

राष्ट्रीय खाद्य प्रौद्योगिकी उद्यमशीलता एवं प्रबंधन संस्थान

(खाद्य प्रसंस्करण उद्योग मंत्रालय, भारत सरकार के अधीन राष्ट्रीय महत्त्व का संस्थान)

National Institute of Food Technology Entrepreneurship and Management

(An Institute of National Importance under Ministry of Food Processing Industries, Government of India) प्लॉट संख्या 97, सैक्टर.56, एचएसआईआईडीसी औद्योगिक क्षेत्र, कुंडली – 131028, जिला सोनीपत (हरियाणा) Plot No. 97, Sector.56, HSIIDC Industrial Estate, Kundli – 131028, Distt. Sonepat (Haryana) दूरभाष/Phone: +91.130.2281020 वेबसाइट/Website: www.niftem.ac.in

Advt. Ref. No. N/E/IDS/2025/0158

Advertisement for Contractual Position of Junior Research Fellow (JRF)

Date: 30/12/2025

Applications are invited for the contractual position under the following project:

1. Junior Research Fellow (JRF):

Project ID:	N/E/IDS/2025/0158
Project Title	Development of a rapid POCT (point-of-care testing) biosensor kit for detection of antibiotic residues in milk
Designation	Junior Research Fellow (JRF)
Number of Positions	One (1)
Duration and Emoluments per Month	9 Months (extendable based on performance) – ₹37,000 + 10% HRA per month or co-terminus with the project, whichever is earlier.
Essential Qualifications	B. Tech. (Biotechnology), M.Sc. / M. Tech in Life Sciences / Biotechnology / Biochemistry / Microbiology / Nanoscience / Biomedical / Molecular Biology. OR Candidates qualified in NET/GATE or equivalent national eligibility test (as per Government of India norms).
Desirable Qualifications	 Hands-on experience in biosensors, immunoassays, nanomaterials, analytical techniques, or point-of-care testing (POCT). Experience with protein handling, bioconjugation, and basic assay development. Familiarity with UV–Vis spectroscopy and basic laboratory data analysis.
Age Limit	Maximum 35 years (relaxation of 5 years for women/SC/ST/OBC/differently abled as per the govt. of India Rules).
Roles and Responsibilities	 Assist in the development and optimization of point-of-care rapid detection assays/kits (strip-based, colorimetric, immunoassay or biosensor-based) for detection of antibiotic residues in milk. Support bio reagent preparation and bioconjugation work, including antibody/antigen handling, hapten—protein conjugation, and nanoparticle conjugation under supervision. Carry out nanomaterial synthesis, functionalization, and basic





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characterization for signal generation and assay sensitivity enhancement.

- Perform **analytical characterization** using UV–Vis spectroscopy and other routine laboratory techniques to evaluate conjugation efficiency, assay response, and stability.
- Assist in **assay optimization studies** (buffer composition, pH, incubation time, reagent concentration) and preliminary validation in different milk matrices.
- Support LOD estimation, sensitivity and specificity assessment, and interference studies with common milk constituents and non-target compounds.
- Participate in **stability and shelf-life studies** of developed reagents and kits under ambient and accelerated conditions.
- Assist in **sample preparation, milk matrix handling**, and standardization of test procedures for raw and processed milk.
- Maintain **laboratory notebooks, raw data sheets, and experimental records** in compliance with project and institutional guidelines.
- Support data compilation, basic statistical analysis, and preparation of SOPs, validation summaries, and technical reports.
- Assist senior project staff in **regulatory alignment**, report preparation, and dissemination of results through publications and project deliverables.

General Information:

- 1. The position is purely on contractual basis
- 2. Only short-listed candidates will be called for an interview.
- 3. No TA/DA will be provided to candidates for attending the interview.
- 4. The date and time of the interview will be communicated to the candidates via email only.
- 5. Candidates should appear for the interview with their original certificates and other relevant documents.
- 6. Candidates are advised to keep checking email for any change in date/time of interview

How to Apply:

Interested candidates should fill the application form on or before 10^{th} January 2026 using the webpage at http://career.droniftem.com with enclosed scanned self-attested supporting documents. For any query, please write an **e-mail** to croprojectniftem@gmail.com.

ALLOW.