

INSTITUTE OF CHEMICAL TECHNOLOGY, MUMBAI

Category I Deemed to be University (MHRD/UGC) Elite Status and Centre Excellence, Govt. of

Maharashtra Public Funded University

NAAC A⁺⁺ CGPA 3.77/4.00 NBA Accredited Programmes

Website:

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Applications are invited for the post of 'Project Scientist - I

No. of Positions	: 1
Sponsor	: DBT
Project entitled	: "GMP Grade Microfluidic Nanoparticle Manufacturing Platform for mRNA lipid nanoparticles (NanoMake)"
Principle Investigator	: Dr. Ratnesh Jain
Essential Qualifications	: Bachelor's or Master's degree in Mechanical Engineering.
Experience and Desirable abrication.	: 2+ years of experience in microfluidic device design and
Remuneration Year1/Year 2	: 69,440/- (Consolidated)Incl.HRA and all benefits
Year 3	: 72,912/- (Consolidated)Incl.HRA and all benefits
Duration	: Initial Appointment for 6 Months and can be extended based on performance and fund availability.

Job Description:

- Design and develop embedded firmware using C/C++ on microcontrollers such as STM32 or ESP32
- Implement real-time multitasking using FreeRTOS
- Develop and manage multiple system tasks (sensor acquisition, control logic, UI, communication)
- Interface with hardware peripherals including ADC, UART, SPI, I2C, and GPIO
- Develop communication protocols such as Modbus RTU (RS485/RS232) and TCP/IP (if required)
- Integrate and optimize graphical user interfaces using LVGL or similar embedded GUI frameworks
- Work closely with hardware engineers for board bring-up and debugging
- Implement reliable control logic for pumps, valves, and sensors (4–20 mA, pressure, flow)
- Ensure system stability, real-time performance, and fail-safe operation
- Debug and troubleshoot firmware, communication, and hardware-level issues

Maintain documentation for firmware architecture and system design

Interested Candidates are requested to scan the QR code and fill out the application form:

The applications should reach on or before April 13, 2026. Late Application will not be accepted.

The selection of the candidate will be carried out through Online/Physical interview. If we receive a large number of applications, scrutiny for shortlisting of candidates for interview will be done. Only shortlisted candidates will be called for an interview and a link to attend the interview and a link to attend the interview will be sent to them only. The recommendation of the committee will be final.



B.F. Jogi
01.04.2026
Prof. B.F. Jogi
Registrar