

Job description

Post title and post number	Research Fellow in Air Pollution - 56884
Organisation advertising Description	School of Geography, Earth and Environmental Sciences

Job summary

To create and contribute to the creation of knowledge by undertaking a specified range of activities within the NERC-MRC-MOES “An Integrated Study of Air Pollutant Sources in the Delhi National Capital Region (NCR): ASAP-Delhi” project. The postholder will be part of the Environmental Health Sciences Research Group in the School of Geography, Earth and Environmental Sciences (GEES).

ASAP-Delhi project, led by Professor William Bloss, Dr Zongbo Shi and Prof Roy Harrison at the University of Birmingham, is one of the five funded projects within the NERC-MRC-MOES Air Pollution and Human Health in an Indian Megacity programme (APHH-India). The project aims to provide authoritative assessment of the sources, formation process, burden and characteristics of air pollutants in Delhi, and the influence of the surrounding National Capital Region (NCR), with a focus upon particulate matter as the pollutant with the greatest impact upon health, and a philosophy of determining pollutant sources, budget and behaviour insights from direct atmospheric observations.

ASAP-Delhi project will involve close collaboration between the Universities of Birmingham and Surrey in the UK, and the Indian Institute of Technology (IIT) Delhi and National Physical Laboratory (NPL) Delhi in India. The postholder will be expected to join a team of researchers from the Universities of Birmingham and Surrey led by Professor William Bloss and work closely with the Indian partners as well as other participants of the APHH-India programme.

Main duties

- Be responsible for planning, designing and performing the field measurement campaigns in Delhi and collecting and analysing primary and secondary data to assess the formation mechanisms of haze pollution in Delhi
- Present research outputs, including drafting academic publications or parts thereof, for example at seminars and as posters
- Apply knowledge in a way which develops new intellectual understanding
- Disseminate research findings for publication, research seminars etc
- Contribute to developing new models, techniques and methods
- Undertake management/administration arising from research
- Contribute to Departmental/School research-related activities and research-related administration
- Contribute to enterprise, business development and/or public engagement activities of manifest benefit to the College and the University, often under supervision of a project leader
- Develop research objectives and proposals for own or joint research, with assistance of a mentor if required
- Contribute to writing bids for research funding

- Provide guidance, as required, to support staff and any students who may be assisting with the research
- Deal with problems that may affect the achievement of research objectives and deadlines

Skills and Experience

- First degree in area of specialism and a doctoral degree relevant to research area or equivalent qualifications
- Enthusiastic and motivated approach to air pollution research
- Strong research track record, including publications, commensurate with experience in air pollution
- Experience in airborne particulate matter sample collection (filter and / or online measurements) and offline analyses
- Experience in the application of receptor modelling techniques to identify PM sources
- Prepared to undertake fieldwork including overseas in India for periods of several weeks as required
- High level analytical capability
- Excellent planning, logistical and time management skills
- Ability to communicate complex information clearly and liaise effectively with UK and Indian side project partners, and policy stakeholders
- Fluency in relevant models, techniques or methods and ability to contribute to developing new ones
- Ability to assess resource requirements and use resources effectively
- Understanding of and ability to contribute to broader management/administration processes

Equal Opportunities

The School of Geography, Earth and Environmental Sciences is an equal opportunities employer and holds an Athena Swan Bronze award. Female and BME staff are under-represented in the School and so we would particularly value applications from such candidates. The School welcomes applications from candidates looking for flexible part time/job share arrangements as part of the appointment. Professor Eva Valsami-Jones is available to discuss the School's equal opportunities policies (e.valsamijones@bham.ac.uk; 0121 4145537).