



# 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.- 25EC007 / L / 018

dt.13-May-2025 Ref: FTS 250426-4105

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:                       | Waveform Design, Testing, and Verification for Joint Radar and Communication at Millimeter Wave Frequency Band.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Project Code, Dept. with Closing Date:      | SR/25/EC/007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 31-Dec-2027 |
| 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Funding Agency Details:                     | Department of Telecommunication (DOT)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |
| 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | PI details:                                 | Prof. Subrata Maiti<br>9438519870<br>-<br>smaiti@nitrkl.ac.in, 0661-246 2468<br>subrata.maiti@gmail.com                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |
| 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Co-PI details:                              | Prof. Shrishailayya M Hiremath, Prof. Jogesh Chandra Dash<br>9438519870<br>-<br>hiremaths@nitrkl.ac.in, 0661-246 4691<br>setshri@gmail.com                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |
| 6.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Details of the Post(s):                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| Research Fellow (RF)<br>[Name of the Post(s)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                             | 7. Educational Qualification & Working Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |
| 01 (One)<br>[No. of Post(s)]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 03 Year(s), 00 Month(s)<br>(Tenure of Post) | Essential Qualification (s):<br>M.Tech/M.Tech(R)/MS in Electronics and Communication, Telecommunication, Applied Electronics, Signal processing, Communication, Wireless Communication, RF, Microwave, Radar, VLSI and Embedded system, AI and ML, Computer networks, CSE, any allied specialization, with minimum 60% marks or 6.5/10 CGPA for both postgraduate and undergraduate courses.<br>B.Tech/B.E/B.Sc(Engg) (with valid GATE/NET score) in ECE, EE, EC, EEE, EI, Telecommunication, Applied Electronics, Communication and Networks, CSE or related specializations pertaining to Telecommunication, signal processing, wireless and RF communication and VLSI and Embedded system, Information technology, AI and ML, with minimum 60% marks or 6.5/10 CGPA for throughout the carrier.<br>or<br>M.SC/MCA(with valid GATE/ NET/ Any national fellowship) in Electronics and Communication, Telecommunication, Applied Electronics, Signal processing, Communication, Wireless Communication, RF, Microwave, Radar, VLSI and Embedded system, AI and ML, Computer networks, CSE, any allied specialization, with minimum 60% marks or 6.5/10 CGPA for both postgraduate and undergraduate courses. |             |
| Year 1 & 2<br>INR 45,000.00 /- per month<br>(+) HRA @ NA % (if applicable)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             | Experience / Software / Skillset & Desirable Qualification:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |
| Year 3<br>INR 45,000.00 /- per month<br>(+) HRA @ NA % (if applicable)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             | Strong knowledge at least in two research areas among the following: 1) digital signal processing. 2) radar signal processing. 3) wireless communication. 4) Understanding of MIMO architecture, beam forming.<br><br>Knowledge of 1) Matlab/Python/VHDL/Verilog Programming, 2) Experience with 5G/6G wireless communication, radar, 3) Experience with FPGA/ SDR modules, 4) Machine learning would be a plus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |
| Job Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| Conduct research on development of joint radar and communication (JRC) technology. Designing, simulating, and testing of waveform for JRC. Design, validate the concept in SDR/ FPGA module. Scope to enrol in Ph.D. in the department of Electronics and Communication Engineering (Subject to fulfilment of all Institute/ Department eligibility criteria).                                                                                                                                                                                                                |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| Walk-in (offline) Interview details: 05-Jun-2025 09:00 AM Department of Electronics and Communication Engg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| 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: 03-Jun-2025 |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| 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 32 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.                                                                                                                                                                                                                                                                                                                                                                  |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
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| Sd/-<br>Asst. / Dy. / Jt. Registrar (SR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| Copy to:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| ➤ PI & CO- PI: Prof. Subrata Maiti, EC & Prof. Shrishailayya M Hiremath, Prof. Jogesh Chandra Dash EC ➤ Chairman, DRC, Dept. of EC                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| ➤ 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |