



Tender Document for

**Supply, Installation and setting up of Material Research and
Development Workstations cum Laboratory at Mahatma Gandhi
University Innovation Foundation (MGUIF)**

TENDER NOTICE

The Chairman, MGU Innovation Foundation, Mahatma Gandhi University, Kottayam, invites online bid (Technical & Financial bid) from reputed firms for MGU Innovation Foundation which includes Supply, Installation and setting up of Material Research and Development Workstations cum Laboratory at MGUIF in the University premises. Tender documents and other tender details can be downloaded from the website: <https://etenders.kerala.gov.in>

1.	Tender No	MGUIF/PUR/04/2023-24
2.	Cost of Bid Document	Rs. 3,750/- (Rupees Three Thousand Seven Hundred and Fifty only + GST (Non-Transferable and non-Refundable))
3.	Earnest Money Deposit (EMD)	Rs. 25000/- (Rupees Twenty Five Thousand Only)
4.	Tender publishing date	08-12-2023
5.	Last Date of Receipt of the Tender	18-12-2023 up to 5:30 PM
6.	Date of Opening Technical Bid	20-12-2023 at 10:15 AM
7.	Mode of Submission of Bid	The Tender details and documents can be viewed & downloaded by login into https://etenders.kerala.gov.in .
8.	Address	The Chairman, MG Innovation Foundation, Mahatma Gandhi University, Kottayam, Kerala-686560.
9.	Contact Person	Contact Mob: 9778429535 (CTO, MGUIF)

1. Project Brief:

MGU Innovation Foundation invites e tender for Supply, Installation and setting up of Material Research and Development Workstations cum Laboratory at MGUIF in the University premises as per attached Technical specifications.

This Tender is under **two bid system** and this consists of two parts. **Part-A is Technical Bid and Part-B is Commercial/Price Bid.** Vendors whose Technical Solutions are found acceptable will only be considered for evaluation of their commercial/price bids and subsequent placement of order.

2. Scope of Work:

Supply and Installation of Material Research and Development Workstations in the University premises as per attached Technical specifications.

3. Documents required along with the technical bid.

The bidder shall ensure to submit the following details in their bid. Submission of items mentioned mandatory shall lead to rejection of the bid

- 1) Tender document duly stamped and signed by the Bidder.
- 2) Documents for EMD exemption if applicable
- 3) Affidavit certifying that Bidder, Promoter(s), Director(s), Partners of organization are not blacklisted.
- 4) Scanned copy of valid Registration Certificate

4. Technical Specifications

Appendix-A

WORKTOP HEIGHT: 900mm HEIGHT FROM F.F.L

Nos	Qty/Unit	PENINSULAR BENCH - 3000 mm	1	Nos
3	rm	16mm thick trespa worktop 1500mm wide		
2	no	u/b storage cabinet with 1 adjustable shelf & 1 door 500mm wide with lock		
4	no	u/b cabinet with 1 drawer,1adjustable shelf & 1 door 500mm wide with lock		
5.84	rm	front + back frame		
0.34	rm	Filler panel		
6	no	middle frame		
4	no	side frame		
5.09	rm	knee space panel		
2	no	16 Amp/220 Volt quadruplet electrical pedestal box		
		WALL BENCH- 6000 mm	1	Nos
6	rm	16 mm thick trespa worktop 750mm wide with back splash		
1	no	u/b storage cabinet with 1 adjustable shelf & 1 door 600mm wide with lock		
2	no	u/b storage cabinet with 1 adjustable shelf & 2 door 900mm wide with lock		
1	no	u/b cabinet with 2 drawer, 1 adj. shelf and 2 doors 900mm wide with lock		
2	no	u/b cabinet with 1 drawer,1adjustable shelf & 1 door 500mm wide with lock		
4.3	rm	front + back frame		
0.84	rm	Filler panel		
2	no	middle frame		
4	no	side frame		
		SINK UNIT - 1280 mm	1	Nos
1.28	rm	16 mm thick trespa worktop 900mm wide with back splash		
1	no	u/b sink cabinet 1200mm wide		
1.2	rm	front + back frame		
0.15	rm	Filler panel		
1	no	side frames,special		
1	no	side frames,special		
2	no	single cold water standout		
2	no	polypropylene sink 450x350 mm		
		FUME CUPBOARD	1	Nos

1	no	fume cupboard 1825mm long services are water, electrical, 1 no. nitrogen gas, & 1 no. argon gas with vsb 30		
1	no	ducting with 4 nos of elbows		
1	no	rain guard for motor		
		SUCTION ARM	1	Nos
2	no	ceiling mounted suction arm without blower		
1	no	vsb-20 blower		
1	no	ducting with one T-joint 5 nos of elbows		
1	no	rain guard for motor		
28	Sq.m	WALL PARTITION with Autoclaved Aerated Concrete Sound Proof AAC Block	1	Nos

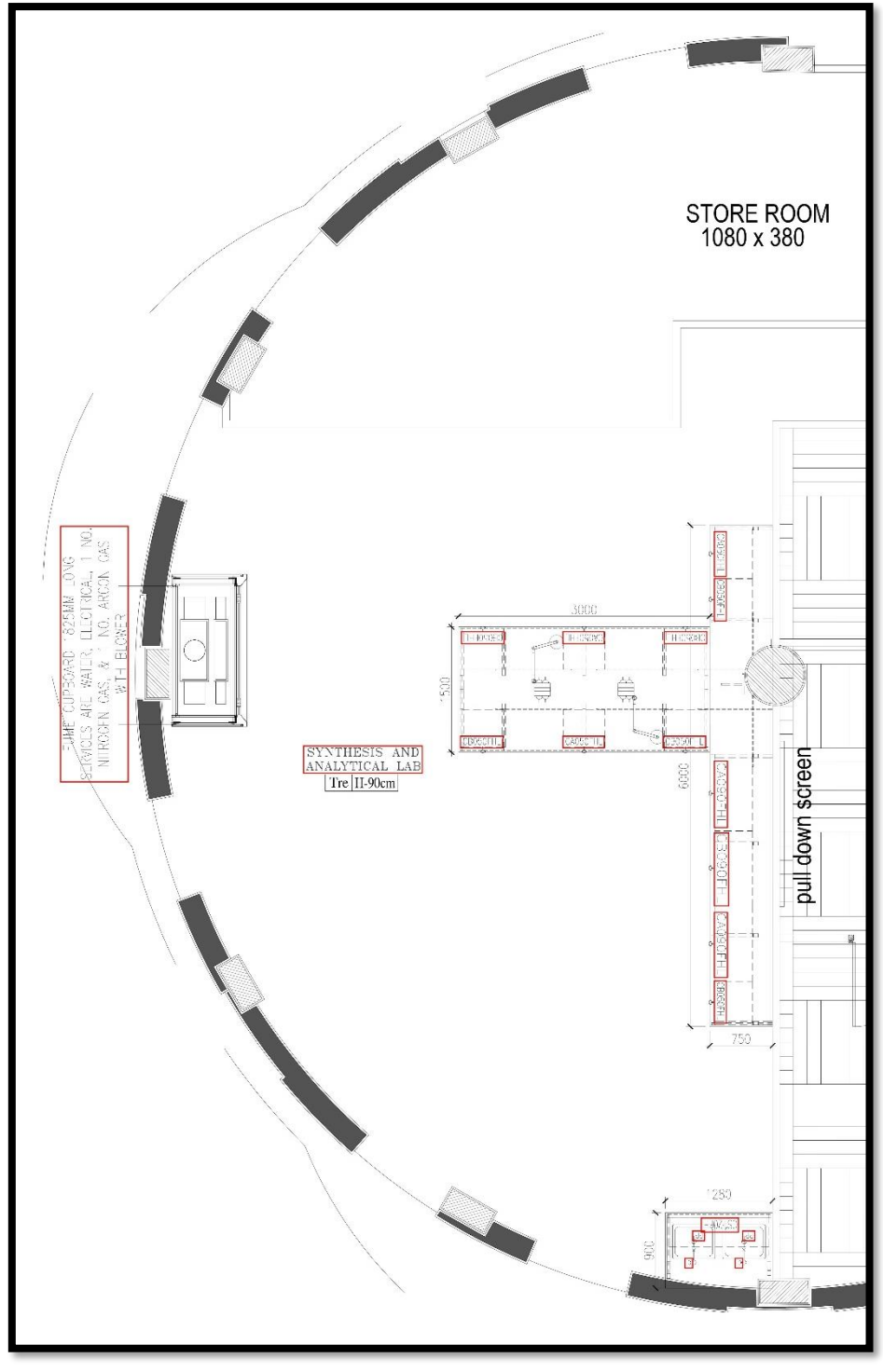


Fig 1 Lab Layout

TRESPA WORKTOP

The worktops will be a solid laboratory bench panel of minimum 16mm thick where the decorative surface using the proprietary Electron Beam Curing (EBC) technology. With the "Electron Beam Curing" procedure, the panels get an integrated decorative surface. This process guarantees a pore-free, closed surface which is resistant to a multiple of aggressive chemicals and easy to clean, disinfect and maintain. The level of scratch resistance is equal or above 4 Newton according to EN 438. The panel is a self-supporting, flat panel based on thermos hardened resins, homogenous strengthened with wooden based optical fibres which are pressed under high pressure and temperature. The worktops will have minimum joints. For e.g. an island bench of 20ft x 5 ft. will not have more than 1 joint. The worktops will be silver grey or black color uniformly throughout the surface. All worktops will have 80mm glued back splash for wall benches, of the same material.

The support frame design will be of cantilever type, with sliding facility for hanging cabinets on the framework itself.

Worktops will be supported by this heavy duty steel frame work.

The frame will be of heavy duty rectangular box with a minimum wall thickness of 14 gauge and the dimension details of frame work as follows:

Vertical member, Horizontal top member, Horizontal bottom member of minimum 60x40mm

Worktops and all under-bench cabinets will be supported by this frame work. The under bench cabinets will be able to slide to create knee space as necessary.

The frame work will be de-greased and epoxy powder coated with the thickness of 80 - 90 microns for smooth finish and protection.

The profile ends will be covered and protected with injection molded ABS end-caps. Adjustable leveling jacks of tough plastic/nylon will be provided for each leg for the support of the frame

UNDERBENCH CABINETS

The Cabinet Body/Door/ Drawer Front/Shelves /Filler Panel etc. will be made of 18 (± 1) mm thick High pressures Melamine laminate boiled water proof plywood. The exposed edges of the doors/ drawers/ worktop etc. will be sealed with min. 3(± 1) mm thick high quality PVC edges. For strong bonding and durability, the lamination and edging will be machine pressed at high temperature and pressure.

For carcass, filler panel etc. The exposed edges will be sealed with 1 mm thick high quality PVC edge tapes. For strong bonding and durability, the lamination and edging should be machine pressed at high temperature and pressure.

- Knee space Panel will be made of High pressure laminated plywood (BWP) of 9 mm thick
- 5 mm thick for back wall of cabinets.
- For High Strength and Durability, Permanent case work will be made using latest technology such as biscuit joints with strong adhesives. The joinery construction with biscuit type joints will be clamped to obtain perfect alignment and permanent bonding. The Cabinet body will be made of permanent casework without any screws and knockdown / mini-fix fittings (mini fix and dowel joints not accepted), without any gaps for dust accumulation Inside of the cabinet body. All joints will be sealed and it should be easily cleanable.
- Doors of all under bench cabinets will have Full length extruded anodized aluminum grab rail which are epoxy powder coated to 80-90 micron thickness.
- There will be minimum of two heavy duty, nickel plated, self-closing concealed alloy hinges for each cabinet door and will open 165 degree and will be with 3 way adjustment for perfect finish and correct alignment.
- Standard Drawer slides will be metabox type, made of pressed metal, with profiling for added strength, epoxy coated and with nylon wheels to allow smooth and silent sliding.
- Where specified good quality locks and keys will be provided for cabinets
- The size and layout for benches, cabinets will be described in the specific requirement table. Cabinets have drawers as well as doors in different sizes.

ELECTRICAL FITTINGS

- **Pedestal box**
Sleek, Robust and Small Electrical pedestal boxes will be made of 1.2mm thick CRCA sheets to accommodate, single, double or quadruplet sockets and switches. The pedestal will take only very minimum space on the work table. The Pedestal boxes will be epoxy powder coated to min 80 microns for good finish and aesthetic look.
- **Electrical Sockets and switches**
Supply will be standard 6/16 Amp/220 Volt single, double or quadruplet electrical sockets which fully conforms to IS-1293-1988. Flame retardant, UV stabilized, unbreakable polycarbonate casing. Connector of phosphor bronze to provide high conductivity, flexibility and contact pressure. Silver plated (7 microns) brass terminals to reduce heating and improve conductivity. To be encased in metal pedestal box, for mounting on to bench work tops or on service pillars. Switches will be Piano type unless otherwise specified. Sockets can be either Crabtree, Legrand, Honeywell
- **Electrical wires**
The single core and multi core sheathed cables will be manufactured as per IS 694: 1990, these carry the prestigious ISI mark and duly approved by FIA/TAC. The conductors, drawn from 99.97% bright electrolytic grade copper with more than 100% conductivity, annealed and bunched together. The conductors will be insulated with a PVC compound with high insulation resistance and dielectric. Strength formulated and manufactured in-house. In case of multi core cables, the insulated cores will laid up to form the core assembly. The inner cores will be coded for ease of identification as per National/International coding practices. The sheathing will be provided with a specially formulated PVC compound to facilitate not only ease in stripping but also to withstand mechanical abrasion while in use. These PVC compounds used for insulation and sheathing have a high oxygen and temperature index. These properties help in restricting the spread of fire even at very high temperatures. The wires can be either Havells, Polycab, VGuard or Finolex.

WATER FITTINGS

- It will be made of brass (UNI 5705 -65) and will have an epoxide covering in White color. Fittings will be manufactured as per modern technologies & comply to DIN 12920 standards for the best performance.
- Connection: G3/8, G1/2 and G3/4 UNI ISO 228/1.

- Nozzle: olive type hose screw coupling DIN 12898.
- Upper part: with normal regulation closing on/off.
- Maximum working pressure: 10 Bar.
- Sound – control during the flow of the water: DIN 4109. All taps and mixers used in multi-occupancy properties have to comply emitted noise > 30 dB(A). Water standout fittings will be from TOF Italy. All connector fitting used under bench also will be high quality and closely sealed against any leaks.

SINKS

Where specified Sink provided will be chemical resistant made of Polypropylene. Have good sloping drain for easy drainage of waste water. It will be easy to maintain hygiene and will easily fit into work top with smooth edges and finish. The Sink will be a single molded piece including the outlet to avoid leakage and will not have any sharp corners inside. A anti siphon bottle trap in Polypropylene will be connected directly coupled to the threaded outlet at sink bottom. Sink color will be black.

SUCTION ARM

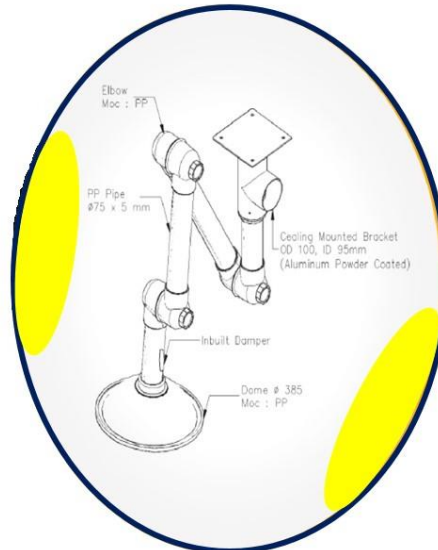


Fig 2 Suction Arm

It is to be provided as suspended from ceiling on work positions, with adjustable arms and suction cup. It will be made of high quality PP material along with inbuilt damper. It is used for localized extraction of fumes before spread into the surrounding area and spoils entire area. All suction arm will be connected to an exhaust system which having a sufficient capacity blower

MATERIAL SPECIFICATIONS OF PROPOSED FUME CUPBOARD

FUME CUPBOARD

The Fume cupboards will be installed and commissioned as per ASHRAE 110 – 1995.

<i>Model:</i>	<i>AEGIS</i>
Overall dimension with optional support frame:	1825mm W X 900mm D X 2400mm (H)
Upper body dimensions:	1825mm W X 900mm D X 1500mm (H)
Worktop dimensions:	1540mm W X 750mm D X 19mm (H)
Internal dimensions:	1540mm W X 675mm D X 1200mm (H)

S. No	Specification	Description
1	Model	Chemical Fume hood (1825 x 900 x 2400mm H)
2	Color Combination	Corner posts and front sash frame-Dark Grey(RAL 7012) & All other parts-light Grey (RAL 7035)
3	Powder coating	Pre-treated with 7 tank chemical processes and powder coated with highly chemical resistant epoxy Colors having dry film thickness of 70 to 80 microns.
4	Material of Construction of superstructure	GI steel sheets. 20 GAUGE thickness for all sheet metal paneling. Special reinforcement frame work provided for additional structural strength.
5	Corner Post	Triangular profiled Corner Post is placed on Left- and Right-Hand Side of the Fume hood. It houses the utility line fittings and electrical receptacles.
6	Construction (Interior)	Chemical & Heat Resistant, Fire Retardant, Smooth Finish, Easily Cleanable Panels Made out of compact laminate (6 mm thick). ASTM flame spread index < 25.
7	Baffle	Chemical& Heat Resistant, Fire Retardant, Smooth Finish, and Made out of compact laminate (6 mm thick). ASTM flame spread index < 25.
8	Airfoil	Aerodynamic Design, Horizontal fixed airfoil
9	Worktop	Chemical resistant splash & spillage proof dished <u>EPOXY</u> worktop (19±1 mm thick black colour). Skirting of 6 mm from all sides for no chemical spillage.

10	Sink, Water tap with drain arrangement	Worktop will have oval shaped drip cup 120mm X 260mm, with drainage with water outlet nozzle on right back side of worktop
11	Sash (Shutter)	Toughened glass sash (6mm thick). Vertical rising sash counter – balanced with pulley and counter-weight system. Smooth and light sash operation. Clear openable height = 750mm.
12	Wet & Dry Service valves	Remotely operated Color coded Brass Valves for fine control over utilities (as per DIN En 13792 norms) total 3 nos. (All on RHS) <ul style="list-style-type: none"> • 1 for WATER • 1 for NITROGEN • 1 for ARGON
13	Internal nozzles	Brass powder coated fittings. The taps are tapered in shape to use with flexible tubing to provide greater flexibility.
14	Lighting	Fluorescent light provided in separate protective sealed chamber
15	Electrical Utilities	2 x electrical sockets universal type
16	Support frame	Support frame of sections. <ul style="list-style-type: none"> • 40 x 40 x 1.6 mm thick.
17	Storage Base Cabinet	Base cabinet is made of epoxy powder coated 20gauge thick electro galvanized steel sheet
18	Level adjusting screws	Made of S.S Bolts to adjust the fume hood level by ± 10 mm.
19	Exhaust Collar	Aerodynamic exhaust collar design ensures that the fumes will be exhausted smoothly without any turbulence at the exhaust port.
20	Blower	Blower housing is of strong high density UV treated polypropylene for maximum corrosion resistance, the impeller is completely made of polypropylene with noise level less than 65 db. The performance shall be tested in accordance with AMCA 210-85 and ISO 5801. The motor shall be minimum of 1.1 KW, three phase, 380/440V and 1450 RPM from Plastifer Italy.

5. EMD/Tender fee exemption

- a) Earnest Money Deposit (EMD) is exempted in the following cases. If the tenderer comes in any of the following category, they should upload the scan copy of the relevant certificate counter signed by the tenderer in technical bid for EMD exemption.
- b) Micro, Small & Medium enterprises registered with the National Small Industries Corporation Limited, New Delhi and in respect of which competency certificates are issued by the Corporation will be exempted from payment of EMD.
- c) Kerala State Small Industries Development Corporation Ltd when it participates in tender on behalf of Small-Scale Units will be exempted from furnishing EMD.

6. ELIGIBILITY CRITERIA

1	Bidder should be, a Company registered in Kerala	Copy of valid Registration certificates / Copy of Certificates of incorporation
2	Average Turnover in the last 3 financial years must be not less than 50 lakhs	Attested Balance sheet proof to be attached.
3	Should not have been blacklisted by any of the Government entities under state / central Govt.	Self-Certificate
4	The bidder should have a registration number of <ol style="list-style-type: none">1. GST where his business is located2. Income tax / PAN number	Copies of relevant certificates of registration
5	The bidder should be a manufacturer / service partner of Advanced Chemical/Material Research lab equipment/furniture.	Copies of relevant documents
6	The bidder should have work orders from Government Institutes or Corporate R&D Work.	Copy of work order
7	Must have service authorization from OEM	Manufacturers Authorization Form (MAF)

7. SPECIAL CONDITIONS

- 1) The intended bidders can verify the proposed site and building (MGU Innovation Foundation building) between 10.15 am and 4.45 pm on all working days till the last date of submission of tender.
- 2) Quoted price in the BOQ should be inclusive of freight, loading & unloading / installation charges.
- 3) Quoted rates should have at least six months validity period.
- 4) The right to accept or reject the quotations without assigning any reason rests entirely with the undersigned.
- 5) The tender should be of branded quality products
- 6) If a negotiation meeting is convened by the undersigned, the authorized person of the firm should attend the meeting in time at their cost.
- 7) Payment process will be initiated either by satisfactory supply of the items and installation after receiving reports from the experts from the MGU Innovation Foundation or advance payment against equivalent amount of PBG.
- 8) If the date of receipt and opening of the tenders is declared a holiday, the same time of the next working day will be the last date and time for the purpose.

MG Innovation Foundation, Mahatma Gandhi University Campus

Mob: 9778429535 (CTO, MGUIF), Email. cto@mguif.com

Mob: 8078010009 (Purchase, MGUIF). Email. purchase@mguif.com

Note: Bidder must provide necessary supporting documents as proof in respect of the eligibility criteria mentioned above.

8. Acceptance period:

The Tender/Bid shall remain valid for acceptance for a period of 90 days from the date of opening of the Commercial/Price Bid. However in case of any delay due to genuine reasons, the validity period may be extended further for additional period of 30 days. If

any bidder withdraws his Technical Bid before the said period or makes any modification in the Price Bid or terms and conditions of the Tender/Bid, the MGU Innovation Foundation, without prejudice to any other right or remedy, will be at liberty to forfeit the whole of the earnest money.

9. Rates quoted by the Bidder:

Rates quoted by the bidder must include the cost of transportation of the items to the MGU Innovation Foundation, Supplying and laying Interlock tile to the surroundings work as per tender NIT. All necessary taxes and duties (GST should be shown separately) and no claim after submitting the Bid shall be entertained. Any other charges over the quoted rate shall clearly be indicated. The Bidder should have valid GST Registration, No alternations in tender forms shall be made by the Tenderer/ Bidder and if any such alteration is made, the tender is liable to be rejected.

10. Scrutiny of the Offers:

Tenderer/Bidder qualifies for participating in the tender process based on the pre-qualification conditions as stipulated in this tender. Offers from the Tenderers/Bidders not meeting the pre-qualification criteria specified will be summarily rejected.

The Part A (Technical Bid) of the Bidders shortlisted after stage (a) above will be subjected to the substantial responsiveness of each offer to the tender document. For purpose to these clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the Tender Document without material deviations. MGU Innovation Foundation's determination of an offer's responsiveness is to be based on the contents of the Tender itself. MGU Innovation Foundation will scrutinize the offer to determine whether the offer is complete, whether required technical details/documentation have been furnished, whether the documents have been properly signed, and whether the offer is in order. Substantially responsiveness of the technical offer in the tender will be decided based on the proposed solution. A tender offer determined as not substantially responsive will be rejected.

Part A (Technical Bid) of the eligible Bidders found technically meeting MGU Innovation Foundation's requirements will only be shortlisted for further processing. Offers not meeting technical requirements of MGU Innovation Foundation will be rejected.

Part B (Commercial/Price Bid) of Tenderers/Bidders short-listed after stage above will only be opened for further processing.

MGU Innovation Foundation reserves the right to alter and revise the technical specifications or the required quantity of the items at any point of time. In case of such alteration, the Vendor shall be duly notified.

11. Award Criteria:

Contract may be awarded to the Tenderer/Bidder whose technical proposal is responsive, cost-effective and meeting all the requirements of MGU Innovation Foundation and whose commercial/price bid has been determined to be lowest evaluated bid. After opening of the commercial/price bid of the short-listed Bidders, if there is a discrepancy between words and figures, the amount indicated in words will prevail. However, the Institute reserves the right to accept or reject any offer without assigning any reason whatsoever and no communication will be entertained in this regard. MGU Innovation Foundation also reserves the right to accept or reject any or all tenders either in whole or in part or to invite revised bids or to annul the bidding process at any time prior to finalization without incurring any liability to the affected Tenderer/Bidder. The Chairman, MGU Innovation Foundation does not bind himself to accept the lowest or any tender and reserves to himself the right of accepting the whole or any part of the tender and the Tenderer/Bidder shall be bound to perform the same at the rates quoted.

12. Delivery Schedule and Penalty for Delay:

Delivery schedule shall clearly be indicated in the quotation submitted by the supplier. Penalty at the rate of 0.5% or part thereof of the order value per week, subject to a maximum of 5% of the order value will be imposed for delayed delivery and installation.

13. Payments:

As Per MGU Innovation Foundation Payment Rules.

14. Income Tax:

Every Tenderer/Bidder shall furnish along with the Tender the latest Income Tax Clearance Certificate without which his/her tender is liable to be rejected. The Institute will deduct amount towards Tax Deducted at Source (TDS) as per the latest Income Tax Rules from all payments made to the supplier/contractor.

15. Termination of Contract:

MGU Innovation Foundation reserves its right to terminate the contract for any reason at its absolute discretion including, but not limited to the following: If the Vendor is adjudicated insolvent by a Competent Court of Law or files for insolvency or the Agency's Company is ordered to be wound up by a Competent Court.

Vendor commits any material breach of the terms of this contract with MGU Innovation Foundation or if found guilty of any malpractice in the performance of the Contract. iii) If any charge-sheet is filed by the Competent Authority of the Government against the Vendor is convicted by a criminal court on grounds of moral turpitude.

In the event of non-satisfactory service or failure on the part of the Vendor or if the Vendor shall neglect to execute the Contract with due diligence or expedition or shall refuse or neglect to comply with any reasonable order given to him by MGU Innovation Foundation in connection with the Projector shall contravene the provisions of the Contract, MGU Innovation Foundation shall have the option to terminate the Contract by giving one month notice and may get the procurement executed (either in part or in whole, as the case may be) by any alternate sources at the Vendor's risk and cost. In such an event the Vendor shall have no claims whatsoever against MGU Innovation Foundation in consequence of such termination of the contract. The decision of MGU Innovation Foundation in terminating the contract will be final and binding on the Vendor.

16. Force Majeure:

If either party is prevented from the performance of its obligations in whole or in part for reasons of Force Majeure, viz., acts of God, acts of Government, acts of public enemy, war, hostility, civil commotion, blockade, sabotages, riots, fire, floods, earthquake, explosions, epidemics, strike and lawful lockout, the period of Force Majeure shall be excluded accordingly. If Force Majeure event(s) continue beyond the period of three months, the parties shall hold consultation to chalk out the further course of action. Neither party can claim any compensation from the other party on account of Force Majeure.

17. Conciliation:

Any dispute or difference whatsoever arising between the parties relating to or arising out of Contract, shall be settled first by Conciliation in accordance with the Govt. Rules and settlement so rendered between the parties in pursuance thereof shall be final and binding on the parties. Reference to Arbitration shall be made only when the Conciliation has failed.

18. Other Conditions:

Canvassing by the bidders in any form or influencing the bidding process in any manner will render the bidder disqualified. MG University Innovation foundation reserves the right to annul the entire bidding process and/or reject all bids at any time prior to award of contract without incurring any liability to the affected bidders or any obligation to inform the affected bidders of the grounds for such decision.

Vendors are to abide by all the Terms and Conditions detailed above. In case these terms and conditions are not acceptable to any Tenderer/ Bidder, he/she should clearly specify the deviations in his/her tender. MG University Innovation foundation reserves the right to accept or to reject them. In case of any dispute, the decision of the Chairman of the MGUIF shall be final and binding on all the parties. MG University Innovation Foundation will not be liable for non-receipt of the Tender in time due to any reason.

19. Site visit

Every Tenderer/ Bidder is expected to inspect the site, conduct a site survey, to understand the requirement, at his own cost before quoting. The bidder must also go through all the terms and conditions as stipulated in the documents. It will be construed that the Vendor has inspected the site, conducted the required site survey and satisfied himself about the requirements, site conditions, availability of materials and other relevant matters and the quoted rates shall hold good in all conditions.

The bidders are advised to submit their bid well in advance to avoid any kind of network problems. The under signed reserves the right to reject any or all of the tenders without assigning any reason whatsoever.

Sd/-

**Chairman, & Managing Director
MGU Innovation Foundation**