



RESEARCH POSITIONS

Manipal Academy of Higher Education (MAHE), Manipal invites applications for research position under Ministry of Education (MoE) funded project through TANUH, the COE at IISc Bengaluru. The position is based at School of Computer Engineering, Manipal Institute of Technology (MIT), Manipal

Project title: CareHeart: An AI based Coronary Artery Disease Diagnosis System

About the Project: This project aims to develop and validate a deep learning-based artificial intelligence system for accurate, non-invasive diagnosis of Coronary Artery Disease (CAD) using Computed Tomography Coronary Angiography (CTCA) images. By leveraging advanced medical imaging and AI, the system aims to address the shortage of expert clinicians needed for CTCA interpretation, enabling faster, more reliable diagnosis. The solution is designed to be scalable and deployable across diagnostic centers, particularly in resource-limited and tier-2/3 regions, thereby improving early detection, reducing reliance on invasive procedures, and contributing to better cardiovascular health outcomes in alignment with national digital health initiatives.

Candidates possessing the requisite qualification may send their detailed CV, Copies of relevant certificates and transcripts along with Cover letter explaining interest in the project to jobs.research@manipal.edu on or before **September 01, 2026** . Shortlisted candidates will be informed by e-mail about the interview. No TA/DA will be paid for attending the interview.

Director - HR

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Position and details:

Position	Qualification	Remuneration
Research Scientist - I (Vacancy: One) Duration of the position: 02 years	Educational Qualification: PhD (technical) in the relevant field Relevant Experience: 0-3 years Technical Skills: Medical Image Analysis, Deep learning, Pytorch/Matlab, Github, 3D Slicer, and/or any other Visualization tools. Communication: Strong verbal and written communication skills in English. Job Description: • We are seeking a highly motivated Deep Learning Research Engineer / AI Scientist to develop and validate an advanced AI-based system for the diagnosis of Coronary Artery Disease (CAD) using Computed Tomography Coronary Angiography (CTCA) images. • The role focuses on designing robust, clinically relevant deep learning models that can assist in early, accurate, and non-invasive detection of CAD, particularly addressing the shortage of expert radiologists in resource-limited settings. • The candidate will work at the intersection of medical imaging, deep learning, and clinical research, contributing to a system that aligns with national digital health initiatives such as the Ayushman Bharat Digital Mission. The developed solution is expected to be scalable, time-efficient, and deployable across diagnostic centers, especially in tier-2 and tier-3 regions. Key Responsibilities: • Handle CTCA imaging data with clinical annotations, including preprocessing tasks such as cleaning, normalization, segmentation, and augmentation in collaboration with clinicians • Contribute to the design and development of deep learning models (CNNs, 3D CNNs, Vision Transformers) for CAD detection, including vessel segmentation, plaque detection, and stenosis classification. Optimize models for accuracy, interpretability, and computational efficiency • Establish robust validation protocols and evaluate models using clinical metrics (AUC-ROC, sensitivity, specificity, F1-score), benchmarking against expert radiologists • Integrate explainable AI techniques (e.g., Grad-CAM, attention maps) to ensure clinical interpretability and usability • Develop end-to-end systems for image ingestion, inference, and automated report generation, with support for real-time deployment • Stay updated with advancements in medical imaging AI, publish research, and contribute to technical documentation • Collaborate with healthcare professionals and ensure compliance with medical standards, ethics, and regulatory requirements <i>Job Code: Application for Research Scientist – I, AI-COE Project</i>	Rs. 1,16,400/-

Mentioning of **Job Code** in the subject line of the application is mandatory.