



**Tender reference No. Security/ WMFFS /IITK/2019/28**

**Indian Institute of Technology KANPUR**

**KALYANPUR, KANPUR U.P**

**KANPUR -208016**

**Security Section**

**Tender No: Security/WMFFS/IITK/2019/28 Dated 13.02.2020**

**Bid Submission Last Date 05.03.2020 (4:00 PM)**

**TENDER DOCUMENT**

**FOR**

**Procurement of Water Mist Fire System compatible to existing Mahindra Imperio vehicle with accessories.**



Tender reference No. Security/ WMFFS /IITK/2019/28

**BID DOCUMENT**

Online bids (Technical & Financial) from eligible bidders which are valid for a period of 120 days from the date of Technical Bid opening (i.e. 06.03.2020) are invited for and on behalf of the Assistant Registrar, IIT Kanpur for “**Procurement of Water Mist Fire System compatible to existing Mahindra Imperio vehicle with accessories**”.

<i>Name of Work</i>	<b>Water Mist Fire Fighting System compatible to existing Mahindra Imperio Vehicle with accessories (accessories as per para-7 of technical bid) .</b>
<b><i>Date of Publishing</i></b>	<b>13.02.2020 (17:00 hrs)</b>
<i>Clarification Start Date and Time</i>	<b>13.02.2020 (17:00 hrs)</b>
<i>Clarification End Date and Time</i>	05.03.2020 (16:00 hrs)
<i>Queries (if any)</i>	No queries will be entertained after clarification end date and time
<b><i>Bid Submission Start Date</i></b>	<b>13.02.2020 (17:00 hrs)</b>
<i>Last Date and time of uploading of Bids</i>	05.03.2020 (16:00 hrs) 3 weeks from publication
<b>EMD amount</b>	Rs. 20,000/- Fixed in Favour of “The Registrar IIT Kanpur “ payable at Kanpur
<i>Last Date and time of submitting , EMD and other documents</i>	06.03.2020 (12:00 hrs)
<i>Date and time of opening of Technical Bids</i>	06.03.2020 (16:00 hrs)
<i>Date and time of opening of Financial Bids</i>	Will be separately notified for Technically shortlisted/qualified bidders

Interested parties may view and download the tender document containing the detailed terms & conditions from the website <http://eprocure.gov.in/eprocure/app>

**(The bids have to be submitted online in electronic form on [www.eprocure.gov.in](http://www.eprocure.gov.in) only. No physical bids will be accepted.)**



Tender reference No. Security/ WMFFS /IITK/2019/28

**INDIAN INSTITUTE OF TECHNOLOGY, KANPUR**

**Tender Notice**

E-tender /Online bids are invited for reputed firms from eligible bidders for the “**Purchase of Water Mist Fire Fighting System compatible to existing Mahindra Imperio Vehicle**”.

The scanned Demand draft of Rupees 20,000/- , towards Bid Security/ EMD in favour of **The Registrar IIT Kanpur** payable at **Kanpur** must reach to the **Security Officer, Security Section, Indian Institute of Technology Kanpur, Kanpur (UP), 208016 India** latest by **12:00hrs 06.03.2020**.

**Please note all bid related documents scanned copy is to be submitted on the online portal, only Demand draft has to physical reach the aforementioned address.**

The tender document along with other details may be downloaded from the CPP Portal:

<http://eprocure.gov.in/eprocure/app>

**TECHNICAL BID EVALUATION**

The technical bids will be evaluated based on the documents, compliance sheet and product literature provided by the bidders.

**TERMS AND CONDITIONS**

- i. **Delivery Period:** The delivery should be made within 45 days from the date of receipt of purchase order.
- ii. **Warranty:** The entire items supplied by the vendor shall be guaranteed for 03 years against any defects and the vendor should provide time-to-time operational maintenance support (On Site comprehensive Warranty). The said warranty should cover all Products. The vendor shall be liable to rectify any defects that may be found in the equipment supplied free of cost.
- iii. The vendor must submit their tender document in the given format. Deviations from this format will automatically disqualify the tender process.
- iv. Purchase Committee, IIT Kanpur reserves the right to increase or reduce the quantity or even withdraw the tender without assigning any reasons thereof.  
IIT, Kanpur reserves the right to accept or reject any or all the tenders without assigning any reasons thereof.

Date: 13<sup>th</sup> Feb 2020

**Chairman  
SEAC  
IIT Kanpur**



### **INSTRUCTION FOR ONLINE BID SUBMISSION**

The bidders are required to submit soft copies of their bids electronically on the Central Public Procurement (CPP) Portal ie <http://eprocure.gov.in/eprocure/app> , using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

### **REGISTRATION**

- (i) Bidders are required to enrol on the e-Procurement module of the Central Public Procurement Portal (URL:<https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online Bidder Enrolment” option available on the home page. **Enrolment on the CPP Portal is free of charge.**
- (ii) During enrolment/ registration, the bidders should provide the correct/ true information including valid email-id & mobile no. All the correspondence shall be made directly with the contractors/ bidders through email-id provided.
- (iii) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (iv) For e-tendering possession of valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) is mandatory which can be obtained from SIFY /n-Code/e-Mudra or any Certifying Authority recognized by CCA India on e-Token/ Smart Card.
- (v) Upon enrolment on CPP Portal for e-tendering, the bidders shall register their valid Digital Signature Certificate with their profile.
- (vi) Only one valid DSC should be registered by a bidder. Bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse and should ensure safety of the same.
- (vii) Bidders can then log into the site through the secured login by entering their user ID/ password and the password of the DSC/ e-Token.

### **SEARCHING FOR TENDER DOCUMENTS**

- 1) There are various search options built in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords, etc., to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

### **PREPARATION OF BIDS:**

- (i) For preparation of bid Bidders shall search the tender from published tender list available on site and download the complete tender document and should take into account corrigendum if any published before submitting their bids.  
After selecting the tender document same shall be moved to the ‘My favourite’ folder of



## Tender reference No. Security/ WMFFS /IITK/2019/28

- bidders account from where bidder can view all the details of the tender document.
- (ii) Bidder shall go through the tender document carefully to understand the documents required to be submitted as part of the bid. Bidders shall note the number of covers in which the bid documents have to be submitted, the number of documents – including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
  - (iii) Any pre-bid clarifications if required, then same may be obtained online through the tender site, or through the contact details given in the tender document.
  - (iv) Bidders should get ready in advance the bid documents in the required format (PDF/xls/rar/dwf/jpg formats) to be submitted as indicated in the tender document/schedule. **Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.**
  - (v) Bidders can update well in advance, the documents such as experience certificates, annual report, PAN, EPF & other details etc., under “My Space/ Other Important Document” option, which can be submitted as per tender requirements. This will facilitate the bid submission process faster by reducing upload time of bids.
  - (vi) Any information/ material/ document supplied along with this tender or after placement order should not be disclosed or copied.
  - (vii) IITK may accept or reject any/ all tenders including the lowest tender without assigning any reasons whatsoever.
  - (viii) Clarification: For any clarification: Please contact Security, IIT Kanpur ([secunit@iitk.ac.in](mailto:secunit@iitk.ac.in))

### SUBMISSION OF BIDS:

- (i) Interested authorized dealers/ distributors, who are willing to meet the stated requirement, are requested to kindly submit their competitive bids/ offers through e-procurement system of CPPP of Gol.
- (ii) Bidder should log into the site well in advance for bid submission so that he/ she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay.
- (iii) While submitting the bids online, the bidder shall read the terms & conditions (of CPP portal) and accepts the same in order to proceed further to submit their bid.
- (iv) Bidders shall select the payment option as offline to pay the EMD and enter details of the DD/BC/BG/others.
- (v) Bidder shall digitally sign and upload the required bid documents one by one as indicated in the tender document.
- (vi) Bidders shall note that the very act of using DSC for downloading the tender document and uploading their offers is deemed to be a confirmation that they have read all sections and pages of the tender document without any exception and have understood the complete tender document and are clear about the requirements of the tender document.
- (vii) Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document. For the file size of less than 1 MB, the transaction uploading time will be very fast.
- (viii) **If price quotes are required in XLS format, utmost care shall be taken for uploading Schedule of quantities & Prices and any change/ modification of the price schedule shall render it unfit for bidding.**  
**Bidders shall download the Schedule of Quantities & Prices i.e. Schedule-A, in XLS format and save it without changing the name of the file. Bidder shall quote their rate in figures in the appropriate cells, thereafter save and upload the file in financial bid cover (Price bid) only.**



**Tender reference No. Security/ WMFFS /IITK/2019/28**

**The bidders are cautioned that uploading of financial bid elsewhere i.e. other than in cover 2 will result in rejection of the tender.**

- (ix) Bidders shall submit their bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). **The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour.**
- (x) After the bid submission (i.e. after Clicking “Freeze Bid Submission” in the portal), the bidders shall **take print out of system generated acknowledgement** number and keep it as a record of evidence for online submission of bid, which will also act as an entry pass to participate in the bid opening.
- (xi) Bidders should follow the server time being displayed on bidder’s dashboard at the top of the tender site, which shall be considered valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system.
- (xii) All the documents being submitted by the bidders would be encrypted using PKI (Public Key Infrastructure) encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology.
- (xiii) The successful bidder should submit Order Acceptance within 7 days from the date of order.
- (xiv) If an Indian agent is involved, the following documents must be enclosed:
  - a. Foreign principal’s Performa invoice indicating the Commission payable to the Indian
  - b. Agent and nature of after sales service to be rendered by the Indian Agent.
  - c. Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business.
  - d. The enlistment of the Indian agent with Director General of Supplies & Disposals under the Compulsory Registration Scheme of Ministry of Finance.
- (xv) Conditional offers/ quotations shall not be accepted and are liable for rejection
- (xvi) A scanned copy of the certificate on company letterhead, stating that the bidder hasn’t been blacklisted by any institution/ organization/ society/ company of the Central / State Government ministry/ department, or its public sector organizations during the last three years, with company stamp and signed by authorized signatory should also be uploaded.
- (xvii) The broad configuration / specification of the proposed purchase / work is given. Bidders are required to keep their proposal strictly as per the specification prescribed.

**ASSISTANCE TO BIDDERS:**

- (i) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contract person indicated in the tender. The contact email for the helpdesk is [secunit@iitk.ac.in](mailto:secunit@iitk.ac.in) between 10:30 hrs to 17:00 hrs.
- (ii) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24X7 CPP Portal Helpdesk. The 24 x 7 Help Desk Number 0120-4200462, 0120-4001002 and 0120-4001005. The helpdesk email id is [support-eproc@nic.in](mailto:support-eproc@nic.in)



## **INSTRUCTION FOR e-PROCUREMENT**

### **1. PREPARATION AND SUBMISSION OF BIDS :**

- a. The detailed tender documents may be downloaded from <http://eprocure.gov.in/eprocure/app> till the last date of submission of tender. The Tender may be submitted online through CPP Portal <http://eprocure.gov.in/eprocure/app>
- b. The bidder should submit the bid online in two parts viz. Technical Bid and Financial Bid. Technical Bid should be upload online in cover 1 and Financial Bid in ".Xls" should be upload online in cover-2

**SUBMISSION OF THE BID** : All interested eligible bidders are requested to submit their bids online on CPP Portal: <http://eprocure.gov.in/eprocure/app> as per the criteria given in this document:

- a. Technical Bid should be upload online in cover-1.
- b. Financial Bid should be upload online in cover-2

Both Technical and Financial Bid covers should be placed online on the CPP Portal (<http://eprocure.gov.in/eprocure/app>).

2. **TECHNICAL BID**: Signed and Scanned copies of the Technical bid documents as under must be submitted online on CPP Portal: <http://eprocure.gov.in/eprocure/app> .

#### **List of Documents to be scanned and uploaded (Under Cover-1) within the period of bid submission:-**

- i. Scanned copy of Eligibility Criteria of OEM and Bidder as per Annexure-1
- ii. Scanned copy of Compliance sheet as per Annexure-2.
- iii. Scanned copy of Organization Declaration Sheet as per Annexure-3
- iv. Scanned copy of Technical supporting documents in support of all claims.

**Please note that no indication of the rates/amounts be made in any of the documents submitted with the TC-BID.**

### **3. Financial Bid**

- a. The currency of all quoted rates shall be Indian Rupees. All payment shall be made in Indian Rupees.
- b. In preparing the financial bids, bidders are expected to take into account the requirements and conditions laid down in this Tender document. The financial bids should be uploaded online as per the specified ".Xls" format i.e. Price Bin Excel sheet attached as '.Xls' with the tender and based on the scope of work, service conditions and other terms of the Tender document. It should include all costs associated with the Terms of Reference/Scope of Work of the assignment.
- c. The Financial Proposal should be inclusive of all applicable taxes, duties, fees, levies, and other charges imposed under the applicable laws. The rates quoted in the Tender are inclusive of all applicable taxes, duties etc. **except service tax**. The service tax component shall be reimbursable by the department after receipt of paid challans etc. if applicable.





## Tender reference No. Security/ WMFFS /IITK/2019/28

### 4. Last Date for Submission of Tender:

- a. Online bids complete in all respects, must be submitted on or before the last date and time specified in the schedule of events.
- b. The IIT, Kanpur may, at its own discretion, alter/extend the last date for submission of tenders.

### 5. Bid Validity

- a. All the Bids must be valid for a period of 120 days from the last date of submission of the tender for execution of Contract. However, the quoted rates should be valid for the initial/ extended period of the Contract from the effective date of the Contract. No request will be considered for price revision during the original Contract period.
- b. A bid valid for a shorter period shall be declared as non-responsive.
- c. In exceptional circumstances, prior to expiry of the original time limit, the IIT may request the bidders to extend the period of validity for a specified additional period beyond the original validity of 120 days. The request and the bidders' responses shall be made in writing. The bidders, not agreeing for such extensions will be allowed to withdraw their bids without forfeiture of their Bid Security.

### 6. Modification / Substitution/ Withdrawal of bids:

- a. No Bid shall be modified, substituted or withdrawn by the Bidder after the Bid's due Date.
- b. Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid's due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

### 7. Rejection of the Bid: The bid submitted shall become invalid and tender fee shall not be refunded if:-

- a. The bidder is found ineligible.
- b. The bidder does not upload all the documents as stipulated in the bid document.

### B. Clarification:

For any clarification: Please contact Security, IIT Kanpur ([secunit@iitk.ac.in](mailto:secunit@iitk.ac.in))

### C. Final Decision Making Authority:

The decision of the Director, IIT Kanpur will be binding on all bidders.

### D. Disclaimer:

1. Information disclosed under and in accordance with the tender document will not constitute as an offer, also the acceptance of responses to this tender cannot be considered as a binding contract.
2. Applicants are solely responsible for all expenses associated with responding to this tender.
3. IITK reserves the right to annul the tender process at any time, without thereby incurring any liability to the affected bidders or specifying the grounds for the action.

### E. Legal

1. If any dispute, difference, question of disagreement or matter, whatsoever, before or after completion or abandonment of work, hereafter arises between the parties, as to the





**Tender reference No. Security/ WMFFS /IITK/2019/28**

meaning, operation or effect of the contract or out of or relating to the contract or breach thereof, the same shall be referred to a Sole Arbitrator to be appointed by the Director of the Institute at the time of dispute.

- a. The venue of the arbitration shall be at Kanpur.
  - b. Subject to as aforesaid, the provisions of the Arbitration and Conciliation Act. 1996 and any statutory modifications or re-enactment thereof and rules made there-under and for the time being in force, shall apply to the arbitration proceedings under this clause.
2. The contract shall be governed by and construed according to the laws in force in India. The Parties shall hereby submit to the jurisdiction of the courts situated at Kanpur.

**Notice inviting tenders for supply of Water Mist Fire Fighting System compatible to existing Mahindra Imperio Vehicle at IIT Kanpur.** Sealed bids for supply above system is invited under Two-Bid System. **Details of Bid:**

<b>Tender No.</b>	Security/ WMFFS /IITK/2019/28
<b>Posting Date</b>	13.02.2020
<b>Last Date and time of submission</b>	05.03.2020
<b>Validity of Bid</b>	120 days
<b>Total Number of pages in this Tender Document</b>	15 pages (Including format for financial Bid)
<b>Important Note</b>	In case there is any doubt with any point in the tender, the same should be brought to notice via email to Vipul Mathur (Acting security Officer)/ SK Yadav Deputy Security Officer, IIT Kanpur`` Email: secunit@iitk.ac.in <b>ContactNo.:</b> 0512-259 6483/7254/7444



**DETAILED TECHNICAL SPECIFICATIONS FOR MINI WATER MIST FIRE TENDER**

**NAME OF WORK:**

Designing, Commissioning, Fabrication, Erection and Testing of Mini Water Tender Mist Technology system having capacity to carry 500 Ltrs plus water and 50 Ltrs of Foam for the use of various fire services at IITK, Kanpur, Qty- 01 No.

**SCOPE**

This standard lays down the requirement regarding Design, Material, Construction, workmanship, finish, accessories and acceptance test of Mini Water Mist FireTender. Pump should be up to 42 LPM at the rate of normal pressure of 100 Bar to 150 bars.

**GENERAL REQUIREMENTS:-**

1.1 The specification covers the requirements of design, manufacture, testing, supply of **MINI FIRE TENDER BASED ON WATER MIST TECHNOLOGY – 550 LTRS CAPACITY** mounted on a prime mover of pay load capacity of 1 ton.

2. The Tender shall be suitable for fire fighting and capable of being deployed in narrow lanes of IITK KANPUR.

**3. DESCRIPTION:**

3.1 The Vehicle shall be **Mahindra Imperio** make and will be provided by IITK Kanpur. The vehicle shall comprise of the following components.

**3.2 Water Mist Fire Fighting System**

3.2.1 The water mist fire fighting system shall have a filling volume of 500 ltrs plus of Water and 50 ltrs of Foam. (Total 550 ltrs plus. maximum) It should be designed to be mounted on above said vehicle and **can be removable in case of requirement**. It should have minimal requirements of space and weight while optimizing on manpower requirement and minimizing the water and other collateral damage to negligible in comparison to conventional water tender. The Unit design shall incorporate foam induction system which provides variable foam dosing and suction of water from an external source for direct fire fighting or filling of the tank. It should be primed or filled from pond/storage tank/direct storage.

**3.2.2 Specification/Details of the Unit**

Weight of empty 300 ltrs. Unit ..... <200 kgs. (Max)  
Max. Measurements of the unit (in mm) ..... As compact as possible  
Usable Water capacity ..... 500 ltrs plus.  
Usable Foam capacity ..... 50 ltrs  
No. of deliveries ..... 02 – Nos

**3.2.3 Main Extinguishing Gun**

Flow rate ..... 38 to 42 ltrs/min (+/- 5%)



## Tender reference No. Security/ WMFFS /IITK/2019/28

Weight of extinguisher gun ..... 2 kgs Max.  
Gun Dimensions ..... As compact as possible.  
Working pressure on the nozzle:.. 100 to 150 bars Max. with nominal reaction.  
Throw ..... Jet-not less than 15mts. (+/- 10%)

Spray: not less than 6m (+/- 10%)  
Hose reel ..... 60mts (std) on manual drum  
Max. set operating pressure ..... 100 bars  
Starter ..... Electric starter with provision of Pull cord over-ride  
Level Indicator ..... Mechanical

### 4. Main Pump

The pump should be capable of suction of water from tank or open source and to maintain adequate discharge rate and pressure for operation of nozzle at optimum efficiency.

Max. Pressure ..... 150 Bars  
Min. flow ..... 38 l/min  
Power of the engine ..... Not less than 13 BHP  
Fuel ..... Unleaded Petrol

### 5. ENGINE

5.1 The prime mover for pump shall be 4-stroke Petrol driven engine and shall have compatible electrical and lubrication system. The engine should preferably started by on 12V battery of vehicle for which adequate charger shall also be provided. Suitable electronic instruments shall be provided on the body of engine/panel for fuel level, battery and temperature.

5.2 The engine should be of make like Kirloskar/Honda/B&S(Brister & Stroke) and should be of capacity between 13 to 21 HP, four stroke, V-twin air cooled petrol engine.

5.3 The engine shall be based on petrol driven fuel.

### 6. Foam Induction

A suitable means shall be provided for induction of foam from outsource from foam can and pick up tube and a metallic structure shall be designed to hold it so that proportion for single or double delivery remains constant and foam quality is maintained.

Max. induction ..... 7% (From 0.5 to 6 adjustable) .

### 7. Accessories

- Electric starter from vehicle battery (Enabling the Unit to be electrically started) - 01
- HP Hose length of 30 mtrs each for two lines of delivery with Drum - 02 per set.
- Additional two HP hose length of 30 mtrs each with push connector and locking as a spare set.
- Tool kit comprising of 1 no adjustable spanner 12", 1 no. cutting pliers, 1 set of flat spanners, 1 set of adjustable screw driver, 1 set of suction key and other special tools as per the requirement of the unit as suggested by the manufacturer.
- Revolving lights bar as mounted in fire vehicles(12 V/24V LED lights optional).
- Fog lamps/lights.
- Search light with 100 Mtrs cable of 08 mm complete set.



- PA system.
- Siren/hooter.
- Branded BA set of fiber body with one spare oxygen cylinder.
- Chemical canister branded.
- Safety shoes -06 pairs each branded one like Bata/Scissor/panther etc.
- Two fire fighting heat resistant suits and optional rescue and protection equipments.
- Two snake catchers of different lengths.

## **8 DESIGN & DEVELOPMENT:**

### 8.1 Equipment details

8.2 The Water Mist Fighting System will be a self driven fire fighting unit operated with inbuilt Petrol Engine coupled to a pump and attached with a reducer & hose pipes, Mist generating Guns.

8.3 The water mist system shall be capable of carrying 500 litres of water tank made of FRP shape T (in order to reduce the gravity centre of the vehicle) and for AFFF a separate system to pump and mix the required ratio, which can be discharged in the form of a mist by a gun.

8.4 The discharge gun shall be of light weight stainless steel nozzle capable of producing Water Mist with the ability to control the discharge in short burst and long shots.

8.5 The size of mist particle shall be in the range of 150 to 300 microns.

8.6 A suitable pressure reducer with a safety valve, capable of reducing to a low pressure not more than 150 bars & jerk free working pressure shall be incorporated. The main vessel shall be corrosion free.

8.7 The foam required shall be aqueous film forming foam (AFFF).

8.8 The unit shall have adequate provisions for safety of the system.

## **9. SAFETY DEVICES**

9.1 The following safety device shall form part of equipment.

I) The system shall be provided with pressure safety valve.

II) The system will have proper heat & exhaust outlet for the engine without causing any interference to the operator while operating the unit.

III) Any other safety device which is felt to be necessary to be a part of the equipment.

## **10. MAIN WATER TANK**

10.1 The water tank shall be made of FRP giving a free corrosion for life and a lightweight of the WATER MIST SYSTEM, having useable water storage capacity of 500 Litres properly baffled into segment to reduce water surge. The water tank shall be T shaped and the thickness of the water tank should be of 5mm minimum. A man hole of  $\Phi$  330 mm avec overflow pipe and an optical level of water should be part of the tank. The tank should resist to the flame and be anti ignition complying with the international standards. Water tank should be of FRP.



## 11 GUN

11.1 The gun shall be provided with a suitable stainless steel filter. The discharge rate of main gun shall not be less than 38 to 42 ltrs./min. at pressure not exceeding 100 bars. The second gun should have a flow rate not exceeding 20 LPM. The design of gun shall be such that there is no appreciable re-coil pressure and the throw shall not be less than 15 mts (Jet Mode) and shall not be less than 6 meters (Spray mode). The second gun shall have an attachment for discharging foam with suitable aeration facility.

## 12. HOSES

12.1 The hoses provided in the system shall be high quality and shall be capable of holding the temp. ranges -200 to + 550 C. The material specification, working pressure, test pressure and cracking pressure should be indicated for each type of hose. The minimum length of each hose should be 60 M.

13.2 The seals and O-rings used in the system should be of synthetic material like Nitrile rubber or equivalent.

## 13. MARKING

Marking shall give details of capacity, manufacturer's name, month/year of manufacturing of the system etc.

## 14. Test of acceptance of Water Mist fire fighting system

Physical dimensions, performance & weight check of equipment as given under different items above shall form part of test of acceptance.

## 15. PAINTING OF VEHICLE:

The whole vehicle shall be painted externally & internally with anti corrosive paint i.e. epoxy coating and 3 coats of fire red Duco-colour with tiptop finishing. For stowage lockers, cab etc with cream colour and areas not visible with black colour. The shades of the colour should be got approved from the National Fire Services. The Service lettering (as specified by the authorities) & LOGO of IITK Kanpur in Hindi & English shall be painted on both sides with golden-yellow colour.

## 16. INSTRUCTION BOOK:

Instruction book for the guidance of the user including both operating and normal maintenance procedure shall be supplied. The book shall include an itemized and illustrated spare parts list giving reference number of all the wearing part. A set of all operating manual for the guidance of the user including both operation and normal maintenance procedures for the:-

- i. Appliance.
- ii. Petrol Driven Pump.
- iii. Pump details & operation & Maintenance Manual.

The book along with the item wise drawing and illustrate spare list giving reference number to all wearing parts are made easily available. When necessary, it shall also include line diagrams showing all plumbing connections between water tank, primer, heat exchanger etc. Six sets of these books shall be supplied with the vehicle.



## 17. QUALITY OF GOODS

The equipment/product must conform to the highest quality and standard specified in Tender Document. Vendor should guarantee that the items delivered to the purchaser are brand new. All tools/ motors/ machines must be supplied with their original and complete printed documentation and technical specifications and Test Certificates, if any. For imported items, the Vendor should submit the import documents.

Consistency must be maintained for the entire Fire Mist System. All the required items in schedule of requirement must be of the same brand and of the same or higher technical specification.

All the equipment should be supplied with the relevant Indian or international standards, where ever the Indian standards are not in existence the decision of Purchase Committee, IIT Kanpur in this regard will be final.

## 18. TRANSPORTATION OF CHASSIS

The Vendor should collect the delivery of chassis from the Purchaser. Transportation cost will be paid to the Vendor for the transportation of chassis to the works from the place of delivery. However, a separate amount should have been quoted in the Tender Document Annexure- A by the Vendor for the transportation of chassis. Due care should be taken by the Vendor during transportation of the chassis. Any damage during the transit has to be compensated by the Vendor.

## 19. WORKMANSHIP AND MATERIAL

Workmanship executed shall be of high order. All rivets and belts - holes shall be drilled (not punched) and fitted with well fittings. All steel joints shall have a coat of approved paint on both surfaces before reverting or bolting or welding. All steel screws, bolts, nuts, rivets, etc. shall be zinc coated or rust proofed by recognized process. All directions and instructions (oral or in writing) on all points relative to the mode or manner of carrying out the works or as to the nature and quality of materials used or workmanship executed whenever given by the IIT Kanpur shall be received and complied with by the successful Bidder.

## 20. DELIVERY AND DELIVERY DOCUMENTS

After completion of work, free delivery of the vehicle should be given at the IIT Kanpur Delivery period should be as specified in the tender. All relevant documents of mounted accessories shall be handed over to IIT Kanpur.

## Terms and Conditions Governing the Contract

1. The rates are to be quoted by the bidders in Indian Rupees only and payment shall be made to successful bidders in Indian Rupees only. Any statutory applicable taxes such as applicable Tax, etc. should be mentioned separately in the Financial Bid. However, quote should be inclusive of all other levies, statutory taxes and charges such as Octroi, Packaging & Forwarding charges etc. and should be delivered at the premises. All prices shall be fixed and shall not be subject to escalation of any description. The rates must be quoted strictly as per the 'Financial Bid Format' provided.
2. The time of delivery including testing and handing over in satisfactory condition is the essence of the contract and the shipment should be effected as per the schedule. In the event of part supply, IITK shall withhold the entire payment until the whole of the supply as per the order is delivered. In case the delivery schedule is not stipulated as essential criteria, Contractor may indicate the period of delivery required for them.
3. If the completion of systems/ components is delayed for reasons of force majeure such as acts of God, Acts of Public enemy, acts of Government, fires, floods, epidemics, quarantine



## Tender reference No. Security/ WMFFS /IITK/2019/28

- restrictions, illegal strikes and freight embargoes, the Contractor shall within 3 days from the date of such occurrence, give notice to IITK in writing of his claim for extension of delivery period. IITK on receipt of such notice may agree to extend the Contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract. Unless the extended delivery period is agreed by IITK in writing, contractor cannot claim the extension of delivery time as a matter of right. IITK shall have the right to either cancel/ extend the order validity/ levy LD as appropriate.
4. If the Contractor shall fail to deliver the systems/ components within the time specified in the Contract, IITK shall recover from the Contractor as liquidated damages a sum of 0.5% of the contract price of the undelivered systems /components for each week of delay (or) part thereof. The total liquidated damages shall not exceed 5% of the contract price of the unit or units so delayed. Systems/ components will be deemed to have been delivered only when all essential components parts are also delivered. If any essential components are not delivered in time, the entire system / components will be considered as delayed until such time the missing parts are delivered.
  5. In general, all supplies are to be delivered as per the schedule of the contract only. In exceptional circumstances, part supply of the items may be accepted upon the recommendation of end-user. However, payment will be effected as stipulated in order/ contract.
  6. The Goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.
  7. If the contractor fails to deliver the stores or any instalment thereof within the period fixed for such delivery or at any time repudiates the contract before expiry of such period, IITK is entitled to cancel the contract and source purchases from third parties the stores not delivered at the risk and cost of the defaulting contractor.
  8. The Contractor warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Contractor further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/ or material is required by IITK's Specifications) or from any act or omission of the Contractor, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
  9. **Bidders shall select the payment option as offline to pay the EMD and enter details of the DD/BC/BG/others.**
  10. **Deadline for delivery and installation is 60 days from the issue of P.O..** As per standard terms, 70% payment will be made against after Installation, Commissioning, Testing and installation acceptance; and rest 30% after 03 months of successful observation period.
  11. The price shall include but not limited to:
    - a. Costs of goods / services covered in this contract.
    - b. Taxes and duties
    - c. Transportation and packing cost
    - d. Cost of Installation, testing, commissioning and handing over of goodsThe Bidder shall indicate on the appropriate price schedule form, the unit prices and total bid prices of the goods he proposes to supply under the contract strictly as per price bid format of tender.
  12. **Total duration for delivery and installation is 60 days from the issue of P.O. The supplier is also required to do the installation and demonstration of the equipment within this time; otherwise the penalty clause will be the 0.5% of the total PO value, on weekly basis.**





## Tender reference No. Security/ WMFFS /IITK/2019/28

In case of any damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. IIT Kanpur will not be liable to any type of losses in any form.

- 13. Downtime:** During the warranty period, not more than 1% downtime will be permissible. For every day exceeding permissible downtime, penalty of 1/365 of the 1% FOB value will be imposed. Downtime will be counted from the date and time of the filing of complaint within the business hours.
- 14.** The Bidder shall have to submit a copy of GST Registration certificate along with quotation (if applicable) for claiming the above.
- 15.** In respect of GST as per notification No.45/2017 central tax (Rate) dated 14.11.2017 and Notification No. 47/2017-Integrated Tax (Rate) dated 14.11.2017 and G.O.(MS) No.161 CT&RD dated 14.11.2017. The GST is payable by IITK at 5% only against the tariff rate. Necessary exemption certificate will be issued by IITK for claiming the benefit of exemption. In respect of Import, the custom duty at concessional rate of 5.15% is only payable by IITK under notification no.51/96 customs dated 23.07.1996 and 43/2017 customs dated 30.06.2017 and High sea Sale also acceptable by the IIT Kanpur. No other tax is payable.
- 16.** In the event of any dispute, difference, interpretation or application relating to this agreement arises, the same shall be settled amicably by the parties. In case the dispute or differences could not be settled amicably, the same shall be referred for adjudication through Arbitration by an Arbitrator to be appointed by the Director, IITK. The Arbitration shall be concluded in accordance with the provisions of Arbitration & Conciliation Act, 1996 or any statutory modifications or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings. Venue of such arbitration shall be at Lucknow. The language of arbitration proceedings shall be English. The Arbitrator shall make a reasoned award (the "award"), which shall be final and binding on the parties. The cost of the arbitration shall be shared equally by the parties to the contract. However, expenses incurred by each party in connection with the preparation, presentation etc., shall be borne by each party.
- 17.** The bidder shall furnish, as a part of his bid, documents establishing the bidder's eligibility to bid and his qualification to perform the contract if his bid is accepted. The bidder must possess PAN No. and any other registration to claim the statutory levies.
- 18.** The bidder is qualified only when he is the original manufacturer or established dealer with original manufacturer's authorization letter to quote, sell and service the products offered as per the prescribed format in our web site along with agency agreement.
- 19.** In a tender, either the Indian agent on behalf of the Principal / OEM or Principal / OEM itself can bid but both cannot bid simultaneously for the same item / product in the same tender. If an agent submits bid on behalf of Principal / OEM, the same agent shall not submit a bid on behalf of another Principal / OEM in the same item / product. In case a bidder not doing business within India, he shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India equipped and able to carry out the supply, maintenance, repair obligations etc. during the warranty and post warranty period or ensure a mechanism at place for carrying out the supply, maintenance, repair obligations etc. during the warranty and post warranty period. OEM also shall provide agency agreement and indicate agency commission payable to make remitting in INR.



## Tender reference No. Security/ WMFFS /IITK/2019/28

**20.** Institute has full rights to check the credentials of the OEM and the bidder by its own sources. The OEM will be responsible for the successful implementation and maintenance of the deployment, and has to validate and certify the solution.

**21. Training:** The supplier shall demonstrate the system after the delivery at the consignee's premises. Operational and general maintenance training of the above system shall be given to operational staff at user site immediately after supply.

**a.** Bidder shall impart one week training for all the items of FIRE MIST deployment (Hardware & Software) to at least ten (12) Department's personnel at IIT Kanpur's premise absolutely free of cost.

**b.** Contractor shall upon completion of the installation provide complete training with documentations on the configuration, operation and maintenance of the systems to the required Department's personnel assigned by the Department.

**c.** Training should include documentation required for understanding the system, its working concepts and basic trouble shooting guidelines and maintenance procedure.

**d.** Training shall be arranged for security personnel (IIT Kanpur) on basic operation, administration, updating & personalization including all other aspects of FIRE MIST operation.

**e.** It should cover all the aspects related to analysis of video footage during online/offline mode, exigency operation, etc. All above training shall be part of integration and acceptance of the system.

### **22. Documentation**

**a.** Bidder shall submit documents for operation and maintenance of the entire system.

**b.** Systems block diagram along with wiring layout of all the items of FIRE MIST deployment shall be submitted. VMS software working principle, capabilities, and detail operational parameters for all the application.

**c.** Software description manual which shall include customization as per requirements, flow charts, operating procedures for all applications.

**d.** OS for Servers and PCs shall be supplied with license (OEM/full) along with original media with key no. on the name of PRL.

All the documents shall be provided in Suitable Memory Device in two copies absolutely free of cost.

### **23. BREACH OF CONTRACT**

If any of the terms and conditions of this Tender Document or the Contract are violated or if the **Mini Water Tender based on Water Mist Technology** supplied by the Vendor do not meet specified standards or fail the acceptance test, the event shall amount to the breach of contract. In such an event, the Vendor shall be given a time of 30 days to cure the breach and if the breach remains uncured even after the cure period of 30 days, then the Purchaser may at its discretion terminate this Contract without assigning any reason thereof. In the event that the Purchaser terminates this Contract, without prejudice to any other remedy available to the Purchaser under this Contract or under any law, the Purchaser shall proceed for any other appropriate action. The Vendor shall indemnify the Purchaser of all the losses directly or indirectly occurring to the Purchaser from such breach. In case if the defect related to the equipment is cured by the Vendor during the cure period, the equipment will be accepted by the Purchaser only after complete commission and satisfactory functioning of equipment for a minimum period of 90 days. The warranty period will commence only on acceptance (based on acceptance test) of equipment by the purchaser.

### **24. TERMINATION OF INSOLVENCY**

The Purchaser may at any time terminate the contract by giving written notice to the Vendor, if the Vendor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Vendor, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.



## 25. FORCE MAJEURE

“Force Majeure” means an exceptional event or circumstance:

- i. which is beyond a vendors control,
- ii. which such vendors could not reasonably have provided against before entering into the Contract,
- iii. which, having arisen, such vendor could not reasonably have avoided or overcome, and
- iv. which is not substantially attributable to the other vendor.

“Force Majeure shall mean the following exceptional events or circumstances, so long as conditions (a) to (d) above are satisfied:

- i. war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- ii. rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war,
- iii. riot, commotion, disorder, strike or lockout by persons other than the Contractor’s Personnel and other employees of the Contractor and Sub-contractors.
- iv. iv. weapons of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor’s use of such munitions, explosives, radiation or radioactivity, and
- v. Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

If the Vendor is or will be prevented from performing any of its obligations under the Contract by Force Majeure, then it shall give a written notice to the other Purchaser of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Vendor became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

The Vendor shall, having given notice, be excused performance of such obligations for so long as such Force Majeure prevents it from performing them. Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of the Vendor to make payments if any to the Purchaser under the Contract.

The Vendor shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure. It shall be the duty of the Vendor to give a written notice to the Purchaser as soon as it ceases to be affected by the Force Majeure.

The vendor shall not be liable for forfeiture of its performance security, penalty or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

## 26. RISK PURCHASE

In case, if the Vendor fails to deliver the quantity as stipulated in the delivery schedule, the Purchaser reserves the right to procure the same or similar materials from alternate sources at the risk, cost and responsibility of the Vendor.

## 27. WARRANTY (EXCLUDING CHASSIS)

The complete structure & equipments provided under this Contract shall be subject to an overall performance **warranty for a period of 36 months from the date of delivery** to the destination as prescribed.

The Vendor shall be responsible for the maintenance of the Water Mist System for any defects or damages due to bad workmanship or of any inferior material, accessories, apparatuses etc. The opinion of Purchaser for the quality of workmanship and proper finish etc. shall be final.

To avoid hampering of the services the Vendors shall be responsible to attend any call for manufacturing or defect in the Fire Mist System within 48 hours however; defect should be carried out on Top Priority i.e. within 8 days.

### **The warranty should cover the following**

- i. The equipment/product should be repaired within 03 days, failing which a replacement should be given till the machine is repaired.



## **Tender reference No. Security/ WMFFS /IITK/2019/28**

- ii. The Vendor is expected to promptly attend the equipment as above. In order to provide an efficient service the Vendor must obtain the name, address, phone number & other contact details of the person in possession of the equipment. He will be required to keep this list up-to date at all times.
- iii. The Vendor will obtain written acknowledgment from the above person after each time the equipment is serviced. Such receipts will have to be produced to get the sign off for successful completion of the warranty period.
- iv. The warranty is comprehensive, but for those parts which are liable to wear & tear due to mishandling can be charged extra. However the rates should be quoted in separate annexure and these rates should be valid for 3 years

### **28. PENALTY FOR DOWNTIME**

Any equipment that is reported to be down should be either fully repaired or replaced by the Vendor with temporary substitute within 48 hours (inclusive of Public Holidays). The reporting will be through a telephonic message or any other mode as the Purchaser may decide.

In case Vendor fails to meet the above standards of maintenance, there will be a penalty as per the rule. The temporary substitute machine or equipment should be replaced by the original machine or equipment duly repaired within 72 hours

### **29. PROTECTION AGAINST RISK OF OBSOLESCENCE**

Vendor will make available the spare parts for the systems available for a minimum period of ten years from the date of the delivering of items prescribed under the RC.

### **30. INDEMNITY**

The Vendor shall indemnify, defend and hold harmless the Purchaser and its respective officers, directors, employees, representatives and agents ("Indemnified Parties"), from and against any and all suits, actions, liabilities, legal proceedings, claims, demands, losses, costs and expenses of whatsoever kind or character, including without limitation, reasonable attorneys' fees and expenses, for injury or death of third parties or loss of or damage to property of third parties or any other loss or damage caused to the Indemnified Parties, whether direct or indirect, arising as a result of or in connection with (i) any failure on the part of the Vendor to perform its obligations under the Contract or the Tender Document, (ii) any breach on the part of the Purchaser of terms, conditions, representations or warranties under the Contract or the Tender Document, (iii) any negligent acts or omissions or willful misconduct by the Vendor or anyone acting on Vendor's behalf or (iv) any violations of safety procedures, prescribed by the Purchaser or any Law or any Government Authority, by the Vendor or its employees, agents, representatives or independent contractors or (v) any faulty goods or services provided by the Vendor (vi) any infringement of any patent, trademarks, copyrights or any other Intellectual Property Rights or statutory infringements in respect of all the products supplied by the Vendor.

### **31. RESTRICTIONS OF THE RATE CONTRACT**

The Vendor warrants that the price at which he has agreed to provide its goods and services to the Purchaser under the Contract is the lowest price and this lowest price quoted by the Vendor shall become the Rate Contract price. The Vendor warrants that he shall not quote a price below the Rate Contract, for goods and services of similar specification, to procure any other Government Tender. The Vendor also warrants that he shall abide by the guidelines for Rate Contract. If the Vendor violates the terms of this Clause of the Rate Contract, he shall be barred from participating in any future Bidding Process and the Purchaser if it thinks fit shall proceed to terminate such default Contractor without any compensation to the Vendor.

The decision purchaser in this matter shall be final.

### **TECHNICAL BID EVALUATION**

The technical bids will be evaluated based on the documents, compliance sheet and product literature provided by the bidders.

### **PRICE BID EVALUATION**



## Tender reference No. Security/ WMFFS /IITK/2019/28

- i. The quoted price shall be corrected for arithmetical errors.
- ii. In cases of discrepancy between the prices quoted in words and in figures, lower of the two

The stages of inspection will be as under:-

- |                      |   |
|----------------------|---|
| 1st stage inspection | a) Structural Inspection                                |
|                      | b) Testing of Water Tank,/ Foam Tank hydro testing      |
|                      | c) Inspection of Panel Work.                            |
| 2nd stage Inspection | d) Installation of Pump & Water Mist Unit including Gun |
|                      | a) Pre finishing inspection.                            |
|                      | b) Compliance of non-conformities, if any               |
|                      | c) Water Mist test as per standards                     |
|                      | d) Pump Testing & Hose Reel Gun performance             |
|                      | Complete functions-operations of all systems installed. |

shall be considered.

- iii. The lowest evaluated price as per the above evaluation will be adjudged as L1 price.

### TERMS AND CONDITIONS

- i. **Delivery Period:** The delivery should be made within 60 days from the date of receipt of purchase order.
- ii. **Warranty:** The entire items supplied by the vendor shall be guaranteed for 03 years against any defects and the vendor should provide time-to-time operational maintenance support (On Site comprehensive Warranty). The said warranty should cover all Products. The vendor shall be liable to rectify any defects that may be found in the equipment supplied free of cost.
- iii. **Installation:** The installation should be done at the IIT Kanpur at no extra cost.
- iv. **Response Time:** The response time of the vendor to attend to any complaint upon receipt of the complaint / information from the user should not be more than 24 hours.
- v. The vendor must submit their tender document in the given format. Deviations from this format will automatically disqualify the tender process.
- vi. Purchase Committee, IIT Kanpur reserves the right to increase or reduce the quantity or even withdraw the tender without assigning any reasons thereof.
- vii. Any Proposal or Bid received after Bid submission date and time will not be entertained/ considered.
- viii. The Successful vendor has to provide training for installation and configuration for the items supplied by them to the staff involved.

### **34. Marking:**

The equipment and its accessories shall be marked for capacity, Manufactures name, month /year of manufacturing etc.

### **35. Authorization:**

If the supplier is not a manufacturer of the system they shall submit valid authorization letter from the original manufacture or their Indian corporate office along with offer. The manufacturer of their Indian corporate office shall have confirmed in writing for the availability of all spare and after sales service support for the entire life of the equipment from the date of supply of the above system. Without which the offer shall be rejected.

### **36. STAGewise INSPECTION:-**

Advance notice of at least 1 week should be given by the contractor, however contractor must keep the vehicle ready for stage wise inspection before giving such notice, "Purchaser" reserves the right for carrying the immediate inspection after receiving such notice for inspection.



Tender reference No. Security/ WMFFS  
/IITK/2019/28

Annexure -1  
Eligibility Criteria of OEM and Bidder:

S. No.	Description	Complied (Y/N)	Remarks
1	OEM should be ISO 9001:2015 certified.		
2	The OEM should support next business day delivery against defective spares in major locations in India. OEM should have 24x7x365 support for India with a direct TAC support in the country.		
3	The bidder must be a reputed manufacturer (OEM) or his authorized System Integrator of the type of products offered. In case of System Integrator, a <b>Letter of Authorization from OEM and End to End Agreement</b> specific to the tender should be enclosed. <b>The bids received without authority are liable to be rejected.</b>		
4	The bidder should have at Least 5 Year experience in the field and service provider of Central Government & PSU's. <b>Documentary proof in this regard should be submitted.</b>		
5.	The bidder <b>should not be blacklisted nor got any unsatisfactory performance letter from</b> Central Government & PSU's.		
6	The bidder must enclose a copy of complication certificate / Purchase Order having successfully executed work of water mist fire tender in Central Government , Government & PSU's for last 5 Years.		
7	For after sales services the agency shall be available at all times and communication by Tele/E-Mail/Fax to agency shall be acknowledged immediately on the same day.		
8	Bidder should be ISO 9001:2015, certified. For providing Solutions and Services etc.		
9	The Bidder shall provide the Registration number GST/Sales Tax / Service Tax /PAN /TIN - Registration number.		
10	Bidder should have minimum 5 years presence in India. <b>(Attach Company Registration Certificate)</b>		
11	Bidder should have minimum 02 Cr. net worth in last financial year 2018- 19 <b>(Attach CA certificate)</b> .		
12	Bidder should have Solvency Certificate of Rs. 1 Cr. <b>(Attach Bank Certificate)</b>		
13	Bidder should have minimum Rs. 5 Cr. Average Turnover for last 3 years 2016-17, 2017-18, and 2018-19. <b>(Attach CA certificate and Balance sheet &amp; P&amp;L Account).</b>		
14.	<b>Bidder has to quote the products from the approved Makers only</b> "; else his bid will not be considered for evaluation.		
15.	Bidder should be within 350 kms radius of IITK, Kanpur .		

**Note:**

1. Please don't upload unnecessary documents or bulk documents as a single document.
2. Name each document with the same name which is asked, so that it can be easily trackable.

(For example – "CA Certificate" will be named as "CA Certificate.pdf")

(Signature of the  
Tenderer)  
Name:  
Seal of the Company





**Compliance Sheet:**

<b>Water Mist Fire System compatible to existing Mahindra Imperio vehicle</b>		
<b>Sl.No.</b>	<b>Description of Requirement</b>	<b>Compliance (Yes/No)</b>
<b>1.</b>	<p><b>GENERAL REQUIREMENTS:-</b> The specification covers the requirements of design, manufacture, testing, supply of MINI FIRE TENDER BASED ON WATER MIST TECHNOLOGY – 550 LTRS CAPACITY mounted on a prime mover of pay load capacity of 1 ton.</p>	
<b>2.</b>	The Tender shall be suitable for fire fighting and capable of being deployed in narrow lanes of IITK KANPUR.	
<b>3.</b>	<p><b>DESCRIPTION:</b>  <b>3.1</b> The Vehicle shall be Mahindra Imperio make and will be provided by IITK Kanpur. The vehicle shall comprise of the following components.  <b>3.2</b> Water Mist Fire Fighting System  <b>3.2.1</b> The water mist fire fighting system shall have a filling volume of 500 ltrs plus of Water and 50 ltrs of Foam. (Total 550 ltrs plus. maximum) It should be designed to be mounted on above said vehicle and can be removable in case of requirement. It should have minimal requirements of space and weight while optimizing on manpower requirement and minimizing the water and other collateral damage to negligible in comparison to conventional water tender. The Unit design shall incorporate foam induction system which provides variable foam dosing and suction of water from an external source for direct fire fighting or filling of the tank. It should be primed or filled from pond/storage tank/direct storage.  <b>3.2.2</b> Specification/Details of the Unit            Weight of empty 300 ltrs. Unit .....&lt;200 kgs. (Max)            Max. Measurements of the unit (in mm) ..... As compact as possible            Usable Water capacity ..... 500 ltrs plus.            Usable Foam capacity ..... 50 ltrs            No. of deliveries ..... 02 – Nos  <b>3.2.3</b> Main Extinguishing Gun            Flow rate ..... 38 to 42 ltrs/min (+/- 5%)            Weight of extinguisher gun ..... 2 kgs Max.            Gun Dimensions ..... As compact as possible.            Working pressure on the nozzle:. 100 to 150 bars Max. with nominal reaction.            Throw ..... Jet–not less than 15mts. (+/- 10%)            Spray: not less than 6m (+/- 10%)            Hose reel .....60mts (std) on manual drum            Max. set operating pressure ..... 100 bars            Starter ..... Electric starter with provision of Pull cord over-ride            Level Indicator ..... Mechanical</p>	
<b>4.</b>	<p><b>Main Pump</b> The pump should be capable of suction of water from tank or open source and to maintain adequate discharge rate and pressure for operation of nozzle at optimum efficiency. Max. Pressure ..... 150 Bars</p>	





**Tender reference No. Security/ WMFFS  
/IITK/2019/28**

	Min. flow ..... 38 l/min Power of the engine ..... Not less than 13 BHP Fuel ..... Unleaded Petrol	
<b>5.</b>	<b>ENGINE</b> <b>5.1</b> The prime mover for pump shall be 4-stroke Petrol driven engine and shall have compatible electrical and lubrication system. The engine should preferably started by on 12V battery of vehicle for which adequate charger shall also be provided. Suitable electronic instruments shall be provided on the body of engine/panel for fuel level, battery and temperature. <b>5.2</b> The engine should be of make like Kirloskar/Honda/B&S(Brister & Stroke) and should be of capacity between 13 to 21 HP, four stroke, V-twin air cooled petrol engine. <b>5.3</b> The engine shall be based on petrol driven fuel.	
<b>6.</b>	<b>Foam Induction</b> A suitable means shall be provided for induction of foam from outsource from foam can and pick up tube and a metallic structure shall be designed to hold it so that proportion for single or double delivery remains constant and foam quality is maintained. Max. induction ..... 7% (From 0.5 to 6 adjustable) .	
<b>7.</b>	<b>Accessories</b> - Electric starter from vehicle battery (Enabling the Unit to be electrically started) - 01 - HP Hose length of 30 mtrs each for two lines of delivery with Drum - 02 per set. - Additional two HP hose length of 30 mtrs each with push connector and locking as a spare set. - Tool kit comprising of 1 no adjustable spanner 12", 1 no. cutting pliers, 1 set of flat spanners, 1 set of adjustable screw driver, 1 set of suction key and other special tools as per the requirement of the unit as suggested by the manufacturer. - Revolving lights bar as mounted in fire vehicles(12 V/24V LED lights optional). - Fog lamps/lights. - Search light with 100 Mtrs cable of 08 mm complete set. - PA system. - Siren/hooter. - Branded BA set of fiber body with one spare oxygen cylinder. - Chemical canister branded. - Safety shoes -06 pairs each branded one like Bata/Scissor/panther etc. - Two fire fighting heat resistant suits and optional rescue and protection equipment. - Two snake catchers of different lengths.	
<b>8.</b>	<b>DESIGN &amp; DEVELOPMENT:</b> <b>8.1</b> Equipment details <b>8.2</b> The Water Mist Fighting System will be a self-driven fire fighting unit operated with inbuilt Petrol Engine coupled to a pump and attached with a reducer & hose pipes, Mist generating Guns. <b>8.3</b> The water mist system shall be capable of carrying 500 litres of water tank made of FRP shape T (in order to reduce the gravity centre of the vehicle) and for AFFF a separate system to pump and mix the required ratio, which can be discharged in the form of a mist by a gun. <b>8.4</b> The discharge gun shall be of light weight stainless steel nozzle capable of producing Water Mist with the ability to control the discharge in short burst and long shots.	



**Tender reference No. Security/ WMFFS  
/IITK/2019/28**

	<p><b>8.5</b> The size of mist particle shall be in the range of 150 to 300 microns.</p> <p><b>8.6</b> A suitable pressure reducer with a safety valve, capable of reducing to a low pressure not more than 150 bars &amp; jerk free working pressure shall be incorporated. The main vessel shall be corrosion free.</p> <p><b>8.7</b> The foam required shall be aqueous film forming foam (AFFF).</p> <p><b>8.8</b> The unit shall have adequate provisions for safety of the system.</p>	
<b>9.</b>	<p><b>SAFETY DEVICES</b></p> <p><b>9.1</b> The following safety device shall form part of equipment.</p> <p>I) The system shall be provided with pressure safety valve.</p> <p>II) The system will have proper heat &amp; exhaust outlet for the engine without causing any interference to the operator while operating the unit.</p> <p>III) Any other safety device which is felt to be necessary to be a part of the equipment.</p>	
<b>10.</b>	<p><b>MAIN WATER TANK</b></p> <p>10.1 The water tank shall be made of FRP giving a free corrosion for life and a lightweight of the WATER MIST SYSTEM, having useable water storage capacity of 500 Litres properly baffled into segment to reduce water surge. The water tank shall be T shaped and the thickness of the water tank should be of 5mm minimum. A man hole of <math>\Phi</math> 330 mm avec overflow pipe and an optical level of water should be part of the tank. The tank should resist to the flame and be anti ignition complying with the international standards. Water tank should be of FRP.</p>	
<b>11.</b>	<p><b>GUN</b></p> <p>The gun shall be provided with a suitable stainless steel filter. The discharge rate of main gun shall not be less than 38 to 42 ltrs./min. at pressure not exceeding 100 bars. The second gun should have a flow rate not exceeding 20 LPM. The design of gun shall be such that there is no appreciable re-coil pressure and the throw shall not be less than 15 mts (Jet Mode) and shall not be less than 6 meters (Spray mode). The second gun shall an attachment for discharging foam with suitable aeration facility.</p>	
<b>12.</b>	<p><b>HOSES</b></p> <p>12.1 The hoses provided in the system shall be high quality and shall be capable of holding the temp. ranges -200 to + 550 C. The material specification, working pressure, test pressure and cracking pressure should be indicated for each type of hose. The minimum length of each hose should be 60 M.</p> <p>12.2 The seals and O-rings used in the system should be of synthetic material like Nitrile rubber or equivalent.</p>	
<b>13.</b>	<p><b>MARKING</b></p> <p>Marking shall give details of capacity, manufacturer's name, month/year of manufacturing of the system etc.</p>	
<b>14.</b>	<p>Test of acceptance of Water Mist fire fighting system</p> <p>Physical dimensions, performance &amp; weight check of equipment as given under different items above shall form part of test of acceptance</p>	
<b>15.</b>	<p><b>PAINTING OF VEHICLE:</b></p> <p>The whole vehicle shall be painted externally &amp; internally with anti corrosive paint i.e. epoxy coating and 3 coats of fire red Duco-colour with tiptop finishing. For stowage lockers, cab etc with cream colour and areas not visible with black colour. The shades of the colour should be got approved from the National Fire Services. The Service lettering (as specified by the authorities) &amp; LOGO of IITK Kanpur in Hindi &amp; English shall be painted on both sides with golden-yellow colour.</p>	
<b>16.</b>	<p><b>INSTRUCTION BOOK:</b></p> <p>Instruction book for the guidance of the user including both operating and normal maintenance procedure shall be supplied. The book shall include</p>	



**Tender reference No. Security/ WMFFS  
/IITK/2019/28**

	<p>an itemized and illustrated spare parts list giving reference number of all the wearing part. A set of all operating manual for the guidance of the user including both operation and normal maintenance procedures for the:-</p> <ol style="list-style-type: none"> <li>i. Appliance.</li> <li>ii. Petrol Driven Pump.</li> <li>iii. Pump details &amp; operation &amp; Maintenance Manual.</li> </ol> <p>The book along with the item wise drawing and illustrate spare list giving reference number to all wearing parts are made easily available. When necessary, it shall also include line diagrams showing all plumbing connections between water tank, primer, heat exchanger etc. Six sets of these books shall be supplied with the vehicle.</p>	
<b>17.</b>	<p><b>QUALITY OF GOODS</b></p> <p>The equipment/product must conform to the highest quality and standard specified in Tender Document. Vendor should guarantee that the items delivered to the purchaser are brand new. All tools/ motors/ machines must be supplied with their original and complete printed documentation and technical specifications and Test Certificates, if any. For imported items, the Vendor should submit the import documents.</p> <p>Consistency must be maintained for the entire Fire Mist System. All the required items in schedule of requirement must be of the same brand and of the same or higher technical specification.</p> <p>All the equipment should be supplied with the relevant Indian or international standards, where ever the Indian standards are not in existence the decision of Purchase Committee, IIT Kanpur in this regard will be final.</p>	
<b>18.</b>	<p><b>TRANSPORTATION OF CHASSIS</b></p> <p>The Vendor should collect the delivery of chassis from the Purchaser. Transportation cost will be paid to the Vendor for the transportation of chassis to the works from the place of delivery. However, a separate amount should have been quoted in the Tender Document Annexure- A by the Vendor for the transportation of chassis. Due care should be taken by the Vendor during transportation of the chassis. Any damage during the transit has to be compensated by the Vendor.</p>	
<b>19.</b>	<p><b>WORKMANSHIP AND MATERIAL</b></p> <p>Workmanship executed shall be of high order. All rivets and belts - holes shall be drilled (not punched) and fitted with well fittings. All steel joints shall have a coat of approved paint on both surfaces before reverting or bolting or welding. All steel screws, bolts, nuts, rivets, etc. shall be zinc coated or rust proofed by recognized process. All directions and instructions (oral or in writing) on all points relative to the mode or manner of carrying out the works or as to the nature and quality of materials used or workmanship executed whenever given by the IIT Kanpur shall be received and complied with by the successful Bidder.</p>	
<b>20.</b>	<p><b>DELIVERY AND DELIVERY DOCUMENTS</b></p> <p>After completion of work, free delivery of the vehicle should be given at the IIT Kanpur Delivery period should be as specified in the tender. All relevant documents of mounted accessories shall be handed over to IIT Kanpur.</p>	



**Annexure – 3**

**Organization Letter Head**

**DECLARATION SHEET**

We, \_\_\_\_\_ hereby certify that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, OEM has agreed to support on regular basis with technology / product updates and extend support for the warranty.

The prices quoted in the financial bids are subsidized due to academic discount given to IIT Kanpur.

We, further specifically certify that our organization has not been Black Listed/De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years.

NAME & ADDRESS OF the authorized Dealers/ distributors	
1 Phone	
2 Fax	
3 E-mail	
4 Contact Person Name	
5 Mobile Number	

**Signature** of  
**Tenderer**  
**Name:**

**Seal of the Company**



**TENDER ACCEPTANCE LETTER**  
(To be given on Company Letter Head)

Date:  
To,  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: \_\_\_\_\_

Name of Tender / Work: -  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:  
\_\_\_\_\_  
\_\_\_\_\_

as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_ to \_\_\_\_\_ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We do hereby declare that our Firm has not been blacklisted/ debarred/ terminated/ banned by any Govt. Department/Public sector undertaking.



**Tender reference No. Security/ WMFFS /IITK/2019/28**

**6. I / We certify that all information furnished by our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.**

**Yours Faithfully,  
(Signature of the**

**Bidder, with Official Seal)**



Tender reference No. Security/ WMFFS /IITK/2019/28

**WATER MIST FIRE TENDER**  
**PROCUREMENT**  
**TENDER DOCUMENT**