



**IDEAS - INSTITUTE OF DATA ENGINEERING,  
ANALYTICS AND SCIENCE FOUNDATION**

Technology Innovation Hub at Indian Statistical Institute

203, BARRACKPORE TRUNK ROAD, KOLKATA 700108, INDIA

CIN: U73200WB2021NPL243912

Phone: +916289351800

Email: [tihisi@isical.ac.in](mailto:tihisi@isical.ac.in)

URL: <https://www.ideas-tih.org/>

NO: ADV/ISI/IDEAS-TIH/2023-24/36

Date: November 21, 2023

**Rolling Advertisement for two (02) Project Linked Junior Research Fellows**  
(Positions Open until filled)

The Institute of Data Engineering, Analytics and Science Foundation (IDEAS), Technology Innovation Hub (TIH), is a Section-8 not-for-profit company incorporated at the Indian Statistical Institute, Kolkata under a National Mission on Interdisciplinary Cyber Physical Systems (NM-ICPS), Government of India. It is an Innovation Hub in the technology vertical "Data Science, Big Data Analytics, and Data Curation" supported by the Department of Science and Technology (DST), Govt. of India.

Applications are invited for the recruitment for **two (02) Project Linked Junior Research Fellows** to work for the project titled "Generalized Tampering Detection in Media (GTDM)" at the IDEAS-TIH, ISI Kolkata.

This is a full-time purely on a temporary basis employment and cannot be associated with any other assignment. This advertisement will remain open until the position is filled. The project will be implemented at BITS Pilani Hyderabad campus, India.

**PI Details:**

**Abhijit Das**

Assistant Professor,

BITS Pilani Hyderabad campus, Pin 500078, India

Contact No: +91-9831977115

Email: [abhijit.das@hyderabad.bits-pilani.ac.in](mailto:abhijit.das@hyderabad.bits-pilani.ac.in)

**1. Job Title: Two (02) Project Linked Junior Research Fellow**

**Essential Qualification:**

- i) M. Tech degree in Computer Science/Engineering or related areas **OR** B.Tech degree in Computer Science/Engineering or related areas (desirable: python coding experience at a startup/industry), Excellent computer programming (Python and PyTorch) knowledge and a good understanding of Statistics, Machine learning and computer vision.
- ii) Experience in developing web apps and software.

**Desirable Qualification:**

- a) Working experience with large volumes of data, good knowledge of linux.

**Salary:** Rs 45,000/- per month (consolidated with no other allowances).

**Tenure of Appointment:**

The appointment will be initially for one year from the date of his/her joining the IDEAS- Technology Innovation Hub which may be extended later/ terminated earlier, depending on the availability of funds and the performance of the candidates.

**Age:**

Should not exceed 35 years as on January 01, 2023, with usual relaxation for SC/ST/OBC and differently abled candidates.



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URL: <https://www.ideas-tih.org/>

**Location of Work:** BITS Pilani Hyderabad campus, Pin 500078, India

### **How to apply:**

Eligible and interested candidates are required to fill-up the application form using the link:

<https://docs.google.com/forms/d/e/1FAIpQLSenSlasFuzanpH81XXF5gtbqxMZp5w0egyYq1HH2AqU9yk1OA/viewform>

### **General Instructions:**

- i) Candidates employed in any Government/Semi-Government/Public Sector Undertaking/ Autonomous organization must submit a No Objection Certificate (NOC) from the current employer.
- ii) At the time of joining, the selected candidates have to produce all relevant documents/ testimonials/ NOC in original for verification and a medical certificate of fitness from the Medical Officer of the Indian Statistical Institute Kolkata (Host Institute).
- iii) Applications with incomplete information or without supporting documents will be summarily rejected.
- iv) Selection of shortlisted candidates will be through written test and/or interview based on their academic records, and experience.
- v) Mere eligibility will not vest any right on any candidate for being called for an interview.
- vi) Written test and/or interview date will be communicated to the shortlisted candidates in due course.
- vii) The TIH reserves the right not to appoint anyone in the above position.
- viii) Specific queries, if any, may be directed to [tihisi@isical.ac.in](mailto:tihisi@isical.ac.in).

This advertisement is also available on the website <https://www.isical.ac.in/-tihisi/Jobs.html>.

(DIPTI PRASAD MUKHERJEE)

Project Director

IDEAS, Technology Innovation Hub  
Indian Statistical Institute, Kolkata



**BITS Pilani**

Pilani | Dubai | Goa | Hyderabad | Mumbai  
Research & Innovation

**ONE PhD Scholar Position**

**Design, Development and  
Control of a low-cost AI enabled  
3-DOF Compliant Manipulator**

**Campus | Deadline: 15 Nov 2023 |  
Joining: At the earliest**

*Date: 31 Oct, 2023*

Applications are invited for **ONE position of PhD Scholar** on a project, “*Design, Development and Control of a low-cost AI enabled 3-DOF Compliant Manipulator for Intelligent Manufacturing*” under the supervision of Dr. Abhishek Sarkar, Dr. Joyjit Mukherjee and Dr. Abhijit Das.

Deserving candidates check the eligibility criteria and qualification process of the PhD program of BITS Pilani (<http://www.bitsadmission.com/phmain.aspx>).

<b>Scope of work</b>	<b>Essential Qualification</b>
The research work would involve the dynamic analysis and control design of a compliant-joint manipulator for industrial applications. The project objectives include design of a Series Elastic Actuator (SEA), its performance evaluation and control, development of a 3-DOF manipulator with this SEA module, and intelligent framework for robot interaction and control.	M.E./M.Tech./M.S. in Mechanical / Applied Mechanics / Engineering Design / Mechatronics & Robotics / Electrical and Electronics / Instrumentation and Control or in relevant areas. Exceptionally good candidates with B.E. / B.Tech. degree in aforementioned areas are also encouraged to apply. Candidates with publication(s) will be given priority. Desirable : Valid GATE Score

**Fellowship:** ₹37,000 - ₹42,000 per month (based on the year of PhD and performance)

**Duration:** As per BITS Pilani norms (<http://www.bitsadmission.com/phmain.aspx>)

**Place of work:** BITS Pilani, Hyderabad Campus, Hyderabad

**Application process:** Please apply with **CV and Cover letter** (showing alignment and justification with the roles/responsibilities/requirements) using this form

- **Google form link:** <https://forms.gle/t5vHQWnmxbKLJ3W8>
- **Deadline:** 22 November 2023

Preliminary shortlisting will be based on resume and telephonic/audio-visual interview within a week of last date of application. For final interview, the candidate will be informed through e-mail for interview. No TA/DA will be provided in case of personal interview. For more details, please contact:

**Dr. Abhishek Sarkar (Principal Investigator)**

Assistant Professor, Mechanical Engineering Department

BITS-Pilani, Hyderabad Campus

Email-Id: [abhisheks@hyderabad.bits-pilani.ac.in](mailto:abhisheks@hyderabad.bits-pilani.ac.in)

Phone: +91 40 66 303 772

Website: <https://universe.bits-pilani.ac.in/hyderabad/abhisheks/Profile>

**CALL FOR PHD STUDENT UNDER ASCRIN SCHEME****Date: 15th November 2023**

Applications are invited from suitable candidates for **PhD admission** to work on the following project sponsored under ASCRIN Scheme, at the Department of CSIS, BITS-Pilani, Hyderabad campus under the supervision of Dr. Abhijit Das, Dr. Aritra Mukherjee, Dr. Abhishek Sarkar and Dr. Joyjit Mukherjee (Hyderabad Campus), and Prof. Simon Egerton (La Trobe University Australia). To know more details about our work please visit: <https://sites.google.com/hyderabad.bits-pilani.ac.in/mig/home>

The Asian Smart Cities Research and Innovation Network (ASCRIN) has been initiated by La Trobe University, Melbourne Australia, in partnership with premier research institutions in India. Candidates will be based at BITS Pilani Hyderabad Campus throughout his/her candidature and will have the opportunity to visit La Trobe University in Melbourne, Australia for typically one year during the research project.

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**Title of the project:** “Low-cost empathetic robotic solution for caregiving (LERSCe)”.

**Abstract:** Australia and India have an elderly population which is rapidly growing. Studies indicate that almost half of the current population of over 75's suffer from physical and/or mental impairments and as a result are in need of a high level of care. With an increasing elderly population, and limited healthcare professionals, automated AI aided health caregiving services offer a scalable solution to cope. Moreover, these solutions can be made efficient and cost-effective. One key service area where need outstrips human resources is in the delivery of remote-physiotherapy. This project proposes to develop a novel soft-robotic-actuator for the purpose of delivering remote-physiotherapy in the home. The actuators will be driven by a closed loop edge AI framework to optimize service delivery. The edge framework will be self-contained to address privacy and security concerns. Control models will be trained off-line and run locally on edge capable devices. Machine learning methods, such as deep learning, will be explored to optimize actuator operations for maximum comfort and service efficacy. The feedback loop may include facial and audio expressions and information from other sensors such as skin resistance and pressure to measure performance. Hence, there are two distinct aspects of the project: 1) the development of a lightweight, low cost soft-robotic actuator 2) the development of an actuator control model which factors user behavior and emotional feedback. Feedback may be derived from a suite of multimodal sensors including, not limited to vision, tactile, skin resistance.

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**Duration of the project: 4 years.** The student would be spending three years at BITS Pilani Hyderabad campus and one year at La Trobe University, Australia in the PhD tenure.

**Fellowship and benefits:**

- Rs. 37,000 per month for three years from BITS Pilani, and AUD \$28,597 p.a. (2021 rate likely to be increased) for up to one year during residency at a La Trobe University campus.

- A La Trobe University Full-Fee Research Scholarship, covering tuition fee relief for up to four years at La Trobe University
  - Return economy airfare between Delhi and Melbourne
  - Relevant health benefits during candidature
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**Eligibility requirement:** ME/ MTech or equivalent with 70% marks or 7 CGPA in Machine learning/ computer vision/ Robotics or related disciplines.

**Essential Qualifications:** First class in B.E/B.Tech in computer science/Electrical/ electronics /Mechanical/Instrumentation & Control or related disciplines and First class or equivalent in M.E/MTech with/without GATE Qualification.

**Desirable skills:** Basic knowledge of computer vision and knowhow of python and pytorch along with solid foundation of control system engineering especially linear feedback systems

**How to apply:** Interested candidates with the above mentioned qualification and relevant experience can send their CV giving detailed information about the educational qualifications, research experience and published research papers if any, positively by **November 22<sup>nd</sup>, 2023** to [abhijit.das@hyderabad.bits-pilani.ac.in](mailto:abhijit.das@hyderabad.bits-pilani.ac.in).

**Note:** Please note that only qualified and suitable candidates will be called for an online interview by 28<sup>th</sup> November 2023. Dates will be communicated to the selected students.