



Indian Institute of Technology Jodhpur

Office of Research and Development

Advt. No.: IITJ/R&D(Advt.)/2022-23/78

27 February 2023

Project Recruitment

Applications are invited from the citizen of India for filling up the following temporary position in the Sponsored Project at this Institute. The position is purely temporary, initially for a period of 01 year, and same extendable but co-terminus with the duration of the project, on a contractual basis with consolidated pay. The requisite qualification, experience and other details are given below:

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| 1. | Project No. | S/IGSTC/SDS/20220111 |
| 2. | Project Title | Towards development of ultrasensitive strain measurement system using laminated nanocomposites (TESSLA) |
| 3. | Name of the Project Investigator | Dr. Shrutidhara Sarma |
| 4. | Duration for initial appointment | 01 Year |
| 5. | Name of the Post | Junior Research Fellow |
| 6. | Post | 01 |
| 7. | Consolidate Pay | Rs. 31,000/-+HRA (As per finding agency norms) |
| 8. | Minimum Qualification and Experience | <p>Eligibility: M.E/M. Tech/M. Sc/M.S. with 1st class or equivalent in Mechanical/Electrical/Chemical Engineering/Physics/Chemistry/Pharmacy Or B.E./B. Tech/B. Sc/B.S. in Mechanical/Electrical/Chemical Engineering/Physics/Chemistry/Pharmacy with Qualification in at least one of these exams: CSIR-UGC NET (including LS); GATE; national-level exams conducted by DST /DBT /DAE /DOS /DRDO /MHRD /ICAR /ICMR /IIT /IISc /IISER.</p> <p><u>Desirable Qualification:</u> Experience in nanomaterials synthesis and characterization techniques, coating processes (PVD, CVD, spray, spin) and knowledge about commercial software (ABAQUS/MATLAB/ANSYS) will be preferred. This is a multi-institutional technology development project between TU Braunschweig of Germany & IIT Jodhpur. It will provide a unique opportunity to work in a collaborative set-up between the research institutions. The candidate will get experience of working on synthesis and fabrication methods for the development of a new technology related to ultrasensitive strain sensors. The candidate selected for JRF/SRF position can also apply for</p> |

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| | | the regular PhD program provided they satisfy the eligibility criterion of IIT Jodhpur. |
| 09. | Brief description of Project | TESSLA would focus on developing novel nanostructured laminated nanocomposites (LNC) for maximizing strain sensitivity and detection range by carefully considering trade- offs. Besides, to achieve stable strain sensing under dynamic temperatures, the LNC will be tuned to achieve a near-zero temperature coefficient of resistance (TCR) with appropriate combination of positive and negative TCR materials. The final sensor fabricated using the optimized LNC would be deployed in a smart patch for respiration monitoring of neonates. |
| 10. | Job Description | <ol style="list-style-type: none"> 1. Carrying out research and experiments related to the project. For example, fabrication, characterization and performance optimization of laminated nanocomposite-based strains sensors. 2. Analyzing and interpreting data, documenting research findings. 3. Participating in meetings and purchases. 4. Working jointly with other institutes in a collaborative atmosphere |
| 11. | Maximum Age | 35 Years |

The candidates possessing the requisite qualification and experience should apply through the **ONLINE process** up to **28 March 2023**. The candidates are advised to send a soft copy of the application with all relevant documents to recruitment_rnd@iitj.ac.in (*Please mention the advertisement number in the subject line of the email*). *No need to send a hard copy.*

General Instructions to Applicant(s)

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| 1. | The post(s) is purely temporary and contractual for a period of 01 year and extension based on satisfactory performance, but co-terminus with the duration of the project |
| 2. | Application which is incomplete, not in prescribed format, without photograph or unsigned will be summarily rejected. |
| 3. | Certificate in support of experience should be in proper format i.e. it should be on the organizations letter head, bear the date of issue, specific period of work, name and designation of the issuing authority along with his signature. |
| 4. | <p>Institute reserves the right to:</p> <ol style="list-style-type: none"> a. Fix, modify or revise the eligibility conditions, age and selection criteria as per its requirements, at any time. b. Fill up the post, not to fill up the post or cancel the advertisement in whole or partly without assigning any reason. c. Place a reasonable limit on the total number of candidates to be called for the Written Test and/or Skill Test, Interview. |

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| 5. | The Institute shall verify the antecedents or documents submitted by a candidate at the time of appointment or during the tenure of the service. In case, it is detected that the documents submitted by the candidates are fake or the candidate has a clandestine antecedents/background and has suppressed the said information, then his/her services shall be terminated. |
| 6. | Higher initial pay may be given to exceptionally qualified/deserving candidate. |
| 7. | No TA/DA shall be paid to the candidates for attending the interview. |
| 8. | No correspondence will be entertained from candidates regarding interview and reasons for not being called for interview. |
| 9. | Canvassing in any form will be a disqualification. |
| 10. | No interim correspondence will be entertained. |
| 11. | No need to send hard copy. |

Officer In-charge
Research & Development