



INDIAN INSTITUTE OF TECHNOLOGY
BIHTA, PATNA-801106
RESEARCH & DEVELOPMENT UNIT

ADVERTISEMENT NO:R&D/1525/DAM/615

DATED: 30.07.2026

Project No. R&D/SP/CEE/DAM/2026-27/1525

Applications are invited in the prescribed format only for the following assignment in a purely time-bound research project undertaken in this institute.

1. (a) Name of the temporary assignment : Junior Research Fellow (JRF)/PhD position funded through the project
(b) Number of Post : 1 (ONE)
(c) Duration of the Post : 1-years initially, followed by extension subject to satisfactory performance
2. Title of the temporary research project : Development of a Rapid-Assembly Masonry System Using Fresh-Fabricated (Green-State) Ultra-Compressed Earth Blocks for Affordable and Sustainable Housing in India
3. Name of the sponsoring Agency : Prime Minister Early Career Research Grant, ANRF
4. Consolidated Fellowship/Salary : Rs. 37,000/- pm for 1st and 2nd year and 42,000 pm for 3rd year + HRA as applicable (as per GoI rules)
5. Minimum Eligibility for Qualifications & Experience
 - a) For candidates with M.Tech./ME/MS as qualifying degree in an Engineering/Technology in Structural Engineering or Applied Mechanics or in similar specializations (such as structural dynamics, earthquake engineering and building technology) with a minimum CPI of 6.5 or, 60% of marks, and GATE qualifications not older than 5 years from the last date of submission of application/NET qualification.
 - b) For candidates with B. Tech./BE as a qualifying degree in Civil Engineering or, relevant branches, 70% marks or 7.5 CPI in B.Tech/BE from institutes other than IITs/IISc with valid GATE score and 8.0 CPI in B.Tech./BE from IITs and IISc.
 - c) The age should not exceed 28 years for a candidate with BE/B.Tech/M.Sc. degree as the highest qualification, and 32 years for a candidate with ME/M.Tech/MS degree as the highest qualification.
 - d) Relaxations for SC/ST/OBC/women/PD will be given as per the GOI norms.

The requirement of GATE score is waived for candidates with a bachelor's degree in engineering from the Centrally Funded Technical Institutes (CFTIs) with CGPA > 8.0 and above (out of 10) in line with MHRD (now MoE) letter no. 17-2/2014-TS.I dated February 18, 2015, and other IITs. Applicants may refer to other eligibility criteria as mentioned in the PhD admission advertisement of IIT Patna (Advt. No.: IITP/ACAD/PhD/July 2026/02).



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Key responsibilities of JRF/PhD: Conduct experimental and analytical research on Ultra-Compressed for Rapid-Construction Blocks and innovative interlocking masonry systems for sustainable and affordable housing applications. The selected candidate will be involved in soil characterization, block fabrication, mechanical and durability testing, microstructural characterization, data analysis, and the development of machine-learning and numerical models. The candidate will also contribute to the design, fabrication, and testing of masonry assemblies and participate in cost and life-cycle assessment studies. This project provides an excellent opportunity to work on cutting-edge research at the intersection of sustainable construction materials, structural engineering, artificial intelligence, and construction automation, with the long-term goal of enabling block-based 3D printing of masonry for eco-efficient, affordable & rapid construction. Candidates interested in pursuing a PhD in these areas are particularly encouraged to apply, as the project offers strong opportunities for high-quality publications, advanced research training, and technology development.

6. Application procedure:

- a) Candidates interested in this position and satisfying the qualification criteria should write an email to the project investigator, Dr. Nitin Kumar, Department of Civil and Environmental Engineering, IIT Patna (Email ids: ntnkumar@iitp.ac.in, ntnkumar102@gmail.com)
- b) The subject of the email should read as “**Research Position DAM-1525**”. **The last date for receiving this email is 30th August 2026.**
- c) The email **MUST** include the **scanned/PDF copy of the duly filled application form (see below) with the applicant’s signature.**
- d) The email **MUST** include a self-attested scanned PDF copy of all supporting documents (degree certificates, mark-sheets, GATE scorecard, and category certificate, if applicable).
- e) A copy of all (if any) Scopus-indexed journal papers should be attached to the email.
- f) The application should additionally include a **500-word statement of purpose (SOP)**. This document should elaborate on your interest in the broad area of this project and any relevant prior experience/skills that would help you with the assigned research problem.
- g) The application should also include a brief Academic CV not exceeding two pages.
- h) Please use the **file names as: Post-applied_FirstName_DocumentName.pdf (e.g., JRF_X_Y).**

IIT Patna reserves the right not to shortlist any candidate if the application email does not contain complete information, supported by the documents listed above.

All candidates who apply via email by **30th August 2026** (deadline) and are shortlisted will be informed regarding further details by **4th September 2026**.



Form No. RD-M003

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Tentative Date of Written Test/Interview: *10th to 16th September 2026*, Candidates shall be solely responsible for ensuring reliable internet connectivity for the online interview. If a physical interview is required, shortlisted candidates will be notified in advance through email.

Applicants may also contact Dr. Nitin Kumar for further details on the research project.

Assistant Registrar

Copy to:

1. Associate Dean, R&D, IIT Patna
2. Advertisement file
3. Project file



Form No. RD-M003

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Project No. *R&D/SP/CEE/DAM/2026-27/1525*

ADVERTISEMENT NO: R&D/1525/DAM/615

DATED: 30.07.2026

FORMAT OF APPLICATION

Name & Address Including email id and Phone no. (for Correspondence)	Category (GEN/OBC/SC/ST/PD)	DOB dd/ mm/yy	Professional Exam. (GATE/CSIR-NET, etc) & Validity
NAME IN CAPITAL Address: Phone: Email:			

Educational Qualification

Institute/ Board	Exam Passed	Year of Passing	% of Marks/CPI
	10 th Class		
	12 th Class		
	Bachelors (B.Sc/B.Tech/B.E./BCA) or equivalent		
	Masters (M.Sc/M.Tech/M.E/MCA/MA) or equivalent		

Qualifying degree	Degree/ major/Specialization
(B.Sc/B.Tech/B.E./BCA)	
(M.Sc/M.Tech/M.E/MA/MCA)	
Others	

Signature of applicant

Date:

Place: