

**Invitation for Expression of Interest (EOI) from Eligible
Architectural and Engineering Firms**

To

**Design, Drawing and Render for the additional building at Centre
for Nano Science and Engineering in IISc Campus.**

Ref NO- CeNSE/NNFC/EOI/2026-01

**CENTER FOR NANO SCIENCE AND ENGINEERING
Indian Institute of Science, Bengaluru 560012, India**

1. Background

The Centre for Nano Science and Engineering (CeNSE) at the Indian Institute of Science (IISc) is a premier interdisciplinary research and technology centre dedicated to nanoscience, nanotechnology, and their applications across electronics, photonics, materials, and quantum technologies. Established with significant support from the Government of India, CeNSE houses state-of-the-art facilities such as the National Nano Fabrication Centre (NNFC), the Micro and Nano Characterisation Facility (MNCF) and the Packaging and System Facility (PASF). These ISO-certified laboratories support academic and industrial R&D through 24×7 operations, enabling research and prototyping in areas ranging from advanced semiconductor devices to sensors, photonic integrated circuits, and quantum systems. CeNSE currently operates within a custom-designed cleanroom and laboratory building that is fully occupied, reflecting its extensive research activities and growing user base from academia, industry, and national missions such as the India Semiconductor Mission (ISM), National Supercomputing Mission (NSM) and the National Quantum Mission (NQM).

Given the rapid expansion of CeNSE's research portfolio and the establishment of national-level programs, there is a pressing need for expansion of the current infrastructure through a new adjacent building — the CeNSE Annexe. The Annexe will house cleanroom, characterisation, and packaging facilities to complement existing infrastructure without interrupting ongoing sensitive operations. To minimise dust, vibration, and particulate contamination that could compromise ongoing fabrication activities, the new building is proposed to be constructed using steel structural technology. A steel superstructure enables rapid assembly, reduced on-site civil work, and minimal disruption to the existing operational environment. Moreover, this approach ensures faster execution timelines, better precision in modular construction, and adaptability for future technological upgrades, aligning with CeNSE's vision of maintaining world-class infrastructure while expanding capacity to support India's growing advanced manufacturing and quantum technology ecosystem.

The new building design should integrate with the existing building design and its current surroundings as seamlessly as possible. This includes external aspects of the facade as seen from different perspectives, internal movement of people, light and air and technical aspects pertaining to clean room operation.

This will be a single stage competition where the conceptual designs submitted by the short-listed Architectural and Engineering firms will be evaluated and one firm will be selected.

2. Eligibility Criteria

- a. **Registration:** The Architectural and Engineering firms should be registered with the Council of Architecture, India.
- b. **Experience:** The Architectural and Engineering firms should (i) have at least 15 years' experience in similar assignments of architectural consultancy services sector as on

28/02/2026 and (ii) have expertise in conceptual planning, design of detailed architectural drawings, and construction management.

- c. Past Assignment: The Architect/ Architectural Firm should have completed at least one similar project equivalent to or above a budget of Rs. 130 Crores (including construction) in the last five years. Provide supporting documents.
- d. Professional Fees: Applicant should have collected professional fees of at least Rs. 10 Crores in the last five financial years.
- e. Declaration for Transparency: Applicant should not be under a declaration of ineligibility for corrupt and fraudulent practices issued by Govt. of India/ State Govt. (Please submit self-declaration format as per Annexure)
- f. Site visit: All interested parties should visit the site before submission of the EOI.

3. Project Details

The proposed CeNSE Expansion Project involves the construction of a new Cleanroom Building and a dedicated Utility Building adjacent to the existing operational facility. The total built-up area is approximately 17,386 sq. ft. (1,614 sq. m.), with a total usable area of about 11,275 sq. ft. (1,046 sq. m.). The Cleanroom Building comprises ISO Class 100 and Class 1000 cleanrooms with raised flooring at the ground and second floors, interconnecting plenum floors, convertible semi-cleanroom space (up to Class 10,000), laboratory spaces, office space, storage space, substation and DG area and terrace-level HVAC utilities. The Utility Building is designed to house water treatment systems, CDA and vacuum systems, specialty gas distribution, UPS and electrical distribution systems, office space, staff support areas, and terrace HVAC utilities.

The project includes complete design and integration of cleanroom infrastructure, HVAC systems with HEPA/ULPA filtration, chilled water systems, process piping (UPW, CDA, vacuum), electrical power distribution with redundancy, gas distribution systems for semiconductor processes, and associated building management and safety systems. All utilities will be planned for scalability, redundancy, and minimal vibration transmission to meet semiconductor process requirements. Given the adjacency to an operational cleanroom, the construction methodology will adopt fast-track steel structural systems with modular and off-site prefabrication to minimize dust, vibration, and operational disturbance.

Expected Timeline

- Concept Planning & Detailed Design: 2–3 months
- Statutory Approvals & Tendering: 2–3 months (overlapping where feasible)
- Construction of Steel Structure & Building Envelope: 12–14 months
- Cleanroom Fit-Out, MEP & Utility Installation: 6–8 months
- Testing, Commissioning & Validation: 2–3 months

Total Estimated Project Duration: Approximately 20-24 months from approval to commissioning.

Expected cost of the civil structure (excluding the cleanroom infrastructure) is approximately Rs. 40 Crores.

4. Scope of Work

- a. To prepare architectural designs/presentation drawings making revisions as per the requirements of Centre for Nano Science and Engineering till sketch designs are finally approved by the competent authority and making preliminary estimated cost.
- b. To Prepare architectural drawings, structural drawings including, Cleanroom layout, services and distribution drawings-electrical, Process Gas, Process cooling water, De-ionised water line, Compressed gas line, House vacuum line, sanitary, firefighting, air-conditioning, Exhaust and all other designed drawings for various trades infrastructural facilities required for completion of the project.
- c. To prepare an architectural render video (walk-through) of the building, which explains the functionality of the building.

5. Criteria for Shortlisting

The shortlisting of Architectural and Engineering firms will be done by a committee set up by the Competent Authority, IISc. Subsequently, the details of conceptual design competition will be communicated, along with a Design Brief to shortlisted architects/firms.

The criteria used for evaluation would be:

SL. NO	Criteria	Maximum marks
1	Organizational Strength of the Applicant	20
a	Period of business for the firm on the due date for submission of EOI: 15 years: 3 Marks > 5 years: add 0.5 Marks (to above Marks) for each year completed above 5 years up to the maximum marks of 5.	5
b	Scale of operations/Location of Offices More than 3 locations: 5 Marks 2 to 3 locations: 2 Marks 1 location: 1 Marks NOTE: -At least one location should be in Bengaluru. -Each such office with minimum 5 nos. of in house professionally qualified staff [as defined in serial (1c) below] only shall be considered.	5

c	<p>Presence of in-house professionally qualified staff in the firm in following indicative categories:</p> <ol style="list-style-type: none"> 1. Project coordinator 2. Architects 3. Landscape Architects 4. Civil/ Structural Engineers 5. Mechanical/HVAC Engineers 6. Electrical Engineers 7. Instrumentation & Telecommunication Engineers 8. Public Health Engineers 9. Environmental Planners/ Engineers 10. Semiconductor cleanroom design engineer <p>Marks 'per employee' on experience:</p> <p>>10 years: 2.0 Marks >5 and up to 10 years: 1.0 Marks ≥2 and up to 5 years: 0.5 Marks (maximum 10 marks)</p> <p>NOTES:</p> <p>List of all such persons with their field of specialization and date of their appointment with the firm to be furnished as per prescribed format.</p> <p>Only qualified staff employed on regular/contract basis for more than two continuous years as on 21st Feb 2026 to be considered.</p> <p>For each listed individual, please attach self-attested certificates by the authorized signatory of the company duly signed and stamped.</p>	10
2	Experience of Work	25
a	<p>Number of Similar Projects successfully completed during the last fifteen (15) years ending last day of the month previous to the one in which tenders are invited.</p> <p>Marks 'per project' based on project cost:</p> <p>>100 crore: 5 Marks >50 and up to 100 crore: 4 Marks >20 and up to 50 crore: 3 Marks ≥10 and up to 20 crore: 1 Marks</p> <p>Documents clearly substantiating cost of projects and scope of work to be attached.</p>	15

b	Experience in Design of Corporate office, lab space and relevant utilities during the last five (5) years ending last day of the month previous to the one in which EOI are invited. Documents clearly substantiating the work done to be attached	5
c	Experience of buildings integrating smart building technologies using pre-engineering building (PEB) during the last seven (7) years ending last day of the month previous to the one in which tenders are invited. Only buildings with visible or documented use of above methods shall be considered. Documents clearly substantiating relevant claims to be attached.	5
3	Technical Aspects	55
a	Relevant Cleanroom Design Experience. Experience in the design of ISO 5 and ISO 6 semiconductor cleanrooms buildings of comparable scale and complexity. 1 project = 10 marks (Maximum of 20 Marks) Subject to submission of relevant documentary evidence and client references. Projects must clearly demonstrate expertise in cleanroom architecture, HVAC integration, and contamination control design. Any additional projects beyond two will not carry additional marks under this criterion.	20
b	Vibration Control & Structural Engineering Design Capability. Maximum 20 marks shall be allotted for demonstrated capability in vibration control and structural engineering design for sensitive facilities such as semiconductor cleanrooms. A maximum of 10 marks per completed project (up to two projects) will be awarded based on documented evidence of achieving specified vibration performance level of VCE grade vibration isolation designs. Marks will be assigned considering the complexity of structural design, implementation of vibration isolation systems (such as inertia blocks, floating slabs, or base isolation), and validation through measurement or third-party certification. The bidder shall clearly indicate their specific scope of services, including structural modelling, vibration analysis, and mitigation strategy adopted. Subject to submission of relevant documentary evidence and client references.	20

c	<p>Designing Fast-Track Steel Construction Methodology and Construction Impact Mitigation Strategy</p> <p>Maximum 15 marks shall be allotted jointly for demonstrated capability in Designing a Fast-Track Steel Construction Methodology and Construction Impact Mitigation Strategy for projects of similar scale and sensitivity. A maximum of 7.5 marks per completed project (up to two projects) will be awarded based on documented evidence of execution using structural steel systems, modular or prefabricated construction approaches, and successful adherence to accelerated timelines while working adjacent to operational facilities. Marks will be assigned considering the extent of off-site fabrication, construction sequencing, dust and vibration control measures, noise mitigation, and strategies adopted to minimize disturbance to adjoining operational buildings. The bidder shall clearly describe the structural system adopted, time optimization measures, and implemented site impact mitigation controls with measurable outcomes.</p> <p>Subject to submission of relevant documentary evidence and client references.</p>	15
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6. Documents required for validating eligibility criteria

- Registration:** Certified copy of valid registration with the Council of Architecture, with names and addresses, qualification and registration number allotted by CoA.
- Office Location:** Certified copy of the Registration of Practice or other valid relevant document (to be specified by Architect/Architectural firm),
- Experience:** Certified copy of valid registered partnership deed OR Certified copy of valid JV agreement, if applicable,
- Past Assignment:** Details of past projects equivalent to or above Rs 130 Crores in the last five years. These projects should have involved design of a similar Steel structural building along with Vibration Isolation.

Site visit should be completed before 5 pm of 19/03/2026. EOI with all enclosures should be emailed to **office.cense@iisc.ac.in** or posted to the Chair, CeNSE, Indian Institute of Science, Sir C V Raman Road, Bengaluru-560012 on or **before 5 pm of 23/03/2026**. Late submissions will not be considered.

IISc reserves the right to reject any/or all the EOIs without assigning any reasons whatsoever.

Annexure
Self-Declaration Format

Ref. No.:

Date:

To:

The Registrar

Indian Institute of Science

With reference to my/our expression of interest to IISc, it is hereby declared that I/ (name of firm) was not declared ineligible for corrupt & fraudulent practices either indefinitely or for a particular period by any Govt *or* other agency.

I/ (name of firm) also declare that there are no contractual restrictions or legal disqualifications or other obligations which will prohibit from me/us entering this bid and each and every one of the statement and particulars contained herein are correct.

Signature of the Applicant

Date:

Place:

Seal: