#### INVITATION FOR QUOTATION

TEQIP-III/2019/ucek/Shopping/11 | 15437-41

07-Feb-2019

To,

Sub: Invitation for Quotations for supply of Goods

Dear Sir,

 You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Brief Description	Quantity	Delivery Period(In days)	Place of Delivery	Installation Requirement (if any)
1	2D DIFFUSER	1	90	Mechanical Engineering Department, RTU Kota	
2	AXIAL COMPRESSOR (FLOW FAN) TEST RIG	1	90	Mechanical engineering department, RTU Kota	
3	BLOWER BALANCE AND SMALL ASPECT RATIO	1	90	Mechanical Engineering Department, RTU Kota	
4	CABLE TENSIOMETER	1	90	Mechanical Engineering	

5	CASCADE WIND TUNNEL			Department, RTU Kota	
9	WITH COMPRESSOR AND TURBINE BLADE	1	90	Mechanical Engineering Department	
5	DUCT BURNER TEST RIG	1	90	Mechanical Engineering Department, RTU Kota	
7	FLAME PROPAGATION UNIT	1	90	Mechanical Engineering Department, RTU Kota	
8	FREE WALL JET TEST SETUP	1	90	Mechanical Engineering Department, RTU Kota	
9	NOZZLE PRESSURE TEST RIG	1	90	Mechanical Engineering Department, RTU Kota	
10	PROPELLER PERFORMANCE	1	90	Mechanical Engineering Department, RTU Kota	
11	RAMJET ENGINE	1	90	Mechanical Engineering Department, RTU Kota	

- 2. Government of India has received a credit from the International Development Association towards the cost of the Technical Education Quality Improvement (IDA) Programme[TEQIP]-Phase III Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
- 3. Quotation,
  - 3.1 The contract shall be for the full quantity as described above.
  - Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
  - 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
  - 3.4 Applicable taxes shall be quoted separately for all items.
  - 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
  - 3.6 The Prices should be quoted in Indian Rupees only.
  - 4. Each bidder shall submit only one quotation.
  - 5. Quotation shall remain valid for a period not less than 55 days after the last date of quotation submission.
  - 6. Evaluation of Quotations,

The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which

- 6.1 are properly signed; and
- 6.2 confirm to the terms and conditions, and specifications.
- 7. The Quotations would be evaluated for all items together.
- 8. Award of contract:

The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

Notwithstanding the above, the Purchaser 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 contract.

- 8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
- 9. Payment shall be made in Indian Rupees as follows:

Delivery and Installation - 90% of total cost

Satisfactory Acceptance - 10% of total cost

- 10. All supplied items are under warranty of 12 months from the date of successful acceptance of items.
- 11. You are requested to provide your offer latest by 16:00 hours on 23-Feb-2019 .
- 12. Detailed specifications of the items are at Annexure I.
- 13. Training Clause (if any) yes
- 14. Testing/Installation Clause (if any) yes
- 15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
- 16. Sealed quotation to be submitted/ delivered at the address mentioned below, Dean, University Departments and IPD, Rajasthan Technical University, Kota Rawatbhata Road, Kota-324010
- 17. We look forward to receiving your quotation and thank you for your interest in this project.

Annexure I

(Authorized Signatory)
Dr. S.C. JAINI
Institutional Projection
TEQIP-III, UD, Rice, 1997

Sr.	Item Name	Specifications
No		

1	2D DIFFUSER	BLOWER & MOTOR: Centrifugal, 1 HP, 2800 rpm. A.C. DRIVE: For 1 HP motor, to vary speed. DUCT TYPE: Tapered, M.S with Acrylic window. SUCTION PRESSURE MEASUREMENT: 300mm acrylic U tube manometer. DISCHARGE PRESSSURE MEASUREMENT: 300mm acrylic U tube manometer. VELOCITY MEASUREMENT: Pitot tube with measuring scale 300mm acrylic U tube manometer. FLOW VARIATION: By inclined blade Whole instrument should be mounted on a sturdy frame of M.S. Angle
2	AXIAL COMPRESSOR (FLOW FAN) TEST RIG	COMPRESSOR: suitable capacity NUMBER OF STAGES: 3 stages INLET SECTION: 300 mm dia (approx) OUTLET SECTION: 180 mm dia (approx) MOTOR CAPACITY: 3 HP AC motor, 2800 rpm SPEED: Proximity sensor with digital indicator POWER MEASUREMENT: Wattmeter VFD/AC DRIVE: For motor starting and speed control (variable speed) STAGE PRESSURE: measured by U tube manometer (2 No's) FLOW MEASUREMENT: Measured between inlet and exit of the Compressor (by U-tube Manometer) COUPLING: direct flange coupling BEARING: high speed special purpose bearing with shaft BASE FRAME: Heavy frame made of channel CONTROL PANEL: Independent control panel.
3	BLOWER BALANCE AND SMALL ASPECT RATIO	Blower: Axial fan Motor: 1 HP with variable speed drive. Aerofoil type: NACA 0015 of 3 different aspect ratios. Digital lift force indicator with load cell: 0-5Kg capacity. Digital drag force indicator with load cell: 0-5 Kg capacity. Aerofoil angle changing mechanism: 0+12? from axis. Velocity measurement: Vane type digital anemometer
4	CABLE TENSIOMETER	BLOWER & MOTOR: Centrifugal, Fractional HP, 2800 rpm.  DRIVE or CONTROLLER: To vary speed, suitable to blower  DUCT TYPE: Circular, M.S duct. SUCTION PRESSURE  MEASUREMENT: 300mm acrylic U tube manometer.  DISCHARGE PRESSSURE MEASUREMENT: 300mm acrylic U tube manometer. TEMPERATURE MEASUREMENT: Digital indicator and K type thermocouples. Whole instrument mounted on a sturdy frame of M.S. Angle.

5	CASCADE WIND TUNNEL WITH COMPRESSOR AND TURBINE BLADE	Type: subsonic cascade wind tunnel Rectangular cross section of 120mm × 400mm. Blower should have maximum capacity of 7m3/sec pressure rise of 16 Kpa compressors / turbine blade should be used for test. Reynolds number should be varied from maximum of 6 × 105 down to 5 × 104 based on chord length of 120mm. Two dimensional flow conditions are obtained by removal of side wall boundary layers using a suction system be independent of the main air supply. The blade mounted in the center of the cascade tunnel should be equipped with pressure tapings of 2 to 3 in each at least in 3 blades. Upstream / down stream flow measurements of cascade should be made available. Level of turbulence
		maximum 5% Material of construction – wood cambered aerofoil Angle of attack mechanism by manual method – 30? to 60? Blower 30m/sec with control Filter chamber mesh 400? Centrifugal blower of 7.5 HP (3 phase) with starter
6	DUCT BURNER TEST RIG	BLOWER & MOTOR: Centrifugal, Fractional HP, 2800 rpm.  DRIVE or CONTROLLER: To vary speed, suitable to blower  DUCT TYPE: Circular, M.S duct. SUCTION PRESSURE  MEASUREMENT: 300mm acrylic U tube manometer.  DISCHARGE PRESSSURE MEASUREMENT: 300mm acrylic U tube manometer. TEMPERATURE MEASUREMENT: Digital indicator and K type thermocouples. Whole instrument mounted on a sturdy frame of M.S. Angle.
7	FLAME PROPAGATION UNIT	Air supply: 1 Hp, Air Compressor 0-8bar, 1 ph. Air flow measurement: Flow sensor with air flow meter. Gas flow measurement: Rotameter for measuring LPG (0-2) LPM Speed measurement: Digital timer Indicator Tube material: Acrylic with brass adapter, Dia: 50 mm, Length: 1500mm Igniter: Hand held manual Flame lift off: Bunsen burner Flame speed system: Long, Large diameter acrylic tube with flame trap, Proximity light Sensor for measuring time, igniter system. Safety mixing: Non-return valve should incorporated in the system Panel: Panel in which all controls, instrument should be fixed. Electrical Specification: 220-240V, single phase supply. Objective: To find out different characteristic of flame by operating different A/F Mixture Pressure regulator & flow

		valve: For gas flow control should be provided. Whole unit should be mounted on M.S. Square tube and M.S. sheet.
8	FREE WALL JET TEST SETUP	Blower & motor : Centrifugal, Fractional HP, variable speed drive Aluminium Plate : 200 mm width, 1000 mm Length. Jet size : 1" diameter (approx Velocity Measurement : U Tube manometer connected to Pitot tube
9	NOZZLE PRESSURE TEST RIG	Convergent divergent nozzle with 7 Pressure tapings. Pressure measurement: pressure sensor with indicator. Velocity measurement: velocity indicator connected to Pitot tube.  Temperature measurement: temperature indicator with K type thermocouple Pressure regulator to stabilized airflow to nozzle.  10 bar pressure is a operating pressure to be provided.(air compressor is not in the scope of our offer) Nozzle rectangular section dimensions: Throat: 1.06 mm x 66.25 mm Inlet: 5.37 mm x 6.25 mm Exit: 8.46 mm x 6.25 mm
10	PROPELLER PERFORMANCE	BLADE LENGTH: 225 mm DISTANCE FROM CENTRE OF SHAFT TO END: 300 mm PROPELLER DIAMETER : 600mm MATERIAL: Wood NO OF BLADE: 3 ANGLE OF EACH PROPELLER PLACED: 120 0 SPEED OF PROPELLER: 1400+ RPM THRUST MEASUREMENT: Load/Force indicator LEAST COUNT OF LOAD INDICATOR: 0.1 LOAD CELL CAPACITY: 20 kg LOADING TYPE: universal loading (tension & compression) SENSITIVITY: 3milli volt per volt SPEED MEASUREMENT: proximity sensor and rpm indicator LEAST COUNT OF SPEED INDICATOR: 1 RPM POWER MEASUREMENT: AC wattmeter
11	RAMJET ENGINE	DIFFUSE DIAMETER: 0.036m OVERALL LENGTH: 0.650 m THICKNESS: 0.0016m NOZZLE ANGLE : 16 degree MATERIAL: heat resistant alloy steel (stainless steel) FUEL USED: Gasoline FUEL IGNITING: Spark plug. SPARK PLUG CONTROL: Delco motor unit connected with magneto ignition FUEL

TANK CAPAC	ITY	:	5 liters BLOWER	:	1 HP
VELOCITY	:	70 m/	Ś		

## FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

	Date:
То:	

S	SI.	Description of	Qty.	Unit	Quoted Unit rate in Rs.	Total Price	Sales tax a	nd other
N	lo.	goods (with full			(Including Ex Factory price, excise duty, packing and	(A)	taxes payable	
		Specifications)			forwarding, transportation, insurance, other local		In	In figures
					costs incidental to delivery and warranty/ guaranty		%	(B)
					commitments)			
	•		•	Т	otal Cost			

Gross Total Cost (A+B): Rs	
e agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. ———————————————————————————————————	—— (Amount in
gures) (Rupees ———————amount in words) within the period specified in the Invitation for Quotations.	

We confirm that the normal commercial warranty/ guarantee of ————— months shall apply to the offered items and we also confirm to
agree with terms and conditions as mentioned in the Invitation Letter.
We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.
Signature of Supplier
Name:
Address:
Contact No:



# DEAN FACULTY AFFAIRS (IPD, UD TEQIP-III, RTU KOTA) UNIVERSITY DEPARTMENTS RAJASTHAN TECHNICAL UNIVERSITY RAWATBHATA ROAD, KOTA-324010 (RAJASTHAN)

(email id: teqiprtu@gmail.com)

#### Instructions for bidders for each procurement package under UD TEQIP-III

- 1. The packages are uploaded and the detail & specifications are provided for individual package as per the TEQIP-III norms.
- 2. The interested vendors are requested to check the website regularly for update/modification/or any change in the terms and conditions or any other requirement.
- 3. Envelope containing the quotations should be properly sealed and shall bear the following details:

TEQIP-III Project, and PMSS Item code, on the front side of envelope as given:-

#### IB No. RTU/UD/TEQIP-III/2019

- 4. In the event of the specified date for submission of quotations being declared a holiday, the quotations will be received up to 5:00 P.M on the next working day.
- 5. Any quotations received after the deadline for submission of quotations prescribed, will not be considered.
- 6. No credit will be given to earlier deliveries and quotations offering delivery beyond the stipulated delivery period will be treated as non-responsive.
- 7. The supplier shall seal the original copy of the quotations in envelopes, duly marking the envelopes with the address as mentioned below:

# DEAN FACULTY AFFAIRS (IPD, UD TEQIP-III, RTU KOTA) UNIVERSITY DEPARTMENTS

### RAJASTHAN TECHNICAL UNIVERSITY

#### RAWATBHATA ROAD, KOTA-324010 (RAJASTHAN)

- 8. Supplier must provide the contact details such as Contact Person, Complete address, Tel. No. / Mobile No. E-Mail ID, TAN No., TAX No, PAN No., GST No...etc.
- 9. All the taxes, levies, duties, AMC's and various overhead charges if any, shall be mentioned while submitting the offer.
- 10. Completion Certificates of past supplies, Warranty/ Defect Liability, Drawings, Dispute Resolution, Arbitration, Force Majeure, Historical data in relation to the tender like annual reports, turn over detail etc can be submitted with the quotations, as a supporting document.
- 11. The Prices Ex. RTU Kota should be quoted in Indian Rupees only.
- 12. Penalty for late delivery will be levied as per the RTU/TEQIP-III norms & conditions.
- 13. Award of contract notwithstanding the above mentioned conditions, UD TEQIP-III reserves the right to accept or reject any quotations/ package(s) to cancel the procurement packages and reject all quotations at any time prior to the award of contract.

14. Venue for Opening of quotations is Dean Faculty Affairs & Institute Project Director (IPD UD TEQIP-III), University Departments, Rajasthan Technical University, Kota -324010,