

# DEPARTMENT OF COMPUTER APPLICATION NOTICE INVITING QUOTATION

To

(Supplier Address)

Sealed quotations are invited from reputed Authorized Dealers / manufacturers for the

supply of the Items.

	ne of the Items.	:	DRONE
Qua	antity Required	:	1
Spe	cification	:	(As per enclosed Schedule Annexure – I)
1.	Quotation Reference No.	:	NITT/F.NO.17/CAPEX/2022-23/CA
2.	Last date and Time for receipt of	:	20.02.2023 before 4.30 PM
	quotation		27.02.2023 before 4.30 PM ( 1st
			extension closing date)
3.	Date &Time of opening of		21.02.2023 at 02 00 PM
	Quotation		27.02.2023 at 02 00 PM ( 1st extension
			opening date)
4.	EMD Amount		Rs. 2,000/- (2%)
5.	Validity (Days)	:	90 Days
6.	Address to which quotations are	:	The Director,
	to be sent		National Institute of Technology,
			Tiruchirappalli – 620 015, Tamil Nadu,
			India
	Kind attention to	:	Dr. S. Nickolas
	Phone	:	0431 250 3730
	E-mail	:	nickolas@nitt.edu

- 1. Quotations should be submitted in the format given in Annexure I and Annexure-II
- 2. The envelope should contain the following details:

### "QUOTATION AGAINST ENQUIRY" (DRONE)

NITT/F.NO.17/CAPEX/2022-23/CA

Kind attention to: Dr. S. Nickolas

Last date and Time for receipt of quotation : 27.02.2023 before 4.30 PM (

1<sup>st</sup> extension closing date)



#### **Terms and Conditions:**

- 1. The quotation must be in the format furnished by NIT Tiruchirappalli and should be free from corrections/erasures. In case there is any unavoidable correction it should be properly attested. If not the quotation will not be considered. Quotation written in pencil and incomplete will be rejected.
- 2. Earnest Money Deposit (EMD) is to be submitted by way of Demand Draft drawn on any Nationalized bank in India in favor of "The Director, NIT, Tiruchirappalli" payable at Trichy. The bids submitted without EMD will be treated as non-responsive and will be rejected. EMD shall bear no interest. Bidder must fill the EMD returning Form (Annexure-III) and submit along with the quotation. EMD amount of Rs. 2,000/- (2%) of estimate value is applicable, however UDYAM & NSIC registered Micro & small enterprises are exempted as per Govt.norms proof to be attached.
- 3. You are invited to submit your most competitive quotation for the supply of goods according to the specifications and delivery terms as given. Bank guarantee submitted for EMD shall be valid for 45 days beyond bid validity period.
- 4. Bidders may send the quotations in sealed covers with the quotation reference number and last date for receipt of quotations duly superscribed on the cover. Kind Attention to: as mentioned in the point No. 6 NB: Mention the company Contact Number / E-mail id on the cover.
- 5. Quotation will be opened on due date at 27.02.2023 at 02 00 PM (1st extension opening date) at the Store and Purchase Section, NIT, Tiruchirappalli in presence of the tenderers or their representatives who may wish to be present.
  - (Any change in the date, time and venue of the quotation opening will be informed to the bidders through telephone / E-mail)
- 6. The National Institute of Technology, Tiruchirappalli reserves the right to accept or reject any quotations, and to cancel the bidding process, and reject all quotations at any time prior to the award of order without assigning any specific reason thereof.
- 7. Manufacturer's name and country of origin of materials offered must be clearly specified. Printed brochures, Purchase preference is only for Micro & Small enterprises (MSE's) register in UDYAM Portal or NSIC as per Ministries policy for MSE's. Proof to be attached
- 8. Samples must be submitted where specified along with the quotations. Samples must be carefully packed, sealed and labelled clearly with enquiry number, subject and sender's name for easy identification. Rejected samples will be returned at your cost if insisted
- 9. All supplies are subject to inspection and approval before acceptance. Manufacturer / supplier warranty certificates and manufacturer / Government approved lab test certificate shall be furnished along with the supply, wherever applicable
- 10. National Institute of Technology, Tiruchirappalli reserves the right to modify the quantity specified in this enquiry.
- 11. Startup company exempted from prior turnover & prior experience (startup certificate registered with DIPP should be enclosed)
- 12. The bidder has to submit the bids in sealed envelope, (separate for each tender). Further Bidder should not send clubbing many tenders in one envelope, in such case all the bids will be rejected.



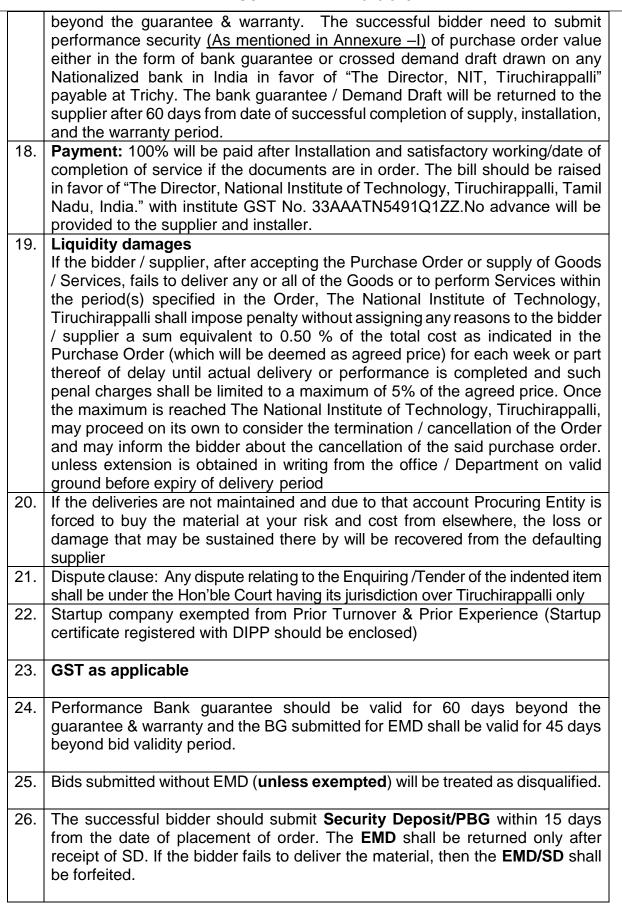
#### 13. Bid Price

- a. The contract shall be for the full quantity Bidders must quote for entire quantity. Each bidder shall submit only one quotation in Indian Rupee only.
- b. Post work orders & completion certificate should be submitted, wherever applicable.
- c. The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- d. GST, packing, forwarding and delivering other allied items at the destination shall be included in the price. All such price components may be shown in the quotation. If there is no indication regarding above charges. It will be considered as inclusive of all charges.
- e. If any arithmetic mistake in total / GST calculation is observed, the same shall be corrected by the purchaser with an intimation to bidder
- f. In case the items in the enquiry are covered by any rate contract or any other state or central Government, it should be specified in your quotation and accepted contract rates should also be mentioned. It should be confirmed whether you could supply at the RC rates outside rate contract
- g. Quotations containing conditions like "subject to prior sale" may not be considered.
- h. Delivery period required for supplying the material should be invariably specified in the quotation
- i. Bids without quoting GST (unless exempted) will be treated as invalid & disqualified.
- j. If there is a discrepancy between unit price and total price, the unit price will be considered. If there is any mismatch between figure and word, the amount in word shall prevail.
- 14. **Evaluation of quotations:** Quotations will be evaluated item-wise or lump sum basis. The purchase committee will evaluate and compare the quotations determined to be substantially responsive i.e. (i) are properly signed; (ii) Conform to the terms & conditions and specifications; and (iii) price offered are competitive.

#### 15. Award of contract

- a. The National Institute of Technology, Tiruchirappalli will award the Order for supply of Goods / Services to the bidder whose quotation has been determined to be substantially responsive, and who has offered the lowest evaluated quotation price.
- b. The Bidder should furnish the contract agreement and performance security within 15 days from the date of receipt of the order for supply of goods / services, failing which the order will be cancelled without further notice and awarded to next eligible bidder.
- c. Notwithstanding the above, National Institute of Technology, Tiruchirappalli reserves the right to accept or reject any quotations, and to cancel the bidding process, and reject all quotations at any time prior to the award of order without assigning any specific reason thereof.
- d. National Institute of Technology, Tiruchirappalli, prior to the expiration of the quotation validity period, will notify the bidder whose bid is accepted for the award of contract. The terms of accepted offer shall be incorporated in the purchase order.
- 16. **Warranty: 12 Months** shall be applicable to the supplied goods and installation work. Bidder should clearly indicate the arrangements for support and maintenance during the period for which the warranty shall be in force.
- 17. **Performance Security:** Security deposit should be **3%** of purchase order value in case of Performance Bank Guarantee should be valid for 60 days







#### **ACCEPTANCE BY THE BIDDER**

I/We hereby certify that I/We shall abide hereby the terms and conditions and the Annexures of this limited quotation.

#### Signature & Seal of Vendor with Date

For any details / clarifications regarding could be obtained from Stores and Purchase Section on all working days during 10 AM to 5 PM.

For further detail related to Technical specifications kindly contact Dr. S. Nickolas (Purchase initiator), Computer Application, nickolas@nitt.edu, **0431 250 3730**.

(NB: Mention the Contact Number / E-mail on the cover. Any change in the date, time and venue of the tender opening will be informed to the bidders through telephone / E-mail)

**Enclosures:** 1) Specifications of the equipment Annexure – I

2) Price Format Annexure - II

3) EMD Return Format Annexure – III

4) Bank Mandate Form Annexure – IV



#### DEPARTMENT OF COMPUTER APPLICATION

Annexure- I

## **Specifications of the Equipment**

Ref: NITT/F.NO.17/CAPEX/2022-23/CA

**Date:** 30.01.2023

S. No	Technical Specification	Speci	Specification of				
		the	the Supplier				
1.		Make					
	Aircraft						
	Weight	Model					
	• 570 g						
	• Size						
	• Folded:						
	180×97×84 mm (Length×Width×Height)	(No ha	and written)				
	Unfolded:	(110 110					
	183×253×77 mm (Length×Width×Height)						
	Diagonal Distance     303 mm						
	• 302 mm						
	Max Ascent Speed     A m/s (S Mode)						
	4 m/s (S Mode) 4 m/s (N Mode)						
	Max Descent Speed						
	• 3 m/s (S Mode)						
	3 m/s (N Mode)						
	5 m/s (S Mode and N Mode during a sharp descent)						
	3 m/s (all modes at elevations over 4500 m)						
	Max Service Ceiling Above Sea Level						
	• 5000 m						
	Max Flight Time (without wind)						
	• 34 minutes						
	Max Hover Time (without wind)						
	• 33 minutes						
	Max Flight Distance						
	• 18.5 km						
	Max Horizontal Flight Speed						
	• 19 m/s (S Mode)						
	12 m/s (N Mode)						
	5 m/s (T Mode)						
	Max Wind Resistance						
	• 8.5-10.5 m/s (Level 5)						
	Max Tilt Angle						
	• 35° (S Mode)						
	20° (N Mode)						
	35° (N Mode under strong wind)						
	Max Angular Velocity						



- 250°/s (S Mode) 250°/s (N Mode)
- Operating Temperature Range
- -10° to 40°C (14° to 104°F)
- Operating Frequency
- 2.400-2.4835 GHz
- 5.725-5.850 GHz
- Transmitter Power (EIRP)
- 2.400-2.4835 GHz:

FCC: ≤26 dBm CE: ≤20 dBm SRRC: ≤20 dBm MIC: ≤20 dBm 5.725-5.850 GHz: FCC: ≤26 dBm CE: ≤14 dBm SRRC: ≤26 dBm

- Hovering Accuracy Range
- Vertical:
- ±0.1 m (with vision positioning) ±0.5 m (with GPS positioning)

Horizontal:

- ±0.1 m (with vision positioning) ±1.5 m (with GPS positioning)
- Propellers
- Quick release, low noise, folding
- Satellite Systems
- GPS+GLONASS
- Compass
- Single Compass
- IMU
- Single IMU
- Internal Storage
- 8 GB

#### **Battery**

- Capacity
- 3500 mAh
- Voltage
- 11.55 V
- Charging Voltage Limit
- 13.2 V
- Battery Type
- LiPo 3S
- Energy
- 40.42 Wh
- Weight
- 198 g
- Charging Temperature
- 5° to 40°C (41° to 104°F)



- Max Charging Power
- 38 W

Camera

- Sensor
- 1/2" CMOS

Effective Pixels: 12 MP and 48 MP

LensFOV: 84°

Equivalent Focal Length: 24 mm

Aperture: f/2.8

Focus Range: 1 m to ∞

ISOVideo:

100-6400

Photo (12 MP): 100-3200 (Auto) 100-6400 (Manual)

Photo (48 MP): 100-1600 (Auto)

100-3200 (Manual)

- Max Photo Resolution
- 48 MP 8000×6000 pixel
- Photo Modes
- Single: 12 MP and 48 MP Burst: 12 MP, 3/5/7 frames

Automatic Exposure Bracketing (AEB): 12MP, 3/5 Frames

at 0.7EV Bias

Timed: 12 MP 2/3/5/7/10/15/20/30/60 seconds

SmartPhoto: Scene Recognition, HyperLight, and HDR

HDR Panorama[1]:

Vertical (3x1): 3328x8000 pixels (WidthxHeight)
Wide-angle (3x3): 8000x6144 pixels (WidthxHeight)
180° Panorama (3x7): 8192x3500 pixels (WidthxHeight)
Sphere (3x8+1): 8192x4096 pixels (WidthxHeight)

- Photo Formats
- JPEG/DNG (RAW)
- Video Resolution and Frame Rates
- 4K Ultra HD: 3840×2160 24/25/30/48/50/60 fps

2.7K: 2688×1512 24/25/30/48/50/60 fps

FHD: 1920×1080 24/25/30/48/50/60/120/240 fps 4K Ultra HD HDR: 3840×2160 24/25/30 fps

2.7K HDR: 2688×1512 24/25/30 fps FHD HDR: 1920×1080 24/25/30 fps

- Color Profiles
- D-Cinelike, Normal
- Video Formats
- MP4/MOV (H.264/MPEG-4 AVC, H.265/HEVC)
- Max Bitrate
- 120 Mbps
- Supported SD Cards



- Supports a microSD with capacity of up to 256 GB
- Supported File Systems
- FAT32 and exFAT
- Zoom
- Available

#### Gimbal

- Stabilization
- 3-axis (tilt, roll, pan)
- Mechanical Range
- Tilt: -135° to 45°

Roll: -45° to 45°

Pan: -100° to 100°

- Controllable Range
- Tilt: -90° to 0° (Default)
- -90° to 24° (Extended)
- Max Controllable Speed (tilt)
- 100°/s
- Angular Vibration Range
- ±0.01°

#### Vision System

- Forward
- Precision Measurement Range: 0.35-22.0 m

Detection Range: 0.35 to 44 m Effective Sensing Speed: 12 m/s

Field of View (FOV):

71° (horizontal), 56° (vertical)

- Backward
- Precision Measurement Range: 0.37-23.6 m

Detection Range: 0.37-47.2 m Effective Sensing Speed: 12 m/s

Field of View (FOV):

57° (horizontal), 44° (vertical)

- Available Downward Sensors
- Dual Vision Sensors + Time of Flight Sensors (ToF)
- Downward
- ToF Measurement Range: 0.1-8 m

Hovering Range: 0.5-30 m

Vision Sensor Hovering Range: 0.5-60 m

- Left/Right
- None
- Downward Auxillary Light
- Single LED

#### Safety

- Obstacle Avoidance System
- Advanced Pilot Assistance Systems (APAS) 3.0

Video Transmission

- Transmission System
- OcuSync 2.0
- 2.4 GHz/5.8 GHz Auto-Switching
- Max Transmission Distance



- 10 km (FCC), 6 km (CE), 6 km (SRRC), 6 km (MIC)
- Live View Quality
- 720p@30fps/1080@p30fps
- Latency (depending on environmental conditions and mobile device)
- 120-130 ms
- Video Transmission Encoding format
- H.265/H.264 (Auto-switches depending on encoding capabilities of device)
- Max Transmission Bitrate
- 12 Mbps
- Operating Frequency
- 2.400-2.4835 GHz

5.725-5.850 GHz

Remote Controller

- Remote Controller Transmission System
- When used with different aircraft hardware configurations,
   DJI RC-N1 Remote Controllers

will automatically select the corresponding firmware version for updating and support the

following transmission technologies enabled by the hardware performance of the linked

aircraft models:

- a. DJI Mini 2/ DJI Mavic Air 2: O2
- b. DJI Air 2S: O3
- c. DJI Mavic 3: O3+
- Supported Mobile Device Connectors
- Lightning, Micro USB, USB Type-C
- Max. Supported Mobile Device Size
- 180×86×10 mm (Height×Width×Thickness)
- Operating Temperature
- -10° to 40°C (14° to 104°F)
- Transmitter Power (EIRP)
- 2.400-2.4835 GHz:

<26 dBm (FCC), <20 dBm (CE/SRRC/MIC)

5.725-5.850 GHz:

<26 dBm (FCC), <23 dBm (SRRC), <14 dBm (CE)

- Operating Current/Voltage
- 1200 mA@3.6V (Android)

700 mA@ 3.6 V (iOS)

Charger

- Charging Input
- 100-240 V, 50/60 Hz, 1.3 A
- Charging Output
- Charging Port: 13.2 V=2.82 A

USB Port: 5 V-2 A

- Voltage
- 13.2 V
- Rated Power
- 38 W



	SD Cards • Supported SD Cards • Micro SD™  Supports a microSD card with a capacity of up to 256 GB. A UHS-I Speed Grade 3 rating microSD card is required. • Recommended microSD Cards • SanDisk Extreme PRO 64GB V30 A2 microSDXC  SanDisk High Endurance 64GB V30 microSDXC  SanDisk Extreme 64GB V30 A2 microSDXC  SanDisk Extreme 128GB V30 A2 microSDXC  SanDisk Extreme 256GB V30 A2 microSDXC  SanDisk Extreme 256GB V30 A2 microSDXC  Lexar Lexar 667x 64GB V30 A2 microSDXC  Lexar High-Endurance 64GB V30 microSDXC  Samsung EVO 64GB microSDXC  Samsung EVO Plus 64GB microSDXC  Samsung EVO Plus 256GB microSDXC  Kingston 128GB V30 microSDXC  Netac 256GB A1 microSDXC  Footnotes:  1. To ensure the Panorama quality, the aircraft will crop the panoramic photos made out of multiple images. Therefore, the photo resolution may vary in different shooting scenarios.	
Reason 1.	s (if there is difference in specification)	
2.		



S.No	Other requirements related to the equipment	NITT Requirement	Supplier commitment
1.	Installation required	No	
2.	Warranty (in Month)	12 Months	
3.	Comprehensive AMC required	No	
4.	Delivery Period (Weeks)	4 Weeks	
5.		Shipment terms	At NIT-T
6.	Performa	ance Security in %	3%
7.		Payment Terms	100% Payment after satisfactory delivery/Installation
8.	EMD	Amount (2 to 5)%	Rs. 2,000/- (2%)

### Signature & Seal of Vendor with Date

### Note:

Specification of the Supplier should be given in detail, single word confirmation like Complied / Yes / same will be treated as non - responsive Bid and summarily rejected.

Proof for the supplier's specification must be enclosed along with the quotations. (catalogue, brochure, and product website link if any)



#### DEPARTMENT OF COMPUTER APPLICATION

**Annexure- II** 

#### PRICE BID FORMAT FOR BIDDERS

Quotation reference No. & Date: NITT/F.NO.17/CAPEX/2022-23/CA

Bidder's Offer No. & Date:

S. No.	Description of item	Unit (Set / No)	QTY	Rate / Qty in Rs. (excluding	GST in Rs.			Total Value + GST in	
1.	Supply portion (The price indicated shall be exclusive of all accessories, spares etc. as given in the scope of supply)	Nos	1	GST)	SGST	CGST	IGST	Rs.	
2.	Other accessories / spares etc. as given in scope of supply (Individual item-wise break-up price shall be attached as an annexure to this price bid format.)								
3.	Installation and Commissioning (extra, if any)	<u>N</u>	<u>0</u>						
4.	Packing & Forwarding c if any)	harges (	extra,						
5.	Freight & Transit insura extra, if any	rges,							
6.	Total price								
7.	Value of Annual Maintenance Contract								
8.	Net cost to be paid by	NIT-T							

Signature & Seal of Vendor

Note: The price quoted should be in Typed format only as per the above form. Hand written quotes will be rejected. No row shall be left blank, Kindly mention NA in case the item is "Not Applicable". If this format is not used or any column is left blank, then the bid will be rejected. AMC Value will not consider for arriving L1 bidder.



## (TO BE PRINTED IN LETTER PAD OF THE FIRM)

## **EMD Returning Form**

То
The Director
National Institute of Technology
Tiruchirappalli – 620 015

Sub: Returning EMD amount

Sir / Madam,

Our firm has participated in the tender / quotation enquiry No mentioned below and produced the EMD amount through DD, details of the DD are given below.

Tender / Quotation Reference No	
EMD amount	
DD Number	
DD issued Bank	
Date of DD	

It is requested to return the EMD amount to our firm after completion of the purchase to the below mentioned Bank account.

Account Name	
Bank Account Number	
IFSC code	
Bank	

Signature with Seal and Date



### (TO BE PRINTED IN LETTER PAD OF THE FIRM)

Annexure - IV

## MANDATE FORM FOR ELECTRONIC FUND TRANSFER/RTGS TRANSFER

То													Da	te:	/	/			
Na	e Director, tional Institute c uchirappalli – 62			•		ladu	I												
Sı	ub : Authoriza Technolo Transfer	ogy,																	
1.	Name of the Pa	arty /	Firr	n /	Cor	npa	ny /	Ins	titut	е	:								
2.	Address of the	Party	y			-					:								
3.	City				_Piı	n Co	ode_												
4.	E-Mail	Mc	bile	No	o:	_													
5.	Permanent Acc	count	: Nu	mb	er_														
6.	Particulars of B	Bank:																	
	Bank Name:							В	ran	ch N	lam	e:							
	PIN Code:							В	ran	ch C	Code	ə:							
	IFS Code:(11	digit	alpl	ha r	num	nerio	coc	de)						<u> </u>					
	Account Type	!	Sa	ving	gs				Current					C	Cash Credit				
	Account Num	ber:												<u> </u>					
									l			<u> </u>	<u> </u>						
						DE	CLA	\R/	ATIC	ON									
t ii r t	hereby declare ransaction dela nformation I sha esponsible. I also facilitate upda ransfer.	ayed all no so ur	an t ho nder	d r ld [ tak	not Dire e to	effe ctor adv	ected , Na vise	d fo itior any	or r nal I / ch	eas nstit ang	ons tute e in	of of 7 the	inc Fech par	om inol ticu	pleto ogy lars	e o Tiru of r	r in uchi my a	rap acco	rect palli ount
F	Place:			Da	te:														

**Signature & Seal of the Authorized Signatory of the Party**