



# NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

[An Institute of National Importance under Ministry of Education, Govt. of India]

Sector 1, Rourkela, Sundergarh Dist., Odisha 769 008

## SPONSORED RESEARCH INDUSTRIAL CONSULTANCY CONTINUING EDUCATION

NITR / SR / 2025 / Advt.- 25CR047 / L / 107

dt. 31-Dec-2025 Ref: FTS

**SR-R03**

### Advertisement for Recruitment of Project Position

Candidates who fulfill the below mentioned criteria may submit the application form before the last date. Engagement will be purely on temporary / contractual basis and co-terminus with the completion of the project. Candidates are advised to go through the advertisement details carefully before applying.

1.	Title of the Project:	Consortium of Technologies for Sustainable Agriculture, Health, Energy and Environment.		
2.	Project Code, Dept. with Closing Date:	SR-25-CR-047	13-Oct-2030	ANRF-PAIR
3.	Funding Agency Details:	4211- ANRF [3499 0201 0052 015] -		
4.	PI details:	Prof. Swadesh Kumar Pratihar 9437391103	skpratihar@nitrkl.ac.in, 0661-246 2206 - @ -NA-	
5.	Co-PI details:	Prof. Himanshu Bhushan Sahu 9437245625	-	hbsahu@nitrkl.ac.in, 0661-246 2606 - @ -NA-
6.	Details of the Post(s):  Junior Research Fellow (JRF) [Name of the Post(s)]  19 No(s) 05 Year(s), 00 Month(s) [No. of Post(s)] (Tenure of Post)  Year 1 & 2 INR 37,000.00 /- per month (+) HRA @ NA % (if applicable) Year 3 onwards (till complete of project) INR 42,000.00 /- per month (+) HRA @ NA % (if applicable)  Job Description:	<p>7. Educational Qualification &amp; Working Knowledge</p> <p><u>Essential Qualification (s):</u></p> <p><b>Details in Annexure - I</b></p> <p><u>Experience / Software / Skillset &amp; Desirable Qualification:</u></p> <p><b>Details in Annexure - I</b></p>		

### Details in Annexure - I

Hybrid Interview details: **12-Jan-2026 10:00 AM** Department as mentioned in Annexure-I

Application link for eligible candidate(s): NIT Rourkela Homepage ➔ FACULTY & STAFF ➔ SRICCE ➔ Career ➔ Notices

The candidate(s) are required to send the complete filled and signed application (soft copy) with documents regarding educational qualification indicating percentage of marks / division (mark-sheets and / or certificates), research papers (if any), work experience certificate (if any) etc., This may be built as a single PDF file and sent by email with "Advertisement No." on the subject link to the above mentioned e-mail IDs. NO hard copies of application(s) are required to be sent to the Institute. **Last date for submitting the Application: 10-Jan-2026**

The period of experience in a discipline / area of work, wherever prescribed, shall be counted after the date of acquiring the minimum prescribed educational qualifications for that position. Mere possession of minimum qualification does not guarantee invitation to the interview. Candidates will be short listed based on merit and need of the project. Selection / Joining will be cancelled in case of any suppression of information / document submitted.

NIT Rourkela reserves the right to fix higher criteria for short-listing of eligible candidates from those satisfying advertised qualification and requirement of the project post. Only short-listed candidates will be informed for Online interview. In case, any clarification is required on eligibility regarding the above post, the candidate may contact in the above mentioned details.

**Age Guideline:** The upper age limit for applying for the award of project position shall be **30** years, which is relaxed up to 5 years in the case of candidates belonging to Schedule Castes / Schedule Tribes / PWD and Female applicants whereas 3 years in the case of OBCs (Non-creamy layer candidates). Upper age limit shall be reckoned as on the last date of receipt of applications.

**Any other terms & conditions governed as per guidelines issued by the funding agency for the engagement of above position as amended from time to time shall be in force towards this temporary recruitment.**

1. Online mode of interview is also possible on request. However, offline interview is preferred.

2. Kindly refer Annexure - I for details.

**Sd/-**

**Asst. / Dy. / Jt. Registrar (SR)**

#### Copy to:

- PI & CO-PI: Prof. Swadesh Kumar Pratihar, CR & Prof. Himanshu Bhushan Sahu MN ➤ Chairman, DRC, Dept. of CR
- Head of the Department / Centres / Units (It is requested that the contents of the above advertisement be brought to the notice of the staff(s) / student(s) working in your Deptt. / Centre / Unit.)
- Dealing Seat (SR – Project Recruitment) ➤ Advertisement File ➤ To publish advertisement at NITR website.

Essential Qualification for all the posts is as follows:

**Junior Research Fellow (JRF)**

Post Graduate degree in basic science OR Graduate / Post Graduate Degree in Professional Course selected through a process described through any one of the following:

- a. Scholars who are selected through National Eligibility Tests – CSIR-UGC NET including Lectureship (Assistant Professorship) and GATE.
- b. The selection process through National Eligibility Examinations conducted by Central Government Departments and their Agencies and Institutions such as DBT, DST, DAE, DOS, DRDO, MoE, ICAR, ICMR, IIT, IISc, IISER, NISER etc.

Desirable Qualifications are mentioned in the below table against each posts.

<b>Project #</b>	<b>JRF #</b>	<b>Broad Area of Research</b>	<b>Qualification</b>	<b>Department / Location of Interview</b>	<b>Investigators Contact</b>
A1.3	1	Real-Time Systems, IoT, Machine Learning	B.Tech / M.Tech in Computer Science and Engineering / Information Technology OR MCA OR MSc in Computer Science / Information Technology. Must have qualified in GATE or any National Level fellowship. BE/B.Tech/MCA/M.Sc or equivalent with a CGPA of 7.0 or 65% marks. ME/M.Tech with at least 6.5 CGPA or 60% marks.	SR	Manmath N. Sahoo <a href="mailto:sahoo@nitrkl.ac.in">sahoo@nitrkl.ac.in</a> Santos K. Das <a href="mailto:dassk@nitrkl.ac.in">dassk@nitrkl.ac.in</a>
A2.2	1	Image Processing, Computer Vision, Machine Learning, IoT	B.Tech / M.Tech in Computer Science and Engineering / Information Technology OR MCA OR MSc in Computer Science / Information Technology. Must have qualified in GATE or any National Level fellowship. BE/B.Tech/MCA/M.Sc or equivalent with a CGPA of 7.0 or 65% marks. ME/M.Tech with at least 6.5 CGPA or 60% marks.	SR	Pankaj K. Sa <a href="mailto:PankajKSa@nitrkl.ac.in">PankajKSa@nitrkl.ac.in</a>
A3.4	1	Image Processing, Computer Vision, Machine Learning, IoT	B.Tech / M.Tech in Computer Science and Engineering / Information Technology OR MCA OR MSc in Computer Science / Information Technology. Must have qualified in GATE or any National Level fellowship. BE/B.Tech/MCA/M.Sc or equivalent with a CGPA of 7.0 or 65% marks. ME/M.Tech with at least 6.5 CGPA or 60% marks.	SR	Sabyasachi Mishra <a href="mailto:mishrasa@nitrkl.ac.in">mishrasa@nitrkl.ac.in</a> Pankaj K. Sa <a href="mailto:PankajKSa@nitrkl.ac.in">PankajKSa@nitrkl.ac.in</a>
A1.4	1	Computer Vision, Machine Learning	BTech (with GATE) / MTech in Electronics / Electrical / Electronics & Communication / Electronics & Telecommunication / Electronics & Instrumentation / Applied Electronics & Instrumentation / Electrical & Electronics Engineering / Computer Science/Computer Science and Engg./Biomedical and allied, OR MCA/MSc (with GATE/Any National Level fellowship) in Electronics/ Computer Science/ Information Technology/Physics/Mathematics and allied. BE/B.Tech/MCA/M.Sc or equivalent with a CGPA of 7.0 or 65% marks. ME/M.Tech with at least 6.5 CGPA or 60% marks.	SR	Samit Ari <a href="mailto:samit@nitrkl.ac.in">samit@nitrkl.ac.in</a> Ajit K. Sahoo <a href="mailto:ajitsahoo@nitrkl.ac.in">ajitsahoo@nitrkl.ac.in</a> Upendra K. Sahoo <a href="mailto:sahooopen@nitrkl.ac.in">sahooopen@nitrkl.ac.in</a>

Project #	JRF #	Broad Area of Research	Qualification	Department / Location of Interview	Investigators Contact
A1.5	1	IoT, Computer Vision, Machine Learning, Edge Computing	BTech (with GATE) / MTech in Electronics / Electrical / Electronics & Communication / Electronics & Telecommunication / Electronics & Instrumentation / Applied Electronics & Instrumentation / Electrical & Electronics Engineering / Computer Science/Computer Science and Engg./Biomedical and allied, OR MCA/MSc (with GATE/Any National Level fellowship) in Electronics/ Computer Science/ Information Technology/Physics/Mathematics and allied. BE/B.Tech/MCA/M.Sc or equivalent with a CGPA of 7.0 or 65% marks. ME/M.Tech with at least 6.5 CGPA or 60% marks.	SR	Umesh Chandra Pati <a href="mailto:ucpati@nitrkl.ac.in">ucpati@nitrkl.ac.in</a> , Santos K. Das <a href="mailto:dassk@nitrkl.ac.in">dassk@nitrkl.ac.in</a>
H2B	1	Development of multi-channel remote patient monitoring DAQ system & SoC design	<b>Desirable Qualifications:</b> M.E./M. Tech. in Electronics/Electrical/Instrumentation or similar with specialization in VLSI/Instrumentation/Electronics/ Electrical or similar with above 60% marks at both UG and PG levels OR B.E./B. Tech. in Electronics/Electrical/Instrumentation or similar with above 60% marks and qualified in GATE/.NET OR MSc in Electronics with above 60% marks and qualified in GATE/.NET. Previous experience in Analog IC design in Cadence and embedded system design with micro-controllers are desirable.	SR	Dr. Sougata Kumar Kar <a href="mailto:kars@nitrkl.ac.in">kars@nitrkl.ac.in</a>
H2A	1	Development of remote patient monitoring device with 5G secured communication	<b>Desirable Qualifications:</b> M.E./M. Tech. in Electronics/Electrical/Instrumentation or similar with specialization in wireless Communication Systems/ Signal Processing/ Image Processing/ Instrumentation/ AI/ML or similar with above 60% marks at both UG and PG levels OR B.E./B. Tech. in Electronics/Electrical/Instrumentation or similar with above 60% marks and qualified in GATE/.NET or MCA/MSc in Electronics/Computer Science/ Information Technology. Proficiency in programming languages (MATLAB/Python)	SR	Prof. Suman Kumar Dey <a href="mailto:deysk@nitrkl.ac.in">deysk@nitrkl.ac.in</a>
H2D	1	Analysis of Real-time data from EEG, wearable devices, and medical images for disease prediction.	<b>Desirable Qualifications:</b> M.E./M. Tech. in Electronics/Electrical/Instrumentation or similar with specialization in wireless Communication Systems/ Signal Processing/ Image Processing/ Instrumentation/ AI/ML or similar with above 60% marks at both UG and PG levels OR B.E./B. Tech. in Electronics/Electrical/Instrumentation or similar with above 60% marks and qualified in GATE/.NET or MCA/MSc in Electronics/Computer Science/ Information Technology and qualified in GATE/.NET. Proficiency in programming languages (MATLAB/Python)	SR	Dr. Anwesha Sengupta <a href="mailto:senguptaan@nitrkl.ac.in">senguptaan@nitrkl.ac.in</a>

Project #	JRF #	Broad Area of Research	Qualification	Department / Location of Interview	Investigators Contact
H3C	1	Self-powered wearable devices and drug delivery systems with biosensors for continuous healthcare monitoring	<b>Desirable Qualifications:</b>  MSc in any biological sciences with NET/GATE  B.Tech/M.Tech in Biotechnology/Biomedical Engineering/Electrical Engineering (Biology in 12 <sup>th</sup> ). A GATE qualification is mandatory for B.Tech applicants.	SR	Prof. Bismita Nayak <a href="mailto:nayakb@nitrkl.ac.in">nayakb@nitrkl.ac.in</a>
E1.1	1	Bi-functional pyrochlore/perovskite electrocatalysts	BE/B.Tech/M.Sc. (with GATE) with a CGPA of 7.0 or 65% marks OR M.Tech in Ceramic Engg. /Metallurgical and Materials Engg./Chemical Engg. /Mechanical Engg. /Biomedical Engg. /Nanotechnology /Biotechnology OR MSc (with GATE) in Physics /Chemistry /Materials Science /Nano Science with at least 6.5 CGPA or 60% marks.	SR	Prof Swadesh K Pratihar <a href="mailto:skpratihar@nitrkl.ac.in">skpratihar@nitrkl.ac.in</a>
E2.1	1	Nanostructured electrodes for Li/Na ion batteries	BE/B.Tech/M.Sc. (with GATE) with a CGPA of 7.0 or 65% marks OR M.Tech in Ceramic Engg. /Metallurgical and Materials Engg./Chemical Engg. /Mechanical Engg. /Biomedical Engg. /Nanotechnology /Biotechnology OR MSc (with GATE) in Physics /Chemistry /Materials Science /Nano Science with at least 6.5 CGPA or 60% marks.	SR	Prof Partha Saha <a href="mailto:sahap@nitrkl.ac.in">sahap@nitrkl.ac.in</a>
E2.4	1	Nanostructured electrodes for Li/Na ion batteries	BE/B.Tech/M.Sc. (with GATE) with a CGPA of 7.0 or 65% marks OR M.Tech in Ceramic Engg. /Metallurgical and Materials Engg./Chemical Engg. /Mechanical Engg. /Biomedical Engg. /Nanotechnology /Biotechnology OR MSc (with GATE) in Physics /Chemistry /Materials Science /Nano Science with at least 6.5 CGPA or 60% marks.	SR	Prof Shantanu K Behera <a href="mailto:beherash@nitrkl.ac.in">beherash@nitrkl.ac.in</a>
E4.1	1	Synchronization, energy management, & protection strategies for microgrid	MTech/ME/M.S. in Electrical / Control Engineering/ Energy Engg. or equivalent, relevant to the area of research OR BTech/BE in Electrical/ Control Engineering or equivalent Engineering or equivalent, and having a CGPA/CPI score of 7.00 (out of 10.0) and above with a valid GATE score can apply for admission to the PhD programme.  Power Systems, Microgrid Control, Operation, and Cybersecurity, Power Electronics and Drives, Active Power Filter, Renewable Energy & EV, AI/ML-based Control Applications, Battery, Hydrogen Storage, Fuel Cells, Supercapacitors.	SR	Prof. Pravat Kumar Ray <a href="mailto:rayp@nitrkl.ac.in">rayp@nitrkl.ac.in</a>
E4.2	1	Green Hydrogen Integration and Microgrid Stability	MTech/ME/M.S. in Electrical / Control Engineering/ Energy Engg. or equivalent, relevant to the area of research OR BTech/BE in Electrical/ Control Engineering or equivalent Engineering or equivalent, and having a CGPA/CPI score of 7.00 (out of 10.0) and above with a valid GATE score can apply for admission to the PhD programme.  Power Systems, Microgrid Control, Operation, and Cybersecurity, Power Electronics and Drives, Active Power Filter, Renewable Energy & EV, AI/ML-based Control Applications, Battery, Hydrogen Storage, Fuel Cells, Supercapacitors.	SR	Prof. Monalisa Pattnaik <a href="mailto:pattnaikm@nitrkl.ac.in">pattnaikm@nitrkl.ac.in</a>

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E4.3	1	Power Electronics Development for DERs	<p>MTech/ME/M.S. in Electrical / Control Engineering/ Energy Engg. or equivalent, relevant to the area of research OR BTech/BE in Electrical/ Control Engineering or equivalent Engineering or equivalent, and having a CGPA/CPI score of 7.00 (out of 10.0) and above with a valid GATE score can apply for admission to the PhD programme.</p> <p>Power Systems, Microgrid Control, Operation, and Cybersecurity, Power Electronics and Drives, Active Power Filter, Renewable Energy &amp; EV, AI/ML-based Control Applications, Battery, Hydrogen Storage, Fuel Cells, Supercapacitors.</p>	SR	<p>Prof. Susovan Samanta</p> <p><a href="mailto:samantas@nitrkl.ac.in">samantas@nitrkl.ac.in</a></p>
E4.4	1	Grid-Interactive AC-DC Microgrid System Analysis and AI/ML-based Energy Forecast	<p>MTech/ME/M.S. in Electrical / Control Engineering/ Energy Engg. or equivalent, relevant to the area of research OR BTech/BE in Electrical/ Control Engineering or equivalent Engineering or equivalent, and having a CGPA/CPI score of 7.00 (out of 10.0) and above with a valid GATE score can apply for admission to the PhD programme.</p> <p>Power Systems, Microgrid Control, Operation, and Cybersecurity, Power Electronics and Drives, Active Power Filter, Renewable Energy &amp; EV, AI/ML-based Control Applications, Battery, Hydrogen Storage, Fuel Cells, Supercapacitors.</p>	SR	<p>Prof. Arnab Ghosh</p> <p><a href="mailto:ghosha@nitrkl.ac.in">ghosha@nitrkl.ac.in</a></p>
E4.6	1	RE Integrated Secure Network Control and Protection	<p>MTech/ME/M.S. in Electrical / Control Engineering/ Energy Engg. or equivalent, relevant to the area of research OR BTech/BE in Electrical/ Control Engineering or equivalent Engineering or equivalent, and having a CGPA/CPI score of 7.00 (out of 10.0) and above with a valid GATE score can apply for admission to the PhD programme.</p> <p>Power Systems, Microgrid Control, Operation, and Cybersecurity, Power Electronics and Drives, Active Power Filter, Renewable Energy &amp; EV, AI/ML-based Control Applications, Battery, Hydrogen Storage, Fuel Cells, Supercapacitors.</p>	SR	<p>Prof. Jatin Pradhan</p> <p><a href="mailto:pradhanjk@nitrkl.ac.in">pradhanjk@nitrkl.ac.in</a></p>
N1.4	1 JRF /PA*	Development of sustainable adsorbents from industrial wastes to remove heavy metals and other chemical pollutants in polluted water streams and water bodies around mining areas of Odisha	<p><b>Desirable Qualifications:</b> B.E. or B.Tech. in Mining/Civil/Environmental/Chemical or allied Engg. with GATE score or M.E./ M. Tech. Mining/Civil/Environmental/Chemical or allied Engg. with a GATE score with minimum 65% marks (7 CGPA), or an MSc in Geology / Geo-Physics / Environmental Science / Remote Sensing / Mathematics / Statistics / Chemistry / Physics/ allied disciplines (with GATE/NET/National level eligibility test) with minimum 65% marks or 7.0 CGPA.</p> <p>Applicants with a valid GATE/NET/GPAT score or its equivalent may have the requirement relaxed by a maximum of 0.5 CGPA or 5% marks.</p> <p>Preference to candidates with Experience in fabrication, chemical testing, and field work in the environmental domain</p> <p>Candidates with lower qualifications may be considered for the Project Associate Post</p>	SR	<p>Prof. H. B. Sahu</p> <p><a href="mailto:hbsahu@nitrkl.ac.in">hbsahu@nitrkl.ac.in</a></p>

Project #	JRF #	Broad Area of Research	Qualification	Department / Location of Interview	Investigators Contact
N 2.4	1 JRF /PA*	Developing an AI-based intelligent dust control system for the mitigation of fugitive dust generated in coal mines of Odisha	<p><b>Desirable Qualifications:</b> B.Tech/M.Tech in Mining / Civil / Environmental / Chemical / Electronics / Electrical / Instrumentation / Computer Science / IT / Mechanical / Metallurgical, Materials Engineering, any other relevant field. or MSc in Geology / Geo-Physics / Environmental Science / Remote Sensing / Mathematics / Statistics / Chemistry / Physics/allied disciplines. Minimum 60% marks or 6.50 CGPA with GATE/NET/other state/national level recognised exam Score.</p> <p>More preference to candidates with Experience in IoT, circuit designs, communication protocols, coding, and mine field work</p> <p>Candidates with lower qualifications may be considered for the Project Associate Post</p>	SR	Prof. Tushar Gupta <a href="mailto:guptat@nitrkl.ac.in">guptat@nitrkl.ac.in</a>

- (\*) PA-I may be considering for any one post.
- Application / Inquiry may kindly be sent to the relevant Investigator as mentioned at the column (Investigators Contact) project wise.
- Qualification and other requirements are as per the ANRF notification attached.