

### 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 Senior Research Fellow (SRF)

Date: 30/12/2025

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

# 1. Senior Research Fellow (SRF):

Project ID:	N/E/IDS/2025/0158
	Development of a rapid POCT (point-of-care testing) biosensor kit for
Project Title	detection of antibiotic residues in milk
Designation	
	Senior Research Fellow (SRF)
Number of Positions	One (1)
<b>Duration</b> and	9 Months (extendable based on performance) – ₹42,000 + 10%
Emoluments per	HRA per month or co-terminus with the project, whichever is
Month	earlier.
Essential	B. Tech. (Biotechnology), M.Sc. / M. Tech in Life Science /
Qualifications	Biotechnology / Biochemistry/ Microbiology / Nanoscience /
	Biomedical / Molecular Biology with Minimum 2-year experience
	in biosensors development and/or Immunoassays and/or nanoscience and/or analytical technique/POCT work.
Desirable	Hands-on experience with protein expression systems
Qualifications	(bacterial/yeast/insect/mammalian), affinity chromatography
Qualifications	(Ni-NTA, protein A/G), size-exclusion, and
	dialysis/ultrafiltration.
	• Experience with bio-conjugation, immunization protocols,
	hybridoma technique or recombinant antibody engineering and
	screening.
	• Experience with assay validation, LOD estimation, and basic
	statistics for assay performance.
	• Familiarity with animal ethics approvals and safe handling when
A as T ::4	applicable.
Age Limit	Maximum 35 years (relaxation of 5 years for women/SC/ST/OBC/differently as per the govt. of Indian
	Rules).
Roles and	- Development of Rapid Detection Kit: Design, develop, and optimize
	point-of-care rapid detection assays (strip-
	based/colorimetric/immunoassay/biosensor-based) for qualitative and/or
	semi-quantitative detection of antibiotic residues in milk.





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- **Bioreagent & Bio-conjugation Work**: Carry out protein/antibody handling, antigen—antibody interactions, bioconjugation (e.g., hapten—protein conjugates, nanoparticle conjugation), and reagent optimization for assay performance.
- Nanomaterial & Sensor Integration: Synthesize, functionalize, and characterize nanomaterials (e.g., AuNPs, magnetic nanoparticles, quantum dots, etc.) for signal generation and sensitivity enhancement in POCT formats.
- Analytical Characterization: Perform laboratory characterization using UV–Vis spectroscopy, FTIR, DLS, TEM/SEM (as applicable), and other analytical techniques to confirm conjugation, stability, and assay performance.
- Assay Optimization & Validation: Optimize assay parameters (pH, buffer, incubation time, reagent concentration) and conduct validation studies including LOD determination, sensitivity, specificity, accuracy, repeatability, ruggedness, and interference studies in milk matrices.
- Data Analysis & Statistics: Analyze experimental data using basic statistical tools; prepare validation tables, POD analysis, false positive/false negative rates, and performance reports as per regulatory expectations.
- **Documentation & Reporting**: Maintain detailed laboratory records, prepare SOPs, validation reports, and contribute to technical reports, publications, patents, and project deliverables.
- Regulatory & Compliance Support: Assist in aligning assay development and validation with relevant food safety and regulatory guidelines (e.g., FSSAI/ISO where applicable).

### **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<sup>th</sup> January 2026 using the webpage at <a href="http://career.droniftem.com">http://career.droniftem.com</a> with enclosed scanned self-attested supporting documents. For any query, please write an **e-mail** to <a href="mailto:croprojectniftem@gmail.com">croprojectniftem@gmail.com</a>.

