भारतीय सूचना प्रौद्योगिकी संस्थान, नागपुर
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, NAGPUR
"An Institution of National Importance by an Act of Parliament"
Survey No.:140,141/1 Behind Br. Sheshrao Wankhade Shetkari Sahakari Soot Girni, Village: Waranga PO: Dongargaon (Butibori), District: Nagpur (Maharashtra)-441108
Website: www.iiitn.ac.in Email: director@iiitn.ac.in, registrar@iiitn.ac.in Phone: 9405215010

QUOTATION ENQUIRY

SUBJECT: QUOTATION FOR MECHANICAL SIMULATION & ANALYSIS OF RODOME AT IIIT NAGPUR.

Supplier Name: - **M/s**	**Ref No.: IIITN/ADMIN/MECH-SIMU. /QUOT/2025-26/17**	**Date of issue: - 11.02.2026**
Ph No: -	**Last Date of Submission: - 18/02/2026 up to 03.00 PM At IIIT Nagpur Permanent Campus**	
Email id: -	**Opening Date of Quotation: - 18/02/2026 at 03.30 PM**	

On behalf of Director, IIIT Nagpur, quotations are invited in sealed cover for Mechanical Simulation & Analysis of Rodome at IIIT Nagpur.

The quotation should be valid for 90 days from the date of submission.

Quotation should reach the Registrar, **Indian Institute of Information Technology Nagpur, Survey No.: 140,141/1 Behind Br. Sheshrao Wankhade Shetkari Sahakari Soot Girni, Village: Waranga PO: Dongargaon (Butibori), District: Nagpur (Maharashtra)- 441108 on or before 18/02/2026 up to 3:00 PM. The quotations are likely to be opened on 18/02/2026 at 3:30 PM.**

It will be presumed that the rates quoted by the firm are inclusive of all taxes on **D.A.P. Indian Institute of Information Technology Nagpur, Survey No.: 140,141/1 Behind Br. Sheshrao Wankhade Shetkari Sahakari Soot Girni, Village: Waranga PO: Dongargaon (Butibori), District: Nagpur (Maharashtra)-441108 basis.**

Information / Documents which are found to be false / incorrect / forged / fake, will lead to disqualification of the quotation. The Institute shall be free to take any action including blacklisting the firm / company.

Each and every document submitted with the quotation along with this quotation format should be duly signed & stamped failing which, submitted quotation may be treated as non-responsive. The decision of the Director, IIITN shall be final on the matter.

The Institute reserves the right to reject any or all quotation, wholly or partly or close the quotation at any stage prior to the award of contract without assigning any reason whatsoever.

INCOMPLETE OR CONDITIONAL QUOTATIONS MAY BE REJECTED.

SCOPE OF THE PROJECT: The radome shall be modeled as per the design and material specifications provided by IIIT Nagpur. The following mechanical analyses are required to be carried out in accordance with the given specifications

1. **Static Stress Analysis for Acceleration Loading Conditions:**

- Static stress analysis to be carried out for the X, Y and Z acceleration loading conditions provided in the tech spec.
- Radome to be modelled as per the sandwich construction and properties of each of the layer to be provided in the FE Model.
- Material properties of core and skin will be provided by IIIT Nagpur

2. **Normal Mode Analysis:** For all dummy LRUs and Mounting trays, normal mode analysis needs to be conducted and first five natural frequencies and their respective mode shapes to be computed and provided in the report. Units installed on shock mount should be analyzed by considering frequency and damping characteristics of shock mounts in the FE model.

3. **Random Vibration Analysis:** Random Vibration analysis needs to be carried out for all dummy LRUs and Mounting trays as per the vibration spectrum provided in the spec. Stresses and displacements to be computed for 3 sigma conditions. The von Mises stresses and displacements be tabulated and necessary stress and deflection plots to be included in the report. The margin of safety [(Ultimate Stress / Induced stress)-1] available to be computed and indicated for each of the LRU. Separate analysis may be provided w.r.t selection of shock mounts. (OEM of the shock mount also may be contacted for the same).

4. **Mechanical Shock Analysis :** Each LRU need to be subjected to shock loads as per the technical spec. The von Mises stresses and displacements for each of the loading case to be tabulated and necessary stress and deflection plots to be included in the report. The margin of safety [(Ultimate Stress / Induced stress)-1] available to be computed and indicated for each of the LRU.

5. **Thermal Analysis:** Thermal analysis to be carried out initially at LRU level modelling all the SRUs as volumetric heat loads and estimate edge temperature of each of the SRUs. The LRU Level analysis should be carried out 55^0C ambient as well as in 71^0C ambient conditions.

- The pressure drop in the LRU to be optimised during the LRU level analysis.
- Each SRU to be subjected to SRU Level / Card level thermal analysis applying edge temperatures estimated from the LRU level analysis.
- Wedge lock resistances to be applied during the SRU Level / Card level thermal analysis.

- Components to be modelled using 2R resistance model.
- Estimate the Junction & Case temperature of all components in the SRU Level / Card level thermal analysis and compare the same with the allowable Junction / Case temperature of
- each component as per the data sheet. The allowable temperatures to be reduced by 10% to cater for de-rating.
- Provide a table indicating thermal margins available for each component w.r.t de-rated allowable temperatures.

DELIVERABLES & DELIVERY SCHEDULE

Sr No	Description	Qty.	Delivery Schedule
1.	Mechanical Simulation & Structural Analysis of Radome	01 Set	02 days from date of supply order.
2.	Modal / Buckling / Fatigue Analysis (Optional)	01 Set	10 days from date of supply order.
3.	Design Optimization Study (Optional)	01 Set	21 days from date of supply order.

GENERAL TERMS & CONDITIONS: -

1. Design and simulate a spherically blunt ogive shape Radome as per specification provided by IIIT Nagpur.

2. All data, drawings, and results shall be treated as confidential. The service provider shall not disclose any technical or commercial information without written approval from the Institute.

3. The delivery will be made within 03 weeks from receipt of Service Order along with all inputs collected for executing project.

4. **TERMS OF PAYMENT**: The Payment Shall Be Released within 15 days after successful submission of report and satisfactory report from Competent Authority.

5. Any disputes shall be subject to Nagpur Jurisdiction only.

6. The time allowed for the work shall be strictly followed otherwise the Bidder shall be liable to pay compensation at the rate of 0.5% of the quoted Price of the work per week of delay on the part of the Selected Bidder subject to a maximum of 10% of the total Contract Value.

7. Any amendment or corrigendum regarding this Quotation will be issued on Institute website www.iiitn.ac.in only.

I/c Registrar

Annexure-A

DETAILS OF THE BIDDER

The following details are to be filled by the Bidder and also to be attached the necessary certificates, along with Firm's Registration Certificate without which the quotation may not be entertained.

1	Name & Address of the Agency / Firm / Company	
2	Year of Establishment:	
3	Registered Office Address	
4	Nature of the firm (Proprietorship / Partnership / Private Limited or Cooperative body etc)	
5	Registration No of Firm (Enclose Copy of the Registration)	
6	GST Registration No. (Enclose Copy of the GST Certificate) ***If GST is not applicable enclose CA Certificate***	
7	PAN No. (Enclose Copy of PAN Card)	
8	Name & Address of the Authorized Person	
9	Phone No.	
10	Email-ID	

"FORMAT OF QUOTATION ENQUIRY"

Ref No.: IIITN/ADMIN/MECH-SIMU/QUOT/2025-26/17 **Date: 11.02.2026**

SUBJECT: - QUOTATION FOR MECHANICAL SIMULATION & ANALYSIS OF RODOME AT IIIT NAGPUR.

Sr. No	Particular	Amount in Rupees
1	**Basic Charges for the Mechanical Simulation & Analysis of Rodome at IIIT Nagpur.**	
2	Less, Education Institutional Discount	
3	Basic Amount (1-2)	
4	Add, GST / Taxes	
	Total Quoted price in Figures (3+4)	
Total Quoted price in Words: -		

1. The Price quoted by the Bidder shall be fixed for the duration of the contract and shall not subjected to adjustment on any account.

2. The Bidder with lowest Total Quoted Price (L1) shall be selected subject to fulfillment of all the other applicable conditions of the Quotation.

Note: - Price / Commercial bid & other details should be furnished as per Institute's prescribed format failing which the price / commercial Bid may be treated as unresponsive and may lend to disqualification.