Role: Research Scientist (Civil)

Experience: M.Tech Graduates in Structural Engineering/ Geo-technical Engineering

Location: Kozhikode, Kerala

About Airawat Research Foundation

Airawat Research Foundation (ARF) is a Section 8 company established to advance a mission of national importance leveraging AI for sustainable urban transformation. ARF serves as the institutional vehicle for the prestigious Centre of Excellence in Artificial Intelligence for Sustainable Cities, led by IIT Kanpur, under the aegis of a consortium selected by the Government of India.

As India rapidly urbanizes, cities face mounting challenges related to **air quality, water scarcity, urban governance, energy efficiency, mobility, solid waste management, and urban flooding etc**. ARF is committed to addressing these pressing issues through state-of- the-art, AI-enabled solutions that combine cutting-edge research with real-world implementation.

With a strong focus on technology-driven public service delivery, ARF collaborates with academic institutions, government stakeholders, industry partners, and civil society to develop scalable, policy-aligned innovations.

Being part of ARF means contributing to one of India's most forward-looking initiatives in the use of AI for urban sustainability. It offers a dynamic, interdisciplinary, and high-impact environment where technology meets governance, and research meets real-world change.

About the Role:

ARF is seeking a highly motivated and skilled **Research Scientist (Civil)** to join our innovative team. This role is essential for bridging the gap between cutting-edge AI technology and real-world civil engineering applications. You will be responsible for applying your expertise in structural or geotechnical engineering to validate and enhance our AI-powered structural health monitoring platform. This is a unique opportunity to directly impact the safety and longevity of civil infrastructure by blending deep domain knowledge with advanced technology.

Key Responsibilities:

1. Lead the process of annotating structural and geotechnical damages in our datasets to train and validate AI models.
2. Conduct on-site field visits and structural inspections to collect data, verify AI findings, and provide ground truth for our models.
3. Develop and analyze high-fidelity Finite Element Method (FEM) models to simulate structural behavior and validate the results from our digital twins and sensor data.
4. Create detailed inspection reports based on the collected data and AI analysis. You will be a key point of contact for clients, presenting findings and demonstrating the platform's value.
5. Support business development efforts by providing technical expertise, participating in client meetings, and helping to identify new opportunities and applications for our platform
6. Publish research findings in reputable journals and present at industry conferences.

Qualifications and Experience

A Master's degree in Civil Engineering, with a specialization in Geotechnical or Structural Engineering. Proven experience in hands-on experience with FEM software is highly preferred. Strong analytical and problem-solving skills. Excellent communication and interpersonal abilities for client interaction and team collaboration. Deep understanding of civil engineering principles, including structural mechanics, material behavior, and common damage mechanisms. Familiarity with AI/ML concepts is a plus.

Compensation: Commensurate with qualification, experience and market