

01 October 2026

Notification for Recruitment of Project Associate, Civil Engineering
Project funded by the BMGF
Ref: IITPKD/2026/050/CE/PRG

- **Project Areas:** Geospatial analyses, Data Engineering, Life Cycle Assessment.
- **Required Skills:**
 - Develop and maintain code to integrate the nationwide agricultural field-boundary dataset for India with the geolocated database of Sewage Treatment Plants (STPs).
 - Build geospatial algorithms and pipelines to identify nearby and nearest farmlands for each STP (proximity, network-distance, and suitability analyses) across the whole of India.
 - Design and implement scalable data-engineering workflows (ingestion, cleaning, spatial indexing, storage and versioning) for large raster and vector datasets.
 - Develop scripts and job workflows to run country-scale simulations and batch geospatial computations on High-Performance Computing (HPC) clusters.
 - Work in close collaboration with the project's GIS expert on spatial data models, validation of outputs, and map-based deliverables.
 - Support Life Cycle Assessment (LCA) studies by preparing spatially resolved inventories and linking geospatial outputs with LCA models.
 - Document code, workflows and results; maintain version control and reproducible research practices.
 - Prepare technical reports, visualisations and presentations for the project team and stakeholders.
- **Desirable Skill Sets:**
 - Strong programming skills in Python (GeoPandas, Shapely, Rasterio, GDAL, Dask/PySpark or similar) and/or R (sf, terra, raster or similar) and experience handling large-scale vector and raster geospatial datasets; familiarity with spatial databases (PostGIS) and cloud/HPC workflows (SLURM, parallel and distributed computing).
 - Experience with data-engineering pipelines, version control (Git), reproducible research and Life Cycle Assessment tools (e.g., openLCA, Brightway) is desirable; ability to work collaboratively with GIS specialists and domain experts.
- **Eligibility:** Master's degree in Computer Science / Geoinformatics / Remote Sensing & GIS / Data Science / Civil Engineering / Environmental Engineering / related discipline, with demonstrated programming experience

Or

Bachelor's degree in Engineering or Technology from a recognized University or equivalent, with proficiency in Python and experience in geospatial data processing, data engineering or scientific computing

- **Age:** Candidates who are not exceed 31 years of age, as on the closing date of application, with relaxation to candidates belonging to OBC/ SC/ ST/ PWD categories and women applicants as per Government of India norms.
- **Appointment Duration:** 1 year.
- **No. of Positions:** One
- **Salary Particulars:** The consolidated monthly remuneration for this position will be Rs. 32,000/- (Thirty-Two Thousand Rupees Only). Hostel accommodation may be provided at the institute based on availability on a chargeable basis.
- **Deadline for application:** 07 October 2026 (Wednesday)

Candidates satisfying the required skills may send their resumes and certificates pertaining to educational qualifications starting from class X (in a single PDF) to Dr. Praveena Gangadharan (office_gscoe@iitpkd.ac.in and pd-gscoe@iitpkd.ac.in). The candidate is expected to join immediately after receiving the offer letter.

The subject of the application e-mail should be "Project Associate", **Global Sanitation Center of Excellence, IIT Palakkad**
