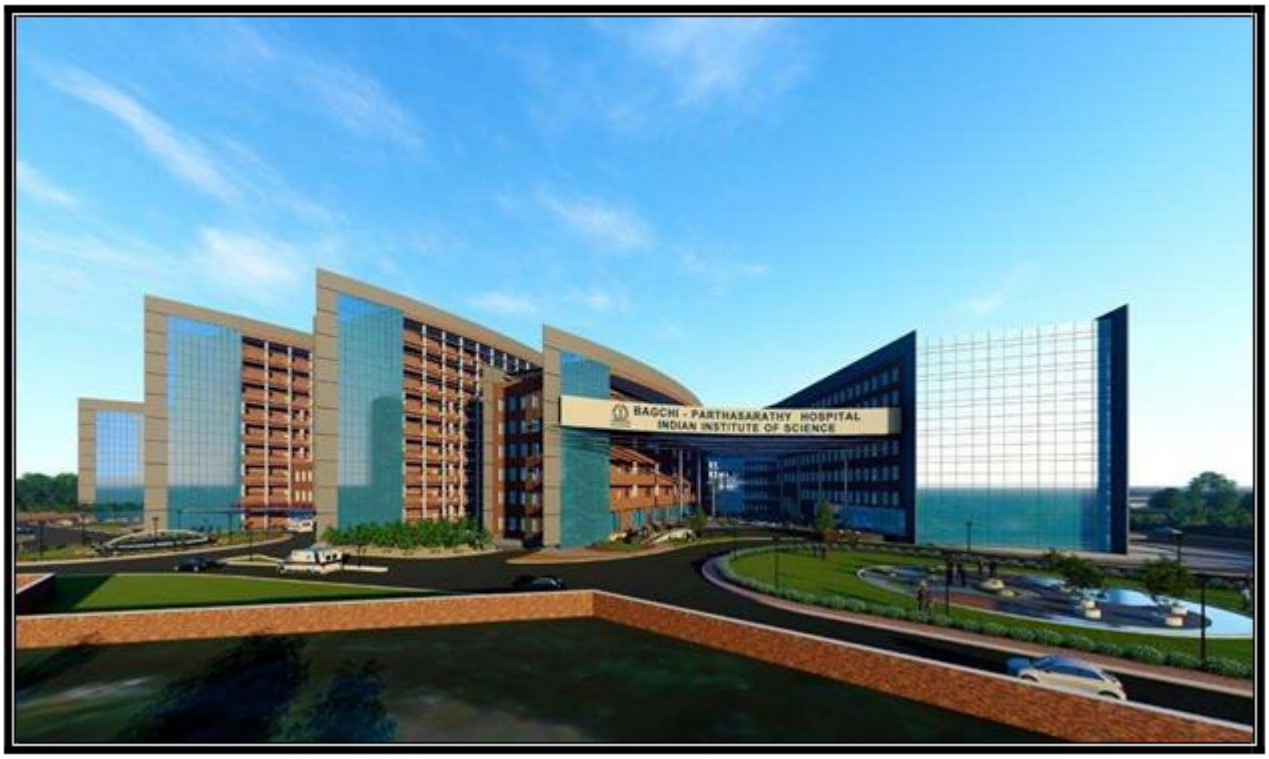
REQUEST FOR EXPRESSION OF INTEREST (EoI) DSITC OF LABORATORY TURNKEY WORK FOR IMSF (ON BEHALF OF IISc) AT IISc CAMPUS, BANGALORE



EoI DOCUMENT

No: IMSF (ON BEHALF OF IISc) /EoI/24-25/05 – DSITC OF Laboratory

Director,

IISc Medical School Foundation (on behalf of IISc)/, Bangalore – 560012.

EoI: OVERVIEW

This Expression of Interest (EoI) invites proposals for a complete turnkey solution for the establishment of a modern laboratory, including lab automation, encompassing the following departments: Histopathology, Biochemistry, Haematology, Clinical Pathology, Microbiology, Immunohistochemistry, and Molecular Biology. The solution must include all major laboratory equipment and supplies necessary accessories and effective operation of these departments, ensuring compliance with relevant regulations and standards for patient safety and operational efficiency. Additionally, the turnkey solution must cover all construction and infrastructure work, including civil, mechanical, electrical, and plumbing (MEP) works, HVAC systems, and any architectural modifications needed to support the department's operations.

PROJECT BRIEF:

The Proposed IMSF (On behalf of IISc) project is being constructed at Indian Institute of Science Campus, Bangalore - 560 012. The said Project is a combination of RCC and Steel Structure Building and it is 02 Basements + Ground + 9 Storeys + Helipad. Both basements are in RCC - Concrete Structure, but columns and roof framing works are in Structural Steel. The DSITC of ELV works are to be executed in co-ordination with all other services. The project details are listed below.

- Total number of Beds: 832 Nos.
- Type of Structure: RCC + Structural Steel.
- Total site area: 14.35 Acres.
- Total built up area: 14,67,478.62 Square feet.
- Total number of basements(B): 02
- Building overall length (outer to outer): Length 239.58mtrs x Breadth 90.41 Mtrs.
- Total height of the building: 49.85 Mtrs. (Including Helipad)
- Total number of Block: 05 along with Core and Atrium areas etc., (A, B, C, D and E)
- Block A and Core areas (2B + GF + 03 upper floors + terrace) @ Height of 17.55 Mtrs
- Block B and Core areas (2B + GF + 09 upper floors + terrace) @ Height of 41.85 Mtrs
- Block C and Core areas (2B + GF + 09 upper floors + terrace) @ Height of 41.85 Mtrs.
- Block D (2B + GF + 07 upper floors + terrace) @ Height of 33.75 Mtrs
- Block E (GF + 05 upper floors + terrace) @ Height of 25.65 Mtrs.
- Atrium and Core areas.
- Basement 2 and 1 Parking Area – Partial areas.

At IISc, the planned infrastructure is designed to support a wide range of advanced clinical capabilities, essential for patient care, teaching, and research. This comprehensive setup will facilitate the integration of cutting-edge technologies and services across various clinical areas, ensuring optimal outcomes and fostering innovation in healthcare practices. Further details about IISc and its requirements can be accessed from:

https://medicine.IISc.ac.in/

DESIGN AND PLANNING CONSIDERATIONS:

The design must prioritize optimal functionality while ensuring full compliance with relevant regulations and safety standards. Vendors are expected to integrate key elements such as efficient workflow, proper equipment layout, and robust safety protocols, including infection control and hazardous material handling. The design must also adhere to applicable national and international standards, guidelines, and accreditation requirements. Vendors should clearly specify the standards and guidelines applied to each relevant aspect of the design in their submission.

KEY CONSIDERATIONS INCLUDE:

- Aesthetically appealing and functional department layouts.
- Optimized workflows to enhance operational efficiency.
- Adequate electrical infrastructure to support current electrical load and accommodate future expansion.
- Proper ventilation systems to maintain air quality.
- Medical gas pipeline systems as necessary.
- Appropriate plumbing installations and other necessary services for the proper functioning of the department.
- Comprehensive civil works, including construction of new structural elements, flooring, wall finishes, and ceilings as applicable, ensuring the department is built to meet healthcare facility standards from the ground up.
- Seamless integration of lab automation solutions for enhanced operation.
- Integrated laboratory information management systems (LIMS) for data management, with compatibility to hospital EMR systems.
- Comprehensive safety measures, including fume hoods and eye wash stations.
- A dedicated Reverse Osmosis (RO)/De-ionized plant to fulfil the critical water quality requirements for analysers if required.
- Vendors are expected to address these considerations in their proposals to ensure a highly functional and safe laboratory environment.

SCOPE OF WORK

SN	Group	Scope of work	Scope	Remarks
1	Civil	Plain Cement Concrete	Vendor scope	If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.

2	Civil	Floor & Wall Tiles	Vendor scope	If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.
3	Civil	Glass Partition	Vendor scope	If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.
4	Civil	Gypsum Partition	Vendor scope	If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.
5	Civil	Wall Panelling	Vendor scope	If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.
6	Civil	Outer Glazing work	Client scope	Vendor to share main Door dimension to Client as external works outside turnkey perimeter is under the scope of Client.
7	Civil	Outer Walls with Plastering and outside painting	Client scope	

8	Civil	Toilet Walls	Vendor scope	If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.
9	Civil	Painting	Vendor scope	If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.
10	Civil	Windows	Vendor scope	If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.
11	Civil	Doors	Vendor scope	If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.

12	Electrical	Electrical Work (Power & Lighting, earthing etc)	Vendor scope	Client will provide the main cable line to the turnkey area distribution panel. Vendor to define load requirements and cable sizes. If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.
13	Plumbing	Plumbing work (Supply, Distribution & drain)	Vendor scope	If required the turnkey vendor can take support of the contractor who is onboarded by the client for execution of work. But the turnkey vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor. Plumbing work must connect to the client's main drain. Vendor to detail trench requirements. Client is responsible for grade slab execution. Treated water at shaft location provided by Client; further connections under vendor scope Dedicated RO if required will be under the scope of Vendor

14	HVAC	Air Conditioning Work (Supply, Return & AHU)	Client scope	The vendor shall provide the design and specifications for the AHU, which must meet the following requirements: 1. It must be a smart AHU incorporating a heat pipe. 2. Integrated pumps (IP online) should replace traditional two-way valves. 3. Detailed AHU technical specifications must be included. 4. The cooling coil should be designed per the project needs. 5. The total AHU capacity must be specified. 6. The GPM (gallons per minute) flow rate should be indicated. 7. The recirculation flow rate should be detailed. The vendor is responsible for providing the ducting design from the AHU, offering the necessary technical input, and overseeing the execution by the client's onboard contractor
15	HVAC	Exhaust point at the required places.	Client scope	The vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor

16	MGPS	Medical Gas Work (Supply, Distribution)	Client scope	The client shall provide an MGPS connection, as applicable, from the dedicated gas manifold to the equipment. The vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.
17	ELV	Networking and Data boards	Client scope	Turnkey vendor to specify required network port and locations. The vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor
18	ELV	Internet connection	Client scope	Turnkey vendor to specify required port locations. The vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor
19	Fire	Fire Detection	Client scope	Vendor to recommend layout; Client to execute based on approved designs. Necessary openings in false ceiling to be provided by the vendor. The vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor

20	Fire	Fire suppression systems	Client scope	Includes pipe routing and placement of sprinklers/detectors. Client to execute per approved vendor design. The vendor is responsible for providing the necessary technical input, and overseeing the execution by the client's onboard contractor.
21	Interior	Medical Furniture	Vendor scope	As applicable
22	Interior	Fixed Furniture (Cupboard etc)	Vendor scope	As applicable
23	Interior	Loose Furniture (Chair)	Vendor scope	As applicable
24	Interior	Signage	Vendor scope	As applicable
25	Interior	Workflow items	Vendor scope	As applicable
26		Others like Pneumatic chute work	Client scope	

Note: All approved makes will be shared by the Client for relevant items as defined in the scope.

PROPOSAL REQUIREMENTS:

Interested vendors must account for all aspects of the project, including packing, transportation, handling (loading, unloading, lifting, storing), scaffolding, and coordination with other contractors. Furthermore, the contractor shall provide a defects liability period of two years post-commissioning to guarantee service reliability.

SUPPLIER ELIGIBILITY:

1. Vendors must demonstrate experience in providing laboratory solutions and services, with a proven track record in similar projects. Additionally, vendors must have experience in lab automation, having completed at least 20 installations and a minimum of 2 turnkey automation projects.
2. The vendor must provide a complete turnkey solution as a package, ensuring all systems are integrated and operational. The organization will determine the specific requirements for a comprehensive turnkey solution, which the vendor must provide as a fully integrated and operational package.
3. Supplier should have registered office and trained engineers/Spare parts/Calibration

equipment/installation reference available in Bangalore

4. Equipment supplied from countries sharing land borders with India will not be considered as part of this EoI.
5. Turnkey service providers may partner with other suppliers to fulfil the requirements, and it is not necessary for all items to be supplied directly by the primary vendor. However, the complete responsibility of the completion of all the tasks will be that of the primary vendor.
6. Any eligible company as per Make in India-PPP (domestic bidder) may submit the EoI.

THE REQUIREMENTS & SCOPE OF DSITC LABORATORY EQUIPMENT ARE AS MENTIONED BELOW WHICH INCLUDES, BUT NOT LIMITED TO THE FOLLOWING:

SN	**Department**	**Equipment's**
1	Bio-Chemistry	Laboratory Automation with track
2		Fully Automated Bio- chemistry analyser
3		Fully Automated Immunoassay analyser
4		pH meter
5		ABG Analyser
6		Lithium Analyser
7		HBA1C Analyser
8		Elisa reader and washer
9		Electrolyte analyser
10		Centrifuge machine
11		Centrifuge machine
12		Refrigerator
13		Tachometer
14		TDS meter
15		Deep freezer
16		Binocular microscope
17	Haematology	pH meter
18		Analytical digital balance
19		Centrifuge machine
20		Centrifuge machine
21		Binocular microscope
22		ESR Instrument
23		urine analyser
24		co-angulation analyser
25		Automatic timer
26		Incubator
27		Slide stainer automatic
28		Urinometer
29		Centrifuge
30		Micropipettes
31		Slide cabinet

32		Flow cytometry
33		Haematology analyser
34		Refrigerator
35	Histopathology	Analytical digital balance
36		Binocular microscope
37		Refrigerator
38		Automatic timer
39		Slide stainer automatic
40		Slide cabinet
41		Digital Slide Scanner
42		Micro pipettes
43		Semi-automated microtome
44		Grossing station
45		Automated cover slipper
46		Cytocentrifuge
47		Penta/Dual head microscope for histopathology
48		Tissue processor
49		Cryo microtome/cryostat
50		Auto stainer for IHC
51		Temp.controlled tissue floating bath
52		storage cabinet for 10,000 blocks in numerical arrangement
53		Temp.controlled rectangular laboratory use hot plate
54		Double distillation apparatus
55		Embedding station
56		paraffin wax dispenser
57		Paraffin block cabinet
58		Slide warmer
59		Single pan balance
60		Hot air oven
61		Colorimeter
62		Binocular microscope
63	Microbiology	pH meter
64		Analytical digital balance
65		Elisa reader and washer
66		Centrifuge machine
67		Deep freezer (-20 DEGREE)
68		Serological water bath
69		Blood culture automation system
70		Automation identification and antibiotic susceptibility test

71		Bio-safety cabinet
72		Laminar air flow
73		Refrigerator (400 LITRE)
74		Loop sterilizer
75		BOD incubator
76		Anaerobic jar
77		Autoclave machine -horizontal
78		Autoclave machine-vertical
79		Lyophilizer machine
80		Immunoturbidometric machine
81		Incubator
82		CO2 incubator
83		Spectrophotometer
84		Hot air oven
85		Dispenser
86		Heat Block
87		Turbidimeter
88		IEF platform
89		CBNAAT Machine
90		Line probe assay machine (for TB)
91		Automated system for isolation of MTB
92		Microfuge
93		Deep freezer (-20, -30, -80 degree each)
94		Thermal cycler
95		microvolume spectrophotometer
96		Automated extraction system
97		RT PCR machine
98		Gel documentation system
99		UV transilluminator
100		Electrophoresis machine
101		Cold centrifuge
102		Vortex mixture
103		Dry bath
104		Multiplex PCR system (molecular diagnostic platform)
105		PCT Machine
106		Shaker for RPR
107		Binocular microscope
108		Stepper Micropipettes
109		Immunoanalyser-single dose entry
110		Fluorescent microscope

CONTRACTOR'S SEAL AND SIGNATURE

The Conditions of EoI are the terms under which IMSF (On behalf of IISc) **will receive and assess Expressions of Interest (EoI). Non-compliance with these conditions may result in the EoI being disqualified without further review.**

The EoI must include all relevant details and information requested in this document. Following the submission of the Expression of Interest (EoI), vendors who meet the initial requirements will be invited to deliver a presentation. This presentation serves as an opportunity for vendors to showcase their proposed solutions, including technical capabilities, product features, and how their offering aligns with the project's objectives. Vendors are required to bring all their Original Equipment Manufacturer (OEM) partners to the presentation and fully demonstrate their complete potential, including all components relevant to the EoI. During the presentation, vendors should also address any questions from IMSF (On behalf of IISc), clarify details of their solution, and demonstrate the suitability of their approach. If necessary, IMSF (On behalf of IISc) will communicate any additional specifications or OEM requirements that need to be incorporated into the solution.

After the presentation phase, Selected vendors will be required to submit detailed technical bids, including comprehensive information on the technology, equipment, systems, and services they plan to provide. The technical bid must also demonstrate compliance with the relevant global and national industry standards. If any updates or modifications are required based on discussions during the presentation, the technical bid may have to be revised as per the points raised in the discussion. Once all the technical criteria are evaluated. The vendors whose technical bid matches with the requirements of IMSF (On behalf of IISc) will be asked to submit the financial bid.

These financial bids should outline the financial aspects of their proposals, including costs for equipment, installation, support, and any other related services. The final selection will be based on a combination of technical merit and cost-effectiveness to ensure the best overall solution for IMSF (On behalf of IISc).

The due date for submission of EoI is 20th Jan 2025.

Enquires, and requests for further information about this RFQ, should be directed to the Contact Officer as follows:

Contact Officer: Mrs. Dhanyasree S., Admin Executive
IISc Medical School Foundation / Office of Admin, Deans Main Building
IISc, Bangalore – 560 012
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CONTRACTOR'S SEAL AND SIGNATURE