



Indian Institute of Technology (ISM) Dhanbad
Office of the Dean (Research & Development)

Sanction No and Date: PSF-IH-4Y-TD-101, 25 th Feb 2026 (TEXMiN)	IIT (ISM) Project No. SRDP 1274 G	Date: 30 th March 2026
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Project Staff (Project Associate - I) position under (TEXMin) Project

Applications are invited under the sponsored project. The details of the project are as under:

Position	Project Associate - I
Number of Position (s)	01
Title of The Project	Development and Validation of a Physics-Informed Digital Twin for Predictive Maintenance of Induction Motor
Principal Investigator	Prof. Partha Pratim Roy Professor Department of Computer Science & Engineering IIT (ISM) Dhanbad
Tenure of Project	21 Months
Job Description (in maximum of 100 words)	The candidate will work on developing a physics-informed digital twin for predictive maintenance of induction motors used in mining applications. Responsibilities include sensor data acquisition, real-time monitoring, AI/ML model development for anomaly detection and Remaining Useful Life (RUL) prediction, and integration with cloud platforms (AWS IoT). The role also involves simulation of fault conditions, development of visualization dashboards (Grafana), and implementation of IIoT-based systems for enhancing operational safety and reducing downtime.
Essential Qualification	B.Tech in Computer Science Engineering / Electronics Engineering / Electrical Engineering/Mechanical Engineering or related disciplines with a minimum of 60% marks (or equivalent CGPA). Preference will be given to candidates with valid GATE/NET scores and relevant project or internship experience.
Desirable Qualification	B.Tech / M.Tech in CSE, Electrical, Electronics, Mechanical or allied fields. Candidates should have knowledge of Artificial Intelligence, Machine Learning, Digital Twin technology, signal processing, and Industrial IoT systems. Experience in Python programming, deep learning (CNN/LSTM), cloud computing (AWS), data analytics, and visualization tools like Grafana is highly desirable.
Age and Relaxation (if any)	Maximum age: 35 years at the time of appointment. Age relaxation will be applicable as per Government of India norms for SC/ST/OBC (Non-creamy layer)/PwD candidates.
Fellowship	₹25,000 per month + HRA as per institute norms.
Last Date & Time	20 April 2026.

(Signature of PI)

Interested candidate may apply through this url:
https://docs.google.com/forms/d/e/1FAIpQLSfa9ba0aorWgRXizrK6x5n5GKquje_QEB36okEUdKp48DNHAA/viewform

or scan QR code:



Shortlisted candidates will be informed on the date of interview (ONLINE). Mere possession of minimum qualification does not guarantee an invitation to the interview. Candidates will be short listed based on their merit and as per the requirement of the project.

A handwritten signature in black ink, consisting of stylized, cursive letters.

(Signature of PI)