

**PROFESSOR JAYASHANKAR TELANGANA STATE AGRICULTURAL UNIVERSITY
RAJENDRANAGAR, HYDERABAD-500030**



SHORT TENDER

BIDDING DOCUMENT

FOR

SUPPLY AND DEMONSTRATION OF DRONES

**PRINCIPAL SCIENTIST (ENTOMOLOGY) AND NODAL OFFICER (DRONES),
INSTITUTE OF RICE RESEARCH, ARI, PJTSAU,
RAJENDRANAGAR, HYDERABAD – 500030**

**PROFESSOR JAYASHANKAR TELANGANA STATE AGRICULTURAL UNIVERSITY
RAJENDRANAGAR, HYDERABAD-500030**



**PROFESSOR JAYASHANKAR TELANGANA STATE AGRICULTURAL UNIVERSITY
RAJENDRANAGAR, HYDERABAD-500030**

SHORT TENDER NOTIFICATION

Univ. Proc.No.4453/Res. IV/2023

Date: 15.03.2023

* * *

Sealed tenders are invited for the supply and demonstration of drones to PJTSAU. The details containing terms and conditions along with specifications and EMD, may be downloaded from the www.pjtsau.edu.in. The tenders should reach on or before **23.03.2023**, 4.00 PM at below address.

Arunagopalavarma
15/3/2023

Nodal Officer (Drones)

Institute of Rice Research, ARI, Hyd – 30.

SHORT TENDER DOCUMENT

**PROF. JAYASHANKAR TELANGANA STATE AGRICULTURAL UNIVERSITY
Administrative Office, Rajendranagar – Hyderabad-30**



**INSTITUTE OF RICE RESEARCH
PJ TSAU, RAJENDRANAGAR, HYDERABAD - 500030**

S.NO	ITEM	:	Details
1	BID REFERENCE	:	Univ. Proc.No.4453/Res.IV/2022-23 Dated: 04.11.2022, Univ. Memo.No.4412/Res.IV/2022-23 Dated: 16.11.2022 & Univ. Proc.No.4453/Res.IV/2023 Dated: 15.03.2023
2	DATE FOR SUBMISSION OF FILLED IN SEALED TENDER OR BID DOCUMENT	:	23.03.2023 at 4.00 PM
3	OPENING OF TECHNICAL BIDS	:	24.03.2023 at 1.00 PM
4	OPENING OF FINANCIAL BIDS	:	25.03.2023 at 10.30 AM
5	PLACE OF OPENING BIDS	:	Principal Scientist (Ento) and Nodal Officer (drones), Institute of Rice Research (IRR), PJ TSAU Agricultural Research Institute, Rajendranagar, Hyderabad – 500030
6	ADDRESS FOR COMMUNICATION	:	Principal Scientist (Ento) and Nodal Officer (Drones), Institute of Rice Research, PJ TSAU, Agricultural Research Institute, Rajendranagar, Hyderabad – 500030 Email:varmanrgv@gmail.com Mobile:9912079464/7396798759

**TECHNICAL AND FINANCIAL BID DETAILS FOR SUPPLY OF DRONES
(I.SPRAYING DRONE (4 NOS), II. SURVEY DRONE WITH PAYLOAD (1 NO))**

I. Spraying Drones (4 Nos)**

Table 1. Technical Specifications of the UAV/ Drone

S. No.	Particulars	Details
(A)	Drone	
	Classification	Small/Medium
	Category	Multi-Rotor Drones
	No. of rotors	Hexacopter (6 rotors)
	Flight modes	Manual, Autonomous, A-B mode
	Tank capacity	10 litres or above
	Maximum Flying speed	10 m/s
	Maximum height of flying	30 m (above 90 feet)
	Maximum takeoff weight	Up to 50 Kg
	Minimum payload capacity	11 Kg
	Endurance with maximum take-off weight up to 50 kg (while working)	20 min (minimum)
	Hovering time (without payload)	25.0 min (minimum)
	Material	Carbon fiber and aviation Aluminum
	Flight range	Minimum 0.5 km within the VLOS
Compact frame design	Foldable arms	
(B)	Spraying assembly	
	Tank material	HDPE, PP or other corrosion resistant material
	Connecting tube material	HDPE Fiber, PVC or better or other corrosion resistant material
	No. of nozzles	4
	Type of nozzle	Flat fan spray/ Flat fan spray nozzles with minimum flow rate of 400 to 500 ml/min
	Spray Angle	Spray Angle: 80°-110°
	Pressure	3 - 20 bar
	Spray width/swath	3.0 ~ 5.0 m
	Spray flow rate	1.2 to 4.0 lit/min
	Droplet size	Minimum 100µm, Maximum 350µm
	Flow meter	Measurement Range: 0.5-5 lit/min, Accuracy: Minimum 10 ml
	Spray efficiency	5-8 ha/day
(C)	Battery *	
	Type	Lithium Polymer / Lithium ion
	Capacity	22000 mAh
	Cycle	Minimum 300 cycles *
	Charging time	90 min (maximum)
	Voltage	22-50 Volts
	Depth of Discharge	80%

	Charging rate & Discharging rate	0.1C and 4C
(D)	Control Unit	Suitable flight controller CPU, compatible the above specifications and as per DGCA guidelines Intel Core i5 v Pro processor or advanced Storage: Minimum 500 GB Memory: Minimum 4GB RAM Display: 14 inch or larger more with touch screen. Battery: Min.12 hours' backup Interfaces: USB, HDMI/VGA, Ethernet etc. should confirm IP 65 norms or as per recent norms/guidelines Max Transmission Distance (Communication distance between GCS and flying Drone (Km) \geq 0.5 km Inclusive of charger
(E)	Failsafe Features	Return to home in case of: Low battery, Loss of communication, Manual RTL, Wind, Empty tank and other fail-safe features
(F)	Terrain following radar system	The drone shall be equipped with terrain following radar (height sensor, terrain following sensor) to keep certain desired height above crops when spraying and in turn detects variable height of crop canopy to enable to spray uniformly across the crop canopy.
(G)	Other Specifications	
	Hovering accuracy (horizontal and vertical)	Compatible with above specifications
	Wind resistance Working temperature Working humidity	Up to 10 m/s 10-70°C 0-90% & compatible with above specifications
	Motor/GPS	Brushless, compatible with above specifications and as per DGCA guidelines

**** Supply at: 2 Nos: PJTSAU Drone Academy, Rajendranagar, Hyderabad; 1 No: KVK, Kampasagar, Miryalguda, Nalgonda District; 1 No: KVK, Adilabad**

Table 2. Other indicative specifications of the UAV/drone (Spraying Drone)

Basic Specification	Specific Requirements	Bid Requirement (Allowed Values)
Standards & Certification	Model Should be DGCA Certified (Type Approval Certificate)	Mandatory (copy of Type Approval Certificate downloaded from digital sky portal with digital signature to be enclosed with the proposal)
	UIN transferred in the name of purchasing organization	Mandatory (at the time of supply)
	*Battery lifecycle certificate from NABL accredited Lab	Mandatory
Generic	Control Mode	Manual, Autonomous
Drone	Type	Multi-Rotor, Vertical Takeoff & Landing
	Diagonal Wheel base (mm)	≈ 1200
	Flight Time (With payload) (Minutes)	20.0 (Minimum)
	Travel Speed (m/sec)	10 (Maximum)
	Hovering time (Without payload) (Minutes)	25.0 (Minimum)
	Maximum Takeoff Weight (Kg)	Up to 50kg
	Flight altitude range, (Above Ground Level),(ft)	90.0 (Minimum)
Spray System	Tank Volume (Ltr)	10.0 or above
	Material of Tube	PVC or better
	Operating Payload (Kg)	11.0 (minimum)
	Nozzle	Flat fan nozzle
	Nozzle Quantity (Nos.)	4
	Material of Tank	HDPE
	Level Meters	Flow and Liquid Level Meters should be available.
Battery *	Type	Preferably, 44.4 V Lithium Polymer
	Capacity, mAh	22000 (Maximum) / 16000 (Minimum)
	Charging Time (Minutes)	90.0 (Maximum)
	Life Cycles (Nos.)	300 (Minimum) *
	Quantity	Supplier to provide one set of battery fitted to drone and four sets as spare.
Additional Parameters	Emergency Recovery Mode	Hexacopter Structure, More Stable and reliable, Fos=3, ability to return back to launch pad or home position in case of communication failure, low battery/power, empty tank collision avoidance in all modes etc., inbuilt in the Drone Radar based collision detection: Detects tree, poles, wires etc. in Autonomous mode (min. 10 meter) and re-route path.

	Terrain following	RADAR based terrain following feature to spray uniformly across the crop canopy and this sensor helps to spray in Terrain fields like – Trees, Orchards, Horticulture Crops, Sugarcane etc. Should detects variable height of crop canopy and maintain constant spray height of 2 meter.
	Wind speed tolerance	Up to 10m/sec)
	Fire resistant- identification plate inscribed with UIN.	Mandatory - Integrated with the Drone
Remote Controller	Operating Frequency	5.725 GHz to 5.850 GHz
	Max Transmission Distance (communication distance between GCS and flying Drone (KM)	Up to 2 km
	Display	5.5inch screen, 1920 ×1080, 1000 cd/m ²
	System	Android
	Operating Temperature Range	10° to 70° C
Test Reports	Copies of reports and certifications to be furnished to buyer on demand at time of supplies	Yes
Other Mandatory items	Supply of Drone with UIN transferred in the name of organization	Yes
	Minimum Warranty	2 years
	Servicing.	To be made available at the Centre, where drone has been indented /supplied
	Training (Onsite)	Minimum of two days

Table 3: Drone Nozzle Specification and area covered (Spraying Drone)

S. No.	Detail Specifications	Spray volume Discharge rate (ml/min)	Number of Nozzles	Field capacity (5-8ha/day) @ speed of min. 5 m/s & 10 liter tank or above
1.	Flat Fan Spray Nozzle Spray Pattern: Flat Fan Droplet size: 100 to 350 μ m Material: Plastic + SS Spray Angle: 80°-110° Work Pressure: 3-20 bar	400-500	4	3.0-5.0

Accessories/Additional items

Table 4. The details of accessories and the additional items (Spraying Drone)

S. No	Item	Number
1	Charger (for remote and battery)	1
2	Additional battery sets	4
3	Additional propellers sets (2/6)	2
4	Additional landing gear set	1
5	Additional spraying Nozzles	4
6	Additional 10 lit plastic tanks	2
7	Maintenance and repair tool kit	1
8	Carrying case (Box)	1

II. Survey Drone/UAV (with payload) – 1 No.*

Table 5. Technical Specifications

1.	Physical Characteristics	Specification/Remarks
a.	Role of RPA	Multi-roles (Crop Diagnosis, Mapping and Survey)
b.	RPA maximum take-off weight	5.43 kg or above
C.	Category	Multi-rotor (Quadcopter)
2.	UAS Performance Characteristics	Specification/Remarks
a.	Endurance per flight	30 minutes (minimum)
b.	Range	Up to 0.5Km
c.	Maximum operating altitude	> 100 m AGL
d.	Working Temperature Range	10°C to ± 70°C
e.	Wind Resistance	10 m/s
3.	Operational Characteristics	Specification/Remarks
a.	Launch	Vertical Take-Off and Landing (VTOL)
b.	Flight Modes	<ul style="list-style-type: none"> • Position Hold Mode • Autonomous Waypoint Navigation Mode (AUTO Mode) • Emergency Return to Launch Mode
c.	Propulsion System	Electric propulsion system
d.	Battery	Lithium Polymer / Lithium ion 22000 mAh
e.	Charger	Charger with inbuilt 2 balance board
f.	Camera fitted to drone	RGB (Sony Alfa ILCE A 6000) need to be finalized
g.	Fail Safe features	<ul style="list-style-type: none"> • Return to Home on Communication Failure • Return to Home/Land on Low Battery
4.	Communication Link Characteristics	Specification/Remarks
a.	C-2 Link	<ul style="list-style-type: none"> • Transmit control commands from GCS to UAV • Transmit telemetry data from UAV to GCS
b.	Frequency Band	<ul style="list-style-type: none"> • 2.4 GHz up-link and down-link

5.	Ground Control Station (GCS) Characteristics	Specification/Remarks
a.	GCS Hardware	Radio Controller/Tablet/Mobile
b.	Display	<ul style="list-style-type: none"> • Geographic Map along with UAV location, • Flight plan • Display of important parameters: • Battery capacity • Distance from home • Waypoints • Artificial Horizon indicating UAV attitude
c.	Maps	Standard google maps with selectable layers of satellite, street view.
d.	User Controls	<ul style="list-style-type: none"> • Set altitude of the UAV • Waypoint navigation • Dynamic flight plan adjustment • Position hold mode which allows UAV to be flown in semiautonomous mode
e.	Pre-flight checks	<ul style="list-style-type: none"> • Integrated electronic pre-flight checklist
f.	Others	<ul style="list-style-type: none"> • Essential telemetry data logging. • Export of flight path in .kml format for reviewing in Google Earth
6.	Other Parameters	Specification/Remarks
a.	Handholding / troubleshooting	After sales support, team would be available on phone as well as electronic email.
b.	DGCA operational guidelines	Support to customer in complying with the DGCA operational guidelines
c.	Warranty	One year

* 1 No. Supply at PJTSAU Drone Academy, Rajendranagar, Hyderabad

Table 6. Other indicative specifications of the UAV/drone (Survey drone with payload)

Basic Specification	Specific Requirements	Bid Requirement (Allowed Values)
Standards & Certification	Model Should be DGCA Certified (Type Approval Certificate)	Mandatory (copy of Type Approval Certificate downloaded from digital sky portal with digital signature to be enclosed with the proposal)
	UIN transferred in the name of purchasing organization	Mandatory (at the time of supply)
	*Battery lifecycle certificate from NABL accredited Lab	Mandatory
Generic	Control Mode	Manual, Autonomous

Table 7: In package components (Survey drone with payload)

S.No	Description of items	Unit	Quantity
1	UAS	Nos.	1
2	Radio link controller	Set	1
3	Battery charger	Nos.	1
4	Dual Parachute Recovery System	Nos.	1
5	Lithium polymer / Lithium ion battery pack 22000 mAh (Set)	Nos.	1
6	Tool kit	Nos.	1
7	Log book	Set	1
8	Manuals	Set	1
9	Warranty	1 Year	-
10	Hard case for storage and transport	-	1
11	Onsite training cum demonstration	2 days (min.)	1
12	Mounting Provision and Integration with different sensors / cameras (<i>viz.</i> , multi-spectral, hyper-spectral, thermal, multiband etc.,)		

The quote should include all possible accessories required for operationalization of the drones as per the technical specifications mentioned above.

**PROFESSOR JAYASHANKAR TELANGANA STATE AGRICULTURAL UNIVERSITY
RAJENDRANAGAR, HYDERABAD**



The **Professor Jayashankar Telangana State Agricultural University (PJTSAU)** is one of the reputed Agricultural Universities in the Country and progressing in both academic and research initiatives across the agriculture sector in Telangana state, particularly working towards building of its research capabilities on cutting edge technologies like robotics, AI & ML and drones. "PJTSAU" proposes to establish drone academy to design, develop, and deliver training to trainees. Further, few drones are proposed to be allotted to the University KVKs under Kisan Drone scheme. In this regard, PJTSAU intends to procure drones under different categories and invites expression of interest as per DGCA approved norms, from authorized manufacturers/suppliers/dealers/distributors for supplying the drones.

Expression of Interest (Eoi) for Procurement of Drones

Invited for "Procurement of Drones", from OEM authorized / Supplier/ dealer/ distributor. For the indicative specifications for Drones to be supplied and other ancillary details, please refer to the tender document.

S. No.	Particulars	Date & Time
(i)	Publish/Uploading of short tender document	17.03.2023
(ii)	Pre-bidding & technical clarifications / inquiry	20.03.2023
(iii)	Date for submission of filled in sealed tender or bid document	23.03.2023 4.00 PM
(iv)	Opening of Technical bids*	24.03.2023 1.00 PM
(v)	Opening of Financial bids**	25.03.2023 10.30 AM

*Technical evaluation based on demonstration of drones will be conducted on 24.03.2023

** Only those firms qualified in the technical bid shall be considered to participate in financial bid.

1. INSTRUCTIONS TO THE TENDERERS

- 1.1 The **EoI document and technical specifications are available** and can be downloaded from the University website: www.pjtsau.edu.in
- 1.2 **Tender application fee of Rs. 5000/-** (Five thousand rupees only), which is non-refundable to be paid in cash separately for each drone type (I, II) to **“The Principal Scientist (Ento) & Nodal Officer (Drones), Institute of Rice Research, ARI, Rajendranagar, Hyderabad”** and receipt may be obtained from this office, before submitting the technical and financial bid documents (in separate boxes).
- 1.3 The bid documents shall be submitted (in hard copies) in sealed envelopes, at office of **Principal Scientist (Ento) and Nodal Officer (drones)**, Institute of Rice Research, PJTSAU, Agricultural Research Institute, Rajendranagar, Hyderabad – 500030 on the scheduled date before stipulated time.
- 1.4 The bid shall be submitted by the authorized representative of the company only with valid ID proof.
- 1.5 There will be no online mode of submission of proposal.
- 1.6 **The technical and financial bids** for each drone category/model need to be submitted separately.
- 1.7 Bid documents that are received after the scheduled deadline WILL NOT be considered in this procurement process.
- 1.8 **Earnest money deposit (EMD) at 5% of the quoted value need to be paid in the form of DD** to be enclosed in sealed financial bid document, which shall be refundable to unsuccessful bidder, after one month from the date of finalizing the bid.
- 1.9 When more than one model is quoted, the EMD for each model is to be deposited separately.
 - (i) The Bid Security (EMD) shall be in Indian Rupees (INR) and in the form of Demand Draft issued by a Scheduled / Nationalized Bank in India, in favor of **“The Comptroller, PJTSAU, Rajendranagar, Hyderabad”**.
 - (ii) The EMD shall be valid for at least 3 months from the date of submission of tender bid document. No interest shall be payable on Bid Security under any circumstances.
 - (iii) Unsuccessful bidder’s EMD will be refunded as per clause (1.8) above.
 - (iv) The successful bidder’s EMD will be released upon submission of Performance Bank Guarantee by the bidder.
 - (v) The EMD will be forfeited at the discretion of EoI on account of, one or more of the following reasons:
 - If, bidder withdraws the proposal during the period of proposal validity.
 - If, bidder does not respond to requests for clarification of the proposal.
 - If, the Bidder fails to deliver the goods within the stipulated time.
 - (vi) The EMD shall be exempted for bidders having a valid certification of registration under single point registration scheme as per allowed exemption.

- 1.10 The proposal containing folder shall be super scribed “Procurement of Drones” clearly mentioning drone category (spraying/survey with payload) to be supplied as per tender document.
- 1.11 The demonstration by the firms submitting bid document is mandatory on the date of opening of technical bid, to qualify for the technical bid.
- 1.12 Delivery of drones and conducting demonstrations is entirely the responsibility of the firm without any additional financial burden to this office. Firm should provide one year on-site warranty.
- 1.13 Only those firms qualified in the technical bid shall be considered to participate in financial bid.
- 1.14 Third party insurance shall be Included in the estimated cost.
- 1.15 The firm/ Company should have its service centre at Hyderabad or shall provide after sales support, training, repair & maintenance etc. to the items supplied at Hyderabad.
- 1.16 **Professor Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad** reserves the complete right to change any schedule of bidding process, without assigning any reason there off.
- 1.17 Any future Corrigenda / Information shall be posted on the University website www.pjtsau.edu.in only and requested to visit the site from time to time for any updates.
- 1.18 **Performance security shall be** deemed to be an amount **equal to 5% of the contract value.**
The successful supplier shall deposit as an unconditional and irrevocable Performance Bank Guarantee (Eol) from a Scheduled Bank acceptable to **PJTSAU, Rajendranagar, Hyderabad”** within fifteen (15) working days of the date of supply and demonstration.
- 1.19 The performance bank guarantee shall be valid till the expiry of Agreement Plus Three months, subject to time-to-time renewals.
- 1.20 The Performance Bank Guarantee may be discharged / returned by the **PJTSAU, Rajendranagar, Hyderabad”** upon being satisfied that there has been due performance of the obligations of the selected proposer under the contract. However, no interest shall be payable on the Performance Bank Guarantee.
- 1.21 In the event of the selected proposer being unable to service the contract for whatever reason, **PJTSAU, Rajendranagar, Hyderabad”** would revoke the Eol. Notwithstanding and without prejudice to any rights whatsoever of **PJTSAU, Rajendranagar, Hyderabad”** under the Contract in the matter, the proceeds of the Eol shall be payable to **PJTSAU, Rajendranagar, Hyderabad”** as compensation for any loss resulting from the selected proposer’s failure to complete its obligations under the Contract.
- 1.22 **“PJTSAU, Rajendranagar, Hyderabad”** shall notify the selected proposer in writing in exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the selected proposer is in default.

1.23 **PJSAU, Rajendranagar, Hyderabad”** shall also be entitled to make recoveries from the selected proposer’s bills, performance bank guarantee, or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misstatement.

1.24 **In case of tie break, PJSAU bid evaluation committee** shall be entitled to take final decision based on after sales support and availability of supplier in and around Hyderabad.

2. ELIGIBILITY CRITERIA

2.1 Bids of those Bidders who have not submitted the requisite Cost of bidding document and EMD (as per Instructions to Bidders (ITB) shall not be considered for evaluation.

2.2 The bidders must fulfil the following minimum Qualifying Criteria: -

- (i) In case a dealer is participating in a Eol on behalf of one manufacturer, he/she is not allowed to participate/ quote on behalf of another manufacturer in this Eol or in a parallel Eol for the same item. All such bids with same make/ manufacture will be rejected.
- (ii) Bidder must produce with their Bid – PAN, Goods & Services Tax Identification No. (GSTIN) and valid authorization certificate issued by manufacturer, if dealer participates.
- (iii) Indian manufacturers should be registered with company of Law Affairs under Company’s Act.

S. NO	Basic Requirement	Specific Requirements	Documents Required
1	Legal Entity	The Bidder should have a legal entity registered in India.	Copy of Certificate of Incorporation/Registration under Companies Act, 1956/2013.
2	Turnover	The bidder shall have a turnover of minimum INR. 50,00,000/- (INR. Fifty lacs only) from the sale and supply of Drone/UAV in any one of the previous two financial years for 2020-21 or 2021-22.	Audited and Certified Balance Sheet and Profit/Loss Account for the last 2 (Two) Financial Years. Certificate from the Statutory Auditor/CA on turnover details from the “business areas” over the last 2 (Two) audited financial years 2020-21 or 2021-22.
3	Net Worth	The Bidders should have positive net worth as per the audited consolidated financial statements in each of the last 2 (Two) financial years (2020-21 or 2021-22).	Certificate from the Statutory Auditor on net worth.
4	Blacklisting	As on date of submission of the proposal, the Bidders shall not be under a declaration of ineligibility for corrupt or fraudulent practices	Undertaking by the authorized signatory as per the format given as Annexure II

		or Black listed with any of the State government/ Central Government / semi government / PSU / Municipal agencies in India at the time of submission.	
5	Experience	The Bidders should have successfully completed at least Two projects of supplying of Drone of the higher or equal technical specification in last 2 (Two) years.	Copy of work order + Completion Certificates from the client followed by undertaking as per the format given as Annexure IV

Note:

- (i) **If the bidder is a Micro or Small Enterprise as per latest definitions under MSME rules or as a Startup, the bidder shall be exempted from the requirement of "Turnover" criteria and "Experience" Criteria. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be enclosed for evaluation by the buyer.**

3. Instruction to Bidders regarding submission of Technical Bid

3.1 The Technical Proposal should contain the following information:

- (i) Technical Bid proposal form has to be submitted along with self-attested copies of required documents with the seal as per the format and documents specified in the EoI document.
- (ii) Qualification of Bidder (Company Profile along with documentary evidence of services offered and all relevant enclosures.)
- (iii) Any additional information that the bidder may think fit but not included elsewhere. in the proposal, which will help the organization to assess the capabilities of the supplier.

4. Instruction to Bidders regarding submission of Financial Bid

- (i) The bidder shall quote the rate as per the proforma given at '**Annexure III**' of the Tender Document. Deviation, if any from given particulars/specifications shall not be accepted.
- (ii) No overwriting or cutting is permitted in the financial bid Form. In such cases, the proposal shall be summarily rejected. In case of discrepancy in financial quote between words and corresponding figures, the amount depicted in words shall prevail.
- (iii) Unsigned quotations will not be considered.

5. Validity of Bids

The bids shall be valid for a period of 90 days from the date of opening of bids. A bid for a shorter period of validity shall stand rejected.

6. Bid evaluation

- (i) The Technical bids will be opened in the presence of bidders, as per the schedule given above.
- (ii) The committee shall also physically verify the Drones and demonstrations of all the bidders before completing technical evaluation bid process.
- (iv) The financial bids will be opened in presence of successful technical bidders only, as per schedule given above.

- (v) The Bid evaluation committee constituted by PJTSAU, Rajendranagar, Hyderabad shall evaluate the proposals. This may involve the representations from field and/or other department's experts. The decision of the bid evaluation committee in the evaluation of the Technical and Financial bids shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the committee.

7. Preference to Make in India (MII) product (For bids < 200 Crore):

Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is 50%. If the bidder wants to avail the Purchase preference, the bidder must submit a certificate regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted.

8. Purchase preference to Micro and Small Enterprises (MSEs):

Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product.

9. Award of Contract

9 (a) For purchase of Drones:

From the technically qualified bidders, the Bidder who has submitted the lowest Financial bid, as per

Annexure III, shall be selected as L1 and liable to called for further process leading to the award of work order.

If L1 is Class-I Local supplier, the contract of full capacity will be awarded to L1. If L1 bidder is not a Class-I local supplier, 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the Class-I local supplier will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local suppliers quoted price falling within the margin of 20% of L1 bidder and contract for that quantity shall be awarded to such Class-I local supplier subject to matching the L1 price. In case the bidder fails to match the L1 price, the next Class-I local supplier within the margin of 20% shall be invited to match the L1 price for remaining quantity and so on.

If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L1 + 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) of total QUANTITY.

9 (b) For Empanelment of Drone Suppliers under the Scheme:

From the technically qualified bidders, all the bidders within 20% margin of L1 bidder will be empaneled and listed for supply of drones along with the cost of drone and the purchasers of drone with financial assistance under the Government Scheme will have the liberty to choose any drone from the enlisted suppliers.

10. Penalty for delayed Supply of Drone:

The Drone as per the given indicative technical specifications, should be supplied within 4 weeks of receipt of the purchase order, failing which a penalty equal to 0.1% of indent cost per day of delay will be imposed and recovered from payment due to the supplier. In case the successful bidder fails to supply the material even after the lapse of 2 weeks from the time period given for delivery of goods, the organization may choose to cancel the work order and purchase the same from the L2 bidder at the risk and cost of the successful bidder.

11. PRICE SCHEDULE & TERMS OF PAYMENTS

- (i) All applicable taxes & duties including GST, other levies and charges etc. should be mentioned clearly.
- (ii) It is hereby confirmed that, except as otherwise stipulated in the tender Specification and statutory variations permitted as per the contract, the above unit rates and other charges as mentioned in this schedule, will remain firm till the subject supplies are completed. Further, it is confirmed that no other charges would be payable by PJTSAU, Rajendranagar, Hyderabad in connection with our execution of the resultant Purchase Order.
- (iii) The "Contract Price" means the total price mentioned in col. 5 in Annexure-III.

12. Purchaser's Rights

The PJTSAU, Rajendranagar, Hyderabad

- (i) reserves the right to accept/reject any or all the Bids in whole or in part and annul the bidding process without assigning any reason whatsoever.
- (ii) reserves the right to award the supply orders in parts to more than one Bidder.
- (iii) reserves the right to relax/withdraw any of the terms and conditions mentioned.
- (iv) reserves the right to blacklist a bidder for a suitable period in case the firm fails to honor its bid without sufficient grounds.
- (v) reserves the right that the actual quantities of Drones that may be purchased may vary. It shall in no way be binding to purchase the exact number of quantities as indicated in the Tender Document.

13. Terms of Payments

- (i) 90% of payment towards supplied Drones - Against successful installation.
- (ii) 10% of payment towards supplied Drones - Against after verification and one month of successful working of Drone.

14. Mode of Payments

- (i) Payment against bill/Invoice shall be released only after execution of the supply order and the quality of the items are found to the satisfaction.
- (ii) Payment will be made directly to the supplier through NEFT/RTGS. No request for other mode of payment will be entertained.
- (iii) No advance payment will be made in any case.
- (iv) No other charges towards transport or service charges or by whatsoever name called shall be payable.

15. Genuineness of Supplied Drone

- (i) The drones supplied shall be in original sealed packing from the manufacturer.
- (ii) In case of any manufacturing defect of any shape/kind, the drones shall have to be immediately replaced with a new one.

- (iii) The supply shall be completed within the delivery time as specified in section “Penalty for delayed Supply of Drones” of the Tender Document from the date of placement of Purchase Order.

16. Cancellation of procurement process

- (i) If any procurement process has been cancelled, it shall not be reopened but it shall not prevent the procuring entity from initiating a new procurement process for the same subject matter of procurement, if required.
- (ii) A procuring entity may, for reasons to be recorded in writing, cancel the process of procurement initiated by it at any time prior to the acceptance of the successful Proposals.
- (iii) The procuring entity shall not open any Proposals after taking a decision to cancel the procurement and shall return such unopened Proposals.
- (iv) The decision of the procuring entity to cancel the procurement and reasons for such decision shall be immediately communicated to all proposers that participated in the procurement process.
- (v) If the proposer whose bid has been accepted as successful fails to sign any written procurement contract as required or fails to provide any required security for the performance of the contract, the procuring entity may cancel the procurement process.
- (vi) If a proposer is convicted of any offence under the Act, the procuring entity may: -
 - (a) cancel the relevant procurement process if the bid of the convicted proposer has been declared as successful, but has not entered into procurement contract.
 - (b) Rescind (cancel) the relevant contract or forfeit the payment of all or a part of the contract value if the procurement contract has been entered into between the procuring entity and the convicted proposer.

17. Dispute Resolution

Disputes, legal matters, court matters, if any, shall be subject to Hyderabad Jurisdiction only

18. Exclusion of Bids/ Disqualification

The procuring organization shall exclude/ disqualify a bid, if: -

- (i) the information submitted, concerning the qualifications of the proposer, was false or constituted a misrepresentation; or
- (ii) the information submitted, concerning the qualifications of the proposer, was materially inaccurate or incomplete; and
- (iii) the proposer is not qualified as per eligibility criteria mentioned in the bidding document.
- (iv) the bid materially departs from the requirements specified in the bidding document or it contains false information.
- (v) the proposer, submitting the bid, his agent or anyone acting on his behalf, gave or agreed to give to any officer or employee of the procuring entity or other governmental authority a gratification in any form, or any other thing of value, so as to unduly influence the procurement process;
- (vi) A proposer, in the opinion of the procuring entity, has a conflict of interest materially affecting fair competition.
- (vii) A bid shall be excluded/ disqualified as soon as the cause for its exclusion/ disqualification is discovered

- (viii) Every decision of PJTSAU, Rajendranagar, Hyderabad to exclude a bid shall be for reasons to be recorded in writing and shall be:
- (a) Communicated to the concerned proposer in writing.
 - (b) Published on website (www.pjtsau.edu.in).

19. Warranty and Service Support: 01 (One) Year Comprehensive Warranty from the date of delivery of the said goods /stores /articles to the purchaser and notwithstanding the fact that the purchaser (Inspector) may have inspected and /or approved the said goods/stores/articles.

The supplier should have the Service Centres established and the schedule of onsite service that will be required to be adhered to is: -

- a) Response time after information within 2 days.
- b) Maximum time for repair/ replacement will be one week.
- c) The supplier should also provide service support for pilot training

20. Insurance:

All drones should have mandatory Insurance, thus a Comprehensive Insurance cover of Drone for a period of 1 year after completion of installation, commissioning and testing of Drones at respective consignee location, shall be in supplier's scope and responsibility for lodging/settling any claim with the underwriter shall be of supplier only.

DISCLAIMER

All the information contained in this Expression of Interest Eol provided/ clarified are in the good interest and faith. This is not an agreement, and this is not an offer or invitation to enter into an agreement of any kind with any party.

Though adequate care has been taken in the presentation of this Eol document, the interested firms shall satisfy it-self that the document is complete in all respects. The information published in this document is not intended to be exhaustive. Interested Bidders are required to make their own enquiries and assumptions wherever required.

Intimation of discrepancy, if any, should be given to the specified office immediately (on or before 20.03.2023). If no intimation is received by this office by the date mentioned in the document, it shall be deemed that the Eol document is complete in all respects and firms submitting their bids are satisfied that the Eol document is complete in all respects.

Professor Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad reserves the right to reject any or all of the bid applications submitted in response to the Eol document at any stage without assigning any reasons whatsoever. **Professor Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad** also reserves the right to withhold or withdraw the process at any stage with intimation to all who have submitted their bids in response to this Eol.

Professor Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad reserves the right to change/ modify/ amend any or all of the provisions of this Eol document without assigning any reason. Any such change would be communicated to the bidders by posting it on the website **Professor Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad**.

Information provided in this document or imparted to any respondent as part of Eol process is confidential to **Professor Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad** and shall not be used by the respondent for any other purpose, distributed to, or shared with any other person or organization.

DOCUMENT TO BE SUBMITTED FOR TECHNICAL BID

S. No.	Document	Complied (Y/N)
1	Copy of Certificate of Registration / Incorporation Certificate along with MoA certifying that the Bidder is a legal entity registered in India.	
2	Documentary evidence by the supplier for being the authorized dealer designated by OEM for selling the proposed make and model	
3	Certificate from CA for net worth	
4	Audited financial statements for bidder's turnover	
5	Tax registration Certificate from authorities as appropriate and Permanent Account Number (PAN)	
6.	Copy of Type Approval Certificate downloaded from digital sky portal with digital signature	
6	Details of Bidder: (i) Name of the Bidder Firm/Agency/Company (ii) Address of the Bidder Firm/Agency/Company (iii) Name and full Details (including phone number and email) of Contact person of the Bidding Firm/Agency/Company	
7	Enclosed copies of Brochure of proposed make and model of drone	
8	Undertaking by bidder for not being blacklisted in format enclosed as Annexure II	

DECLARATION

I hereby certify that the information furnished above is full and correct to the best of our knowledge. The self-attested copies of required documents as mentioned in **Annexure I** of the Tender Document have been submitted. All documents submitted have been numbered and self-attested with the seal of the Firm/Agency/Company. We understand that in case on non-submission of required documents, the bid shall stand rejected. We understand that in case of any deviation found in the above statement at any stage, the company will be black-listed and will not have any dealing with PJTSAU, Rajendranagar, Hyderabad in future.

(Signature of authorized signatory)

Dated

Name & Address of Firm

Authorized Signature & Seal of the Firm

DECLARATION FOR NOT BEING BLACKLISTED

(On letter head of the Bidder)

FROM:

DATE:

To,

Dear Sir,

I/we here by solemnly declare that any of our Directors or Partners, jointly or severally and/or individually or our firm/company have not been black listed by the Central Govt. or the State Govt. or its undertakings.

I/we here by further declare that, if the declaration is found untrue, PJTSAU, Rajendranagar, Hyderabad shall be entitled to take any action against us severally and/or individually or our firm/company in this regard in any manner that may be deemed fit by PJTSAU, Rajendranagar, Hyderabad

Yours faithfully,

(Signature of authorized signatory)

Dated

Name & Address of Firm Authorized

Signature & Seal of the Firm

FORMAT FOR SUBMISSION OF FINANCIAL BID

TYPE OF DRONE:

Sl. No.	Item	Unit Price (INR)	Quantity (one)	Total Amount (INR)
1.	Supply of Agriculture Drone as per specification, indicated in Technical Specification document			
2.	Taxes			
	Grand Total			

* The price quoted is inclusive of one year insurance and one year onsite warranty , all accessories and onsite demonstration etc.,

(Signature of authorized signatory)

Dated

Name & Address

of Firm Authorized Signature &

Seal of the Firm

QUALIFICATION OF THE BIDDER

1. Bidder Information Sheet

S. No.	Particulars	Details, Page no. (for any attachment)
1.	Name of the Entity/ Organization	
2.	Registered office address Telephone number Fax number Email	
3.	Correspondence Address	
4.	Details of the Contact Person (name, designation, address) Telephone number Fax number Email	
5.	Financial Turnover FY 2020-21 & FY 2021-22:	
6.	Year and Place of the establishment of the entity/organization	
7.	Tax Registration details	

2. Experience of supplying Drone

S. No.	Item	Details
1.	Type of the Drone (Also specify the name of OEM/Assembler/Reseller AND URL of the website/portal if any)	
2.	Work Order / Contract No.	
3.	Contract Value (In Lakhs)	
4.	Client Details	
5.	Name, Title & Address of the Client who can be contacted	
6.	No. of Drones	
7.	Year of supply	
8.	Relevant work domain of drone	

COVERING LETTER

{to be submitted on the letter head of the bidder}

To,

Dear Sir,

We, the undersigned, offer to sell --- Nos Agriculture Drone to the -----
(Name of Organization) in accordance with your EOI datedand our Proposal.

“We are hereby submitting our Proposal as per the requirements mentioned in the EOI. We hereby declare that:

- a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification by the Client.
- (b) We meet the eligibility requirements as stated in this EOI, and we confirm our understanding of our obligation to abide by the policy in regard to corrupt and fraudulent practices.
- (c) Our Proposal is binding upon us and subject to any modifications/ amendments made before the date of submission.
- (d) Our Firm /Company do not face any sanction or any pending disciplinary action from any authority against our Firm /Company.
- (e) We understand that the Client is not bound to accept any Proposal that the Client receives.

Thanking you,

Authorized Signature {In full and initials}: Name and Title of Signatory:

Name of Bidder (Firm/ Company’s name):

In the capacity of:

Address:

Contact information (phone and e-mail):

Date: _____

Place: _____

AUTHORIZED DEALERSHIP CERTIFICATE FROM THE MANUFACTURER

DECLARATION

1. I,..... Son/ Daughter/Wife of
Shri....., Proprietor/Director/authorized
signatory of the Agency mentioned above, is competent to sign this declaration and executethis
tender document.

2. I, have carefully read and understood all the terms and conditions of the tender and undertake
to abide by them.

3. The information/documents furnished along with the above application are true and authentic
to the best of my knowledge and belief. I/we am/ are aware of the fact that furnishing of any
false information/fabricated document would lead to rejection of my tenderat any stage besides
liabilities towards prosecution under appropriate law.

4. Certified that..... (Name of the Agency) is an Authorized Dealer of
..... (Name of OEM) for supply of
.....

5. Certified that the agency has not been blacklisted /security deposit has not been forfeited
in case of the agency during the last five years.

Signature of authorized person

Full Name:

Place:

Seal

CHECK LIST FOR ENSURING PROPER SUBMISSION OF SEALED TENDER / BID DOCUMENT

S. No	Particulars	YES / NO
1	Approved type certificate down loaded from digital sky platform with signature	
2	Battery life cycle certificate from NABL accredited lab	
3	Technical Specification documents along with all accessories	
4	EMD DD enclosed along with sealed financial bid document	
5	Signed Annexures I to VI ***	
6	Authorization certificate from manufacturer in case dealer is participating in tender.	

***** Technical bid and financial bid documents need to be submitted separately for each drone model/ type**