emailed directly to Teresa Dawkins via <bseer-phd-admin@ucl.ac.uk>, with ERC application indicated in the subject field.

Stage 2 - Following an interview, the successful candidate will be invited to make a formal application to the UCL Research Degree programme. Further guidance will be provided.

Informal enquiries on the content of the research topic should be emailed to the principal investigator, Professor Jian Kang, j.kang@ucl.ac.uk

Deadline for application: 19/05/2018
Interviews week starting: 05/06/2018