

**RAJMATA VIJYARAJE SCIDIA KRISHI VISHWA VIDYALAYA  
COLLEGE OF AGRICULTURE, GWALIOR-474002**

**No/Dean/Tender/EVS /2020-21/3704**

**Dated 01.01.2020**

**e-TENDER NOTICE**

Online tender(s) under two bid system (i) Technical bids (ii) Financial bids are invited by the Dean, College of Agriculture, Gwalior from reputed Manufacturers/ Authorized Dealers/Distributors in the line for supply and installation of scientific equipment(s)/item(s)/structures for the establishment of "climate change project "at College of Agriculture, RVSKVV, Gwalior as described below :

Sl. No.	Name of item	Divisions/Units/ Stations	Reg. of	Amount of EMD	e-tender No. (2 <sup>nd</sup> Call)
1.	Rainfall Simulator ( 1 Unit )	Department of Environment Science	of	₹ 100000	1

**CRITICAL DATES**

S. No.	Item	Date	Time
1	Publishing Date	01 January 2020	17:00
2	Document Purchase Start Date	01 January 2020	10:30
3	e-Bid Submission End Date	01 February 2020	17:00
4	Physical bid document Submission end date in the Office	04 February 2020	15:00
5	Opening of the Technical Bid at RVSKVV	05 February 2020	15:30
6	Technical Evaluation of Bids	05 February 2020	16:00
7	Financial/Price Bid e-Opening Date	10 February 2020	14:00

Tender form can be downloaded from the website [www.mptenders.gov.in](http://www.mptenders.gov.in) and can also be seen on university website [www.rvskvv.net](http://www.rvskvv.net) . Tender documents with specifications can be purchased from this site by paying ₹ 5000.

**Dean  
College of Agriculture, Gwalior**

# **RAJMATA VIJAYARAJE SCINDIA KRISHI VISHWA VIDYALAYA**

**College of Agriculture, Gwalior – 474002 (M.P.)**

**No/Dean/Tender/EVS /2020-21/**

**Dated 01.01.2020**

## **e-TENDER INVITING NOTICE**

Online tender(s) under two bid system (i) Technical bids (ii) Financial bids are invited by the Dean, College of Agriculture, Gwalior from reputed Manufacturers/ Authorized Dealers/Distributors in the line for supply and installation of scientific equipment(s)/item(s)/structures for the establishment of "climate change project "at College of Agriculture, RVSKVV, Gwalior as described below on or before 01<sup>st</sup> February 2020 up to 05:00 PM *via on line* and up to 04 February 2020 latest by 3.00PM as **hard copy**. **For the list of items, tender forms, terms & conditions and detailed information please visit RVSKVV website [www.rvskvv.net](http://www.rvskvv.net) and for purchase of tenders [www.mptenders.gov.in](http://www.mptenders.gov.in) after 01 January 2020. Any related corrigendum, if required, will be published on RVSKVV [/www.mptenders.gov.in](http://www.mptenders.gov.in) only.**

**ITEM NO. : ONE**

**NAME OF ITEM: Rainfall Simulator ( 1 Unit )**

**DEAN  
College of Agriculture, Gwalior**

**OFFICE OF THE DEAN, COLLEGE OF AGRICULTURE,  
R.V.S. KRISHI VISHWA VIDYALAYA, GWALIOR 474002, M.P.**

**E-Tender Document (Third Call)**

**CRITICAL DATES**

S. No.	Item	Date	Time
8	Publishing Date	01 January 2020	17:00
9	Document Purchase Start Date	01 January 2020	10:30
10	e-Bid Submission End Date	01 February 2020	17:00
11	Physical bid document Submission end date in the Office	04 February 2020	15:00
12	Opening of the Technical Bid at RVSKVV	05 February 2020	15:30
13	Technical Evaluation of Bids	05 February 2020	16:00
14	Financial/Price Bid e-Opening Date	10 February 2020	14:00
15.	Place of Submission of <b>other documents by speed/registered post</b>	:	<p>i. There will be <b>No TENDER BOX</b> the tender document must reach in the office of Dean, College of Agriculture, and Race course road, Gwalior through Speed post / <b>Registered post before or on the last date specified.</b> The envelope containing tender documents must be clearly superscripted with the Tender No. Name &amp; No. of item and Date of opening.</p> <p>ii. The College will not be responsible for tenders submitted at any other place. Tenders not received within the due date &amp; time will not be considered under any circumstances or for any reason.</p> <p>iii. Tenderers are requested to study the tender documents carefully and ensure that all documents, forms and annexures to the tender are completely and correctly filled in, signed and stamped where applicable, all necessary literature, brochures and pamphlets have been attached and then submit their offer. Incomplete tender documents shall be rejected straightway without any reference to the tenderers. Leaving any column not filled in or with cuttings will lead to rejection of the tender</p>
16	Earnest Money Deposit	:	<ul style="list-style-type: none"> <li>• EMD to be submitted online</li> <li>• If you are exempted from deposition of the Earnest Money in Tenders in M.P., the certificate of the competent authority or attested photocopy of the same, clearly indicating “that the firm concern is exempted from deposition of the in M.P./country” must be enclosed in support. In the absence of the same, your claim not to deposit will not be</li> </ul>

			entertained.
17	OFFER VALIDITY	:	Six months from date of opening of tender. In the absence of any indication in the tender documents submitted, of the date up to which the offer has been kept valid, it will be taken that the offer will remain open for acceptance for the period specified in the Schedule to Tender.
18	Extension of validity	:	If the validity of the tender is extended, the validity of the Earnest money will also have to be suitably extended by the tenderer failing which their tender shall not be considered by the purchaser after the expiry of the said period.
19	Eligibility for Responding	:	<p>i) Only those firms should respond who are the manufacturers or authorized dealers/agents of the stores specified in the tender specifications</p> <p>ii) The foreign manufacturers of the tendered stores will have to specify in the tender document, details of the sales service to be provided after expiry of warranty period.</p> <p>iii) Indian agents of foreign manufacturers/principal are allowed to participate in the tender subject to the following conditions: -</p> <p>a) The Indian agent will submit along with the tender documents a copy of latest authority letter/agreement from the foreign manufacturer /principal and the proforma invoice from the manufacturer.</p> <p>b) Such agreement/authority with the foreign manufacturers/principal should be a long term (&lt; 2years) agreement and not merely for the present tender.</p> <p>c) If the agreement is only for the present tender, the offer received is liable to be rejected.</p> <p>d) The Indian agent will provide details of the after sales service and post contractual support i.e. repair, maintenance, supply of spare parts etc. that he will carry out.</p> <p><b>e) Offers from firms whose business activities are limited to procuring items from manufacturers, both Indian and Foreign and supplying the same to the purchaser, and having no after sales service backup will not be entertained.</b></p> <p>f) Where the quoting party /Indian representative claims to be subsidiary or branch office or an authorized representative or principal foreign manufacturer /supplier in India, then a copy of approval from RBI/Ministry concerned for operating business in India as subsidiary /branch /liaison or joint –venture may be submitted with offer. The Indian agent of foreign manufacturer should be Registered with DGS&amp;D only in case the bid is for item falling in the restricted list of the Export &amp; Import Policy of Govt. of India copy of the current concerned Registration Certificate must be enclosed failing which the bid will not be accepted.</p> <p><b>g) The tenderer must have latest income tax clearing certificate /PAN no/TIN</b></p> <p><b>h) The tenderer must have latest VAT/S.T. Clearance certificate</b></p>

			<b>i) The firm must have trade registration certificate</b>
20	Opening of Tender	:	Tendering firms can authorize a representative to be present at the opening of the tender. <b>The representative must bring with him a letter of authority from the firm to be present at the opening of tender.</b>
21 (a)			The purchaser has the right to have a demonstration of the equipment/item in his premises. The supplier has to abide by this condition. The demonstration has to be arranged by the supplier at his own cost.
21 (b)		:	In the case of consumable materials, the firm has to provide sample(s) and in the case of fabrication prototype has to be provided by the firm.
22	Delivery Required By	:	As specified in the supply order.
23	Terms of Delivery	:	<b>For Indian\manufacturer/suppliers:-FOR Experimental Site College of Agriculture, RVSKVV, Gwalior</b>
24	Inspection after Receipt of Goods and Installation	:	The inspection will be done by the Committee in the presence of firms representative. The successful tender will have to provide at his own cost and arrangement technically qualified personnel at the consignee's location for joint inspection. These personnel must be able to unpack, assemble and demonstrate the use of the equipment fully and identified each Part/Machines supplied. Any consumables that are essential will be provided by the supplier free of cost. <b>In case of receipt of materials in damaged condition the suppliers will have to arrange the replacement of goods free of cost. All expenses in this regard will be borne by the supplier.</b>
25	Packing & Marking :		The packing and preservation of the supplied goods shall be airworthy/seaworthy /roadworthy (as the case may be) so that it may provide their safety during transit period. The seller shall guarantee that the packing is strong enough to withstand the safety of the goods during transport. The The packing should satisfy the security seal in the clearing warehouse and shall carry the fragile or other markings as required. Each packing case shall have labels as follows: Contract No. _____ Consignee: Name of the College: _____
26	Compliance Statement	:	The firms must submit compliance statement -cum- technical bid in the format given in Chapter -IV failing which their offer will be treated as incomplete and is liable to be rejected.
27	Earnest /Security Deposit	:	<b>Must be deposited</b> in the form of Crossed Demand Draft/Pay Order/ Fixed Deposit receipt/ Bank Guarantee in the name of the <b>Dean, College of Agriculture, Gwalior</b> from any Commercial Bank payable at Gwalior. No other form of deposit will be accepted. In case, if any tenderer fails to deposit the Earned Money the tender will be rejected straightway.
28	Guarantee/Warranty/AMC	:	6 yrs Comprehensive on site warranty ( with all inclusive ) <b>an on-site engineer for minimum of Six years is required.</b>

			Warranty Terms period will start from the date of installation of items. In case at installation stores/part of stores are found defective /damaged during or after delivery to consignee, the suppliers will replace or repair the store under warranty at consignee's location in India free of cost or if any case it is required to sent back to the foreign manufacturer. Bank Guarantee equivalent to the cost of equipment is required to be submitted before lifting the store. All expenses in this regard will be borne by the supplier.
29	Performance Security	:	The successful bidder will have to submit a Performance Security of equivalent to <b>10% of the Contract /Order</b> value before the issue of award letter. The validity of performance security valid till 60 days + the period of expiry of the Warranty/Guarantee period in shape of crossed Demand Draft/Pay order/Fixed Deposit Receipt/Bank Guarantee from a commercial bank in favour of the Dean, College of Agriculture , Gwalior
30	Liquidated Damages	:	In case the firm does not complete the supply within the laid down agreed Security delivery period as per contract, liquidated damages will be charged @ 0.5% per week or part thereof subject to a maximum of 10% of the contract value. However, the College /university reserves the right to either further extend or cancel the contract after expiry of delivery date and recover the liquidated damages from the dues of the firm or by legal means.
31	Dispute settlement	:	The dispute arising out of this contract shall be subject to the jurisdiction of Indian laws & court at Gwalior. Sole arbitrator is appointed by the Hon'ble Vice Chancellor, RVSKVV, Gwalior His decision will be final and binding to both parties (Supplier and Purchaser)
32	Submission of the proposal (A) TWO BID SYSTEM	:	<p>The tenderers must submit the tenders in <b>TWO BID SYSTEM</b></p> <p>i) The tenderers should submit the tenders in <b>TWO BID SYSTEM</b> i.e. the Tenderers should give the <b>the technical details/bid as per Chapter -IV in a sealed</b> cover along with detailed specifications of the store offered supported by leaflets, Brochure, if any.</p> <p>v) Only Technical Bid shall be opened on the date of tender opening.</p> <p>vi) Price bids of only those offers, which will be technically acceptable, will be opened for which the firms will be informed accordingly.</p> <p><b>A. TECHNICAL BID should contain the following:</b></p> <p>i) <b>Tender</b> documents duly completed and signed but <b>WITHOUT INDICATING THE RATE QUOTED.</b></p> <p>ii) The technical details of the models offered along with the supporting original technical literature, leaflets, brochures etc. as per Chapter-IV</p> <p>ii) Earnest Money</p> <p>iii) <b>Details of supplies of equipment as per Annexure-III along with copies of supply orders, users list and users satisfactory certificate</b></p>

		<p>iv) Latest agreement /authorization from the foreign firms in case Indian agent is submitting tender on its behalf.</p> <p>v) Trade registration certificate from the RBI/Ministry/department concerned.</p> <p>viii) Latest income tax clearance certificate /copy of PAN card/TIN</p> <p>vi) Latest VAT/S.T. clearance certificate.</p> <p>vii) Technical bulletin with specifications clearly stated with model.</p> <p><b>B. Financial bid should contain the following:</b></p> <p>i) Details of rates, taxes, duties, discounts, if any, quoted by the bidder, should be submitted as per Chapter-V.</p> <p>ii) Any documents in support of price bid.</p> <p>iii) For Indian manufacturer rate should be at F.O.R. destination.</p> <p>iv) For foreign supplier rates should be at FOB basis.</p> <p><b>NOTE:</b> a) The word “<b>TECHNICAL BID</b>” should be written clearly and prominently on the with tender number, name of stores and date of opening.</p> <p>b) Full name and status of the person signing the tender documents must be clearly mentioned in the Tenders.</p> <p><b>Note :</b> Quotation/Tender unsealed or having overwriting and cutting without proper attestation and signature will not be considered</p>
33	Evaluation of the Proposal	<p>: A two stage procedure will normally be adopted: -</p> <p>i) <b>Stage-I:</b></p> <p>a) Evaluation of Technical Bids to assess their suitability against the laid down parameters.</p> <p>b) Tenderers must ensure that they enclose all original technical literature and detailed documentary proofs which specifically bring out the compliance of the equipment being offered against the specifications along with name of manufacturer, make , model no. etc of various constituents/parts/instruments of the complete item. <b>If necessary the Tenderers may be directed to give a presentation for evaluation by a technical committee constituted for the purpose.</b></p> <p>c) In case it is not possible to verify compliance of equipment as per technical bid due to lack of adequate documents, in original no reference will be made to tenderer and the bid will not be considered further and <b>treated as cancelled.</b></p> <p>ii) <b>Stage-II</b> <b>Financial Evaluation</b></p> <p>a) The price bids of only those firms found meetings the laid down specifications at stage I shall be opened, evaluated and considered further.</p> <p>b) It is in the tenderers interest to include all relevant and detailed technical data as supporting documents along with their bid.</p> <p>c) Six years warranty with all inclusive and shall be included for the evaluation of the financial/commercial bids.</p> <p>d) Six year supply of consumables shall be included for evaluation of commercial/ financial bid</p>
34	Mode of Payment	<p>: <b>A. FOR INDIGENOUS SUPPLIES: -</b></p>

			<p>Payment on bill basis after supply, satisfactory installation, commissioning and performance of the equipment at Gwalior (M.P.) and after certification by our committee concerned.</p> <p><b>B. FOR IMPORTS: - All imports shall be done by the tendered any charges related to import and All bank charges outside India will be borne by the supplier.</b></p>
35	Training	:	<p><b>THE TENDERERS SHALL PROVIDE TRAINING TO THE USER AS PER THE TERMS &amp; CONDITIONS OF THE CONTRACT AS HAS BEEN SPECIFIED IN TECHNICAL &amp; FINANCIAL BIDS FREE OF COST AT THE TIME OF INSTALLATION/COMMISSION OF EQUIPMENT AT THE CONSIGNEES/USERS LOCATION. AS SPECIFIED BY THE PURCHASER. ALL EXPENSES IN THIS REGARD WILL BE BORNE BY THE SUPPLIER.</b></p>
36	Insurance	:	<p>As applicable in the case of imported goods, for indigenous item also, it will be responsibility of the supplier to supply the material in good condition on FOR basis without involving the risk of the purchaser.</p>

**A legally agreement/contract shall be executed with the contractor/firm by the College/University before installation of all/any type of instrument/machine as per the instructions of the Government**

**Signature of Tendered with office**



## CHAPTER-I I

### CONDITIONS OF TENDER/CONTRACT

1. All annexures, attached with the Tender should be duly filled in and supported with requisite documents for considering any offer as a complete offer.
2. DEAN, College of Agriculture, RVSKVV-Gwalior reserves the right to cancel/reject any or all the tenders without assigning any reason. Tender form may be downloaded from website by depositing online tender cost Rs.5000/- (Rs. One thousand only).
3. **EMD Should be deposited on line**

There will be no exemption for paying earnest money. However, Firms registered with the Central Purchase Organization/NSIC only are exempt from submitting bids without (proof of registration must be attached therefore without which it will not be considered).

- a) No interest shall be payable by the purchaser on the EM deposited by the tenderer.
- b) The EM deposited is liable to be forfeited if the tenderer withdraws or amends impairs or derogates from the tender in any respect within the period of validity of his tender.
- c) If the successful tenderer fails to furnish the Performance Security as required in the contract within the stipulated period, the **Earnest Money** shall be liable to be forfeited by the purchaser.
- d) **EMD** of the unsuccessful tenders shall be returned after finalization of tender.

#### 4. GUARANTEE/WARRANTY

- I. 6 years guarantee / warranty (with all inclusive) period shall have to provide by bidder. Financial Bid include all the expenses, if any , The contractor should give a declaration for supplying of quality product and shall be strictly in accordance with the specification and particulars mentioned/contained in the contract, where installation and commission is involved and notwithstanding the fact that the purchase /inspection authority has inspected and/or approved the said goods/stores/articles equipment or such if during the **Six (06) years** the said goods/stores/articles/equipment be discovered not to conform to the description and quality aforesaid or not giving satisfactory performance or have deteriorated and the decision of the purchase /consignee in that behalf shall be final and binding on the contractor/seller and the purchaser shall be entitled to call upon the contractor/seller to rectify the goods/stores /articles/equipment or such specified period as may be allowed by the purchaser in his discretion on application made thereof by the contractor/seller, and in such an event, the above period shall apply to the goods/stores/articles/equipment rectified from the date of rectification mentioned in the warranty thereof, otherwise the contractor/seller shall pay the purchaser such compensation as may arise by reason of the breach of warranty therein contained.
- II. Guarantee that they will supply the spare parts, if and when required on agreed basis for an agreed price. The agreed basis could be and including but without limitation an agreed discount on the catalogue price or an agreed percentage of profit on landed cost.
- III. Warranty to the effect that before going out of production for the spare parts they will give adequate advance notice to the purchaser of the equipment so that the later may undertake the balance of lifetime requirements.

**NOTE: - In case of any discrepancy in the period of guarantee/ warranty mentioned anywhere else in this Tender document, the stipulations as mentioned in the chapter III (specification of the equipment/ item to be purchased) would prevail.**

5. **Price: -** The price shall be quoted on firm and fixed basis including taxes and should be reasonable living no scope for any further negotiation on price.

A. For goods manufactured in India: - on FOR basis (including all kind of charges and taxes)

i) Installation commissioning charges, if any

**Note :** The University is not exempted from payment of excise duty custom duty, GST, Sale tax etc.

**NOTE: - In case of any discrepancy in the period of and/or AMC mentioned anywhere else in this Tender document, the stipulations as mentioned here would prevail.**

**6. Penalty for use of undue influence:-**

The seller should undertake that he has not given offered or promised to give directly or indirectly any gift, consideration, reward, commission, fees brokerage of inducement to any person in service of the Purchaser or otherwise in procuring, the contract or forbearing to do or for having done or for borne to do any act in relation or execution of the contract or any other contracts with the University for showing or for bearing to show favour or disfavor to any person in relation to the contract or any other contract in the RVSKVV-Gwalior. Any breach of the aforesaid undertaking by the seller or any one employed by him or acting his behalf whether with or without the knowledge the seller or the commission of any offers by the seller or any one employed or acting on his behalf, as defined in Chapter-IX of the IPC, 1860 or the Prevention of Corruption Act, 1947 or any other Act enacted for the Prevention of Corruption shall entitle the purchase to cancel the contract and all or any other contract with the University seller and recover from the seller the amount of any loss arising from such cancellation. A decision of the purchaser or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the seller. Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the seller towards any officer /employee of the purchaser or to any other person in a position to influence any officer /employees of the purchaser for showing any favour in relation to this or any other contract shall render

7. **LAWS GOVERNING THE CONTRACTS:** - The contracts shall be governed by the laws of India for the time being in force. The contract shall be interpreted in accordance with these laws.
8. **Jurisdiction of Court:** - The court of the Gwalior shall have a Jurisdiction to decide any dispute arising out of or in respect of contract.
9. **Force Majeure Clause :** - The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such event may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods. Epidemics, quarantine restrictions, strikes, lockout or any act of war. Notice of the happening of any such event is given by either party to the other within 15 days from the date of occurring thereof. However either party at its discretion can terminate the contract in such cases.
10. **Termination of contracts:-** Time shall be the essence of the contract. The purchaser shall have the right to terminate the contract without any notice in part or in full in any of the following cases.
  - a) The delivery of the material is delayed for causes not attributed to Force Majeure after the scheduled date of delivery.
  - b) The seller is declared bankrupt or becomes insolvent.
  - c) The delivery material is delayed due to causes of Force Majeure by more than reasonable time.

- d) In case Performance Security is not furnished within the time period specified by the purchaser. Supply in the case of successful Tendered should strictly confirm to the specifications of the equipment being purchased. Any change in Address /Telephone/Fax/e-mail of the tenderer should immediately be informed. The state of non-communication by the firm will make the offer liable for rejection.
11. The successful bidder will have to provide the original proforma invoice from the foreign principal (duly signed in ink), in case of imported item/equipment, within 15 days of the date of receipt of purchase order, otherwise the purchase order will automatically stand cancelled without any further communication.
  12. **Govt. Regulations:** - It shall also be confirmed that there are no Govt. restrictions or limitation in the country of the supplier or countries from which sub-components are being procured and/or for the export of any part of the system being supplied. Supplies/Contracts shall provide a certificate this effect.
  13. **Late /Delayed tenders** shall not be considered at all. These will be returned to the firm as it is at their expenses. Post tender revision/correction shall also not be considered.
  14. **Acceptance or rejection of offer:** - The Dean, College of Agriculture, RVSKVV-Gwalior reserves the right to accept or reject any tender in part or full without assigning any reason thereof. The successful bidder should submit order acceptance letter within 15 days from the date of issue.
  15. **Page Numbering & Signatures:** - Every page of the tender must be numbered and signed by the authorized signatory giving his/her name and designation below the signature.

**Signature of Tendered with office seal**

**Dean**

**NAME OF College: College of Agriculture  
RVSKVV, Gwalior – 474002**

**Schedule of Requirement**

**Specification of the equipment / item(in detail) to be purchased.**

1.		
2.		
3.		
4.		

**Signature of Tenderer with office seal**

NAME OF College: College of Agriculture  
RVSKVV, Gwalior – 474002

**PROFORMA FOR TECHNICAL BIDS**

**(To be sealed in separate Cover)**

**1. Specification of the equipment / item(in detail) to be purchased.**

S.N.	Details of Technical Specifications <b>(As per Annexure-A)</b>	Whether complied with  YES/NO	If yes, please attach Tech literature of the equipment duly printed & clearly specify page No of Bulletin which specifically confirm this	If no, attach deviation statement	Remarks (if any)

Signature of Tendered with office seal

**N.B.:-**

1. All the bidders are requested to provide true statement in the columns. Concealing of facts will liable to be rejected the tender completely. No communication will be made in this regard.
2. Category of classification of the goods in its packing as per IATA definition inclusive of nature of sensitivity and volume of cargo. (in case of imported items)

Signature of Tendered with office seal

NAME OF College: College of Agriculture  
RVSKVV, Gwalior – 474002  
**PROFORMA FOR PRICE BID**  
*(Compulsory to be filled up with details by the bidder & sealed in separate cover)*

Sr. No.	Details of Specifications	Rate	Unit Net Price
	Optional accessory		
	I) Ex factory price offer ( <b>excluding agency commission, to be invariably separately shown and if nothing is claimed reasons thereof must be indicated failing which the bid will not be considered</b> )		
	II) Training Cost, if any		
	Packaging & handling charges		
	<b>FOB Price excluding agency commission</b>		
	Any payment to be paid in Indian Rupees towards agency commission, supply of		
	Indian made item and other charges like VAT /S.T.		
	Name of items: -		
	1. _____		
	2. _____		
	3. _____		
	4. _____		
	VAT + S.T. _____		
	Total		

\*Components to be supplied locally to be clearly indicated.

**Signature of Tendered with office seal**

**PERFORMANCE STATEMENT FOR LAST 3 YEARS**

<b>S. No.</b>	<b>Name of the items</b>	<b>Name of the office by whom order was placed</b>	<b>Order No. &amp; date (Please enclose copy of supply orders)</b>	<b>Value of supply order</b>	<b>Delivered in time or not</b>	<b>If not please specify the reason</b>	<b>Attach satisfactory working report from each office (Yes/No)</b>

**Signature of Tendered with office seal**

**CERTIFICATE TO BE SIGNED BY THE TENDERER  
CERTIFICATE**

It is certified that I have read and understood and will comply all instructions contained in tender enquiry and its schedule. All pages of schedule to tender from page \_\_\_\_\_ to \_\_\_\_\_ have been filled properly and signed.

Signature of tendered: - \_\_\_\_\_

Name in block letters: - \_\_\_\_\_

Name of firm: \_\_\_\_\_

Full address: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

i) Telephone No. \_\_\_\_\_

ii) Mobile No. \_\_\_\_\_

iii) Fax No. \_\_\_\_\_

iv) Email id \_\_\_\_\_

v) Website \_\_\_\_\_

**Signature of Tendered with office seal**



**Check list for Tenderers**

**Before submission of tender documents, Tenderers should check they have complied with the following requirements: -**

<b>Sl. No.</b>	<b>Requirements to be checked before submission of the tender</b>	<b>Compiled (Please indicate) Yes after complying with the requirement</b>
1.	Cost of Tender has been enclosed with tender document, if downloaded from website. If not, then supporting documents proving exemption to this enclosed.	
2.	Earnest money Deposit (EMD) is to be submitted.	
3.	Copy of valid registration certificate with DGS&D in the case of Indian Agent enclosed only in case the bid is for item falling in the restricted list of the Export & Import Policy of Govt. of India	
4.	Copy of trade registration certificate from the RBI /Ministry or department concerned in the case of foreign subsidiary firm	
5.	Enclose sales tax registration certificate and PAN No..	
6.	<b>Complete tender documents have been enclosed, after signature &amp; stamping on ALL pages.</b>	
7.	Signatures of witness with full name and address have been added whenever required on tender document.	
8.	Proposal has been submitted in two bid system – Technical Bid & separate price Bid as per tender enquiry.	
9.	Offer validity as required in tender has been accepted & clearly mentioned in tender document.	
10.	Delivery Terms & Period as per tender have been accepted and mentioned in tender.	
11.	Payment Terms as per tender have been accepted and mentioned in tender.	
12.	Compliance statement as per chapter-IV has been enclosed along with supporting technical documents /proof for each point/parameter clearly showing it is complied with or not.	
13.	Warranty /guarantee for 6 years.	
14.	Annexure-II regarding compliance of all conditions mentioned in the tender form has been enclosed.	
15.	Status of tenderer has been clearly written in tender – manufacturer or manufactures authorized agent. If authorized agent, valid latest agreement authority letter/agreement for the stores quoted from the manufacturer has been enclosed.	
16.	Free Training on use of equipment after supply, as specified tender, has been accepted in writing.	
17.	Technical and financial bid along with necessary documents have been sealed in separate envelopes and both envelopes again sealed in a big envelopes with prescribed writing on envelopes.	
18.	The tenderer has clearly mentioned in writing that business dealings with their firms have not been banned by any Govt./Private agency.	
19.	If the tenderer wants to mention any specific condition, it must be mentioned on the covering/forwarding letter only which will be placed on the first page of the technical bid. Such condition mentioned in any other document shall not be given any consideration.	
20.	6 Years free supply of spare parts	
21.	6 Year engineering service	

**Signature of Tendered with office seal**

## Detail Specifications

### **Item No. 4 Supply, Installation and Commissioning of SCADA (Supervisory Control and Data Acquisition) Based Rain Fall Simulator Facility for Studying Resource Losses and Conservation under Simulated Rainfall Events**

Supervisory Control and Data Acquisition (SCADA) is HMI software for achieving full automation of operation, on line data recording and graphical presentation of measuring parameters and controls for rainfall simulator facility. The system should have manual option also to operate the rainfall simulator in case of failures of automation equipment. SCADA should have the features of creating animated rainfall simulator layouts with data display units on screen, control switches, creation of reports, data analysis, and trend graphs for various parameters, alarm summary, on screen alarm display in case of faults in the sensors etc. SCADA should have dynamic linkage with MS Excel for presenting the acquired data in graphical form, logging the data and for further analysis. The basic units of the system include:

1) Fabrication of rainfall simulator with ISI make tubular GI (25 mm, class B, ISI certified) pipes along with rolling wheels at the bottom of the simulator. The rainfall simulator will move on the track over the three soil bins for replicating the operation of the rainfall simulator. It should have moving mechanism from one soil bin to other from the SCADA. The rainfall simulator will have water connection at the centre of the pipe having nozzles for simulating rainfall. It should be preceded by the pressure transmitter for measuring operating pressure (0-6 kg/cm<sup>2</sup>) and controlled by SCADA for change in the operating pressure and to achieve the desired rainfall intensities upto maximum of 150 mm/hr. It should have the nozzles of V jet 80-150 for simulating the natural rainfall. The simulator should also have oscillating mechanism installed on top of the simulator pipe with nozzles with swinging width of 3 m. SCADA will have controls for all the above mechanisms through PLC (Programmable logic controller) with sufficient data input and output cards. An underground sump of capacity 100 m<sup>3</sup> is to be constructed for storing water and a 3hp submersible monoblock pumpset with high head and low discharge pump preferable from reputed makes of Texmo, CRI, Kirloskar and it has to be operated from SCADA. Regulation of flow through auto valve is required to maintain the desired intensities in the system and this must be maintained for various durations of 15, 30, 45, 60, 75, 90 min of time at a given event.

2) Fabrication of soil bin (6 x 3 x 1 m) with standard and strong MS steel with interior fixed with acrylic sheets for corrosion free conditions in the soil bin. The total weight of soil bin when filled with soil is about 25 tonnes with water. This should supported by the hydraulic lifts with maximum stability of soil bin without any bending and should be operated by SCADA for raising the soil bin to achieve 1-10% slope. The maximum lift of the bin is about 60 cm at the end point of the soil bin. The lift will be proportionately less at the mid portion of the bin. All these mechanisms have to be controlled through PLC and operated from SCADA.

3) Instrumentation for the measurement of rainfall intensity , soil moisture, soil temperature , infiltration, runoff and soil loss in the soil bin with sensors with standard signal of 4-20 mA and temperature compensate and with reliable accuracy of +- 1% and must be connected to SCADA for logging the data in the MS Excell sheet.

4) Entire system should have the power back up for one hour and voltage stabilizer for 3 phase power supply.

5) Detailed specifications:

Sl. No.	Item description and specifications	Quantity, nos
1	Supervisory Control and Data Acquisition , RSView 32 of recent version with RSlogix 500/micrologix and RSlynx softwares for data communication from PLC to SCADA and programming of SCADA/PLC operation. The no. of tags is to a maximum of 150 or as per the requirement of the above functionalities in the rainfall simulator. It should be a licensed software.	1
2.	2 Programming Logic Controller for performing the movement of rainfall simulator with cutoff relay controls for stop and on for movement of simulator on track at defined positions/distances. PLC should have sufficient (8) Digital and Analog Input and output cards for receiving standard signal of 4-20mA or 0-10 v for data recording from the runoff plots. A logic programme must be written in ladder programming to do all the controls and operations in the rainfall simulator.	1
3	Absolute pressure smart type transmitter with display unit for clear visibility of reading on LCD. It should work with standard signal of 4- 20 mA or 0-10v, have temperature compensation, reliable and accuracy level of +- 1%. The measurement range is 0-6 kg/cm <sup>2</sup>	1
4	Pneumatic control valve for flow adjustment in the delivery of the pumpset and must be operated by the standard signal of 4-20 mA.	1
5	Open well submersible monoblock pumpset of 3 hp capacity, 3 phase power supply, 440 v, discharge range 2-5 litre/s at a total head of 40 m (0-4 kg/cm <sup>2</sup> ), accessories of pumpset etc and it should be operated by SCADA through PLC. It should be of standard company (Texmo/CRI/Kirloskar)and ISI certified.	1
6	Fabrication of rainfall simulator and rainfall shelter for the simulation facility as per Fig 1 and 3. Rainfall shelter should have tubular structure frame with semi circular top. The tubes spacing is 1 m apart upto a vertical height of 3 m and semicircular structure on top with height of 1m. The frame structure should be covered with 100 micron UV stabilized transparent polyethylene sheet grouted at the bottom of structure for its stability against the wind and natural rain	1
7	Fabrication of soil bins (6 x 3 x 1 m) as per the Fig 2 with rugged structure of MS sheet of high quality with redoxide painting outside and corrosion free lining inside the bin. It should have the hydraulic lift system for soil bin of 25	3

	tonnes load to a height of 0.6 m for maintaining slopes varying from 1-10% and a support mechanism for holding the soil bin after lifting by the hydraulic pumps in a particular slope.	
8	<p>Real time Instrumentation</p> <p>i) FDR sensors for soil moisture measurement in soil bins</p> <p>ii) Infiltrometer sensors</p> <p>iii) Soil temperature sensors</p> <p>iv) Recording type raingauge as per IMD specifications</p> <p>v) Electronic tipping buckets for runoff measurement(1-2 lit/s tipping capacity</p> <p>vi) Sediment load sensor for measuring the silt load in runoff Note: All the above sensors of standard and reputed make with reliability and high accuracy of +1% and temperature compensation and should work on standard signal of 4-20 mA and connected to SCADA for continuous recording of the data.</p>	<p>6</p> <p>6</p> <p>6</p> <p>4</p> <p>6</p> <p>6</p>
9	Standard signal cable for connecting sensors to the PLC/SCADA system in control room. It should be standard make and ISI certified. There should not be any signal loss in the wires while connecting from source to the CADA. It should have ferrules and identifiers for easy identification in the field and maintenance.	250 m
10	Data management system for SCADA and PLC Monitor 18.5' TFT with red eye protection; windows 7 professional with licensed key and original CD, Intel core™ i7 processor with suitable chipset and high processor speed, 8GB DDR3 ram, 4 DIMM sockets for memory slots, 4 nos bays ( 2 nos 5.25" for optical media drives and 2 nos, 3.5" for hard disk drives), 500 GB SATA hard disk drive(7200 rpm), Super multi SATA DVD writer, MS office 2007, 6 USB ports of highest version and compatible to all connecting devices, audio ports, head phones and microphone ports in front, standard key board with all provisions, optical two button scroller mouse, network interface integrated 10/100/1000 baseT network interface, 3 year on site warranty, anti virus:kaspersky with original CD. Multimedia graphic card.	1
11	Laser color printer of standard make with proper software: print speed 8ppm on A4, 600 x 600 dpi, in line color laser printing, direct to page printing, duty cycle 35,000 pages, standard memory 16 MB, processor speed 264 MHz, host based standard languages, 2 standard paper trays, 250 sheets, 125 sheets output bin, manual duplex print options, media sizes A4,A5 and B5, sheet fed finished output handling, standard connectivity with USB and Ethernet, compatible to windows 7 professional	1
12	<p>Flexible LDPE/PVC pipe of dia 40 mm inner dia, 6 kg/cm<sup>2</sup> rating of Standard make and ISI certified for connecting water supply to distribution box on top of the rainfall simulator from sump.</p> <p>Water supply from the distribution box to individual nozzles through LDPE flexible pipe of 16 mm dia or suitable to the dia of nozzle top nipple</p>	<p>25</p> <p>10</p>
13.	Construction of 100 m <sup>3</sup> (1,00,000 lit) capacity of Sump with the dimensions of 6m x 6m x 3m. The structure should be strong enough with proper foundation, RCC top with manhole and ladder for maintenance	1 no.
14	Construction of control room for the SCADA/ PLC of the rainfall simulator with RCC roof and proper foundation as per dimensions given in	1 No.

15	Digging of trenches for the drainage facility	80m
16	Electric console (1 x 1 x 0.8 m) S type with standard gauge for electrical application, housing of signal cables, PLC, Data management system with SCADA, keyboard slider with mouse and printer. It should be corrosion free MS steel with 6mm thick, smart look painted outside with lock and key provision with support legs at both ends. It should be installed in a control room on rised CC platform of size 2 x 1.5 x 0.3 m. A printer table along with standard and ergonomic computer chair, revolving type suiting to the height of console.	1 No.

General Terms and conditions:

1. The supplier should give three year warranty on free of cost and offer for the next three year AMC on cost basis. He should attend the trouble shooting problems in the system on site as and when required.
2. The supplier will provide the design manual with all circuit and flow diagrams for the clear understanding of the system with all specifications and construction details.
3. The supplier should provide the operating manual indicating maintenance schedule for entire system and the sensors of measurement.
4. All the cable work should be in enclosed channels either overground or underground.
5. Pre bid conference should be delivered by the supplier/manufacturer on 06-04- 2011
6. Calibration certificates should be provided for all the above instruments by the supplier/manufacturer.
7. Both technical bid and financial bids must be submitted by the supplier separately

