

The logo for the Indian Institute for Human Settlements (iihs) is located in the top left corner. It consists of the lowercase letters 'iihs' in a white, sans-serif font, with a registered trademark symbol (®) to the upper right.

INDIAN INSTITUTE FOR
HUMAN SETTLEMENTS

JOB DESCRIPTION

Senior Associate - Geospatial Lab
(Image Processing and Machine
Learning)

About Us

The Indian Institute for Human Settlements (IIHS) is a national education institution committed to the equitable, sustainable and efficient transformation of Indian settlements.

IIHS aims to establish an independently funded and managed national university of eminence for research and innovation focused on the challenges and opportunities of India's urban transition. The proposed IIHS University will be an institution of eminence that will host an integrated programme of quality campus-based education and research, training and lifelong learning for working professionals, distance and blended learning, as well as a whole array of practice and advisory services. The university will have a strong interdisciplinary orientation bringing together theory and praxis that is grounded in the South Asian context and also engages with and draws from knowledge across the globe.

For more information, please see <http://www.iihs.co.in>

About the Geospatial Lab

The Geospatial Lab is the centre for spatial research, consulting and capacity building activities at IIHS. It cuts across programmes and teams integrating spatial technology and methods such as GIS, remote sensing, spatial modeling and web services into practice and consulting services as well as inter-disciplinary research. Its location in the IIHS ecosystem makes the Lab uniquely placed to offer customized project design and delivery, on the one hand, and institutional support, capacity building, training and teaching to a diverse range of learners on the other. As it grows, the Lab plans to become a national hub for geo-spatial sciences and technology that combines technological innovation and process expertise with inter-disciplinary knowledge generation.

Job Description

The Senior Associate – Geospatial Lab shall be housed in the Geospatial Lab at IIHS and support the ongoing research and practice projects at the lab.

Activities and Tasks

Responsibilities would include, but not be limited to, the following:

- Developing methods and automated workflows for processing satellite imagery and other spatial datasets;
- Developing new machine learning algorithms for land cover and land use classification and estimating population and socio-economic characteristics from satellite imagery and other related datasets;
- Handling multiple sources of high and medium resolution images of a large geographical area;
- Contributing and supervising the ongoing research, practice and capacity building projects, especially the PEAK (Prediction and projection, Emergent urbanism, Adopted knowledge, Knowledge exchange) and the India Data Cube projects;
- Contributing to the technical content of new research proposals and consultancy projects;
- Publishing in high quality scientific journals and disseminating results on other platforms;
- Interacting with the other members of the interdisciplinary team to exchange ideas and to identify new opportunities for collaborative work on a regular basis;

- Supporting day-to-day operations of the lab, including project management;
- Teaching, developing training materials and exercises, course coordination of the teaching and capacity building programs;
- Providing support to other IIHS activities including academics, research, practice, training, operations and others;
- Participating in all activities of Institution-Building at IIHS; carrying out tasks as assigned by IIHS; and traveling on IIHS work within and outside the country as needed.

Structure and Reporting

The Senior Associate – Geospatial Lab will report to the Lead – Research and the Consultant - Practice at IIHS and will be required to collaborate effectively with a diverse group of internal teams and external individuals/organizations, and students.

Person Specification

Applicants for this role should have:

- A Master's degree in Computer Science/Geoinformatics or related disciplines with a Bachelor's degree in Computer Science or related field;
- 5 years of work experience, including at least 2 years working with remote sensing data;
- Strong working knowledge of machine learning and image processing techniques, tools and libraries;
- Strong programming skills in Python or R;
- Familiarity with deep learning frameworks such as TensorFlow or PyTorch would be desirable;
- Prior work experience with urban data and urban focused institutions would be an added advantage;
- Experience in the implementation of algorithms in cloud platforms, especially on AWS;
- Openness to work in highly interdisciplinary teams;
- Strong written and oral communication skills;
- Ability to work flexible hours from time to time.

This offer is 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.

The search will remain open until the position is filled.

Location

This position is based in Bengaluru and may entail travel to other locations in India.

Review and Assessment

The role and performance of the incumbent shall be subject to normal review and assessment systems at IIHS.

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

If you are interested to explore this opportunity with us, please fill the online application form by clicking [here](#). (You can also click on the “Apply Now” button at the end of the Job Description displayed on the website).

Contact

Please write to us at hr@iihs.co.in if you need any clarifications while filling the online application form.



IIHS Bengaluru City Campus

197/36, 2nd Main Road, Sadashivanagar, Bengaluru 560 080. India.

T: +91 80 6760 6666 | F: +91 80 2361 6814

IIHS Chennai

Floor 7A, Chaitanya Exotica, 24/51 Venkatnarayana Road, T Nagar Chennai

600 017. India. T: +91 44 6630 5500/6555

IIHS Delhi

803 Surya Kiran, 19 Kasturba Gandhi Marg, New Delhi 110 001. India.

T: +91 11 4360 2798 | F: +91 11 2332 0477

IIHS Mumbai

Flat No.2, Purnima Building, Patel Compound, 20-C, Napean Sea Road,

Mumbai 400 006. India. T: +91 22 6525 3874

www.iihs.co.in