Centre of Excellence in Artificial Intelligence
National Institute of Technology Calicut
(https://coeai.nitc.ac.in/)
Recruitment of Junior Research Fellows

Applications are invited for the engagement of a Junior Research Fellows (on contract basis) for a research project sanctioned by the Ministry of Education, GoI, in the Centre of Excellence in Artificial Intelligence at National Institute of Technology Calicut, Kozhikode- 673601.

No. of Positions : **Nine (9), Junior Research Fellow (JRF)** - on contract basis

Duration of Engagement : **3 months** (on contract basis) and extendable based on the performance of the candidate and availability of the project fund

Name of the Sponsoring Agency : Ministry of Education (MoE), GOI

Name of Project : "Sustainable Applications for Mobility, Urban Development, and Resilience using Artificial Intelligence (SAMUDRA)"

Details of the Project: This prestigious research project has five verticals namely Smart Parking, Smart Traffic, Smart Security, Digital Twin and Disaster Management. These verticals aim to evolve solutions to specific problems using AI and implement Proof-of-Concept (PoC) in the field, in a sustainable city context. There are **nine** vacancies of JRFs in the whole project.

Theme/ Broad Area	Essential Qualifications	Desirable Qualifications
Smart Traffic	B.E/B.Tech in Electronics and Communication Engineering, Electrical and Electronics Engineering,Computer Science and Engineering or Information Technology and other related Branches with minimum 6.5 CGPA or 60% marks Or Master's degree in Engineering/ Technology in the fields of Signal Processing and Telecommunication or other relevant discipline, with a minimum of 60% aggregate marks (or) CGPA of 6.0/10.	1. Experience in using Machine Learning based computer-vision algorithms, Data analytics and software development. 2. Exposure to Machine Learning Techniques. 3. Proficiency in technical writing in English
Smart Safe Travel App	B.E/B.Tech in Electronics and Communication Engineering, Computer Science and Engineering or Information Technology and other related Branches with minimum 6.0 CGPA or 60% marks Or Master's degree in Engineering/ Technology	1. Experience in Smartphone app development (Android/iOS) using Flutter and/or similar technologies 2. Development skills in handling Firebase, Cloud storage, GPS, GIS, Google maps and similar technologies

Theme/ Broad Area	Essential Qualifications	Desirable Qualifications
	in the fields of Electronics and Communication Engineering/Computer Science and Engineering, with a minimum of 60% aggregate marks (or) CGPA of 6.0/10. Or Master of Computer Applications/ MSc in Computer Science with a minimum of 60% aggregate marks (or) CGPA of 6.0/10.	3. Experience in Predictive and Generative AI; skills in fine tuning LLMs 4. Proficiency in technical writing in English
Smart DSS	B.E/B.Tech in Electrical and Electronics Engineering/Computer Science and Engineering or Information Technology/ Civil Engineering with a minimum 6.0 CGPA or 60% marks Or Master's degree in Engineering/ Technology in the fields of Electrical and Electronics Engineering/Computer Science and Engineering, with a minimum of 60% aggregate marks (or) CGPA of 6.0/10.	1. Experience in working with the Internet of Things 2. Experience in web interface development 3. Preferable knowledge in handling GPS, GIS, and similar technologies 4. Experience in Predictive and Generative AI 5. Proficiency in technical writing in English
Smart DSS	B. Plan/B. Arch with a minimum 6.0 CGPA or 60% marks or a Master's degree in Planning/Technology in the fields of Urban Planning/Geospatial technologies/Remote Sensing/Geoinformatics, with a minimum of 60% aggregate marks (or) CGPA of 6.0/10.	1. Experience and Development skills in handling GPS, GIS, and similar technologies 2. Preferable experience in graphic design and web interface development 3. Proficiency in technical writing in English
Digital Twin for Civil Structures	B.E/B.Tech in Computer Science and Engineering/ Civil Engineering/ Electronics Engineering with a minimum 6.5 CGPA or 60% marks Or Master's degree in Engineering/ Technology in the fields of GIS, with a minimum of 60% aggregate marks (or) CGPA of 6.5/10.	1. Proficiency in Photogrammetry and experience in drone flying is an advantage. 2. Experience in forming point cloud models using Drones 3. Building Information Modeling(BIM) 4. Proficiency in technical writing in English 5. Critical thinking and real-world problem-solving capabilities. 6. Knowledge of Disaster Risk Assessment
Digital Twin for Civil Structures	B.E/B.Tech in Electronics and Communication Engineering, Electrical and Electronics Engineering,Computer Science and Engineering or Information	1. Proficiency Back End Coding 2.Experience with Cloud storage 3.Maps API 4.Proficiency in technical writing in

Theme/ Broad Area	Essential Qualifications	Desirable Qualifications
	Technology and other related Branches with a minimum 6.5 CGPA or 60% marks Or Master's degree in Engineering/ Technology in the fields of Computer Science and Engineering, with a minimum of 60% aggregate marks (or) CGPA of 6.5/10.	English 5.Critical thinking and real-world 6.Knowledge of Disaster Risk Assessment
Digital Twin for Civil Structures	B.E/B.Tech in Electronics and Communication Engineering, Electrical and Electronics Engineering,Computer Science and Engineering or Information Technology and other related Branches with a minimum 6.5 CGPA or 60% marks Or Master's degree in Engineering/ Technology in the fields of Computer Science and Engineering, with a minimum of 60% aggregate marks (or) CGPA of 6.5/10.	1. Full Stack Developer 2. Proficiency in Computer Vision 3. Image data analysis 4. Machine Learning, Deep Learning 5. Hands-on experience in machine learning algorithms and tools 6. Experience with Cloud storage 7. Maps API 8. Critical thinking and real-world problem-solving capabilities.

Consolidated monthly pay : 1) **Junior Research Fellow**

Rs.37,000/- per month + 18% HRA (Consolidated)

Other Benefits   : Accommodation may be available as per the availability and the institution Norms. Facility of yearly leave, carry over leave, medical benefits may be available as per the applicable rules for the project staff. Tentative date for

Tentative Date of Interview   : **July 19, 2024 at 9.00 AM at NIT Calicut Campus**

Note

1. **Interested candidates should fill-in their details in the Google Form: https://tinyurl.com/coeai-jrf-2024 and upload their latest resume in pdf format.**
2. **The last date of application is 5 PM on July 14, 2024.**
3. **Shortlisted candidates must report in person on July 19, 2024 at 9.00 AM** , National Institute of Technology Calicut, NIT Campus (P.O), Calicut 673601. The selection process is based on a test / technical interview.
4. The applicant will be responsible for the authenticity of information and other documents submitted.
5. The Institute reserves the right to relax qualification for the candidates with exceptional credentials.

6. Applications in employment (government or any other organization) are required to submit a "No Objection Certificate" from the employer along with the above mentioned documents.
7. The decision of the selection committee is final. Canvassing in any form leads to the rejection of the candidature.
8. The tenure of the project staff is co-terminus with the project.
9. Selected candidates will not be permitted to claim any regular/ part-time appointments in this institute or any other during this period. However, the selected candidates may be allowed to join the PhD program under project category as per the Institute's norms.
10. No TA/DA will be paid for attending the interview.
11. The institute reserves the right not to fill up the posts, cancel the advertisement in whole or in part, without assigning any reason and the decision of the Administration of NIT Calicut, in this regard shall be final.
12. For clarifications, you may refer to the website: http://coeai.nitc.ac.in or write to coeai@nitc.ac.in.

Sd/-

Dean(R&C)