वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्
Council of Scientific & Industrial Research
राष्ट्रीय वांतरिक्ष प्रयोगशालाएं
National Aerospace Laboratories

CSIR - NAL Estd. 1959
ISO 9001 : 2015
Certified Organization

INVITATION FOR BIDS/NIT

Tender No: CAD/PUR/2K19/113

CSIR- National Aerospace Laboratories (NAL), Bengaluru, India is one of the premier laboratories under Council of Scientific and Industrial Research (CSIR), an autonomous body under Department of Scientific and Industrial Research, Government of India, New Delhi. CSIR-NAL is a Science and Knowledge based Research, Development and Consulting Organization. It is internationally known for its excellence in Scientific Research in Aerospace Engineering.

The Director, CSIR-NAL invites online quotation for procurement of the following item(s) for day to day research work.

Sl.No.	Description of Items	Unit	Quantity
1	Protocol Analyzer (as per attached specification)	No.	1

Single / Double Bid	Two
Bid Security (EMD) (in INR)	Rs.40,000/-

1.Tender Documents May be downloaded from Central Public Procurement Portal https://www.etenders.gov.in. Aspiring Bidders who have not enrolled/ registered in e- procurement should enroll/ register before participating through the website https://www.etenders.gov.in. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.

2.Tenderers can access tender documents on the website (For searching in the NIC site https://www.etenders.gov.in, kindly go to Tender Search option, select tender type and select ' Council of Scientific and Industrial Research' in organization tab and select NAL-Bengaluru-CSIR' in department type Thereafter, Click on "Search" button to view all CSIR-NAL, Bengaluru tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website https://www/etenders.gov.in as per the schedule given in the next page.

3.Either the Indian Agent on behalf of the Foreign principal or the Foreign principal can bid directly in a tender but not both. However, the offer of the Indian Agent should also accompany the authorization letter from their principal. To maintain sanctity of tendering system, one Indian Agent cannot represent two different foreign principals in one tender.

4.Unsolicited / conditional / unsigned tenders (Quotations) **shall not** be considered. Quotations received after the due date and time **shall be summarily rejected.**

5.The amount of the **Performance Security** shall be **10% of the contract value** to be submitted within 21 days from the date of Purchase Order valid up to 60 days after the date of completion of performance obligations including warranty obligations.

P.T.O

पी बी सं. 1779, एचएएल एयरपोर्ट रोड , बेंगलूर- 560 017, भारत,
P B No 1779, HAL Airport Road, Bengaluru - 560 017, INDIA
फोन / Phone : (का./ Off) : +91 - 80 - 2508 6097 / 6710, फेक्स / FAX : +91-80-2526 9611

http//www.nal.res.in   purchaseccadd@nal.res.in

6.The Bid Security/Earnest Money Deposit shall be deposited through Bank Guarantee/Demand Draft drawn in favour of **"The Director, National Aerospace Laboratories, Bengaluru"**. The original Bid Security/EMD must be delivered to address mentioned below on or before bid submission date and time failing which the bid shall be summarily rejected.

Controller of Stores & Purchase
Purchase Section
CSIR- National Aerospace Laboratories
PB No.1779, HAL Airport Road, Kodihalli, Bengaluru – 560017
Karnataka-India
Tel # : 080 25086040/6097/6710
Fax # : 080 25269611
Email : purchasek@nal.res.in, purchaseccadd@nal.res.in

7. The Bidder shall comply the terms and conditions of the tender, failing which; the offer shall be liable for rejection.

8.The Director, CSIR- National Aerospace Laboratories, Bengaluru reserves the right to accept any or all the tenders either in part or in full or to split the order without assigning any reasons there for.

Raman Kumar
Section Officer (S&P)
For & Behalf of CSIR

CAD/PUR/2K19/113

SPECIFICATIONS OF PROTOCOL ANALYSER

SL. NO.	ITEM	QUANTITY
01	Protocol Analyzer (As per spec attached)	01

Protocol analyzer shall provide the avionics interface modules for testing, validating and simulating commercial and civil certified avionics LRUs and systems. Detailed specifications of protocol analyzer are provided below.

SPECIFICATION	DESCRIPTION
Avionics Interface Protocols:	Following avionics interface protocol modules shall be provided in single system • ARINC 429 • ARNIC 708 • Serial • Discrete
ARNIC 429	Two modules of 12 Rx/ 4Tx configurable channels (total of 24 Rx/ 8Tx Configurable Channels)
ARNIC 708	One module of 2R/2T Channels
SERIAL	4 Serial UARTs
TTL Level Discrete	8 Bidirectional TTL Level Discrete
Avionics Level Discrete	16 Avionics Level Discrete
Ethernet Ports	2 Ethernet Ports (10/100/1000)
Serial	2 RS-232/422/485 (Configurable)
USB	1 USB 3.0 Device Port
Monitoring	Voltage And Temperature
Cables	Necessary cables shall be included
System shall be Capable of:	Running standalone embedded applications using the On-Board P1022 Freescale power PC dual core processor
	Tethered Or Standalone Operation
	Power-On Built-In Test (PBIT)
	Initiated Built-In Test (IBIT)
	Continuous Built-In Test (CBIT)
	10 MHz/PPS Clock Synchronization IRIG and clock sync generators
Environmental: Storage temperature Operating temperature	 From -40°C to 85°C From -20°C to 55°C
Electrical: Input	Standard 230VAC 50Hz with replaceable fuses
Mechanical: Mounting type Height Width Depth Weight	 19" Rack mount parts shall be included Shall be 1U Shall be less than 12.5 inches Shall be less than 11 inches Shall be less than 2 kg

SPECIFICATIONS OF PROTOCOL ANALYSER

SPECIFICATION	DESCRIPTION
GUI Software:	Shall include powerful bus analyzer GUI with following features: • Auto discovery of hardware and bus activity. • Shall support up to 24 simultaneous interface devices. • Visual protocol analysis. • Powerful scripting environment. • Viewing and manipulating data in engineering units. • Multiple import/export formats. • Log data from multiple channels • Sophisticated graphical displays • Hardware and software playback • Controllable error injection • Built-in start, stop & pause triggers • Complete solution for automated testing • Easy licensing with no dongles to fuss with or lose • Universal BTI Driver API compatible for C/C++, C#,VB, VB.Net • Shall support windows OS and need to provide necessary drivers
Warrantee	Standard warrantee of 1 year

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SCHEDULE CUM CRITICIAL DATE SHEET

1	Name of Organization	CSIR-National Aerospace Laboratories, Bengaluru	
2	Tender Reference No	**CAD/PUR/2K19/113**	
3	Tender Type (Open/Limited/EOI/Auction/Single)	Open Tender	
4	Type/Form of Contract (Work / Supply / Auction / Service / Buy / Empanelment / Sell)	Supply	
5	No of Covers (One/Two/Three/Four)	Two	
6	Tender Category (Services/Good/Works)	Good	
7	Allow Resubmission (Only in online mode within scheduled period)	Yes	
8	Allow Withdrawal (Only in online mode within scheduled period)	Yes	
9	Allow Offline Submission	No	
10	Work Item Title	Procurement Protocol Analyzer	
11	Work Description	Procurement Protocol Analyzer (as per attached specification)	
12	Delivery Schedule	60 days from the date of purchase order	
13	Product Category (Civil Works / Electrical Works / Fleet Management / Computer Systems)	R & D Equipment	
14	Is Multi Currency Allowed	No	
15	a) Tender Publishing Date -	24 Jan 2020	1800 Hrs
	b) Document download start Date:	24 Jan 2020	1800 Hrs
	c) Bid Submission Start Date	24 Jan 2020	1800 Hrs
	d) Bid Submission End Date-	17 Feb 2020	1000 Hrs
	e) Bid Opening Date-	18 Feb 2020	1100 Hrs
16	Bid Validity Days	90 days	
17	Address for communication	Stores and Purchase Officer CSIR-National Aerospace Laboratories, HAL Airport Road, Kodihalli, Bengaluru - 560017	
18	Inviting Officer	Director, CSIR-NAL	
19	Contact No	25086097, 25086710	
20	E-mail Address	purchaseccadd@nal.res.in/spo@nal.res.in	
21	Detailed specification of item	Invitation for bids / NIT	
22	Tender Terms & Conditions & Instruction for online bid submission	The prospective bidders are requested to refer to the Standard Tender Document available on NAL internet(www.nal.res.in) under the icon Tender-Purchase before formulating and submitting their bids.	