Centre for Nanotechnology
Indian Institute of Technology, Roorkee, Dated: 26.11.2025

ADVERTISEMENT FOR POSTDOCTORAL FELLOWSHIP POSITION

The **Centre for Nanotechnology** at the Indian Institute of Technology (IIT) Roorkee invites applications from outstanding and enthusiastic researchers for a post-doctoral position under the mentorship of Prof. Naveen Kumar Navani, under the project **"A probiotic nano-in-micro platform for application in food and health sectors"**. Research in Prof. Naveen Kumar Navani's group focuses on the application of probiotic-derived enzymes in biomedical and industrial settings, the metagenomics of fermented foods, and the development of antimicrobial peptides to combat Gram-negative pathogens that contribute to food contamination and hospital infections. His team also focuses on probiotic-enriched functional foods and nutrient delivery systems to enhance human health.

The prospective candidate is expected to have a strong background in microbiology and probiotic biotechnology, with expertise in delivery systems such as liposomes, exosomes, or other biomaterial-based carriers for food and health applications. As a core member of Prof. Naveen Kumar Navani's lab, the candidate will be responsible for developing and optimizing a nano-in-micro encapsulation platform for probiotics, assessing its application in food and health models, and validating its functional properties. The candidate is expected to design and perform experiments independently, analyze and interpret results, and troubleshoot research challenges. In addition to research, the candidate may be entrusted with academic, collaborative, or mentoring responsibilities as assigned by the department.

The last date for accepting the detailed applications is December 5, 2025. The walk-in interview for the eligible prospective candidates will be held on 12.12.2025 at 11 AM in the office of the Head, Centre for Nanotechnology, IIT Roorkee. No separate call letter will be issued for the interview.

Qualification/Specialization
Essential qualifications- The prospective candidate should have a Ph.D. in Biotechnology/Molecular Biology/Biochemistry/Molecular Microbiology with first class in the preceding degree. A minimum of two Q1 publications in food science/food safety field should be published as the first author.
Desirable qualifications - 1–2 years of experience in probiotic handling and delivery system design/characterization; familiarity with food-grade formulations, stability assays, and functional evaluation of probiotics in eukaryotic models and/or cell lines.
The prospective candidate should have at least two publications in Q1 category journals in the area of Biotechnology/Molecular Biology/Biochemistry/Molecular Microbiology. The candidate should also have demonstrated the ability to conduct translational research either by commercialization of technologies or by a minimum of two filed/granted patents.
The candidate also needs to submit a letter of recommendation from the PI/PhD supervisor. In case the candidate is employed, he/she need to submit an NOC from the employer.

Duration and Fellowship amount - The duration of the fellowship will be one year initially. The candidate is expected to join the Department as soon as the offer letter is released. The fellow will receive a consolidated fellowship of Rs. 80,000/- per month in addition to the contingency grant of Rs. 50,000/- per annum

How to apply- Candidates should ensure that they fullfill the essential and desirable qualifications. Such candidates can apply with a cover letter, curriculum vitae, Ph.D. certificate, list of publications, letter of recommendation from the PI/PhD supervisor, and NOC from the employer (if already employed) by email to Prof. Naveen Kumar Navani naveen.navani@bt.iitr.ac.in and nano@nt.iitr.ac.in

Notes: (i) Post-doctoral Fellows will be registered as students and may avail facilities of library, computer center, available hospital facilities, etc. They will be entitled to 2.5 days of leave per completed calendar month. No carry forward for leave will be allowed beyond a calendar year. PDF positions are purely temporary.

(ii)The candidates called for presentation/discussion/interview will be paid II-AC train fare from their place of residence/work and back by the shortest route within India.

About Prof. Naveen Kumar Navani's lab; please visit: https://iitr.ac.in/~BSBE/naveen_navani
About the Department; please visit: https://iitr.ac.in/Centres/Centre%20for%20Nanotechnology/Home.html
About the Institute- www.iitr.ac.in

Prof. Naveen Kumar Navani
Department of BSBE and Centre for Nanotechnology
IIT Roorkee

डॉ० नवीन कुमार नवानी
प्राध्यापक
जैवविज्ञान एवं जैव अभियांत्रिकी विभाग
भारतीय प्रौद्योगिकी संस्थान रुड़की
रुड़की–247 667, उत्तराखण्ड, भारत

27/11/25

Professor and Head
Centre for Nanotechnology
IIT Roorkee head@nt.iitr.ac.in

डॉ० एम० वी० शंकर / Dr. M. V. Sankar
प्रोफेसर एवं विभागाध्यक्ष
नैनो प्रौद्योगिकी केंद्र
Centre for Nanotechnology
भा० प्रौ० सं० रुड़की–247667
I.I.T. Roorkee-247667