

JOB DESCRIPTION

Applications are invited from suitable candidates to work at the School of Engineering and Applied Science, Ahmedabad University on a research project sponsored by **Department of Science and Technology (DST)**, Government of India. The project details and the recruitment process are given below:

Position Title: Project Associate-II	School: School of Engineering and Applied Science
Reporting to: Dr. Sanket Patel Associate Professor, School of Engineering and Applied Science, Ahmedabad University sanket.patel@ahduni.edu.in	Duration: The position will be initially offered for a period of one year and extendable for two more years depending on the performance of the candidate. Total project duration is of 3 years.
About us: Ahmedabad University is a private, non-profit University that offers students a liberal education with a focus on research-driven and project-based learning. https://www.ahduni.edu.in/ . The School of Engineering and Applied Science is a part of Ahmedabad University, an institution dedicated to providing a liberal education and world-class research environment to all its members. At the school, both faculty and students are expected to pursue research and development in the social and industrial spheres, equipping themselves to solve the most complex challenges of their societies and communities.	
Project Details: Title: Scalable Digitization of the Indian Classical and Folk Performing Arts Investigators: Dr Sanket Patel (PI), Dr Sudhir Pandey (Co-PI) Keywords: Human Pose Estimation, Pose Correction, Computer Vision, Machine Learning, Image Processing, Video Processing, Real-time Analytics Sponsoring Agency: Department of Science and Technology (DST), Government of India Short Description: User learns and performs a signature step of a specific classical dance form. The developed model considers this signature step as a reference and the compares with the step which is performed by the user. The system provides a real time feedback in terms of pose correction. Key objectives of the project <ul style="list-style-type: none"> • Working on a human pose estimation model • Addressing the challenges: multi-pose estimation, real-time processing, novel approaches • User performance feedback: real-time feature extractions, correlations, feedback and validations • Creating a scalable repository management system, creating a library database of various dance forms • Developing an application to enable the human-computer interface • To demonstrate a complete end-to-end process of digitization, learning and user performance validation. Extending the work further considering audio and speech analytics. 	
Roles and Responsibilities: <ol style="list-style-type: none"> 1. Carrying out project-related activities; procurement of materials, vendor management, creating/collecting and analysing images/videos, building models/ methods, developing program and codes, interpreting results, etc. 2. Conducting a thorough research and developing novel techniques. 3. Maintain project documentation, including project plans, expenditure statements, reports, and records. 4. Writing research papers and publications in reputed journals and conferences. 5. Coordinate and facilitate project meetings, including scheduling and preparing agendas. 6. Ensuring that project deliverables meet quality standards and adhere to project requirements. 	

Key Technical Skills required:

Skilled in Python

Implementing various human pose estimation and correction models and methods

Implementing machine learning (ML) and deep learning (DL) algorithms

Understanding and implementation of computer vision aspects

Knowledge of image processing, video processing, real-time analytics

Knowledge of basics of signal processing, audio/ speech processing

Salary and Emoluments:

The project associate will be paid a salary of 41,300 /- INR per month (35,000 /- Basic + 18% HRA) for the entire duration of the project.

Other Benefits:

1. The candidate will have an opportunity to enrol in the PhD programme at the School of Engineering and Applied Science of Ahmedabad University. The University offers university assistantship at 40,000 INR per month plus tuition fee waiver and the University fellowship at 50,000 INR per month plus tuition fee waiver to the full-time doctoral students.

2. The candidate will have an opportunity to work on a prestigious Department of Science and Technology (DST), Government of India - sponsored project.

3. The candidate will have an opportunity to publish research papers in reputed international journals and conferences.

4. The candidate will have opportunity to work on a multidisciplinary area with a core focus of the engineering.

Qualification:

M.Tech/M.E. in any of the following disciplines with at least 60% marks: Computer Science and Engineering, Information and Communication Technology, Electrical and Electronics Engineering, and relevant disciplines/sub-disciplines of CE/ICT/EC/EE/IT/IC etc.

How to apply:

Interested candidates can apply here: <https://forms.gle/1XiYshXLSYg13qRF6>

The evaluation will be done within the due time-period and the candidate will be called for an online interview. Based on the performance, the candidate will be offered the job letter.

Last date to apply: 13 December, 2024.