

UNIVERSITY OF MADRAS
TENDER DOCUMENT

**TENDER TERMS AND GENERAL CONDITIONS WITH
SPECIFICATIONS/CONFIGURATIONS TO BE ABIDED BY THE TENDERERS :**

01. INTRODUCTION:

The Tender is given in accordance with the Tamil Nadu Transparency in Tenders Act 1998 and Rules 2000 as amended from time to time.

A.	Tender Ref. No.GCCO/A4/Dr.TP/NRB/NCNSNT/2017/	Dated: -----2017
B.	Designation and Address of the Tender Inviting Authority	The REGISTRAR, University of Madras, Centenary Building, Chepauk, Chennai – 600 005.
C.	Nature of work to be carried out as per specifications/configurations furnished in Annexure-I Technical Bid and Annexure-II Commercial Bid	Tender for the supply and installation of ‘Solar Simulator’ to Dr.T.Prakash, P.I., Assistant Professor, National Centre for Nanoscience and Nanotechnology, Guindy Campus, University of Madras
D.	Supply/work to be carried out at	The Office of the Registrar, University of Madras, Chepauk Campus, Chennai-600 025
E.	Total Value of the Contract	Rs.15,00,000/-
F.	Cost of Earnest Money Deposit (EMD) to be paid	The EMD amount of Rs.15,000/- should be remitted by way of Demand Draft drawn in favour of The Registrar, University of Madras and enclosed in the Sealed Technical Bid Cover
G.	Cost of Tender Document and C.T.O. Charges to be paid	The amount should be remitted Separately for cost of tender Document for Rs.6,000/- by way of DD drawn in favour of The Registrar, University of Madras and C.T.O charges for Rs.240 /- by way of DD drawn in favour of “The Asst. Commissioner, CTO, Chepauk Assessment Circle, Chennai-6” .
H.	Tender Documents (i.e.Tender Form contains the detailed particulars and other Tender conditions) available at	The Registrar’s Secretariat, University of Madras, Centenary Building, Chepauk, Chennai – 600 005 From 29.06. 2017 between 10-00 A.M. and 5-00 P.M.
I.	Last date & time for Issue of Tender at the University	18.07.2017 upto 5-P.M.
J.	Last date & time for Submission of Tender	19.07.2017 upto 2.00 P.M. at The Registrar’s Secretariat, University of Madras, Centenary Building, Chepauk, Chennai – 600 005
K.	Date, Time & Venue of Opening of Tender	19.07.2017 at 3.00 P.M. at the Director’s Chamber, University of Madras, Guindy Campus, Chennai-600 025.
L.	Procedure for submission of Tender by way of	TWO COVER SYSTEM SEALED COVER-1 – TECHNICAL BID COVER Contains Demand Drafts and details of the Tenderer’s capability to undertake the Tender SEALED COVER-2 – COMMERCIAL BID COVER Contains Price Qtn. as per specifications/configs. of Item/s Both the Sealed Covers - 1 & 2 shall be put in a Separate Big Size OUTER SEALED COVER-3 All the Three Sealed Covers shall be superscribed as “TENDER FOR SUPPLY OF “Solar Simulator”
	Name of the dealing Section	A - 4 Section, Central Office, Guindy Campus, University of Chennai – 600 025 - Phone: 044 – 2220 2703
M.	Tender shall be downloaded through website : www.unom.ac.in	

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02. GENERAL INSTRUCTIONS:

The Tender Inviting Authority reserves the right to cancel in full or part of the tender of any item without assigning any reason there for at any time. Any reasons for not complying the contract furnished by the tenderer shall not be entertained and any failure will be construed as breach of contract and the name of the company will be recommended for listing them under “Blacklisted”. The Tenderer should not have been blacklisted or debarred by any of the Organizations for their deficiency of service in complying the orders entrusted to them (Declaration to this effect is to be furnished). The Tenderer shall bear all costs associated with the preparation and submission of this Tender. The Tender Inviting Authority may amend the tender wherever it is felt that such an amendment is absolutely necessary. Any amendment to the tender will be uploaded on the website – www.unom.ac.in. It is the responsibility of the tenderer to verify the amendments, if any. Additional terms and conditions will be incorporated in the Purchase/Supply/Work order, if needed, to safeguard the interests of the University. The Tender document is not transferable under any circumstances. **The Tenderer shall put their signature and affix Company Seal on all pages of this Tender Document without fail and submit the same along with the Annexure-1 through Sealed Cover-1 – Technical Bid after taking a photo copy for the purpose of Tenderer’s reference.**

03. ELIGIBILITY CRITERIA :

The University will consider the Commercial Bid of the vendors ONLY those who qualify as per Technical Bid / Terms and Conditions of the Tender Document. The Vendors who are not qualified in the Technical Bid and who are not following the Terms and Conditions of the Tender Document, the Commercial Bid of such Vendors will summarily be rejected. The Tenderers should provide all documentary evidences in support of fulfilling the **Eligibility Criteria** as stipulated in the Technical Bid of the Tender Document while submitting the Sealed Technical Bid Cover.

04. TENDER COST AND C.T.O. CHARGES :

On the submission of Demand Drafts obtained towards Tender Cost and the CTO Charges as mentioned above along with Requisition letter, Tender Document shall be received in person from the Director’s Chamber, University of Madras, Guindy Campus, Chennai-600 025.

05. EARNEST MONEY DEPOSIT :

The Tenderer should submit Earnest Money Deposit (EMD) as prescribed in the Tender Notification along with the Technical Bid by way Demand Draft obtained from any Nationalized / Scheduled Bank and drawn in favour of “The Registrar, University of Madras” payable at Chennai. Any Tender without the EMD will be considered as NON-RESPONSIVE and will be SUMMARILY REJECTED. Upon submitting the Security Deposit by the successful tenderer/s and upon signing the Agreement, the EMD will be returned to the unsuccessful tenderer/s within a reasonable time period. No interest will be paid on the EMD. Earnest Money Deposit of the successful Tenderer/s will be returned only after the successful completion of the warranty period of the items supplied as mentioned in the purchase/supply/work order, subject to the satisfaction of the University.

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As per the Tamil Nadu Transparency in Tenders Act 1998 and Rules 2000, the Small Scale Industrial (SSI) Units registered with Tamil Nadu Small Industries Development Corporation (SIDCO) or National Small Industries Corporation (NSIC) in respect of those items for which the Registration Certificate has been obtained in respect of tenders called for by Government Departments, State Owned Public Sector Undertakings, Statutory Boards, Local Bodies and Co-operatives are granted exemption from the payment of Earnest Money Deposit.

06. FORFEITURE OF EARNEST MONEY DEPOSIT :

The EMD is liable to be forfeited if :

- (a) The tenderer withdraw his tender at any stage after the last date and time fixed for submitting the tender.
- (b) The tenderer on becoming successful, fails to furnish the required Security Deposit or Sign the Agreement, within the stipulated time limit.
- (c) The successful Tenderer fails to abide by the tender conditions or withdraws after his tender has been accepted, his Earnest Money Deposit will be forfeited.
- (d) The successful Tenderer shall not assign or make over the contract, the benefit of burden thereof to any other person or persons or body corporate. [
- (e) The successful Tenderer shall not underlet or sublet to any person(s) or body corporate for executing the contract or any part thereof, his EMD will be forfeited.

07. QUOTING RATE DETAILS:

- a. The Tenders should contain particulars like name and addresses of the Tenderers, net rate including excise duty, custom duty, surcharge, clearing and forwarding charges, sales tax, freight, octroi, insurance for delivery, delivering upto the point installation and commission of the equipment and such other levies and custom duty if applicable that may be applicable.
- b. The rates should be kept firm for 120 days from the date of the opening of the Tenders for acceptance.
- c. The rate should be quoted for the item/s with specifications/configurations, if applicable and should be indicated clearly both in words and figures. Any scoring or overwriting should be attested by the Tenderer with full signature. The rate quoted should be firm and should not be subject to any variation clauses.
- d. The University shall not pay any increase in duties, taxes and surcharges on account of any revision by the Government at the time of supply / issue of work order.

08. TWO-COVER SYSTEM :

Sealed Tenders are invited under Two-cover system by the Registrar, University of Madras from the reputed Firms / Supplier for the supply of the said item/s, as per the specifications/configurations prescribed. "Two-Cover System" means a procedure under which the tenderers are required to simultaneously submit two separate sealed covers, "Sealed Cover-1 – Technical Bid" containing the Earnest Money Deposit (EMD) and the details of their capability to undertake/the supply of the tender which will be opened first and the "Sealed Cover-2 – Commercial Bid" containing the price quotation which will be opened only if the tenderer is found qualified to execute the Tender. Tender submitted without following Two-Cover System procedure as mentioned above would be summarily rejected. The above said SEALED COVER-1 and SEALED COVER-2 shall be put together in a Separate big size Outer Sealed Cover.

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09. SUPERScription :

This Tender is based on Two-Cover Systems that is Technical Bid and Commercial Bid. Therefore the tender shall be submitted in two parts viz. Cover-1 and Cover-2.

Each cover shall be superscribed as follows :

“SEALED COVER-1 – TECHNICAL BID - TENDER FOR SUPPLY OF

.....
shall contain the following enclosures as per the sequence indicated below :

- a. Earnest Money Deposit (EMD) Amount by way of Demand Draft drawn in favour of the Registrar, University of Madras payable at Chennai.
- b. Duly filled in Technical Bid as per Annexure – I.
- c. Copies of proof of evidence as sought in the Technical Bid shall be attached
- d. Specimen copy if any, as per the specifications/configurations prescribed in the ANNEXURE-II shall be attached
- e. The Tender Document (all Pages) duly signed and stamped as proof of having read the contents therein and in acceptance thereof should be attached.

“SEALED COVER-2 – COMMERCIAL BID - TENDER FOR SUPPLY OF

.....
shall contain the Commercial Bid as per the format given in ANNEXURE-II. The Tenderer should quote the Net Rate. The net rate must be inclusive of all charges by way of packing, forwarding, incidental of transit charge including Transit Insurance and any other duties, Levis, Charges etc. The tenderer shall not carry out any alteration in the format prescribed for Commercial Bid. The tenderer shall not enclose any other document or statement that will influence the price. In such an event, the tender inviting authority shall summarily reject the tender.

The above said SEALED COVER-1 and SEALED COVER-2 shall be put together in a Separate big size Sealed Cover that is called OUTER SEALED COVER-3 and shall be superscribed as “TENDER FOR SUPPLY OF

After following this procedure, the big size Outer Sealed Cover-3 shall be handed over to the Registrar’s Secretariat, University of Madras, Centenary Building, Chepauk, Chennai-600 005 on or before the last date and time as given in the Tender Notification.

10. MODE OF DESPATCH / SUBMISSION OF SEALED COVERS :

A big size OUTER SEALED COVER (containing “SEALED COVER-1 – TECHNICAL BID COVER - TENDER FOR SUPPLY OF and “SEALED COVER-2 – COMMERCIAL BID COVER - TENDER FOR SUPPLY OF” shall be superscribed as “TENDER FOR SUPPLY OF

The big size Outer Sealed Cover-3 should be reached to the Registrar, University of Madras, Centenary Building, Chepauk, Chennai-600 005, on or before the last date and time as given in the Tender Notification, by Registered Post with Acknowledgement due or in person. The Tender inviting authority shall not be responsible for any postal delay in receipt of the tender. Delayed / Late Bids will not be accepted under any circumstances. Closing the cover by gum / cello tape will not be treated as Sealed Cover. **The Technical Bid Cover; Commercial Bid Cover and the big size Outer Cover should bear the Round Seal or facsimile of the Tenderer / Wax Seal properly fixed on all the opening side/places of the cover in addition to the affixing of the Tenderer’s from address stamp, pending which the bids will not be opened and summarily rejected.**

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11. DUE DATE AND TIME FOR ISSUE / SUBMISSION OF TENDER :

Tender documents can be obtained from Director's Chamber, University of Madras, Guindy Campus, Chennai-600 025 upto the closing date for submission of Tender Document as mentioned in the Tender Notification under valid reasons. The Tender Document duly filled-in and signed on all pages shall be submitted as per the procedure laid down herein in a big size Outer Sealed Cover. The contains Tender cost and CTO Charges to be paid along with Requisition letter to issue the tender document within the date and time as prescribed in the Tender Notification. The Tender can be submitted on all working days upto the prescribed closing date and time. In the event of the closing date is being declared as a holiday, the tenders can be submitted upto the fixed time on the following next working day. The Tender inviting authority will not be held responsible for any delay in the receipt of the Bank Draft or any delay in the receipt of the document by the Tenderer including loss of the document in transit or delay in obtaining any document / certificate or on any other account. No extension of the date and time for the submission of the document will be given for any such delay. The Tender inviting authority may extend the due date for submission of tender by issuing an amendment in which case all the rights and obligations of the Tender Inviting Authority and the Tenderers previously subject to the original due date for submission will then be subject to the new date for submission. Any Tender received after the due date and time will not be considered and will be returned to the Tenderer and no communication in this regard shall be entertained.

12. ACCEPTANCE AND WITHDRAWALS :

The final acceptance of the tender is entirely vested with University which reserves the right to accept or reject any or all the tenders without assigning any reason whatsoever. There is no obligation on the part of the University to communicate with rejected Tenderers. After acceptance of the tender by the University, the Tenderer shall have no right to withdraw his Tender of claim higher price. The Tenders with incomplete information will be summarily rejected.

13. OPENING OF TENDERS :

The big size OUTER SEALED COVER-3 of the tenders received within the stipulated time & date will be opened by the Registrar, or any other Officer/Committee authorized by him on his behalf on the opening date and time in the presence of those Tenderers or their representatives with bonafide certificate who may be present at the time of opening. Immediately, the "SEALED COVER-1 – Technical Bid" which is found in the big size OUTER SEALED COVER-3 of the Tenderer concerned, will also be opened and the names of tenderers who have enclosed the EMD will be read out including any other conditions if necessary. The Sealed Cover-2 – Commercial Bid of those technically qualified alone will be opened in the Director's Chamber, University of Madras, Guindy Campus, Chennai-600 025 on a specified time and date of opening intimated. The tenderers who desire to participate may be present at that occasion. The rate quoted in the tender by the Tenderer will remain unchanged till the finalization of the contract. Any subsequent change of rate after opening of tender shall not be entertained.

14. AWARD OF THE TENDER :

The award of the Tender shall be made strictly in accordance with the "Tamil Nadu Transparency in Tenders Act 1998 and Rules 2000" and no deviation will be made. Notwithstanding anything that is said herein, the Tender Accepting Authority reserves the right to accept or reject any tender and to cancel the tendering process and reject all tenders at any time prior to the award of tender, without thereby incurring any liability to the affected tenderer/s on the grounds for the tender accepting authority's action. The tenderer whose tender has been accepted will be intimated by the Tender Accepting Authority in an usual manner.

15. SECURITY DEPOSIT:

- a. The successful Tenderer will be required to remit the **Security Deposit equivalent to 5% of the Total Value of the Contract within TEN days from the date of receipt of Communication / intimating them of the acceptance of the Tenders.** The Purchase/Supply/Work order will be released after execution of the above contract between The Registrar, University of Madras and the successful Tenderer and after remitting the Security Deposit by way of Demand Draft drawn in favour of “The Registrar, University of Madras, payable at Chennai”.

(OR)

- b. The Successful Tenderer can submit a **Bank Guarantee to the tune of 10% of the Total Value of the Contract within TEN days from the date of receipt of Communication / intimating them of the acceptance of the Tenders.** The Purchase/Supply/Work order will be released after execution of the above contract between The Registrar, University of Madras and the successful Tenderer and after submitting the Bank Guarantee drawn in favour of “The Registrar, University of Madras”. **The Bank Guarantee shall be covered for the Warranty period.**
- c. In the case of successful Tenderer, the Earnest Money Deposit already remitted shall not be adjusted towards Security Deposit to be remitted by the Tenderer. If the accepted Tenderer fails to remit the Security Deposit within the above said period, the Earnest Money Deposit remitted by him will be forfeited to the University of Madras and his tender will be held void and the Tender accepting authority shall continue the process with other responsive tenderers as per the Tamil Nadu Transparency in Tenders Act 1998 and Rules 2000. The tender inviting authority also reserves the right to take any other action as deemed necessary against such tenderer. No interest will be paid on the Security Deposit.
- d. The Security Deposit furnished by the Tenderer in respect of the Tender will not be returned to the Tenderer till the successful completion of the end of the *warranty period* subject to the satisfaction of the University.
- e. If the successful Tenderer fails to act according to the Tender conditions or back out when his Tender is accepted, his Security Deposit mentioned above will be forfeited to the University.

16. AGREEMENT:

The successful tenderer should **submit Rs.100/- Stamp Paper and the Security Deposit within TEN Days from the date of acceptance of the tender,** for the fulfillment of the contract for executing the Agreement between the Registrar, University of Madras and the Successful Tenderer. The period for the Agreement of Contract will be as per the Warranty period specified in the Tender Document. The agreement should be executed before getting the Purchase/Supply/Work Order from the University.

The expenses incidental to the execution of agreement shall be borne by the successful Tenderer. The Terms and conditions etc. stipulated in the Tender Document / Agreement should be strictly adhered to and violation of any of them will entail termination of the contract without prejudice to the rights of the University and recovery of any consequential loss from the successful Tenderer.

17. TIME AND SUPPLY :

The successful Tenderer should supply the ITEM/S as per the specifications/configurations mentioned in the Annexure-I (Technical Bid) & Annexure-II (Commercial Bid) of the Tender Document and also according to the supply / installation schedule as specified in the Tender Document/Agreement of Contract/Printing order/Work order. This should be adhered strictly. The Quantity given in the Commercial Bid is approximate and it may likely to vary. If any defects are found in the supply, the same will have to be rectified or replaced free of cost by the successful tenderer. If the supply of the items are not given effect before the specified period, the University shall have the authority to cancel the order and to take any such action which will be deemed fit in the circumstances. In case of failure by the successful tenderer to deliver the items demanded from them within the period specified for delivery or in case of items being delivered without a correct invoice in duplicate, the Registrar or anyone duly authorized by him shall have power to reject any such items delivered or not delivered unless the supplier shall themselves forthwith supply others that shall be sufficient and satisfactory and any excess of cost so incurred by the Tenderer over and above the value of the contract together with all charges and expenses attending the purchase shall be recoverable by the University from the Supplier/Tenderer. The University reserves the right to repudiate the contract and entrust the work to any other third party/agency in the event of any breach of terms and conditions of Tender Document / Agreement of contract committed by the Tenderer or failure to perform to contract in part or whole or by any neglect of instructions of the University by the Tenderer and any additional expenditure that may be incurred by the above process shall be recovered from the Tenderer apart from claiming any damages or any loss to the University, besides forfeiture of EMD/Security Deposit/Bank Guarantee in full. The Tenderer should deliver the items only at the specified premises of the University of Madras **within THIRTY days from the award of contract.**

18. CONTRACT / WARRANTY PERIOD :

The Contract period shall be **ONE YEAR** with effect from the date of approval of the Syndicate / issue of Work order.

and / OR

The Warranty period shall be at least **THREE YEARS** with effect from the date of completion of the supply/installation of the item/s – i.e. Hardware / Software / Materials/Equipment, etc. **Annual maintenance contract shall be TWO years after completing warranty period.**

19. PENALTY FOR NON-FULFILMENT OF CONDITIONS:

The Supplier shall agree that the **penalty at 1%** of the Purchase/Supply/Work order shall be imposed by the Purchaser if necessary, **for each week of delay** in delivery with reference to the delivery period given if the supplier fails to deliver the same within the specified period mentioned in the Purchase/Supply/Work order to **maximum extent of 5%**, subject to force majeure conditions. Besides, such performance may entail black listing of the supplier. The supplier shall also agree that in the event of non fulfilment or non-observance of any of the conditions stipulated in the Tender conditions, the Supplier shall pay as penalty an amount equivalent to **10% of the total value of contract** or an amount equal to the actual loss incurred by the purchaser. This provision applies up to the end of the life cycle of the equipments (i.e.) even during the post warranty period.

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20. PAYMENT OF COSTS:

- A. No payment shall be made in advance** for the supply of items i.e. Hardware / Software / Materials/Equipment, etc. However, the decision of the University authorities shall be the final.
- B. 90% of the total value of the Contract against Bill/Invoice shall be released only after completion of the contract work or supply as per purchase/supply/work order and fulfilling the Tender specifications/configurations based on the (1) Engineers' Report or (2) Report of the appropriate Committee constituted by the authorities or (3) Test Reports of the Govt. approved firms.** Payment shall be made directly to the supplier only by way of Account Payee Cheque after making proper stock entries / verification / good certification / approval of the authorities concerned / deducting 2% Income Tax.
- C. The Balance 10% of the total value of the Contract shall be retained as performance guarantee which shall be paid after the successful completion of (a) 100% usage in the case of Consumable items and (b) WARRANTY Period in the case of other than Consumable items.** Alternatively, if the supplier gives irrevocable Bank guarantee in lieu of the balance 10% of the Retention Amount during the warranty period, the University shall reserve the Rights to accept the same. In the case of consumable items, if any damages/page missing/over-printing are found later i.e. after the release of 10% of balance amount from the University/Warranty Period, the successful Tenderers should rectify/replace such items especially in the case of printing and supply of Books at free of cost without any financial commitment on the part of the University.
- D. Percentage of payment to be withheld for the effective performance of the contract, provided that withheld amounts do not exceed 10% of the total value of contract for the supply of items i.e. Hardware / Software / Materials, Equipments, etc.”**
- E. Advance Payment shall be made in case where goods, commodities, apparatuses, etc., are procured through imports requiring opening of Letter of Credit.**

21. TENDER EVALUATION:

The Tender Inviting Authority shall have the power to constitute Tender Scrutiny Committee for evaluation of Tender as per Tender document and it shall furnish the evaluation as per tender specifications/configurations contained in the tender condition.

22. DISPUTES AND JURISDICTION :

In case of any dispute arising out of any breach of contract pertaining to this tender, the matter will be referred to an Arbitrator under Arbitration and Conciliation Act 1996” The arbitration shall be held in the City of Chennai only and the court at Chennai only shall have jurisdiction in relation thereto.

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23. OTHERS :

The Tender Inviting Authority shall have the power to make any changes/additions in the Terms and Conditions without consultation with the Firm/Supplier. The tenderers while sending their tender should enclose this Tender Document also duly signed in all pages with Seal as a token of accepting this **TENDER TERMS AND CONDITIONS WITH SPECIFICATIONS TO BE ABIDED BY THE TENDERERS that they understood and accepted them in full. Tenders received without this Tender Document shall be rejected summarily.**

DECLARATION FOR UNDERTAKING THE TENDER

Having gone through / examined carefully the Terms and Conditions with Specifications/Configurations of the Tender Document, I/We hereby undertake to provide the items described in the tender schedules as per the Specifications/Configurations prescribed and at the rates entered in the attached schedule or at the rates to be approved by the University after negotiation.

I/We do hereby undertake to deliver the materials within the time specified by the authorities of the University.

OFFICE SEAL

SIGNATURE OF THE TENDERER

WITH DATE

NAME

DESIGNATION

**UNIVERSITY OF MADRAS
TENDER DOCUMENT
TECHNICAL BID**

TENDER for the supply and installation of				
SPECIFICATIONS / CONFIGURATIONS PRESCRIBED BY THE UNIVERSITY TO BE ABIDED BY THE TENDERERS :				
Sl. No.	ITEMS	SPECIFICATIONS/CONFIGURATIONS	No. of Qty	Approximate Total Cost

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Contd.....ANNEXURE – I

Specify the name of item to be supplied and installed as per the Specifications / Configurations prescribed by the University		
01.	Name of the Bidder / Organization	
02.	Nature of the Organization Whether Govt. / Public / Private / Partnership / Proprietorship	
03.	Address of the Registered Office of the Bidder	
04.	Contact Details of the Bidder	Phone No.
		Fax
		E-Mail
		Contact Person Name
		Mobile No.
05.	Name of Proprietor / Director of the Firm / Agency	
06.	Location of the factory with address	
07.	Bidder's Bank and its address and his Current Account No.	The Tenderers should submit the latest three year's Income Tax and Commercial Tax duly certified by the Chartered Accountant. YES or NO Enclosed vide Page No. From.....To.....
08.	Year of Establishment in the said business / Registration and incorporation particulars of the bidder indicating legal status such as company, partnership / proprietorship concern etc.	Whether copies of relevant documents are attached YES or NO Enclosed vide Page No. From.....To.....
09.	Tenderer should have a minimum Annual turnover (a) <u>TEN TIMES in the approximate total value of the contract</u> if exceeds Rupees Ten Lakh and (b) FIVE TIMES in the approximate total value of the contract if fixed between Rupees Two Lakh and 10 Lakh	Whether Proof of Evidence (I.T) for the Annual Turnover Certificate for the Last Three Years in the related field of business duly certified by the Chartered Accountant with Seal is attached YES or NO Enclosed vide Page No. From..... To.....
10.	Whether Copies of Permanent Account No. (PAN) / Income Tax Certificate of the Bidder enclosed	Whether copies of relevant documents are attached YES or NO Enclosed vide Page No. From..... To.....

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11.	TNGST / CST / VAT / Excise Duty / TIN etc. Registration No. details	Whether copies of relevant documents are attached YES or NO Enclosed vide Page No. From..... To.....
12.	Proof of experience in supplying the item based things to Govt. Depts./Universities etc.	Copies of Work Orders received from Govt. Depts. / Universities/Publications during the last three years should be attached YES or NO Enclosed vide Page No. From..... To.....
13.	The Tender Document (all Pages) duly signed and stamped as proof of having read the contents therein and in acceptance thereof should be enclosed	Whether Tender Document (all Pages) duly signed and stamped by the Bidder is attached YES or NO Enclosed vide Page No. From..... To.....
14	Maintenance and Service Centre facilities in Chennai city / other areas and total number of Service Engineers available	
15	Names of the Government Agencies / Educational Institutions to whom similar Items have been supplied in the preceding One year	
16	Total Experience in the related areas	
17	Is your Company an original manufacturer of the equipments and related items? If yes, state the specific items you Manufacture	
18	What type of maintenance support does your company provide for spares.	
19	What are your conditions for upgradation of the supplied items after the warranty period?	
20	In case of breakdown of the supplied items, what will be the mean Downtime? And state whether standby systems will be provided	

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21	State the minimum amount of time required to supply the items, if your Company/ Organization gets the order			
22	State whether you will agree to supply the manuals Drivers for items supplied.			
23	EMD PAYMENT PARTICULARS [The DD should be enclosed along with the Technical Bid Cover only] (1) Number of Demand Drafts enclosed : (2) Demand draft particulars			
	Sl.No	Name of the Bank Branch	DD No. and date	Amount (in
Total Amount				

ADDITIONAL TERMS AND CONDITIONS FOR TECHNICAL BID TO BE ABIDED ALONG WITH GENERAL CONDITIONS AS PRESCRIBED IN THE TENDER DOCUMENT, IF APPLICABLE :

1. CUSTOMS CLEARANCE:

After arrival of the goods at Chennai Airport, Indian agent or Indian subsidiary of the principal firm is solely responsible for getting the material clearance from customs. University will provide needed custom documents for custom clearance on the demand of agent/Firm. Transportation from Chennai Airport to University of Madras, Guindy Campus is also the responsibility of authorized agent. All charges/ expenses incurred in this process will not be reimbursed to the firm. Please note that the freight forwarder or clearing agent should be approved by IATA. **NO DEMURRAGE / WHARFAGE CHARGES WILL BE PAYABLE BY THE UNIVERSITY UNDER ANY CIRCUMSTANCES. NO ADVANCE PAYMENT WILL BE PAYABLE FOR CUSTOM CLEARANCE/ FREIGHT / INSURANCE ETC.** The certificate to this effect will also be provided that the rates charged are as per IATA, FIATA and does not contain any item other than ordered by the University.

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2. EXEMPTION OF CUSTOMS DUTY AND EXCISE DUTY:

The University of Madras being a Research oriented higher education institution is exempted from paying Excise duty and Customs duty / Concessional Customs Duty. The supplier shall therefore obtain Exemption Certificate from the University, issued by the Government of India, before clearing the consignment.

3. SUPPLY AND INSTALLATION OF EQUIPMENTS

- a. The supply and installation of equipments and other accessories should be made strictly in accordance with the specifications/configurations given in the Commercial Bid and should successfully fulfill the tests carried out by the University. The supply and installation should be as per the delivery schedule to be sent by the University along with the placement of firm orders. The successful Tenderer should give guarantee for a period of **THREE YEARS** for the equipment and other accessories installed, against breakage or breakdowns due to manufacturing defects. The guarantee period takes effect from the date of satisfactory trial run. The Tenderer shall be liable to make good the loss by replacing the equipment or other accessories found defective during the guarantee period. The equipment hardware should be installed in the premises of the University at the cost and risk of the Tenderer.
- b. The material or goods are to be guaranteed for a period of three-years after installation and commissioning against manufacturing defect and bad workmanship. The warranty period specified, will commence from the date of handing over the equipment after running and carrying out successfully the tests prescribed by the University to its satisfaction.
- c. Documents such as operation manuals, user manuals and circuit diagrams and other relevant materials shall be provided by the Tenderer along with equipment, free of cost.
- d. If the supply, installation and commissioning of the systems are not effected before the specified period from the date of purchase order, the University shall have the authority to cancel the order and to take any such action which will be deemed fit in the circumstances
- e. If any manufacturing or other technical defects are found within the specified months from the date of installation, commissioning and handing over the system to the University Authorities, the same will have to be rectified or replaced free of cost by the supplier.
- f. During the warranty period, if due to manufacturing and other technical defects of the equipment supplied, the system is down and if it is not restored in working condition within 24 hours, the supplier shall be liable for a penalty of one percent per week during breakdown period on the total contract price.
- g. The warranty will cover all the materials and goods supplied by the supplier under this contract irrespective of the fact whether these have been manufactured by the supplier or not.
- h. In case of failure by the Tenderer to deliver goods or materials demanded from them within the period specified for delivery or in case of goods or materials being delivered without a correct invoice in duplicate, the Registrar or anyone duly authorized by him shall have power to reject any such goods or materials so rejected or not delivered unless the supplier shall themselves forthwith supply others that shall be sufficient and satisfactory and any excess of cost so incurred by the Tenderer over the contract price together with all charges and expenses attending the purchase shall be recoverable by the University from the supplier.
- i. The successful Tenderer shall supply licensed versions of the equipment systems. The University will not be held responsible for any consequences arising of patent right problems.

SIGNATURE OF THE TENDERER WITH SEAL

Contd.....ANNEXURE - I

- j. The equipment should be demonstrated to the representatives of the Specifications Committee before shipment is effected. Necessary travel and other costs for two experts to visit the supplier's facility and inspect the equipment marked for the university before its shipment **will be met by the supplier.**

4. POST WARRANTY:

The life cycle for normal performance of Equipment is 3 years. The post warranty Annual Maintenance Charges (AMC) is applicable for the remaining period of the life cycle after the satisfactory completion of the warranty period offered by the vendor. The Annual Maintenance Charges is agreed to Rs. at the rate of% per annum of the basic price of the purchased item/s.

The AMC payable from the date of completion of warranty in advance against invoices/bill to be preferred by the vendor. The vendor agrees to provide comprehensive maintenance of the Equipment, which shall include preventive maintenance and corrective maintenance at the location specified by the University. The maintenance shall also include replacement of all parts of equipments. The equipment which is down should be restored in good working condition within 48 hours. Otherwise the supplier shall be liable for a penalty of 1% per week of the breakdown period on the total price of the system. The Department reserves the right to terminate the maintenance contract in the event of unsatisfactory maintenance and claim damages for non-fulfillment of contract.

5. BENCHMARK TESTS:

The tenderer should submit the systems for benchmark tests when prescribed after short listing. The supplier who should submit the certified benchmark results along with listing and output for evaluation will conduct the test. The supplier should prove the benchmark results after installation.

6. TRAINING:

The supplier shall undertake to train adequate number of persons from the University free of cost at the premises of the University on the operation and use of equipments as per the training schedule to be worked out by the mutual agreement prescribed by the supplier.

SIGNATURE OF THE TENDERER WITH SEAL

ANNEXURE - II

**UNIVERSITY OF MADRAS
TENDER DOCUMENT**

COMMERCIAL BID

TENDER for the supply and installation of				
SPECIFICATIONS / CONFIGURATIONS PRESCRIBED BY THE UNIVERSITY TO BE ABIDED BY THE TENDERERS :				
Sl. No.	ITEMS	SPECIFICATIONS/CONFIGURATIONS	No. of Qty	Approximate Total Cost
01.				

SIGNATURE OF THE TENDERER WITH SEAL

Contd.....ANNEXURE - II

Specify the name of item to be supplied and installed as per the Specifications / Configurations prescribed by the University					
S.No	Description	Qty.	Unit Rate Rs.	Total Amount inclusive of all Taxes	
				Rs.	P.

Warranty Period should be clearly mentioned months

A]

1. Please indicate the Annual. Maintenance Charges per annum on the basic price of Equipments, excise duty, sales tax, etc., year wise for the remaining period of 5 years life cycle after warranty period.
2. Indicate the location of service centre, address with phone / fax numbers.
3. Indicate No. of Service Engineers available.
4. Minimum Time required for contact and Service

B]

- a. Please indicate the maximum number of persons you can offer training in the operations of the systems proposed to be purchased
- b. Can you undertake the above training in the premises of the University? If not, where would it be held within Chennai? or any other place?
- c. Can you supply documents in triplicate such as operation manuals, user manuals and circuit diagram and other relevant material along with the equipment free of cost?
- d. Any other details in support of the above systems you want to furnish.

SIGNATURE OF THE TENDERER WITH SEAL

Contd.....ANNEXURE - II

ADDITIONAL TERMS AND CONDITIONS FOR COMMERCIAL BID TO BE ABIDED ALONG WITH GENERAL CONDITIONS AS PRESCRIBED IN THE TENDER DOCUMENT, IF APPLICABLE :

1. CUSTOMS CLEARANCE:

After arrival of the goods at Chennai Airport, Indian agent or Indian subsidiary of the principal firm is solely responsible for getting the material clearance from customs. University will provide needed custom documents for custom clearance on the demand of agent/Firm. Transportation from Chennai Airport to University of Madras, Guindy Campus is also the responsibility of authorized agent. All charges/ expenses incurred in this process will not be reimbursed to the firm. Please note that the freight forwarder or clearing agent should be approved by IATA. **NO DEMURRAGE / WHARFAGE CHARGES WILL BE PAYABLE BY THE UNIVERSITY UNDER ANY CIRCUMSTANCES. NO ADVANCE PAYMENT WILL BE PAYABLE FOR CUSTOM CLEARANCE/ FREIGHT / INSURANCE ETC.** The certificate to this effect will also be provided that the rates charged are as per IATA, FIATA and does not contain any item other than ordered by the University.

2. EXEMPTION OF CUSTOMS DUTY AND EXCISE DUTY:

The University of Madras being a Research oriented higher education institution is exempted from paying Excise duty and Customs duty / Concessional Customs Duty. The supplier shall therefore obtain Exemption Certificate from the University, issued by the Government of India, before clearing the consignment.

3. SUPPLY AND INSTALLATION OF EQUIPMENTS

- a. The supply and installation of equipments and other accessories should be made strictly in accordance with the specifications given in the Commercial Bid and should successfully fulfill the tests carried out by the University. The supply and installation should be as per the delivery schedule to be sent by the University along with the placement of firm orders. The successful Tenderer should give guarantee for a period of **THREE YEARS** for the equipment and other accessories installed, against breakage or breakdowns due to manufacturing defects. The guarantee period takes effect from the date of satisfactory trial run. The Tenderer shall be liable to make good the loss by replacing the equipment or other accessories found defective during the guarantee period. The equipment hardware should be installed in the premises of the University at the cost and risk of the Tenderer.
- b. The material or goods are to be guaranteed for a period of three - years after installation and commissioning against manufacturing defect and bad workmanship. The warranty period specified, will commence from the date of handing over the equipment after running and carrying out successfully the tests prescribed by the University to its satisfaction.
- c. Documents such as operation manuals, user manuals and circuit diagrams and other relevant materials shall be provided by the Tenderer along with equipment, free of cost.
- d. If the supply, installation and commissioning of the systems are not effected before the specified period from the date of purchase order, the University shall have the authority to cancel the order and to take any such action which will be deemed fit in the circumstances

SIGNATURE OF THE TENDERER WITH SEAL

Contd.....ANNEXURE - II

- e. If any manufacturing or other technical defects are found within the specified months from the date of installation, commissioning and handing over the system to the University Authorities, the same will have to be rectified or replaced free of cost by the supplier.
- f. During the warranty period, if due to manufacturing and other technical defects of the equipment supplied, the system is down and if it is not restored in working condition within 24 hours, the supplier shall be liable for a penalty of one percent per week during breakdown period on the total contract price.
- g. The warranty will cover all the materials and goods supplied by the supplier under this contract irrespective of the fact whether these have been manufactured by the supplier or not.
- h. In case of failure by the Tenderer to deliver goods or materials demanded from them within the period specified for delivery or in case of goods or materials being delivered without a correct invoice in duplicate, the Registrar or anyone duly authorized by him shall have power to reject any such goods or materials so rejected or not delivered unless the supplier shall themselves forthwith supply others that shall be sufficient and satisfactory and any excess of cost so incurred by the Tenderer over the contract price together with all charges and expenses attending the purchase shall be recoverable by the University from the supplier.
- i. The successful Tenderer shall supply licensed versions of the equipment systems. The University will not be held responsible for any consequences arising of patent right problems.
- j. The equipment should be demonstrated to the representatives of the Specifications Committee before shipment is effected. Necessary travel and other costs for two experts to visit the supplier's facility and inspect the equipment marked for the university before its shipment **will be met by the supplier.**

4. POST WARRANTY:

The life cycle for normal performance of Equipment is 3 years. The post warranty Annual Maintenance Charges (AMC) is applicable for the remaining period of the life cycle after the satisfactory completion of the warranty period offered by the vendor. The Annual Maintenance Charges is agreed to Rs. at the rate of% per annum of the basic price of the purchased item/s.

The AMC payable from the date of completion of warranty in advance against invoices/bill to be preferred by the vendor. The vendor agrees to provide comprehensive maintenance of the Equipment, which shall include preventive maintenance and corrective maintenance at the location specified by the University. The maintenance shall also include replacement of all parts of equipments. The equipment which is down should be restored in good working condition within 48 hours. Otherwise the supplier shall be liable for a penalty of 1% per week of the breakdown period on the total price of the system. The Department reserves the right to terminate the maintenance contract in the event of unsatisfactory maintenance and claim damages for non-fulfillment of contract.

SIGNATURE OF THE TENDERER WITH SEAL

Contd.....ANNEXURE - II

5. BENCHMARK TESTS:

The tenderer should submit the systems for benchmark tests when prescribed after short listing. The supplier who should submit the certified benchmark results along with listing and output for evaluation will conduct the test. The supplier should prove the benchmark results after installation.

6. TRAINING:

The supplier shall undertake to train adequate number of persons from the University free of cost at the premises of the University on the operation and use of equipments as per the training schedule to be worked out by the mutual agreement prescribed by the supplier.

SIGNATURE OF THE TENDERER WITH SEAL

ANNEXURE - II

FORM OF CONTRACT AGREEMENT

(To be executed by the Firms in Rs.100 stamp paper for the supply of machinery/equipment)

This agreement is made on the _____ day of _____ 2017 between the University of Madras, a body corporate constituted under the Madras University Act of 1923 as amended represented herein by the REGISTRAR hereinafter referred to as the "Purchaser" of the one part and M/s. _____ (hereinafter referred to as "Supplier") of the one part witnessed as follows:

We, M/s. _____ (hereinafter referred to as "Supplier" hereby contract and agree on the acceptance of our Tender by University of Madras (hereinafter referred to as "Purchaser" in accordance with the conditions of contract stated below, the goods or materials hereunder named of the quality and of the sort and at the rate or price specified in the purchase order as Annexure ().

CONDITIONS OF CONTRACT.

1. This document on having been signed by both the parties shall constitute a binding contract between the parties and shall remain in force during the warranty period and a total of 5 years including the warranty period covering the annual maintenance. But in the event of any breach of agreement at any time on the part of the supplier, the contract shall be determinable by the Purchaser without compensation to the Supplier. The contract may also be put to an end at any time by the Purchaser upon giving seven days notice to the supplier.

13 The Supplier agrees to supply, install and commission the equipment detailed at Commercial Bid after carrying out successfully all the tests prescribed by the purchaser at all inclusive price of Rs. _____ to the _____ before the specified date. The price offered is firm and is not subject to enhancement on any ground.

3. The price of the equipment as detailed at Annexure includes excise duty, custom duty, clearing and forwarding charges surcharges, sales tax, freight, octroi, delivery up to the point insurance, installation and commissioning and such other levies that may be applicable.

13 The goods or materials to be supplied under this contract are to be of the quality and of the sort mentioned in the purchase order at Commercial Bid.

13 The goods or materials are to be delivered at the purchaser without any extra cost in such quantities or numbers contained in the purchase order enclosed as Commercial Bid to this contract. Any amendments to the orders in terms of quantities or delivery period etc. may be incorporated on a mutually agreed basis.

13 Documents such as operation manuals and circuit diagram and other relevant materials shall be provided by the Supplier along with equipment free of cost.

7. The goods sold under the agreement shall not be taken back. However, any replacement necessitated as part of warranty commitment shall be carried out by the Supplier and faulty parts/materials that arise out of such replacements shall be taken back by the Supplier within a reasonable time.

8. If the supply, installation and commissioning of the equipment are not effected before _____ weeks from the date of the purchase order, the purchaser shall have the authority to cancel the order, to make any such action that will be deemed fit in the circumstances.

9. In case of failure by the supplier to deliver goods or materials demanded from them within the period specified for delivery or in case of goods or materials delivered by them not being of the stipulated quality and specifications or in the case of goods or materials being delivered without a correct invoice in duplicate the Registrar or any one duly authorized by him shall have power to reject any such goods or materials so rejected or not delivered unless the Supplier shall themselves forthwith supply others that shall be sufficient and satisfactory and any excess of cost so incurred by the Purchaser over the contract price together with all charges and expenses attending the purchase shall be recoverable by the Purchaser.

10. Penalty will be levied at the rate of one percent (1 %) per week on the total contract price if the delivery has not been completed in full within stipulated period, subject to force major conditions. Besides, such performance may entail black listing of the supplier.

11. The supplier shall supply only original versions of the equipment.

12. a. The materials or goods are to be guaranteed for a period of _____ months after installation and commissioning against any manufacturing defect and bad workmanship. The warranty period of _____ months will commence from the date of handing over the equipment after running on all system software and after carrying out successfully the tests prescribed by the _____ (Purchaser) and installation in good working condition.

b). If any manufacturing or other technical defect is found within _____ months from the date of installation, commissioning and handing over the Equipment/system to the Department/Section the same will have to be rectified or replaced free of cost by the Supplier.

c. During the warranty period, the supplier agrees to arrange for a back up system at their cost, if due to manufacturing and other technical defects of the equipment supplied, the Equipment/systems are down and if it is not restored in working condition within 48 hours. Otherwise the Supplier shall be liable for a penalty of 1% of the breakdown period of the total contract price.

c) The warranty will cover all the materials and goods supplied by the supplier under this contract irrespective of the fact whether these have been manufactured by Suppliers or not.

13.1 The life cycle for normal performance of the Equipment is 5 years. The post warranty annual maintenance charges (AMC) is applicable for the remaining period of the life cycle after the satisfactory completion of the warranty period offered by the vendor. The Annual Maintenance Charges agreed to is Rs. _____ at the rate of _____ % per annum on the basic price of hardware excluding software, excise duty, sales tax, etc.

13.2 The AMC is payable once in a year after the date of completion of the warranty period in advance against invoices/bills to be preferred by the vendor. The vendor agrees to provide comprehensive maintenance of the equipment, which shall include preventive maintenance and corrective maintenance at the location specified by the University. The maintenance shall also include replacement of all parts. The equipment which is down should be restored in good working condition within 48 hours. Otherwise the supplier shall be liable for penalty of 1% per week of the breakdown period on the total price of the Equipment/system. The University reserves the right to terminate the maintenance contract in the event of unsatisfactory maintenance and claim damages for non-fulfillment of contract.

14. 90% of the total cost of the Equipment/system will be paid on installation, commissioning and handing over of the equipment to the University after testing all the equipments and fulfilling the technical specifications. The testing that should be carried out, the commissioning of the hardware supplied, and the satisfactory working of the Equipment/system are to be certified by the University.

15. The balance **ten per cent** [10%] of the payment will be made after satisfactory completion of warranty period. Alternatively if the supplier produces an irrevocable Bank Guarantee for the balance ten per cent and for the warranty period along with **Income Tax Verification Certificate and Sales Tax Clearance Certificate** then the balance ten percent payment will be made after the formalities stipulated in **para 14** are completed.

16. The Supplier hereby agrees to get the refund of incentive, excise duty and proportionate Sales Tax from concerned authorities and pass it on to the Purchaser, if the Government or any other agency reduces the Excise Duty or Sales Tax or given incentive of any type retrospectively after supplying the equipment, failing which action will be taken to recover the balance amount from the Supplier under the revenue recovery act or any other relevant act.

17. The supplier shall undertake to train adequate number of persons from the University free of cost on the operation and use of equipment as per the training schedule to be worked out by mutual agreement.

18. The contract or any part share of interest in it, is not to be transferred or assigned by the Supplier directly or indirectly to any person whomsoever without the written consent of the Purchaser.

19. Neither the Buyer nor the Seller shall be liable to the other for any delay or failure in the performance of their respective obligations due to causes, contingencies beyond their reasonable control such as:

- i) Natural Phenomena including but not limited to earthquakes, floods and epidemics.
- ii) Acts of any Government authority domestic or foreign including by but not limited to war declared, or undeclared, priorities and: quarantine restrictions.
- iii) Accidents or disruptions including, but not limited to fire, explosions, breakdown of essential machinery or equipment, power and water shortages.

20. The tender notice dated _____ is enclosed along with the enclosures. The detailed final offer of the Supplier and the purchase order at Annexure respectively will form part of this contract. Wherever the offer conditions furnished by the supplier are at variance with conditions of the contract or conditions stipulated in the purchase order, the latter shall prevail over the offer conditions furnished by the supplier.

21. Unless otherwise provided in the agreement, any notice, request, consent or other communication given or required to be given hereunder shall be given by mailing the same by registered mail, postage prepaid, return receipt requested in the case of the Supplier to the Purchaser at their respective addresses and self for the above or with other addresses and to the attention of such other person or persons as may hereafter be designated by like notice hereunder and any such notice sent by post shall be deemed to have been served on the date when in the ordinary course of post, it would have been delivered at the address to which it was sent.

22. Any notice to the Supplier shall be deemed to be sufficiently served, if given or left in writing at their usual or last known place of abode or business.

23. In case of any dispute the matter will be referred to an Arbitrator under “Arbitration and Conciliation Act 1996” The arbitration shall be held in Chennai only and the court at Chennai only shall have jurisdiction in relation thereto.

24. The Supplier agrees that in the event of non-fulfillment or non-observance of any of the conditions stipulated in the contract, the supplier shall pay as penalty an amount equivalent to 10% (ten) percent of total value of contract or an amount equal to the actual loss incurred by the University whichever is greater.

For and on behalf of	
PURCHASER	SUPPLIER
Witness	
1.	
2.	

**Technical Specification for Class AAA SOLAR SIMULATOR, for the use of NCNSNT,
Guindy Campus, University of Madras.**

Simulator Type	Class AAA Solar Simulator for IEC/ASTM/JIS Standards and illumination should be vertically downwards.
Air mass filter	AM1.5G filter (as per ASTM standard E892)
Beam Size	2x2 inch or bigger
Optical Design	Solar Simulator housing should have proper optical design to remove IR radiation. Lamp mounting should be vertical to avoid uniformity mismatch and to optimize IR output from Xenon lamp. Should be fiber free system.
Typical Power Output	100mW/cm ² (1 Sun) ±20% Adjustable Variable light output option should be given. This can be mechanical or Filter based option to vary the output intensity from 0-1 Sun. If Filters provided please provide it with Filter wheel etc. Considering the stability we are not interested to vary the intensity through power supply.
Lamp Type and Wattage	450 W or higher Xenon lamp (Continuous Wave)
Lamp lifetime	Xenon, 1000 hours average.
Spectral Match Classification	A (IEC 60904-9 2007) A (JIS C 8912) A (ASTM E927 – 05)
Spectral match	13.8% - 23.0% (400-500nm) 14.9% - 24.9% (500-600nm) 13.8% - 23.0% (600-700nm) 11.2% - 18.6% (700-800nm) 9.4% - 15.6% (800-900nm) 11.9% - 19.9% (900-1100nm)
Uniformity Classification	A (IEC 60904-9 2007) A (JIS C 8912) A (ASTM E927 – 05)
Beam Uniformity	≤2 % Uniformity defined as (Please mention your method while quoting) : (Max irradiance – Min irradiance)/Max irradiance + Min irradiance) X100%
Temporal Instability	≤0.5% STI ≤2.0% LTI
Working Distance	Atleast 6 Inch or higher
Temporal Instability	A (IEC 60904-9 2007) A (JIS C 8912) A (ASTM E927 - 05)

Classification	
Collimation Angle	(half angle) $<\pm 4^\circ$
Line Regulation	0.01 % or better
ISO certificate	The manufacturing facility should have ISO 9000 certification and certificate should be enclosed.
Class AAA Certificate	The Solar Simulator should come with Class AAA certificate and the manufacturing firm should have ISO 17025 lab for PV. Certificate to meet IEC 60904-9 Edition 2 (2007), JIS C 8912, and ASTM E 927-05.
Power Requirements	Should work in Indian Power standards. UPS (2KVA) with 30min back-up should be quoted separately.
Calibrated reference solar cell and meter	2 x 2 cm calibrated solar cell equipped with a thermocouple assembled in accordance with IEC 60904-2. The certification is accredited by NIST to the ISO-17025 standard and is traceable both to the NREL. The readout meter includes two BNC connectors for analog outputs for the sun irradiance and the temperature.
Cell Holder	<p>Temperature controlled Cell Holder (for 2 x 2 inch solar cell or better) with PV IV-probe Kit for electrical contact should be provided.</p> <p>The cell holder should able to withstand the temperature range - 40°C to 125 °C with the resolution of $\pm 1^\circ\text{C}$. Chillier and Vacuum pump should be quoted as an optional item (if needed).</p>

- Should have temperature sensors and interlocks to ensure operator safety.
- Proper Cooling system should be included for Solar Simulator safety and Interlock should be there to ensure safety of the instrument.
- Lamp replacement should be simple and easy.
- To reduce stray light non-reflective black finish should be there.
- Optical Design should able to maintain Spatial Uniformity for long time running.
- Should be CE certified and the lab should ISO certified and the certificate should be enclosed for reference.
- Manufacturer/Supplier should have at least 3 references in India
- Manufacturer/Supplier should have service facility in India and Service engineers should be available in any of the following cities (Chennai/Bengaluru or Hyderabad).