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INDIAN INSTITUTE FOR  
HUMAN SETTLEMENTS

**The IIHS Post-Doctoral Programme**  
**A Call for Fellows**

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Post-Doctoral Fellow in Geospatial Analysis

### **The IIHS Post-Doctoral Programme: GCRF PEAK**

IIHS seeks Post-Doctoral Fellows to join its vibrant intellectual environment within the Academics and Research programme. IIHS is increasingly recognized in India and internationally as a significant node in urban research and practice on the global South. Its promotion of inter-disciplinary pedagogy, on-the-ground learning, an excellent library on various aspects of the urban, and a convivial place for research make it an ideal location for scholarship.

Post-Doctoral fellowships at IIHS typically have one or two-year terms, and some may be extendable. While Fellows are hired institutionally at IIHS, each is hired into a specific and on-going research-based project, which will be the Fellow's first home within IIHS. *This call is associated with the PEAK consortium, funded by the Global Challenges Research Fund (GCRF), UK.*

Led by the University of Oxford, and in partnership with IIHS, Peking University and the University of Cape Town, the PEAK consortium has identified four overarching themes of urban dynamics. Researchers will work across natural sciences (including mathematics, medicine, transport and engineering), the social sciences (including anthropology, development, migration) and humanities (including law, history). The PEAK framework synthesises traditional urban studies disciplines with emergent new urban sciences in a programme of research and capacity building across the humanities, social, sciences and natural sciences. PEAK is grounded in the logic of urban complexity to develop an array of disciplinary perspectives that will address the challenges of the 21st century city. More details on the PEAK consortium are available here: <http://gtr.rcuk.ac.uk/projects?ref=ES/P011055/1>

Project-related research will account for up to half of the Fellow's time, though this can vary for different projects. The remaining time is equally split between the Fellow's own research and writing as well as their participation in IIHS institutional roles. These roles include: teaching in on-going academic or capacity building programmes, participating in the internal conference and seminar series, and supporting institutional processes.

The focus of the PEAK project is particularly on developing a new cohort of interdisciplinary urban researchers, and therefore offers multiple opportunities for young scholars to develop research, teaching, and writing skills. Opportunities exist for individual scholarship, collaborative work with scholars at partner institutions including the University of Oxford, and the University of Cape Town, as well as potential travel to partner institutions through summer schools and internships.

### **Post-Doctoral Fellow in Geospatial Analysis**

This call invites applications for a post-doctoral fellowship in the area of geospatial analysis. The post-doctoral fellow will be encouraged to develop areas of research which address urban spatial analysis questions, especially those which are of significance in the context of Indian cities.

Applicants will also be expected to develop innovative analysis methods which integrate multiple kinds of urban datasets. For instance, by integrating satellite imagery, census data, data from administrative and planning agencies and primary survey data, it should be possible to develop a high-resolution spatial database for Indian cities which provides insights which none of these datasets can individually provide.

The fellowship also provides the opportunity to explore new methods of data collection and for application of methods drawn from fields like machine learning and computer vision to urban spatial analysis problems.

The fellow will be encouraged to disseminate research findings through multiple channels including journal articles. In addition, s/he will also have the opportunity to work with other teams at IIHS to translate new analysis methods into software tools and develop training modules for such tools to ensure that these analysis methods are more accessible to practitioners.

Through these research and knowledge dissemination processes, fellows are expected to contribute to developing new ways of understanding Indian cities and assist policy makers and urban practitioners address urban problems with deeper insights.

**Field work:** *This position is based in Bengaluru. This is a one-year position, extendable.*

**Qualifications:** Applicants should hold a PhD in Computer Science, Statistics/Spatial Statistics, Mathematics, Geo-informatics, or related areas. Exceptional candidates with masters' degrees may also be considered. Preference will be given to candidates with a strong grasp of statistics and spatial statistics along with advanced programming skills in Python, R, Matlab or similar languages. Applicants are expected to have an interest in urban problems, especially related to mapping and spatial analysis. A proven research and publication record with at least one publication in a noted peer-reviewed academic journal is required.

**Diversity Policy:** IIHS is an equal opportunity employer that encourages women, people with disabilities and those from economically and socially excluded communities with the requisite skills and qualifications to apply for positions.

**To Apply:** Please email a detailed and updated Curriculum Vitae (must include at least two possible references), along with a cover letter addressing how you meet the above requirements, to hr [at] iihs dot co dot in (Subject: Post-Doctoral Fellowship in Geospatial Analysis).

**Note**

All offers are on an exclusive basis, which implies that other professional assignments (whether compensated or not) that bear a potential conflict of interest with IIHS cannot be undertaken.



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