



TENDER DOCUMENT

FOR

**TOWARDS UPGRADATION OF WENZEL CO-ORDINATE MEASURING MACHINE
MODE: LH 87**

**COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH
NATIONAL AEROSPACE LABORATORIES
PB NO.1779, HAL AIRPORT ROAD, BENGALURU – 560017
KARNATAKA-INDIA**



Council of Scientific and Industrial Research
National Aerospace Laboratories
PB No.1779, HAL Airport Road, Bengaluru – 560 017, Karnataka-India
Tel #: 00 91 80 25086040/6041
Fax #: 00 91 80 25269611
Email: purchasek@nal.res.in
Website: www.nal.res.in

Invitation for Bids / Notice Inviting E-Tender

CSIR- National Aerospace Laboratories (NAL), Bengaluru, India is one of the premier laboratories under Council of Scientific and Industrial Research, 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 sealed bids from their Manufacturers, their distributors and Indian Agent of Foreign Principals, if any, for the procurement of the following Goods/Services for its day-to-day research. The Technical specifications, Allied requirements and scope of supply are given in **Chapter 4** appended herewith.

| Sr. No. | Tender No. | Brief Description of item(s) | Unit | Qty | Single / Two Bid |
|---------|-----------------------|---|------|-----|------------------|
| 1 | NAL/PUR/APMF/383/17-Z | Upgradation of Wenzel Co-Ordinate Measuring Machine Mode: LH 87 | No | 1 | Two |

1. E-Bids are invited through the electronic tendering process and the Tender Document can be downloaded from the e-Tender Central Public Procurement Portal (CPPP) of Government of India, <https://etenders.gov.in>. A copy of the Tender Document is also available on CSIR-NAL Website, www.nal.res.in. **The submission of e-Bids will be only through the e-Tender portal <https://etenders.gov.in>. Bids will not be accepted in any other form.**
2. The address for submission of EMD/Bid Security and for obtaining further information:
Stores & Purchase Officer
Purchase Section
CSIR- National Aerospace Laboratories
PB No.1779, HAL Airport Road, Kodihalli, Bengaluru – 560017
Karnataka-India
Tel # : 080 25086040/6041/6044
Fax # : 080 2526911
Email : purchasek@nal.res.in, mkala@nal.res.in
3. The prospective bidders should adhere to deadlines specified in Tender Details Screen corresponding to this Tender on E-Tender portal <https://etenders.gov.in>.

4. A Pre-Bid Conference will be held on schedule mentioned below. All prospective bidders are requested to kindly submit their queries to the address indicated above so as to reach the Stores & Purchase Officer at least one day before Pre-Bid Conference.

| | Date | Time in hours (IST) | Venue |
|--------------------|----------------|---------------------|-------|
| Pre-Bid Conference | NOT APPLICABLE | | |

5. The Bid prepared by the Bidder shall include the following: -

| Bid Security (BS) / Earnest Money Deposit (EMD) | | |
|---|---|--|
| a) | In case of Foreign Bidder | In case of Indigenous Bidder |
| | US\$ 1570/- [US\$ One Thousand Five Hundred Seventy Only] Euro 1270/- [Euro One Thousand Two Hundred Seventy Only] | Rs. 1,00,000/- [Rupees One Lakh Only] |
| b) | 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 in Sr.No.2 above on or before bid submission date and time as mentioned in "Date Sheet" failing which the bid shall be summarily rejected. For further details, refer Clause No.1.15 of Tender document. | |
| c) | Form as specified in Chapter No.8 | |

6. The Schedule for Submission of Bids and Opening of Bids is as follows: -

| Date & Time of Submission of Bid | | Date and Time of Opening of Bid (Part-I – Technical Bid Only) | |
|----------------------------------|------------------|--|------------------|
| Date | Time (IST) | Date | Time (IST) |
| 01-Mar-2018 | 10:00 Hrs | 02-Mar-2018 | 11:00 Hrs |

7. The Director, CSIR-National Aerospace Laboratories (NAL), Bengaluru, India reserves the right to accept or reject any or all tenders / offers either in part or in full or to annul the tender process at any stage or to split the order without assigning any reasons there for.

SCHEDULE CUM CRITICAL DATE SHEET

| | | |
|----|---|--|
| 1 | Name of Organization | CSIR-National Aerospace Laboratories, Bengaluru |
| 2 | Tender Reference No | NAL/PUR/APMF/383/17-Z |
| 3 | Tender Type (Open/Limited/EOI/Auction/Single) | Open |
| 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/Goods/Works) | Goods |
| 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 | Type/Form of Contract (Work/Supply/Auction/Service/ Buy/Empanelment/Sell) | Supply |
| 11 | Supply Title | Upgradation of Wenzel Co-Ordinate Measuring Machine Mode: LH 87 |
| 12 | Supply Description | Upgradation of Wenzel Co-Ordinate Measuring Machine Mode: LH 87 Details as per Chapter-4 |
| 13 | Product Category (Civil Works/Electrical Works/Fleet Management/ Computer Systems) | R & D Equipment |
| 14 | Is Multi Currency Allowed | Yes |
| 15 | a) Tender Publishing Date & Time | 02-Feb-2018 (18:00 Hrs) |
| | b) Document Download Start Date & Time | 05-Feb-2018 (10:00 Hrs) |
| | c) Seek Clarification Start Date & Time | 05-Feb-2018 (10:00 Hrs) |
| | d) Seek Clarification End Date & Time | 27-Feb-2018 (16:30 Hrs) |
| | e) Pre-Bid Conference Date & Time | NOT APPLICABLE |
| | f) Bid Submission Start Date & Time | 05-Feb-2018 (11:30 Hrs) |
| | g) Bid Submission End Date & Time | 01-Mar-2018 (10:00 Hrs) |
| | h) Bid Opening Date & Time | 02-Mar-2018 (11:00 Hrs) |
| 16 | Bid Validity Days | 90 days from the date of Opening of the Technical Bid prescribed by the Purchaser |
| 17 | Address for communication | CSIR- National Aerospace Laboratories PB No.1779, HAL Airport Road, Kodihalli, Bengaluru – 560017 Karnataka-India |
| 18 | Inviting Officer | Director, CSIR-NAL |
| 19 | Contact No | 25086040, 25086041 |
| 20 | E-mail Address | purchaseek@nal.res.in spo@nal.res.in |
| 21 | Details specification of the Goods/Services | Refer Chapter-4 |

General Instructions to Bidders:-

01. 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'.
02. 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.

Stores and Purchase Officer

CONTENTS OF TENDER / BIDDING DOCUMENT

The bidding documents, apart from the Invitation for Bids / Notice Inviting Tender have been divided into Eight (8) Chapters as under:

| Chapter No. | Name of the Chapter | Page No. |
|-------------|--|----------|
| 1 | Instructions to Bidder (ITB) | 8-19 |
| 2A | General Conditions of Contract (GCC) | 21-32 |
| 2B | Special Conditions of Contract (SCC) | 33-34 |
| 3 | Schedule of Requirements | 35 |
| 4 | Specifications, Allied Technical Details And Scope of Supply | 36-50 |
| 5 | Qualification requirements | 51 |
| 6 | Price Schedule Forms | 52-53 |
| 7 | Contract Form | 54 |
| 8 | Standard Forms | 55-67 |

LIST OF SHORT FORMS AND FULL FORMS

| ACRONYM | EXPANSION |
|----------|--|
| BG | BANK GUARANTEE |
| BS | BID SECURITY |
| CIF | COST INSURANCE FREIGHT |
| CIP | CARRIAGE PAID TO |
| CSIR | COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH |
| CVC | CHIEF VIGILANCE COMMISSION |
| DGS&D | DIRECTOR GENERAL OF SUPPLIES & DISPOSAL |
| EMD | EARNEST MONEY DEPOSIT |
| ESIC | EMPLOYEES STATE INSURANCE CORPORATION |
| FCA | FREE CARRIAGE ALONG SIDE |
| FOB | FREE ON BOARD |
| GCC | GENERAL CONDITIONS OF CONTRACT |
| GOI | GOVERNMENT OF INDIA |
| GST | GOODS & SERVICES TAX |
| IT | INCOME TAX |
| ICC | INTERNATIONAL CHAMBERS OF COMMERCE |
| IEMs | INDEPENDENT EXTERNAL MONITORS |
| IP | INTEGRITY PACT |
| IPC | INDIAN PENAL CODE |
| IST | INDIAN STANDARD TIME |
| ITB | INSTRUCTION TO BIDDER |
| JS (A) | JOINT SECRETARY (ADMINISTRATION) |
| LC | LETTER OF CREDIT |
| LC | LETTER OF CREDIT |
| LD | LIQUIDATED DAMAGES |
| NAL | NATIONAL AEROSPACE LABORATORIES |
| NIT | NOTICE INVITING TENDER |
| NSIC | NATIONAL SMALL INDUSTRIES CORPORATION |
| PS | PERFORMANCE SECURITY |
| SCC | SPECIAL CONDITIONS OF CONTRACT |
| UNCITRAL | UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE |

CHAPTER 1 - INSTRUCTIONS TO BIDDERS - Table of Contents

| Clause No. | Contents | Page No. |
|--|---|-----------|
| A. Introduction | | |
| 1.1 | Eligible Bidders | 8 |
| 1.2 | Cost of Bidding | 8 |
| 1.3 | Fraud and Corruption | 8 |
| B. The Bidding Documents | | |
| 1.4 | Cost of Bidding Documents | 8 |
| 1.5 | Content of Bidding Documents | 8 |
| 1.6 | Clarification of Bidding Documents | 9 |
| 1.7 | Amendment to Bidding Documents | 9 |
| C. Preparation of Bids | | |
| 1.8 | Language of Bid | 10 |
| 1.9 | Documents Comprising the Bid | 10 |
| 1.10 | Bid form and price schedule | 10 |
| 1.11 | Bid Prices | 10-11 |
| 1.12 | Bid Currencies | 11 |
| 1.13 | Documents establishing Bidder's Eligibility and Qualifications | 12 |
| 1.14 | Documents establishing Goods' Eligibility and Conformity to Bidding Documents | 12 |
| 1.15 | Bid Security / Earnest Money Deposit | 12-13 |
| 1.16 | Period of Validity of Bids | 14 |
| 1.17 | Format and Signing of Bid | 14 |
| D. Submission and Sealing of Bids | | |
| 1.18 | Submission, Sealing and Marking of Bids | 14 |
| 1.19 | Due date for Submission of Bids | 15 |
| 1.20 | Late Bids | 15 |
| 1.21 | Withdrawal, Substitution and Modification of Bids | 15 |
| E. Opening and Evaluation of Bids | | |
| 1.22 | Opening of Bids by the Purchaser | 15 |
| 1.23 | Confidentiality | 15 |
| 1.24 | Clarification of Bids | 16 |
| 1.25 | Preliminary Examination | 16 |
| 1.26 | Responsiveness of Bids | 16 |
| 1.27 | Non-Conformity, Error and Omission | 16 |
| 1.28 | Examination of Terms & Conditions, Technical Evaluation | 17 |
| 1.29 | Conversion of Single Currency | 17 |
| 1.30 | Evaluation and Comparison of Bids | 17 |
| 1.31 | Comparison of Bids | 18 |
| 1.32 | Contacting the Purchaser | 18 |
| 1.33 | Post qualification | 18 |
| F. Award of Contract | | |
| 1.34 | Negotiations | 18 |
| 1.35 | Award Criteria | 19 |
| 1.36 | Purchaser's right to vary Quantities and Time of Award or later | 19 |
| 1.37 | Purchaser's right to accept any Bid and to reject any or all Bids | 19 |
| 1.38 | Notification of Award | 19 |
| 1.39 | Signing of Contract | 19 |
| 1.40 | Order Acceptance | 19 |
| 1.41 | Performance Security | 19 |
| 1.42 | Assistance to Bidders | 19 |

A. Introduction

Instructions to bidder are broad guidelines to be followed while formulating the bid and its submission to the Purchaser. It also describes the methodology for opening and evaluation of bids and consequent award of contract.

1.1 Eligible Bidders

- 1.1.1. This Invitation for Bids is open to all suppliers.
- 1.1.2. Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids.
- 1.1.3. Bidders who fulfil the Eligibility Criteria mentioned in **Chapter 5** will be considered for Technical Evaluation of bids.

1.2 Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its bid, and "the Purchaser", will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

1.3 Fraud and corruption

- 1.3.1. The purchaser requires that the bidders, suppliers and contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy, the following are defined:

| Sr. No. | Term | Meaning |
|---------|---------------------|--|
| (a) | Corrupt practice | The offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution. |
| (b) | Fraudulent practice | a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract. |
| (c) | Collusive practice | means a scheme or arrangement between two or more bidders, with or without the knowledge of the purchaser, designed to establish bid prices at artificial, non-competitive levels. |
| (d) | Coercive practice | means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract. |

- 1.3.2. The Purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

B. The Bidding Documents

1.4 Cost of Bidding Documents

The bidding documents are to be **downloaded Free of Cost** from CPPP Website <https://etenders.gov.in>

1.5 Content of Bidding Documents

- 1.5.1. The Goods / Services required, bidding procedures and contract terms are prescribed in the bidding documents which should be read in conjunction. The bidding documents, apart from the Invitation for Bids / Notice Inviting Tender have been divided into Eight Chapters.
- 1.5.2. The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

1.6 Clarification of bidding documents

1.6.1. In case when there is NO PRE-BID CONFERENCE

A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address specified in the Special Conditions of Contract (SCC), latest by the Purchaser will respond in writing through e-mail to any request for clarification, provided that such request is received not later than ten (10) days prior to the due date for submission of bids. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under *Clause 1.7* relating to amendment of bidding documents and *Clause 1.19* relating to Due date for Submission of Bids. The amendments issued would be hosted on the CPPP website <https://etenders.gov.in> of the purchaser for the benefit of the prospective bidders who are expected to take cognizance of the same before formulating and submitting their bids.

1.6.2. In case when there is PRE-BID CONFERENCE

- a) A prospective Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address specified in the Special Conditions of Contract (SCC), latest by the date specified in the Invitation for Bids / NIT which would be deliberated as **per Clause 1.6.2 (b)** of Instructions to the Bidders. No request for clarification or query shall be normally entertained after the **Pre-Bid Conference**. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under *Clause 1.7* relating to amendment of Bidding Documents and *Clause 1.19* relating to Due Date for Submission of Bids. The clarifications and amendments issued would also be hosted on the CPPP website <https://etenders.gov.in> of the Purchaser for the benefit of the other prospective bidders.
- b) A Pre-bid Conference shall be held as indicated in Invitation to Bid. All prospective bidders are requested to kindly attend the Pre-bid Conference. In order to facilitate CSIR-NAL for proper conduct of the Pre-bid Conference, all prospective bidders are requested to kindly submit their queries (with envelope bearing Tender No. and Date on top and marked "Queries for Pre-bid Conference") so as to reach CSIR-NAL as indicated in Invitation to Bid. Queries may be sent by email to purchasek@nal.res.in/spo@nal.res.in. CSIR-NAL shall answer the queries during the pre-bid conference, which would become a part of the proceedings of the Pre-bid Conference. These proceedings will become a part of clarifications / amendments to the bidding documents and would become binding on all the prospective bidders. These proceedings would also be hosted on CPPP website <https://etenders.gov.in> for the benefit of all the prospective bidders. Before formulating and submitting their bids, all prospective bidders are advised to surf through the CPPP website <https://etenders.gov.in> after the Pre-bid Conference, in order to enable them take cognizance of the changes made in the bidding document.

1.7 Amendment to Bidding Documents

- 1.7.1. At any time prior to the due date for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment.
- 1.7.2. All prospective bidders who have down loaded the Tender Document should surf CPPP website <https://etenders.gov.in> from time to time to know about the changes / modifications in the Tender Document. The changes / modifications would also be hosted on the CPPP website <https://etenders.gov.in>. All prospective bidders are expected to surf the CPPP website <https://etenders.gov.in> before formulating and submitting their bids to take cognizance of the amendments.
- 1.7.3. In order to allow prospective bidders reasonable time to take the amendment into account while formulating their bids, the Purchaser, at its discretion, may extend the due date for the submission of bids and host the changes on the CPPP website <https://etenders.gov.in> of the purchaser.

C. Preparation of bids

1.8 Language of Bid

- 1.8.1. The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in English language only especially when the details are technical. However, if GOI makes it mandatory under Rajbhasha Abhiyan, in that case views of Rajbhasha unit of CSIR may be sought.
- 1.8.2. The Supplier shall bear all costs of translation, if any, to the English language and bear all risks of the accuracy of such translation, for documents provided by the Supplier.

1.9 Documents Comprising the E-Bid

- 1.9.1 The E-bid shall comprise of the following documents as per the requirement of the Tender Document. The documents should be scanned and **uploaded in PDF format**.

| Sr. No. | Document Required | Reference Clause & Forms of tender document |
|---------|---|---|
| 1 | Bid Security / EMD for amount specified in NIT | 1.15 & Chapter-8: Annexure-C |
| 2 | Bidder Information Form | Chapter-8: Annexure-A |
| 3 | Certificate of Incorporation | 5.1 (a) |
| 4 | Manufacturers Authorisation Form | Chapter-8: Annexure-B |
| 5 | Agency Agreement / MOU | 5.1 (b) |
| 6 | Eligibility Certificate | 5.1 (c)&Chapter-8: Annexure-K |
| 7 | Self-Certificate: Non-Black Listing | 5.1 (d) &Chapter-8: Annexure-L |
| 8 | Performance Statement Form | 5.2 (b) &Chapter-8: Annexure-D |
| 9 | Service Support Details | 5.2 (c) &Chapter-8: Annexure-F |
| 10 | Creditworthy Report (if applicable) | 5.3 |
| 11 | Detailed Technical Specifications & Scope of Supply | Chapter-4 |
| 12 | Schedule of Requirement | Chapter-3 |
| 13 | Deviation Statement | Chapter-8: Annexure-E (Part-I & II) |
| 14 | Bid Form | Chapter-8: Annexure-G |
| 15 | Price Schedule Form (s) | Chapter-6 |

The documents comprising bid should be submitted in the **above sequence in orderly manner**. **Bid is Single Bid or Two Bid is specified in NIT.**

1.9.2 Documents comprising Single Bid

All the above documents should be submitted in Single E-Bid.

1.9.3 Documents comprising Two Bid (Technical Bid & Price Bid)

Technical bid should comprise of documents listed from Sr.No.1 to 13 and Bid Form & Price Schedule Form **without mentioning** prices and discount.

Price Bid should comprise of Bid Form & Price Schedule Form by **mentioning** prices and discount.

1.10 Bid form and Price Schedule

The bidder shall complete the Bid Form and the appropriate Price Schedule form as given in Chapter-6 furnished in the bidding documents. These forms must be completed without any alterations to its format and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. The Bid Form and the appropriate Price Schedule form shall be submitted in accordance with **ITB Clauses 1.9.2 & 1.9.3** of the bidding documents.

1.11 Bid Prices

- 1.11.1. The Bidder shall indicate on the appropriate price schedule form, the unit prices and total bid prices of the Goods / Services it proposes to supply under the contract.
- 1.11.2. Prices indicated on the price-schedule form shall be entered separately in the following manner:

(a) **For Goods manufactured within India:**

| | |
|------|---|
| i) | The price of the goods quoted Ex-works |
| ii) | GST which will be payable on the goods if the contract is awarded. |
| iii) | The charges for inland transportation, insurance and other local services required for delivering the goods at the desired destination as specified in the price schedule form. |
| iv) | The installation, commissioning and training charges including any incidental services, if any. |

(b) **For Goods manufactured abroad:**

| | |
|------|--|
| i) | The price of the goods, quoted on FCA (named Airport abroad) or FOB (named port of shipment), as specified in the price schedule form. |
| ii) | The charges for insurance and transportation of the goods to the port / place of destination. |
| iii) | The agency commission charges payable to Indian agent in Indian rupees, if any. |
| iv) | The installation, commissioning and training charges including any incidental services, if any |

1.11.3. The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce, Paris.

1.11.4. **Where there is no mention of packing, forwarding, freight, insurance charges, taxes, any charges mentioned as extras as applicable etc.; or tax at your account or tax to be borne by the Buyer, such offer may be rejected as incomplete.**

1.11.5. The price quoted shall remain fixed during the contract period and shall not vary on any account.

1.11.6. All lots and items must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed to be not included in the bid.

1.11.7. The CSIR-NAL is a public funded Research Institution under Department of Scientific & Industrial Research and concessional Custom Duty @5.15% is applicable for the goods purchased for research purpose vide Government of India Notification No.51/96-Customs dated 23.07.1996

1.11.8. In case of imports the freight & insurance will be paid by the Purchaser, as the consignments are to be shipped through the Purchaser nominated freight forwarder.

1.11.9. The quotation should be only in Indian Rupees for indigenous items. In case of foreign quote, the Bidders may quote their rates in Indian Rupees as well as in Foreign Currency.

1.11.10. **In** case of INR bids the price criteria should be on Free Delivery to CSIR-NAL, Bengaluru. Govt. Levies like GST etc., if any, shall be paid at actual rates applicable on the date of delivery. Rates should be quoted accordingly giving the basic price, GST etc., if any.

1.11.11. Custom Duty is levied on all import meant for CSIR-NAL. Hence, the suppliers are requested to quote only on FOB/FCA basis, freight, insurance and custom duty as applicable to R&D Institutions will be paid by the Purchaser.

1.11.12. CSIR-CSIR-NAL is a public funded Research Institution under Department of Scientific & Industrial Research and concessional GST (IGST@5% OR SGST @ 2.5% and [CGST@2.5%](#)) shall be made applicable for the goods purchased for research purpose vide Ministry of Finance (Department of Revenue) Notification No.47/2017-Integrated Tax dated 14.11.2017 & Notification No.45/2017-Central Tax dated 14.11.2017 in due course of time. Till such time GST as applicable shall be paid.

Note: All payments due under the contract shall be paid after deduction of statutory levies at source (like ESIC, IT, etc.), wherever applicable.

1.12 Bid Currencies

Prices shall be quoted in Indian Rupees for offers received for supply within India and in freely Convertible foreign currency in case of offers received for supply from foreign countries.

1.13 Documents Establishing Bidder's Eligibility and qualifications

1.13.1. The bidder shall furnish, as part of its bid, documents establishing the bidders' eligibility to bid and its qualification to perform the contract if its bid is accepted.

1.13.2. The documentary evidence of the bidders qualification to perform the contract if the bid is accepted shall establish to the purchasers satisfaction that:

| | |
|-----|--|
| (a) | The bidder meets the qualification criteria listed in bidding documents, if any. |
| (b) | Bidder who doesn't manufacture the goods it offers to supply shall submit Manufacturers' Authorization Form using the form specified in the bidding document to demonstrate that it has been duly authorized by the manufacturer of the goods to quote and / or supply the goods. |
| (c) | In case a bidder not doing business within India, it shall furnish the certificate to the effect that the bidder is or will be represented by an agent in India, equipped and able to carry out the supply, maintenance, repair obligations etc. during the warranty and post warranty period or ensure a mechanism at place for carrying out the supply, maintenance, repair obligations etc. during the warranty and post-warranty period. |

1.13.3. Conditional tenders / offers shall **not** be accepted.

1.14 Documents Establishing Goods' Eligibility and Conformity to Bidding Documents

1.14.1. To establish the goods' eligibility, the documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods and services offered which shall be confirmed by a certificate of origin at the time of shipment.

1.14.2. To establish the conformity of the goods and services to the specifications and schedule of requirements of the bidding document, the documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings and data, and shall consist of :

| | |
|-----|--|
| (a) | A detailed description of the essential technical and performance characteristics of the goods; |
| (b) | A list giving full particulars, including available sources and current prices, of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods during the warranty period following commencement of the use of the goods by the Purchaser in the Price- bid ; and |
| (c) | An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications. |

1.14.3. For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute these in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

1.15 Bid Security (BS) / Earnest Money Deposit (EMD)

1.15.1. The Bidder shall furnish, as part of its bid, a Bid security (BS) / Earnest Money Deposit (EMD) of amount as specified in NIT in the form of a Bank Guarantee / Demand Draft drawn on any Nationalized Bank in favour of the Director, National Aerospace Laboratories Bengalur.

A. In case of Foreign Bidder(s):

| | |
|----|--|
| a) | The BS shall be submitted either by the principal or by the Indian agent |
| b) | The bidder who submits the tender on behalf of their principals should produce documentary evidence in support of their authority to quote |
| c) | The Bank Guarantee is insisted due to steep fluctuations in foreign exchange hence the foreign DDs are not accepted towards BS/EMD |

B. In the case of indigenous bidders:

| | |
|----|--|
| a) | The BS shall be submitted by the manufacturer or their specifically authorized dealer/bidder |
|----|--|

1.15.2. E-Bids submitted without BS/EMD will stand rejected. BS/EMD will not be accepted in the form of cash / cheque or any other form other than DD/Bank Guarantee as per format given in Chapter-8: **Annexure A**. No interest is payable on BS/EMD

1.15.3. The bid security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the Bid security's forfeiture.

1.15.4. The bid security shall be in Indian Rupees for offers received for supply within India and denominated in the currency of the bid or in any freely convertible foreign exchange in the case of offers received for supplies from foreign countries in equivalent Indian Rupees. The bid security shall be in one of the following forms at the bidders' option:

| | |
|-----|---|
| (a) | A Bank Guarantee (BG) issued by a Nationalized Bank / Foreign Bank operating in India in the form provided in the bidding documents and valid for 45 days beyond the validity of the bid. In case a bidder desires to submit a BG issued from a foreign bank, then the same should be confirmed by a Nationalised / Scheduled Indian bank; OR |
| (b) | A Banker's cheque or demand draft in favour of the Purchaser issued by any Nationalised Bank. |

1.15.5. The bid security shall be payable promptly upon written demand by the purchaser in case the conditions listed in the **ITB clause 1.15.11** are invoked.

1.15.6. The bid security should be submitted in its original form to the address:
STORES & PURCHASE OFFICER,
CSIR-NATIONAL AEROSPACE LABORATORY
PB NO.1779, HAL AIRPORT ROAD, KODIHALLI,
BENGALURU - 560017
KARNATAKA-INDIA

Scanned Copy of Demand Draft/Bank Guarantee towards bid security should be uploaded along with the E-bid.

1.15.7. Bid security / EMD is the mandatory requirement and exemption is applicable to the firms registered with NSIC only for the manufacture of the tendered goods and not for selling products manufactured by other companies.

1.15.8. The Bid Security of unsuccessful bidder will be discharged / returned as promptly as possible but positively within a period of 30 days after the expiration of the period of bid validity or placement of order whichever is later, without any interest.

1.15.9. The successful Bidder's bid security will be discharged upon the Bidder furnishing the Performance Security, without any interest. Alternatively, the BS could also be adjusted against Performance Security, if it is paid through Demand Draft / Banker's Cheque.

1.15.10. The receipt of Bid security before time and date of submission of bid is mandatory requirement. The bid is liable to be rejected if the bid security is not received within stipulated time.

1.15.11. The bid security may be forfeited:

| | |
|-----|--|
| (a) | If Bidder withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; OR |
| (b) | In case of successful Bidder, if the Bidder fails to furnish order acceptance within 15 days of the order or fails to sign the contract and / or fails to furnish Performance Security within 21 days from the date of contract / order. |

1.15.12. Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

1.16 Period of Validity of Bids

- 1.16.1. Bids shall remain valid for minimum of 90 days after the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.
- 1.16.2. In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by fax or e-mail). The bid security provided shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.
- 1.16.3. Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

1.17 Format and Signing of Bid

- 1.17.1. The bids may be submitted as Single-bid or Two-bid as specified in the Invitation for Bids / NIT.
- 1.17.2. In case the bids are invited on single bid basis, then the Bidder shall submit E-bid comprising all documents listed under clause 1.9 relating to documents comprising the bid.
- 1.17.3. In case the bids are invited on two-bid system, the Bidder shall submit E-bid in two separate parts. First part shall contain Technical bid comprising all documents listed under clause relating to Documents Comprising the Bid excepting bid form and price schedule forms. The second part shall contain the Price-Bid comprising Bid Form and Price Schedule forms.
- 1.17.4. The scanned copies of the E-bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialled by the person or persons signing the bid.
- 1.17.5. Any interlineations, erasures or overwriting shall be valid only if they are initialled by the person or persons signing the bid.

D. Submission of E-Bids

1.18 Submission of E-Bids

- 1.18.1. Bids shall be submitted online only at CPPP website <https://etenders.gov.in> Manual/ Offline bids shall not be accepted under any circumstances.
- 1.18.2. The Bidder shall download the Tender Enquiry Document directly from the website <https://etenders.gov.in> and shall not tamper/modify it in any manner. In case if the same is found to be tampered/modified in any manner, Tender/Bid will be summarily rejected and EMD would be forfeited.
- 1.18.3. The complete bidding process is online. Bidders should be in possession of valid Digital Signature Certificate (DSC) of class III for online submission of bids. Prior to bidding DSC need to be registered on the website mentioned above. If the envelope is not digitally signed & encrypted the Purchaser shall not accept such open Bids for evaluation purpose and shall be treated as non-responsive and rejected.
- 1.18.4. Bidders are advised to go through “Bidder Manual Kit”, “System Settings” & “FAQ” links available on the login page of the e-Tender portal for guidelines, procedures & system requirements. In case of any technical difficulty, Bidders may contact the help desk numbers & email ids mentioned at the e-tender portal. Every Bidder will be required to obtain a Class-III Digital Signature (DSC) for submission of Bids.
- 1.18.5. Bidders are advised to visit CPPP website <https://etenders.gov.in> regularly to keep themselves updated, for any changes/modifications in the Tender Enquiry Document.
- 1.18.6. Intending bidders are advised to visit CPPP website <https://etenders.gov.in> regularly till closing date of submission of bid, for any corrigendum.
- 1.18.7. The Bid Security/Earnest Money Deposit shall be deposited through Bank Guarantee / Demand Draft drawn in favour of “The Director, National Chemical Laboratory, Pune”. The original Bid Security/EMD must be delivered at address mentioned in Sr.No.2 of NIT till bid submission date and time as mentioned in “Date Sheet” failing which the bid shall be summarily rejected.

1.18.8 Purchaser shall receive the bids online through CPPP portal only. The e-Tender portal shall automatically stop accepting bids after the scheduled date and time specified in the Tender Document. Partially submitted bids shall be treated as invalid and shall not be processed.

1.19 Due date for Submission of E-Bids

1.19.1. EMD/BS must be received by the Purchaser at the address specified in NIT not later than the time and date specified in NIT.

1.19.2. Bidders are advised to upload and submit their E-bids timely within due date for submission of E-Bids in view of the electronic process so as to avoid last minute issues.

1.19.3 The Purchaser may, at its discretion, extend the due date for submission of E-bids by amending the tender documents in accordance with Clause relating to Amendment of Bidding Documents in which case all rights and obligations of the Purchaser and Bidders previously subject to the due date will thereafter be subject to the due date as extended.

1.20 Late Submission of EMD

1.20.1. Any bid security/EMD received by the Purchaser after the due date for submission of bids prescribed by the Purchaser is liable to be rejected.

1.20.2. Bidders must note that the e-tender portal shall not permit uploading of bids after the scheduled time of submission.

1.21 Withdrawal, substitution and Modification of Bids

1.21.1 The bidder may withdraw, correct or modify his digitally signed bid after submission prior to the deadline for submission of bids, through provisions of e-tendering portal.

1.21.2 The bidder is not allowed to modify or withdraw bid after deadline for submission of bids.

E. Opening and Evaluation of E-Bids

1.22 Opening of E-Bids by the Purchaser

1.22.1 The E-bids shall be opened online by authorised officials of the Purchaser as per schedule given in Date Sheet.

1.22.2 In case, the day of bid opening is declared a holiday by the government, the E-bids will be opened on the next working day at the same time. No separate intimation shall be sent to the bidders in this regard.

1.22.3 Since, E-bid is an online process; the E-bid opening or any other process may be delayed due to any technical/server issue. If any such issue arises, this will not be tantamount to process delay and CSIR-NAL will not be responsible for the same.

1.22.4 On opening of bids online, accepting the bid will not mean that the firm is technically or financially qualified.

1.23 Confidentiality

1.23.1. Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until Award of the Contract.

1.23.2. Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post qualification of the bids or contract award decisions may result in the rejection of its Bid.

1.24 Clarification of Bids

To assist in the examination, evaluation, comparison and post qualification of the bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. However, no negotiation shall be held except with the lowest bidder, at the discretion of the purchaser. Any clarification submitted by a bidder in respect to its bid which is not in response to a request by the purchaser shall not be considered.

1.25 Preliminary Examination

1.25.1. The Purchaser shall examine the bids to confirm that all documents and technical documentation requested in **ITB Clause 1.9** have been provided, and to determine the completeness of each document submitted.

1.25.2. The Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the offer shall be rejected.

- (a) All the tenders received will first be scrutinized to see whether the tenders meet the basic requirements as incorporated in the tender enquiry document. The tenders, who do not meet the basic requirements, will be treated as non-responsive and ignored. The following are some of the important points, for which a tender may be declared as non-responsive and will be ignored, during the initial scrutiny:

| | |
|------|---|
| i | The Bid is unsigned |
| ii | The Bidder is not eligible |
| iii | The Bid validity is shorter than the required period |
| iv | The Bidder has quoted for goods manufactured by a different firm without the required authority letter from the proposed manufacturer |
| | Bidder has not agreed to give the required performance security |
| vi | The goods quoted are sub-standard, not meeting the required specification, etc. |
| vii | Against the Requirement (Scope of supply) the bidder has not quoted for the entire requirement as specified in Chapter 4 |
| viii | The bidder has not agreed to some essential condition(s) incorporated in the tender. |

- (b) Bid Form and Price Schedule Form, in accordance with **ITB Clause 1.10**. In case of two-bid system these forms shall be examined after opening of the Price Bids of the technically qualified bidders.

1.26 Responsiveness of Bids

1.26.1. Prior to the detailed evaluation, the purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the bidding documents without material deviations, reservations or omissions. A material deviation, reservation or omission is one that:

| | |
|-----|---|
| (a) | affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Tender; OR |
| (b) | limits in any substantial way, inconsistent with the Bidding Documents, the Purchaser's rights or the Bidder's obligations under the Proposed Contract; OR |
| (c) | if rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids. |

1.26.2. The Purchasers' determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

1.26.3. If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation or omission.

1.27 Non-Conformity, Error and Omission

1.27.1. Provided that a Bid is substantially responsive, the Purchaser may waive any non-conformities or omissions in the Bid that do not constitute a material deviation.

1.27.2. Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify non-material non-conformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

1.27.3. Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:

| | |
|-----|---|
| (a) | if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected; |
| (b) | if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and |
| (c) | if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above. |

1.27.4. Provided that a bid is substantially responsive, the purchaser may request that a bidder may confirm the correctness of arithmetic errors as done by the purchaser within a target date. In case, no reply is received then the bid submitted shall be ignored and its Bid Security may be forfeited.

1.28 Examination of Terms & Conditions, Technical Evaluation

1.28.1. The Purchaser shall examine the Bid to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Bidder without any material deviation or reservation.

1.28.2. The Purchaser shall evaluate the technical aspects of the Bid submitted in accordance with **ITB Clause 1.14**, to confirm that all requirements specified in Chapter 4 of the Bidding Documents have been met without any material deviation or reservation.

1.28.3. If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Bid is not substantially responsive in accordance with **ITB Clause 1.26**, it shall reject the Bid.

1.29 Conversion to Single Currency

To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India as notified in the Newspapers on the date of bid opening in the case of single bid and the rates prevalent on the date of opening of the Price Bids in case of two-bid. For this purpose, exchange rate notified in www.xe.com or www.rbi.org or any other website would be used by the purchaser.

1.30 Evaluation and comparison of bids

1.30.1. The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.

1.30.2. To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria defined below. No other criteria or methodology will be used.

1.30.3. The bids shall be evaluated on the basis of final landing cost which shall be arrived as under:

(a) **For Goods manufactured within India**

| | |
|------|---|
| i) | The price of the goods quoted Ex-works |
| ii) | GST which will be payable on the goods if the contract is awarded. |
| iii) | The charges for inland transportation, insurance and other local services required for delivering the goods at the desired destination as specified in the price schedule form. |
| iv) | The installation, commissioning and training charges including any incidental services, if any as given in Scope of Supply (Chapter 4) |

(b) **For Goods manufactured abroad**

| | |
|------|--|
| i) | The price of the goods, quoted on FCA (named Airport abroad) or FOB (named port of shipment), as specified in the price schedule form. |
| ii) | The charges for insurance and transportation of the goods to the port / place of destination i.e. CIP/CIF Price. |
| iii) | The agency commission charges payable to Indian agent in Indian rupees, if any. |
| iv) | The installation, commissioning and training charges including any incidental services, if any |

- 1.30.4. The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF / CIP basis respectively. However, the CIF / CIP prices quoted by any foreign bidder shall be loaded further as under:-
(a) Towards customs duty and other statutory levies – as per applicable rates.
(b) Towards custom clearance, inland transportation etc.- 2% of the CIF / CIP value.
- 1.30.5. In case of Purchase of many items against one tender, which are not inter- dependent or, where compatibility is not a problem, normally the comparison would be made on ex-works, (in case of indigenous items) and on FOB / FCA (in the case of imports) prices quoted by the firms for identifying the lowest quoting firm for each item.
- 1.30.6. Orders for Imported Goods need not necessarily be on FOB / FCA basis rather it can be on the basis of any of the Incoterms latest edition as may be amended from time to time by the ICC or any other designated authority and favourable to CSIR -NAL.
- 1.30.7. Wherever the price quoted on FOB / FCA and CIF / CIP basis are the same, the Contract would be made on CIF / CIP basis only.
- 1.30.8. The GCC and the SCC shall specify the mode of transport i.e. whether by air / ocean / road / rail.

1.31 Comparison of Bids

The Purchaser shall compare all substantially responsive bids to determine the lowest valued bid, in accordance with **ITB Clause 1.30**.

1.32 Contacting the Purchaser

- 1.32.1. Subject to **ITB Clause 1.24**, no Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.
- 1.32.2. Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.

1.33 Post qualification

- 1.33.1. In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in **ITB Clause 1.13**.
- 1.33.2. The determination will take into account the Eligibility & Qualification criteria listed in the bidding documents and will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Purchaser deems necessary and appropriate.
- 1.33.3. An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid.

F. Award of contract

1.34 Negotiations

Normally, there shall not be any negotiation. Negotiations, if at all, shall be an exception and only in the case of items with limited source of supply. Negotiations shall be held with the lowest evaluated responsive bidder. Counter offers tantamount to negotiations, shall be treated at par with negotiations.

1.35 Award Criteria

Subject to **ITB Clause 1.37**, the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily. The details of the award would be hosted on the CPPP website <https://etenders.gov.in>.

1.36 Purchaser's right to vary Quantities at Time of Award or later

The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the Chapter 4 without any change in unit price or other terms and conditions. Further, at the discretion of the purchaser, the quantities in the contract may be enhanced by 30% within the delivery period.

1.37 Purchaser's right to accept any Bid and to reject any or all Bids

The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders.

1.38 Notification of Award

- 1.38.1. Prior to the expiration of the period of bid validity, the Purchaser will notify the successful bidder in writing by registered letter or by cable or telex or fax or e mail that the bid has been accepted and a separate purchase order shall follow through post.
- 1.38.2. Until a formal contract is prepared and executed, the notification of award should constitute a binding contract.
- 1.38.3. Upon the successful Bidder's furnishing of the signed Contract Form and Performance Security pursuant to **ITB Clause 1.41**, the Purchaser will promptly notify each unsuccessful Bidder and discharge its bid security.

1.39 Signing of Contract

- 1.39.1. Promptly after notification, the Purchaser shall send the successful Bidder the Purchase Order.
- 1.39.2. Within twenty-one (21) days of date of the Purchase Order, the successful Bidder shall enter into Contract Agreement as per Chapter 7.

1.40 Order Acceptance

- 1.40.1. The successful bidder should submit Order acceptance within 15 days from the date of issue of Purchase Order, failing which it shall be presumed that the Bidder is not interested and his bid security is liable to be forfeited pursuant to **ITB Clause 1.15.11**.
- 1.40.2. The order acceptance must be received within 15 days. However, the Purchaser has the powers to extend the time frame for submission of order acceptance and submission of Performance Security (PS). Even after extension of time, if the order acceptance / PS are not received, the contract shall be cancelled and limited tenders irrespective of the value shall be invited from the responding firms after forfeiting the bid security of the defaulting firm, where applicable, provided there is no change in specifications. In such cases the defaulting firm shall not be considered again for re-tendering in the particular case.

1.41 Performance Security

Within 21 days of receipt of the notification of award / Purchase Order as per the GCC Clause 2.12, the Supplier shall furnish Performance Security for the amount specified in SCC, valid for the time 60 days after the warranty period.

1.42 Assistance to Bidders:

- 1.42.1 Any queries relating to the Tender Enquiry Document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the NIT.
- 1.42.2 Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

CHAPTER 2
CONDITIONS OF CONTRACT

A. GENERAL CONDITIONS OF CONTRACT

| Clause No. | Contents | Page No. |
|------------|---|----------|
| 2.1 | Definitions | 21 |
| 2.2 | Contract Documents | 21 |
| 2.3 | Fraud and Corruption | 21 |
| 2.4 | Joint Venture, Consortium or Association / Amalgamation / Acquisition, Patent Indemnity | 22 |
| 2.5 | Scope of Supply | 22 |
| 2.6 | Suppliers' Responsibilities | 22 |
| 2.7 | Contract price | 23 |
| 2.8 | Copy Right | 23 |
| 2.9 | Application | 23 |
| 2.10 | Standards | 23 |
| 2.11 | Use of Contract Documents and Information | 23 |
| 2.12 | Performance Security | 23 |
| 2.13 | Installation, Commissioning, Demonstration, Inspection and Tests | 24 |
| 2.14 | Packing | 24 |
| 2.15 | Delivery and Documents | 24 |
| 2.16 | Insurance | 25 |
| 2.17 | Transportation | 26 |
| 2.18 | Incidental Services | 26 |
| 2.19 | Spare Parts | 26 |
| 2.20 | Warranty | 26-27 |
| 2.21 | Terms of Payment | 28 |
| 2.22 | Change Orders and Contract Amendments | 28 |
| 2.23 | Assignment | 28 |
| 2.24 | Subcontracts | 28 |
| 2.25 | Extension of time | 28 |
| 2.26 | Penalty Clause | 29 |
| 2.27 | Termination for Default | 29 |
| 2.28 | Force Majeure | 29 |
| 2.29 | Termination for insolvency | 30 |
| 2.30 | Termination for Convenience | 30 |
| 2.31 | Settlement of Disputes | 30 |
| 2.32 | Governing Language | 31 |
| 2.33 | Applicable Law | 31 |
| 2.34 | Notices | 31 |
| 2.35 | Taxes and Duties | 31 |
| 2.36 | Right to use Defective Goods | 31 |
| 2.37 | Protection against Damage | 31 |
| 2.38 | Site preparation and installation | 31 |
| 2.39 | Integrity Pact | 32 |

Note: The General Conditions of Contract shall form the part of Purchase Order / Contract.

A. GENERAL CONDITIONS OF CONTRACT

2.1. Definitions

The following words and expressions shall have the meanings hereby assigned to them:

| Sr. No. | Words / Expressions | Meaning |
|----------------|----------------------------|---|
| (a) | Contract | The Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein. |
| (b) | Contract Documents | The documents listed in the Contract Agreement, including any amendments thereto. |
| (c) | Contract Price | The price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract. |
| (d) | Day | Calendar day |
| (e) | Completion | The fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract. |
| (f) | GCC | The General Conditions of Contract. |
| (g) | Goods | All of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract |
| (h) | Services | The services incidental to the supply of the goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract. |
| (i) | SCC | The Special Conditions of Contract. |
| (j) | Subcontractor | Any natural person, private or government entity, or a combination of the above, to which any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier. |
| (k) | Supplier | The natural Person, Private or Government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement. |
| (l) | Council | The Council of Scientific & Industrial Research (CSIR), registered under the Societies Registration Act, 1860 of the Government of India having its registered office at 2, Rafi Marg, New Delhi-110001, India. |
| (m) | Purchaser | Any of the constituent Laboratory/Institute of the Council situated at any designated place in India as specified in SCC |
| (n) | The final destination | The place named in the SCC. |

2.2 Contract Documents

2.2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

2.2.2 Successful bidder shall have to enter into Contract Agreement on Rs.500/- non judicial stamp paper as per Contract Form given in Chapter 7 within 21 days of placement of Purchase Order having value above Rs. 25 Lacs or equivalent amount in Foreign Currency.

2.3 Fraud and Corruption

The purchaser requires that bidders, suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,

(a) The terms set forth below are defined as follows:

| | | |
|---|------------------|---|
| I | Corrupt practice | The offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution |
|---|------------------|---|

| | | |
|-----|---------------------|---|
| II | Fraudulent practice | A misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract |
| III | Collusive practice | A scheme or arrangement between two or more bidders, with or without the knowledge of the Borrower, designed to establish bid prices at artificial, non-competitive levels |
| IV | Coercive practice | Harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract |

- (b) The purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

2.4 Joint Venture, Consortium or Association/Amalgamation/Acquisition, Patent Indemnity etc.

If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfilment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

2.4.1. Amalgamation/Acquisition etc.:

In the event the Manufacturer/Supplier proposes for amalgamation, acquisition or sale its business to any firm during the contract period, the Buyer/Successor of the Principal Company are liable for execution of the contract and also fulfilment of contractual obligations i.e. supply, installation, commissioning, warranty, maintenance/replacement of spares accessories etc. You may confirm this condition while submitting the bid.

2.4.2 Indemnity Bond

In order to safeguard the interest of CSIR-NAL, the supplier should submit Indemnity Bond as given in Chapter-8 (Annexure-J) on Rs.500/- non judicial stamp paper within 21 days of placing of the order for Purchase Order having value above Rs. 25 lakh or equivalent amount in Foreign Currency.

2.4.3 Patent Indemnity

- a) The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 2.4.3(a), indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

| | |
|------------|--|
| (I) | the installation of the Goods by the Supplier or the use of the Goods in India |
| AND | |
| (II) | the sale in any country of the products produced by the Goods |

- b) If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims.

2.5 Scope of Supply

Scope of Supply (i.e. the Goods to be supplied and Related Services to be performed) shall be as specified in the Chapter-4 clause 4.2

2.6 Suppliers' Responsibilities

The Supplier shall supply all the Goods and perform all Related Services included in the Scope of Supply-Clause 2.5 of the GCC and the Delivery & Completion Schedule, as per GCC Clause 2.15 relating to delivery and document.

2.7 Contract price

Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.

2.8 Copy Right

The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party

2.9 Application

These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

2.10 Standards

The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications and Schedule of Requirements, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

2.11 Use of Contract Documents and Information

2.11.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.

2.11.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated above except for purposes of performing the Contract.

2.11.3 Any document, other than the Contract itself, enumerated above shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

2.12 Performance Security (PS)

2.12.1 Within 21 days of receipt of the notification of award of contract / Purchase Order, the Supplier shall furnish performance security in the amount specified in SCC, valid till 60 days after the warranty period. Alternatively, the PS may also be submitted at the time of release of final payment in cases where part payment is made against delivery & part on installation. The PS, where applicable, shall be submitted in advance for orders where full payment is to be made on Letter of Credit (LC) or on delivery. In this case, submission of PS at the time of negotiation of documents through Bank would be stipulated as a condition in the LC and the PS should be kept valid till such time the PS is submitted.

2.12.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

2.12.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries.

2.12.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer / bidder.

2.12.5 The Performance security shall be in one of the following forms:

| | |
|-----------|--|
| (a) | A Bank guarantee or stand-by Letter of Credit issued by a Nationalized / Scheduled bank located in India or a bank located abroad in the form provided in the bidding documents. |
| OR | |
| (b) | A Banker's cheque or Account Payee demand draft in favour of the purchaser. |

2.12.6 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.

2.12.7 In the event of any contract amendment, the supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.

2.12.8 The order confirmation should be received within 15 days from the date of notification of award. However, the Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Performance Security (PS). Even after extension of time, if the order acceptance and PS are not received, the contract shall be cancelled and limited tenders irrespective of the value would be invited from the responding firms after forfeiting the bid security of the defaulting firm, where applicable provided there is no change in specifications. In such cases the defaulting firm would not be considered again for re-tendering in the particular case.

2.12.9 Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, and then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

2.13 Installation, Commissioning, Demonstration, Inspections and Tests

Bidder shall be responsible for Installation, Commissioning, Demonstration, Inspections and Tests wherever applicable and for after sales service during the warranty and thereafter as specified in Chapter 4.

2.14 Packing

2.14.1. The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

2.14.2. The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser.

2.15 Delivery and Documents

2.15.1. Delivery of the Goods and completion and related services shall be made by the Supplier in accordance with the terms specified by the Purchaser in the contract. The details of shipping and/or other documents to be furnished by the supplier are as given below or /and as specified in SCC.

| | |
|--|---|
| Details of Shipping and other Documents to be furnished by the Supplier are : | |
| A) | For goods manufactured or supplied from within India |
| | Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by registered post / speed post and copies thereof by FAX/email |
| (a) | Three copies of Supplier's Invoice indicating, inter-alia description and specification of the goods, quantity, unit price, total value |
| (b) | Packing list |
| (c) | Certificate of country of origin |
| (d) | Insurance certificate, if required under the contract |
| (e) | Railway receipt/Consignment note |
| (f) | Manufacturer's warrantee certificate and in-house inspection certificate, if any |

| | |
|--|--|
| (g) | Inspection certificate issued by purchaser's inspector, if any |
| (h) | Any other document(s) as and when required in terms of the contract |
| NOTE: | |
| 1 | The nomenclature used for the item description in the invoice(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s). |
| 2 | The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses. |
| B) For goods manufactured or supplied from abroad | |
| | Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by Registered Post / courier and copies thereof by FAX. |
| (a) | Three copies of supplier's Invoice giving full details of the goods including quantity, value, etc. |
| (b) | Packing list |
| (c) | Certificate of country of origin |
| (d) | Manufacturer's warrantee and Inspection certificate, if any |
| (e) | Inspection certificate issued by the Purchaser's Inspector, if any |
| (f) | Insurance Certificate, if required under the contract |
| (g) | Name of the Vessel / Carrier |
| (h) | Bill of Lading / Airway Bill |
| (i) | Port of Loading |
| (j) | Date of Shipment |
| (k) | Port of Discharge & expected date of arrival of goods |
| (l) | Any other document(s) as and when required in terms of the contract |
| NOTE: | |
| 1 | The nomenclature used for the item description in the invoice(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s). |
| 2 | The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses. |
| | The clearing of the consignment at Mumbai Airport shall be done by our authorized Custom House Agents (CHA). The corresponding shipping documents may be forwarded to them accordingly. It is advised to give us and our CHA, a pre-alert before the consignment is dispatched. If there is delay in clearing of the consignment for <u>not</u> giving timely pre-alert then demurrage (Ware house charges), if applicable has to be refunded to us. |

2.15.2. The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce (ICC), Paris.

2.15.3. The mode of transportation shall be as specified in SCC.

2.15.4. The Bidders may please note that the delivery of the system should be strictly within delivery schedule mentioned in the Chapter-4 / Purchase Order.

2.15.5. Goods should not be dispatched until the Bidder receives a firm Purchase Order

2.16 Insurance

2.16.1. Indigenous goods, the Goods supplied under the Contract shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.

2.16.2. Where delivery of the goods is required by the purchaser on CIF / CIP basis for imported goods or FOR destination for Indigenous goods, the supplier shall arrange and pay for Marine / Transit Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, in the event of any loss or damage.

2.16.3. Where delivery is on FOB or FCA basis for imported goods or FOR dispatch station for indigenous goods, then insurance would be the responsibility of the purchaser.

- 2.16.4. The equipments to be supplied will be insured by the supplier against all risks of loss or damage from the date of shipment till such time it is delivered at CSIR-NAL site in case of Rupee transaction
- 2.16.5. With a view to ensure that claims on insurance companies, if any, are lodged in time, the Bidders and / or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the Bidder / Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the Purchaser on the event of the delay.

2.17 Transportation

- 2.17.1. Where the Supplier is required under the Contract to deliver the Goods on FOB basis, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods on FCA basis, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price.
- 2.17.2. Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 2.17.3. In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.
- 2.17.4. The clearing of the consignment at Mumbai Airport shall be done by our authorized Custom House Agents (CHA) for CIP / CIF consignments. The details of CHA will be given in the Purchase Order. The corresponding shipping documents may be forwarded to them accordingly. It is advised to give us and our CHA, a pre-alert before the consignment is dispatched. If there is delay in clearing of the consignment for not giving timely pre-alert then demurrage (Ware house charges), if applicable has to be refunded to us by the Supplier / Indian Agent or the same will be deducted from any payment due to Supplier / Indian Agent against this order or any other Purchase order.

2.18 Incidental Services

The supplier may be required to provide any or all of the services, including training, if any, as specified in **Chapter 4: Clause-4.2.**

2.19 Spare Parts

The Supplier shall be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

| | |
|-----|--|
| (a) | Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and |
| (b) | In the event of termination of production of the spare parts: |
| | (i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and |
| | (ii) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested. |

2.20 Warranty

- a) The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

- b) The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- c) **Unless otherwise specified in the SCC**, the warranty shall remain valid for Thirty Six (36) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for Forty Two (42) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- d) The warranty on the associated software should cover providing of upgraded version/s, if any, released during the warranty period free of cost.
- e) The bidder shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 10 years from the date of supply of equipment on payment on approved price list basis.
- f) The equipment must be supported by a Service Centre manned by the principal Bidder's technical support engineers. The support through this Centre must be available 24 hours in a day, seven days a week and 365 days a year. Also it should be possible to contact the Principal's Bidder support Centre on a toll free number/web/mail.
- g) An undertaking from the manufacturer is required in this regard stating that they would facilitate the Bidder, Service provider on regular basis with technology / product updates & extend support for the warranty as well.
- h) Supplier will have to arrange for all the testing equipment & tools required for installation, testing & maintenance etc.
- i) The Principal Supplier must have a local logistics support by maintaining a local spares depot in the country of deployment of the equipment. This is to ensure immediate delivery of spares parts from Principal Supplier of equipment to its channel partner/system integrator.
- j) Details of onsite warranty, Name of Agency that shall maintain during warranty and undertake Annual Maintenance Contract/Comprehensive Service Maintenance Contract beyond warranty shall be given in the offer. In case of foreign quote, the name of Indian Agent who shall maintain during warranty and AMC beyond warranty shall be given in the Technical Offer.
- k) The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- l) Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- m) If having been notified, the Supplier fails to remedy the defect within a reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- n) In case the Equipment / System remains non-operational or performs below the desired level for more than 1 week after intimation of the fault in the Equipment / System then Warranty period shall be extended for further period for which Equipment / System remained non-operational or performed below the desired level, without prejudice to any other terms and conditions of the Contract.
- o) The defects, if any, during the warranty period are to be rectified free of charge by arranging free replacement wherever necessary.
- p) In case of any replacement during the warranty period the same shall be made free of cost i.e. DDP for import replacement and/or free delivery to NCL for indigenous replacement. All the duties / taxes relating to these replacements have to be borne by the supplier. Dispatch details of such warranty replacements have to be informed in advance to enable us to provide documents for custom clearance.

q) Any replacements during warranty period should be free of cost. If the defective item has to be sent back to the Principal Supplier, for such replacements / returns to the Principal Supplier / Indian Agent has to bear documentation charges. If the cost of replacement is upto Rs. 5 Lakh then the documentation charges will be Rs. 5,000 and above Rs. 5 Lakh it is Rs. 10,000. Such charges have to be paid in favour of The Director, CSIR-NAL, Bengaluru. These charges are only for documentation. Any charges regarding packing, forwarding, freight, insurance, etc. should be borne by the Principal supplier / Indian Agent for returning of defective items. In other words, any warranty replacement has to be done immediately/within a week (7 days) without expecting CSIR-NAL to export the defective items to Principal supplier for repair/replacements. All charges involved for re-export of defective items have to be borne by Principal supplier / Indian Agent.

2.21 Terms of Payment

- 2.21.1. The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.
- 2.21.2. The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to Delivery and document Clause of the GCC and upon fulfilment of other obligations stipulated in the contract.
- 2.21.3. Payments shall be made promptly by the Purchaser but in no case later than thirty (30) days after submission of the Invoice or claim by the Supplier.
- 2.21.4. Payment shall be made in currency as indicated in the contract.

2.22 Change Orders and Contract Amendments

2.22.1. The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC make changes within the general scope of the Contract in any one or more of the following:

| | |
|----|---|
| a) | Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser; |
| b) | The method of shipping or packing; |
| c) | The place of delivery; and/or |
| d) | The Services to be provided by the Supplier. |
| e) | The delivery schedule. |

- 2.22.2. If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be ascertained within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.
- 2.22.3. No variation or modification in the terms of the contract shall be made except by written amendment signed by the parties.

2.23 Assignment

The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

2.24 Subcontracts

The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the Contract.

2.25 Extension of time

- 2.25.1. Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the Delivery schedule specified by the Purchaser.

- 2.25.2. If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment to the Contract.
- 2.25.3. Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause of the GCC unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.

2.26 Penalty clause

Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services or contract value for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause on Termination for Default. The SCC shall also indicate the basis for ascertaining the value on which the penalty shall be applicable.

2.27 Termination for Default

- 2.27.1. The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

| | |
|-----|--|
| (a) | If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause on Extension of Time; |
| (b) | If the Supplier fails to perform any other obligation(s) under the Contract |
| (c) | If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or collusive or coercive practices as defined in GCC Clause on Fraud or Corruption in competing for or in executing the Contract. |

- 2.27.2. In the event the purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:

| | |
|-----|--|
| (a) | The Performance Security/EMD will be forfeited; |
| (b) | The Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods similar to those undelivered, and the supplier shall be liable for all available actions against it in terms of the contract. |
| (c) | However, the supplier shall continue to perform the contract to the extent not terminated. |

2.28 Force Majeure

- 2.28.1. Notwithstanding the provisions of GCC Clauses relating to Extension of Time, Penalty and Termination for Default the Supplier shall not be liable for forfeiture of its Performance Security, Liquidated Damages or Termination for Default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 2.28.2. For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 2.28.3. If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as

is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

- 2.28.4. If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of Force Majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

2.29 Termination for Insolvency

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

2.30 Termination for Convenience

- 2.30.1. The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

- 2.30.2. The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

| | |
|-----|--|
| (a) | To have any portion completed and delivered at the Contract terms and prices ; and / or |
| (b) | To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods / Services and for materials and parts previously procured by the Supplier. |

2.31 Settlement of Disputes

- 2.31.1. The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

- 2.31.2. If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

- 2.31.3. The dispute settlement mechanism / arbitration proceedings shall be concluded as under:

| | |
|-----|---|
| (a) | In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director General, Council of Scientific & Industrial Research and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to the Contract. |
| (b) | In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration In accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules. |

- 2.31.4. The venue of the arbitration shall be the place from where the Purchase Order or Contract is issued.

2.31.5. Notwithstanding any reference to arbitration herein,

| | | |
|-----|--|------------|
| (a) | the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; | and |
| (b) | the Purchaser shall pay the Supplier any monies due the Supplier. | |

2.32 Governing Language

The Contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.

2.33 Applicable Law / Jurisdiction

The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.

2.34 Notices

2.34.1. Any notice given by one party to the other pursuant to this contract / order shall be sent to the other party in writing or by cable, telex, FAX, e-mail or / and confirmed in writing to the other party's address specified in the SCC.

2.34.2. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

2.35 Taxes and Duties

2.35.1. For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.

2.35.2. For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture / production.

2.35.3. If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

2.35.4. All payments due under the contract shall be paid after deduction of statutory levies (at source) (like ESIC, IT, etc.) wherever applicable.

2.36 Right to use Defective Goods

If after delivery, installation and within commissioning & acceptance and within warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

2.37 Protection against Damage

The system shall not be prone to damage during power failures and trip outs. The normal voltage and frequency conditions available at site as under:

- (a) Voltage 230 volts – Single phase or 415 Volt for 3 phase (±10%)
- (b) Frequency 50 Hz.

2.38 Site preparation and installation

The Purchaser is solely responsible for the construction of the equipment sites unless otherwise specified in Chapter 4 in compliance with the technical and environmental specifications defined by the Supplier. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site

preparation, if any, needed for installation, of the goods at the purchaser's site immediately after notification of award / contract.

2.39 Integrity Pact

- 2.39.1. As per directive of the CVC all organizations including CSIR laboratories / institutes have to adopt an Integrity pact (IP) to ensure transparency, equity and competitiveness in major Public procurement having procurement value above Rs.3 Crore. The integrity pact envisages an agreement between the prospective bidders / Bidders with the buyer committing the persons / officials of both the parties with the aim not to exercise any corrupt influence on any aspect of the contract. Only those bidders / Bidders, who are willing to enter in to such an integrity pact with the Purchaser, would be competent to participate in the bidding.
- 2.39.2. IP also envisages Panel of Independent External Monitors (IEMs) which shall be provided / recommended by CSIR / its labs and institutes with the approval of by CVC.
- 2.39.3. The integrity Pact would be effective from the date of invitation of bids till complete execution of the contract.
- 2.39.4. **The SCC shall specify whether there is a need to enter into a separate integrity pact or not.** If the Integrity Pact is required for the Tender, then the format of Integrity Pact is as given in **Chapter – 8**.

CHAPTER 2

B. SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

| GCC Clause | Special Condition of Contract (SCC) | | | | | | | | | | | | |
|--|---|----------|--|--|---|-----|---|-----|--|-----|--|-----|---|
| GCC 2.1.1(l) | <p>The Purchaser is: The Director CSIR- National Aerospace Laboratories HAL Airport Road, Kodihalli, Bengaluru - 560017 Karnataka-India</p> | | | | | | | | | | | | |
| GCC 2.1.1(m) | <p>The Final Destination is: CSIR- National Aerospace Laboratories HAL Airport Road, Kodihalli, Bengaluru - 560017 Karnataka-India</p> | | | | | | | | | | | | |
| GCC 2.15.3 | <p>Delivery – Mode of Shipment:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">(a)</td> <td>In case of supplies from within India, the mode of transportation shall be by Road.</td> </tr> <tr> <td style="text-align: center;">(b)</td> <td>In case of supplies from abroad, the mode of transportation shall be by AIR</td> </tr> </table> | (a) | In case of supplies from within India, the mode of transportation shall be by Road . | (b) | In case of supplies from abroad, the mode of transportation shall be by AIR | | | | | | | | |
| (a) | In case of supplies from within India, the mode of transportation shall be by Road . | | | | | | | | | | | | |
| (b) | In case of supplies from abroad, the mode of transportation shall be by AIR | | | | | | | | | | | | |
| GCC 2.13.1 | <p>Performance Security/Performance Bank Guarantee</p> <p>The amount of the Performance Bank Guarantee shall be 10% of the contract value (including taxes), to be submitted within 21 days from the date of PO valid up to 60 days after the date of completion of performance obligations including warranty obligations.</p> | | | | | | | | | | | | |
| GCC 2.16.1 | <p>Insurance</p> <p>The Insurance shall be for an amount equal to 110% of the CIF or CIP value of the contract from within “warehouse to warehouse (final destination)” on “all risk basis” including strikes, riots and civil commotion, in addition to storage policy for 60 days is advised so as to ensure the inspection by the Indian Agent at the time of opening the packages.</p> | | | | | | | | | | | | |
| GCC 2.20.3 | <p>Warranty:</p> <p>The period of validity of the Warranty shall be:</p> <p>The warranty shall remain valid for Three Years (36) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted by CSIR-NAL at the final destination.</p> | | | | | | | | | | | | |
| GCC 2.21.1 | <p>Payment Details:</p> <p>The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; text-align: center;">A</td> <td>Payment for Goods supplied from abroad:</td> </tr> <tr> <td colspan="2">Payment of foreign currency portion shall be made in currency of the Contract in the following manner:</td> </tr> <tr> <td style="text-align: center;">(a)</td> <td>On Shipment: Ninety (90%) percent of the Contract Price after and Goods shipped shall be paid through irrevocable letter of credit opened in favour of the Supplier in a bank in its country, upon submission of documents specified in GCC Clause 2.15.</td> </tr> <tr> <td style="text-align: center;">(b)</td> <td>On Acceptance: Ten (10%) percent of the Contract Price of Goods received shall be paid on successful installation, commissioning, training and upon submission of claim supported by the acceptance certificate issued by the Purchaser subject to validity of Performance Security, if any</td> </tr> <tr> <td style="text-align: center;">(c)</td> <td>The LC for 100% value of the contract shall be established after deducting the agency commission payable if any, to the Indian agent from the FOB / FCA value.</td> </tr> <tr> <td style="text-align: center;">(d)</td> <td>The LC will be confirmed at the suppliers cost, if requested specifically by the supplier. All bank charges abroad shall be to the account of the beneficiary i.e. supplier and all bank charges in India shall be to the account of the opener i.e. purchaser. If LC is requested to be extended/ reinstated for reasons not attributable to the purchaser, the charges thereof would be to the suppliers’ account. Payment of local currency portion shall be made in Indian Rupees within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed.</td> </tr> </table> | A | Payment for Goods supplied from abroad: | Payment of foreign currency portion shall be made in currency of the Contract in the following manner: | | (a) | On Shipment: Ninety (90%) percent of the Contract Price after and Goods shipped shall be paid through irrevocable letter of credit opened in favour of the Supplier in a bank in its country, upon submission of documents specified in GCC Clause 2.15. | (b) | On Acceptance: Ten (10%) percent of the Contract Price of Goods received shall be paid on successful installation, commissioning, training and upon submission of claim supported by the acceptance certificate issued by the Purchaser subject to validity of Performance Security, if any | (c) | The LC for 100% value of the contract shall be established after deducting the agency commission payable if any, to the Indian agent from the FOB / FCA value. | (d) | The LC will be confirmed at the suppliers cost, if requested specifically by the supplier. All bank charges abroad shall be to the account of the beneficiary i.e. supplier and all bank charges in India shall be to the account of the opener i.e. purchaser. If LC is requested to be extended/ reinstated for reasons not attributable to the purchaser, the charges thereof would be to the suppliers’ account. Payment of local currency portion shall be made in Indian Rupees within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed. |
| A | Payment for Goods supplied from abroad: | | | | | | | | | | | | |
| Payment of foreign currency portion shall be made in currency of the Contract in the following manner: | | | | | | | | | | | | | |
| (a) | On Shipment: Ninety (90%) percent of the Contract Price after and Goods shipped shall be paid through irrevocable letter of credit opened in favour of the Supplier in a bank in its country, upon submission of documents specified in GCC Clause 2.15. | | | | | | | | | | | | |
| (b) | On Acceptance: Ten (10%) percent of the Contract Price of Goods received shall be paid on successful installation, commissioning, training and upon submission of claim supported by the acceptance certificate issued by the Purchaser subject to validity of Performance Security, if any | | | | | | | | | | | | |
| (c) | The LC for 100% value of the contract shall be established after deducting the agency commission payable if any, to the Indian agent from the FOB / FCA value. | | | | | | | | | | | | |
| (d) | The LC will be confirmed at the suppliers cost, if requested specifically by the supplier. All bank charges abroad shall be to the account of the beneficiary i.e. supplier and all bank charges in India shall be to the account of the opener i.e. purchaser. If LC is requested to be extended/ reinstated for reasons not attributable to the purchaser, the charges thereof would be to the suppliers’ account. Payment of local currency portion shall be made in Indian Rupees within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed. | | | | | | | | | | | | |

| | | |
|------------|--------------|---|
| | B | Payment for Goods and Services supplied from India: |
| | | The payment shall be made in Indian Rupees, as follows: |
| | (a) | 100% after delivery, Installation, Commissioning, training & acceptance, subject to validity of Performance Security. |
| | (b) | E-Payment: All payments, CSIR-NAL prefers to make Electronic Transfers (RTGS) through State Bank Of India, NAL Branch, Bengaluru. |
| | | NOTE: |
| | ➤ | All payments due under the Contract shall be paid after deduction of statutory levies at source (like ESIC, Income Tax, etc.), wherever applicable. |
| GCC 2.27.1 | | Liquidated Damages / Penalty Clause |
| | (a) | As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to. Otherwise the bidder will forfeit EMD/SD and also LD clause will be applicable /enforced |
| | (b) | If the supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages of 0.5% of order value per every week of delay subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier |
| | (c) | CSIR-NAL reserves the right to cancel the order in case the delay is more than 10 weeks. Penalties, if any, will be deducted from the Security Deposit |
| | (d) | The maximum amount of penalty shall be 10% . |
| | (e) | The liquidated damages shall be levied on the delivered price of the delayed Goods or unperformed Services or contract value. |
| GCC 2.34.1 | | Applicable Law / Jurisdiction |
| | | The place of jurisdiction is Bengaluru, India. |
| GCC 2.35.1 | | Notices |
| | For notices, | the Purchaser's address is The Director CSIR- National Aerospace Laboratories PB No.1779, HAL Airport Road, Kodihalli, Bengaluru - 560017 Karnataka-India Tel #: 00 91 80 25086040/6041/6044 Fax #: 00 91 80 25269611 Email: purchasek@nal.res.in , mkala@nal.res.in |
| GCC 2.41 | | Integrity Pact is not to be signed. However, efforts must be made to realize the objectives and spirits thereof. |

CHAPTER 3

(To be filled by the bidder and enclosed with the Technical Bid)

SCHEDULE OF REQUIREMENT

The Schedule of Requirement must clearly specify **the time frame required (Schedule) for delivery of goods and services to be completed** by the bidder (in reference to Scope of Supply given in Clause-4.2 of Chapter-4) if the Contract is awarded for the offer / proposal submitted by the bidder in response to this Tender.

A) Delivery Schedule:

| Sr. No. | Brief Description of Goods and Services | Quantity & Unit | Delivery Schedule |
|---------|---|-----------------|-------------------|
| | | | |
| | | | |

Period of delivery shall start from : _____

B) Term of delivery / Delivery Term :

| | |
|-------------------|--|
| Goods from Abroad | |
| Goods from India | |

C) Time frame required for conducting installation, commissioning of the equipment, acceptance test, training, etc. after the arrival of consignment or before dispatch of equipment:

| Sr. No. | Activity | Time Frame |
|---------|--------------------------------|------------|
| 1 | Site Preparation (if required) | |
| 2 | Installation & Commissioning | |
| 3 | Acceptance Test | |
| 4 | Training | |
| 5 | | |

Place : _____

Signature of the Bidder : _____

Date : _____

CHAPTER 4
SPECIFICATIONS AND ALLIED TECHNICAL DETAILS

**TECHNICAL SPECIFICATION FOR UPGRADATION OF WENZEL CO-ORDINATE MEASURING MACHINE -
MODEL: LH 87**

4.1 DETAILED SPECIFICATION

4.1.1 Technical details of the existing Wenzel CMM:

| | | |
|--------|--|--|
| 4.1.1a | Model | LH 87 |
| 4.1.1b | Traverse Range | X-axis: 800 mm Y axis: 1500 mm Z axis : 700 mm |
| 4.1.1c | Hardware details | Controller: EMD Probe Head : EMD, µstar |
| 4.1.1d | Software | EMD Sceptre |
| 4.1.1e | Volumetric Accuracy (MPE) | ± (2.0+L/450) in µm, where “L” in mm |
| 4.1.1f | Note: PRE-REQUISITE FOR SUBMISSION OF QUOTATION | The vendor has to visit Metrology & Calibration Lab, APMF, CSIR-NAL, Kodihalli campus, Bangalore, to study the existing working condition of the Wenzel CMM and its peripheral equipment and quote suitably. |

4.2 SCOPE OF UPGRADATION

4.2.1 Scope of Supply and installation:

- a) Up-gradation of Wenzel LH 87 Co-ordinate Measuring Machine with the latest UCC3 Renishaw controller, SP80 Ultra High Accuracy Scanning Probe head and PCDMIS CAD++ software as per detailed specification below.
- b) Work station and Printer as specified below.
- c) Any other requirement for efficient functioning of the CMM.
- d) Installation, Commissioning and Acceptance Test as specified below.
- e) On site comprehensive Warranty for **THREE** years as specified below.
- f) Post Warranty AMC as specified below.
- g) Training as specified below.

4.2.2 PROBE HEAD AND PROBE DETAILS

- a) The upgradation of CMM should be carried out with Renishaw SP80 Ultra High accuracy scanning probe with Renishaw A-5003-5911 styli kit.
- b) Z Axis Probe Head Mounting Block.

4.2.3 DRIVE AMPLIFIERS AND ELECTRICALS :

- a) Existing DC drive amplifiers for all the three axes X,Y & Z to be replaced with Digital Drives Renishaw SPA3. They have to be tuned with the existing DC Servo Motors and Renishaw feedback system.
- b) Should enable set up speeds of 0 – 50 mm / sec or better.
- c) Should enable 0 – 100 mm / sec or better speeds for CNC measurements.
- d) The system should be with complete collision protection to probe system.
- e) New standard electrical cabling connecting controllers, motor and drive system etc. has to be provided with standard IGUS cabling.
- f) Suitable Electrical Cabinets along with electrical and data cables with connectors to be provided.

4.2.4 CNC CONTROL SYSTEM (Renishaw UCC S3 controller) & MAIN M/C FEATURES:

- a) Renishaw CNC Controller UCC S3 or latest version, compatible with the main machine, drives and motors is to be provided.
- b) Should be compatible with Renishaw SP 80 Scanning probe head.
- c) Should enable simultaneous CNC control in all THREE linear axes and TWO rotational axes.
- d) Should be full closed loop CNC system.
- e) Should have Diagnostics software to check condition of machine and Errors.
- f) Total machine control (like machine movement in all axes including rotary motions of probe head, feed rate control, rapid, emergency, CNC intermediate points input, release of probe in collision etc.) to be provided on hand held light weight portable MCU5-2 or latest joystick Unit.
- g) Control and machine system electricals 230V, 50Hz
- h) Should support CATIA, DMIS, SAT, STL, IGES, DXF, DWG, STEP / PCDMIS CAD ++ (CMM Application software) etc.
- i) Machine should be capable of operations under CNC mode and manual motorized Mode through MCU5-2 or latest joystick.
- j) Machine should have Computer Aided Geometrical and Linear Accuracy Software (Scale errors, straightness, squareness errors, 21 parametric errors including translatory, rotary errors compensation through CAA). The software should have provision for updating the data at later date after the machine is calibrated. Error compensation (21 Parameters) software should be open without any password.
- k) Machine Homing, braking system for all the three axes and Emergency switch for halting the machine to be provided.

4.2.5 PROBING SYSTEM COMPATABILITY:

- a) Machine control system and software to be compatible with Renishaw make SP 80 Scanning probe.

4.2.6 OPERATING CONDITIONS (TEMPERATURE, HUMIDITY):

The upgraded system should be able to work in an environment where-in temperature ranges from +15°C to 40°C; Air humidity (RH) ranges from 40% to 90% non-condensing.

4.2.7 COMPUTER SYSTEMS & PERIPHERALS:

Main work station of standard brand (DELL / HP) with the following specifications to be supplied - 1 No.

| Specifications of Desktop Workstation | | |
|--|-------------------------------|---|
| Sl. No. | Features | Qualifying Minimum Requirements |
| 1 | Processor | Intel Xeon E5-2699 V4 Series Processor with 3.0 Ghz or better and 22 Core or More and 25MB Cache |
| 2 | Chipset | Intel C612 |
| 3 | RAM | 32GB(2x16GB) DDR4, 2133 MHz memory 16DIMM Slots - all slots should be on motherboard itself. Option for upgradeability up to 2048 GB required. |
| 4 | Drive Controllers | Onboard 6-Channel 6Gbps SATA (RAID 0,1,5,10) Onboard 8-Channel SAS 6Gbps controller (RAID 0,1,10) |
| 5 | Hard Disk | 2TB 7200 RPM SATA Hard Drive Provision for upgrading with additional 8 X SAS and 4 X SATA drives to be provided in future |
| 6 | Optical Drive | 9.5mm Slim Super Multi DVD Writer |
| 7 | Graphics Card | NVIDIA Quadro M4000 8GB GDDR5 4xDP Graphics or better |
| 8 | Monitor | 23.8-inch IPS UHD Display or better |
| 9 | Bays | 2 x External 5.25" 4 x Internal 3.5" System should be able to support a total of 16 Hard drives along with a DVD drive. |
| 10 | Slots | Minimum requirement: PCIe Gen3 x4 3 x PCIe Gen3 x16 2 x PCIe Gen3 x8 PCIe Gen2 x1 |
| 11 | Ports | Front : 4 x USB 3.0 Rear : 4 x USB 3.0, 2 x USB 2.0, 2 x RJ45 LAN ports with support for Load Balancing and Teaming 1 Serial Port |
| 12 | Keyboard and Mouse | Minimum 104 keys USB Keyboard and USB Optical Scroll mouse - Same make as that of the workstation |
| 13 | Audio | High Definition Integrated Audio with Internal speaker. |
| 14 | GPU Computing Card | 2 x Nvidia Tesla K40 to be supported in Workstation for GPU |
| 15 | Power Supply | Minimum 1120W 90% Efficient, EPEAT Gold, 80 Plus Gold Power supply capable of supporting configurations up to 1400W under 230V Power. |
| 16 | Chassis | Completely tool less chassis with handles in front and rear side. Provision for Kensington lock and Panel lock required. System should be rack-mountable. |
| 17 | Operating System | Microsoft Windows 10 Professional 64-bit OS |
| 18 | Remote Collaboration Solution | Hardware or Software based Remote Collaboration system which can help remotely access 3D data across network has to be supplied with the system. - It should allow collaboration between multiple participants on an OpenGL 3D or DirectX applications. - It should support One to One for remote work and One to many for collaboration with keyboard and mouse control. - Application should be stateless and should not transfer actual data over the network. - Pixel information or images should be 128 SSL encrypted. - Should work on both Linux and Windows, and should be inter- operable. |

| | | |
|----|---------------------|--|
| 19 | Additional Software | <p>1. The hardware vendor should supply an automatic system performance tuning and monitoring software on Windows.</p> <p>2. The tuning software should have modules for resource monitoring over a long period of time, and should be capable of showing GPU utilisation (GPU, Graphics memory and Codec activity) for both Graphics and GPU Compute cards.</p> <p>3. A complete Offline Diagnostics and Asset Discovery software suite should be supplied along with the system.</p> |
| 20 | Warranty | 3 years onsite parts and labor warranty for system and monitor. |
| 21 | Vendor Status | The hardware vendor should be a reputed concern, having global presence in multiple countries. Vendor should have ISO certifications. |
| 22 | Cooling Solution | Processor cooler with 3D vapor chamber phase-change cooling with staggered hex-fin heat exchangers. |
| 23 | Printer | Colour Laser Printer A3 size |

4.2.8 RESOLUTION, REPEATABILITY & ACCURACY:

| Sl. No. | Requirements | | Remarks |
|---------|--|---|-------------------|
| 4.2.8a | Resolution | 0.0005mm or better | Vendor to Specify |
| 4.2.8b | Volumetric accuracy (U3) | $\pm(2+L/450) \mu\text{m}$ (18-22°C) (With standard probe length, over full range) (where L is in mm) | Vendor to Specify |
| 4.2.8c | Repeatability | $\pm 1 \mu\text{m}$ or better | Vendor to Specify |
| 4.2.8d | Probing Accuracy MPE(P), ISO 10360 | $\pm 2.0 \mu\text{m}$ or better | Vendor to Specify |
| 4.2.8e | Scanning accuracy MPE(THP) 10360 | $\pm 4.0 \mu\text{m} / 60$ seconds | Vendor to Specify |
| 4.2.8d | Form (Roundness) Measuring Accuracy (MZCI) with dia. 200 mm Ring gauge | $\pm 2.0 \mu\text{m}$ or better | Vendor to Specify |

4.2.9 APPLICATION SOFTWARE

Supply of latest version of PCDMIS CAD ++ software along with Blade Measurement Software having perpetual license with the following features:

4.2.9.1 OPERATING MODES

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Direct joystick measurement | Vendor to Specify |
| 2. | Self-teach programming | Vendor to Specify |
| 3. | 3D CNC programming | Vendor to Specify |
| 4. | Offline programming without CAD model | Vendor to Specify |
| 5. | Offline programming with CAD model including probe path simulation and verification. | Vendor to Specify |

4.2.9.2 FLEXIBLE OPERATIONS:

Major features include the following points:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Single page icon based software for ease of use | Vendor to Specify |
| 2. | 3D Solid model part representation | Vendor to Specify |
| 3. | User help | Vendor to Specify |
| 4. | Offline programming without CAD model | Vendor to Specify |
| 5. | Offline programming with CAD model including probe path simulation and verification. | Vendor to Specify |

4.2.9.3 INTELLIGENT MEASUREMENT:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Import of CAD file with GD&T data for virtual programming. | Vendor to Specify |
| 2. | Intellectual feature determination algorithms (IFD's) | Vendor to Specify |

4.2.9.4 GRAPHICAL PROGRAMMING:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Inspection programs to be created directly from CAD Model / CAD Data | Vendor to Specify |
| 2. | Simulation and verification of offline programs | Vendor to Specify |
| 3. | 3D solid model part and fixture visualization | Vendor to Specify |
| 4. | Full CMM kinematics | Vendor to Specify |
| 5. | Library of standard probe heads, probes, styli and accessories | Vendor to Specify |
| 6. | Virtual display of collision detection during offline programming | Vendor to Specify |

4.2.9.5 CANNED CYCLES FOR EASY PART INSPECTION:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Software should have canned cycle feature i.e. software should be able to generate the programs for automatic measurement of PCD holes if radius, angular orientation of PCD holes, total number of PCD holes and no. of probing points are specified. | Vendor to Specify |
| 2. | Canned cycle should be handled by combination of probes | Vendor to Specify |
| 3. | Flexible part co-ordinate system (20 or more) | Vendor to Specify |
| 4. | Mathematical alignment of work piece | Vendor to Specify |
| 5. | The scanning application software should provide profile / curve coordinates at required grid stations with proper vectorial probe radius compensation. | Vendor to Specify |
| 6. | Comprehensive profile/curve analysis package with visual representation of scanned profile, actual to nominal deviation, best fit etc | Vendor to Specify |
| 7. | Measurement Interfaces for IGES, STEP. Software to be compatible to latest version of DMIS format (DMIS in, DMIS out) | Vendor to Specify |
| 8. | Facility to have joy Stick control | Vendor to Specify |

4.2.9.6 BASIC GEOMETRIC SHAPES

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Application software should support direct measurement of the features (max. no. of points - 1000 or more) of POINT, LINE, PLANE, CIRCLE, CYLINDER, CONE, SPHERE, ELLIPSE, ARC OF A CIRCLE | Vendor to Specify |
| 2. | For Line, Plane, Cylinder, Cone projected angles (XY,YZ, ZX plane) and direction cosines (i, j, k) to be displayed simultaneously or by off /on | Vendor to Specify |
| 3. | Maximum, Minimum, Standard deviations and No. of Points measured for geometric elements should be given with the output of measured element for all the above geometrical shapes | Vendor to Specify |

| | | |
|----|--|-------------------|
| 4. | If computer system is shutdown, coordinate points measured till that time to be recovered. | Vendor to Specify |
|----|--|-------------------|

4.2.9.7 GEOMETRIC CONSTRUCTION:

| Sl. No. | Requirements | Remarks |
|---------|---|-------------------|
| 1. | Standard geometric features (mentioned at 8.6.1) to be created with standard input data. The created geometric feature to be used for measurement analysis. For example, CIRCLE feature to be created with center coordinates and diameter of circle as input data. | Vendor to Specify |
| 2. | Standard geometric features (mentioned at 8.6.1) to be constructed on the basis of measured data. | Vendor to Specify |

4.2.9.8 PROJECTION:

Software should support the projection of basic geometric shapes (mentioned at 8.6.1) to selected plane / Selected Surface.

4.2.9.9 DISPLACEMENT:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Displacement of a point by known distance and angle | Vendor to Specify |
| 2. | Displacement of a line by known distance / passing through a known point | Vendor to Specify |
| 3. | The plane can be displaced by a particular distance / passing through a point. | Vendor to Specify |

4.2.9.10 DEFINITION OF COORDINATE SYSTEM:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Co-ordinate system plane (XY, YZ, ZX planes) | Vendor to Specify |
| 2. | Co-ordinate system axis (X, Y, Z axis) | Vendor to Specify |
| 3. | Operator should have option to select any co-ordinate system plane or space axis | Vendor to Specify |

4.2.9.11 CONVERSION:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Conversion of Cartesian to Polar coordinates and vice versa | Vendor to Specify |
| 2. | Operator should have option to see both Polar and Cartesian coordinates of geometric features (For example centre coordinates of CIRCLE feature to be displayed with Cartesian coordinates X, Y and Polar Coordinates Radius, Angle) | Vendor to Specify |
| 3. | It should have an option to see angles in degrees-minutes-seconds also. | Vendor to Specify |

4.2.9.12 INTERSECTIONS:

| Sl. No. | Requirements | Remarks |
|---------|--------------------------|-------------------|
| 1. | Line - Line | Vendor to Specify |
| 2. | Line - Circle | Vendor to Specify |
| 3. | Circle - Circle | Vendor to Specify |
| 4. | Line - Plane | Vendor to Specify |
| 5. | Plane - Plane | Vendor to Specify |
| 6. | Sphere - Plane | Vendor to Specify |
| 7. | Sphere - Line | Vendor to Specify |
| 8. | Line - Cone surface | Vendor to Specify |
| 9. | Line - Cone axis | Vendor to Specify |
| 10. | Line - Cylinder surface | Vendor to Specify |
| 11. | Line - Cylinder axis | Vendor to Specify |
| 12. | Plane - Cone surface | Vendor to Specify |
| 13. | Plane - Cylinder surface | Vendor to Specify |

| | | |
|-----|--|-------------------|
| 14. | Operator should have option for viewing intersections of geometrical constructions graphically. If required, intersections to be zoomed. Intersection co-ordinates (X, Y, Z) to be displayed | Vendor to Specify |
|-----|--|-------------------|

4.2.9.13 DISTANCE:

Direct between the following elements and distance along each axis X, Y, Z to be given simultaneously:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Between point like elements (points, circles, spheres) | Vendor to Specify |
| 2. | Between line like elements (lines, cylinders, cones) (Minimum, Maximum direct distance) | Vendor to Specify |
| 3. | Between point and plane (Distance to be given in the direction normal to plane) | Vendor to Specify |
| 4. | Between point and line (Distance to be given in the direction normal to line) | Vendor to Specify |
| 5. | Between plane and plane (Minimum, Maximum distance between elements) | Vendor to Specify |

4.2.9.14 SYMMETRY:

| Sl. No. | Requirements | Remarks |
|---------|---|-------------------|
| 1. | Between two point like elements (points, circles, spheres) | Vendor to Specify |
| 2. | Between two line like elements (lines, cylinders, cones) (two symmetry lines to be given in case of inclined lines) | Vendor to Specify |
| 3. | Between two planes (two symmetry planes to be given in case of inclined planes) | Vendor to Specify |

4.2.9.15 ANGLE:

| Sl. No. | Requirements | Remarks |
|---------|---|-------------------|
| 1. | Angle between two line like elements (lines, cylinders, cones) | Vendor to Specify |
| 2. | Angle between two planes | Vendor to Specify |
| 3. | Projected angle of elements (lines, cylinders, cones) with reference planes (XY, YZ & ZX) | Vendor to Specify |

4.2.9.16 TOLERANCES:

CMM software should support calculation of the following ISO 1101 standard tolerances

| Sl.No. | Requirements | Remarks |
|--------|--|-------------------|
| 1. | Angularity | Vendor to Specify |
| 2. | Axial Runout | Vendor to Specify |
| 3. | Co-axiality | Vendor to Specify |
| 4. | Concentricity | Vendor to Specify |
| 5. | Conicity | Vendor to Specify |
| 6. | Cylindricity | Vendor to Specify |
| 7. | Flatness | Vendor to Specify |
| 8. | Parallelism | Vendor to Specify |
| 9. | Position Tolerances (Input may be Cartesian and polar) | Vendor to Specify |
| 10. | Radial Runout | Vendor to Specify |
| 11. | Roundness | Vendor to Specify |
| 12. | Sphericity | Vendor to Specify |
| 13. | Squareness | Vendor to Specify |

Operator should have choice for viewing tolerances graphically

4.2.9.17 NOMINAL VALUES

Software should allow input of nominal values given for all types of geometric elements (as per 8.6.1). Deviations of actual measured elements from the nominal values to be given. It should be possible to turn off this feature

4.2.9.18 ALIGNMENT & TRANSFORMATIONS

Software should provide support for alignment of the object to be measured including the following features:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Rotation of the object to be measured about any axis in space (rotation of plane or line like elements) (rotate space) | Vendor to Specify |
| 2. | Rotation of the object to be measured about any axis in plane (rotation of point or line in a plane) (rotate plane) | Vendor to Specify |
| 3. | Creation of multiple co-ordinate systems with alignment system | Vendor to Specify |
| 4. | Shifting of origin and rotation of axis of the co-ordinate system | Vendor to Specify |
| 5. | Facility for viewing the measured results (X,Y,Z / R, Θ ,Z and i,j,k) and probe tip position (X,Y,Z) in current co-ordinate system. | Vendor to Specify |

4.2.9.19 OTHER REQUIREMENTS OF THE SOFTWARE

| Sl. No. | Description | Remarks |
|---------|---|--------------------------------|
| 1 | CAD Basic Import 3D models in CATIA, DXF, DWG, STL, SAT, DMIS, IGES and STEP format, 3D visualization with zoom, moving, twisting, generating points on geometrical features | Required, Vendor to specify to |
| 2 | CAD Surfaces Generate intersection lines with cutting faces (Plane, Cylinder) and work piece surface. Generate points on intersection lines as nominal / NT's for scanning and actual/nominal comparison. Interactive 2D-graphic evaluation (actual / nominal comparison) of free form surfaces and 3D curves. | Required, Vendor to specify |
| 3 | Export Inspection data in CATIA, DXF, DWG, STL, SAT, DMIS, IGES and STEP | Required, Vendor to specify |
| 4 | Curves Operations on 2D and 3D curves and surfaces, Radius, correction, actual-nominal comparison, 2D & 3D best-fit operations. | Required, Vendor to specify |
| 5 | On-line and offline CAD comparison | Required, Vendor to specify |
| 6 | Blade analysis module capable of carrying out measurement and calculations of Contours Edge Thicknesses Maximum Thickness Edge Radii Chord Length Chord Angle Twist Stack Deviation or Displacement Bow Deviation Edge Location | Required, Vendor to specify |
| 7 | Three year warranty of the software. | Required, Vendor to specify |

4.2.9.20 PROBE COMPENSATION:

The software should automatically compensate for the probe centre offsets during measurement of geometric elements including curves, profiles and free form surfaces (in normal measurement operations, point to point scanning and continuous scanning applications)

4.2.9.21 ELEMENT NAMING (maximum 20 characters or better) :

Software should allow the user to give names of measured and generated elements. If the user does not enter a name for an element, the system should automatically generate a default name based on the type of object. Software should allow renaming the measured element, if required

4.2.9.22 MEASUREMENT SESSIONS (session name max. 20 characters)

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1. | Software should allow all information pertaining to a measurement session to be saved at any point during the measurement process (saving the session) | Vendor to specify |
| 2. | The user should be allowed to retrieve all the information about previously saved session (reopening of old session) | Vendor to specify |
| 3. | Software should allow the user to delete any element or session if required | Vendor to specify |

4.2.9.23 PRINTING :

| Sl. No. | Requirements | Remarks |
|---------|---|-------------------|
| 1 | System should support on-line printing of measurement data on to a printer. There should be an option of printing to a file, which can then be printed off line (all the measurement events to be printed.) | Vendor to specify |
| 2 | All the operations that are carried-out during measurement (like origin shift, displacement, mathematical alignment etc.) to be printed | Vendor to specify |
| 3 | Software should allow printing of selected element | Vendor to specify |
| 4 | Software should allow saving of compensated probed points in a session file | Vendor to specify |
| 5 | Software should allow printing of form tolerances | Vendor to specify |
| 6 | Reporting system to be compatible to Microsoft Excel | Vendor to specify |

4.2.9.24 2D CURVE MEASUREMENT

During unknown 2D curve measurement, it should be possible to give coordinates of unknown curve at required grid station (with probe compensation in curve true vector direction). Software should be capable of scanning the unknown curves at definite interval in point to point scanning mode and continuous scanning mode

4.2.9.25 Software to be compatible to SP 80 scanning probe head.**4.2.10 APPLICATION SOFTWARE CERTIFICATION:**

| Sl. No. | Requirements | Remarks |
|---------|---|-------------------|
| 1 | Application Software to be certified by PTB, Germany / NIST, USA (Software certification copy to be supplied) | Vendor to specify |

4.2.11 SOFTWARE BACKUP (in CDs) :

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1 | Three (3) sets of back up should be provided for the application software. | Vendor to specify |

4.2.12 APPLICATION SOFTWARE:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1 | Application software upgrades both (release and version) have to be provided free of cost during the warranty period of three years. | Vendor to specify |

4.2.13 DIAGNOSTIC SOFTWARE CHECK

| Sl. No. | Requirements | Remarks |
|---------|---|-------------------|
| 1 | Diagnostic software should be provided to check the various elements of the system i.e. hardware/software. Extensive diagnostic check with required messages should be provided to check the complete system in off-line. | Vendor to specify |

4.2.14 OPERATIONS/SYSTEM ADMN. /MAINTENANCE DOCUMENTATION :

| Sl. No. | Requirements | Remarks |
|---------|---|-------------------|
| 1 | THREE sets of detailed operations, system administration and maintenance manuals (hard copies) are to be provided. Operations manual should explain all the measurement operations of the system with sketches and explanation. System administration and maintenance manual should explain the detailed system configuration and administration. System manual should explain known possible errors and the solution for the same. | Vendor to specify |
| 2 | ONE set of manuals (hard copy) for CNC Control system, Drive power system, Electrical cabinet, Interface details (with complete circuit diagrams) to be supplied. | Vendor to specify |

4.2.15 OTHER CONDITIONS

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 1 | It is the complete responsibility of the Vendor to carry out all necessary activities for effective Up-gradation and working of the CMM including operations such as overhauling, checking of pneumatic circuits, air bearings etc., to achieve the desired accuracies and satisfy the requirements defined in this specification. | Vendor to specify |
| 2 | The Vendor shall bring all necessary tools and material handling equipment required for up-gradation and commissioning of the CMM at CSIR-NAL, Bangalore. | Vendor to specify |
| 3 | The dismantling / up-gradation of the machine shall be taken up only after delivery of all the items required for up-gradation of the CMM to NAL stores. | Vendor to specify |
| 4 | For installation and commissioning activities, electric power, compressed air and water shall be provided by CSIR-NAL. | Vendor to specify |
| 5 | The vendor shall furnish the list of companies in India with contact details to whom the similar work has been carried out. | Vendor to specify |

4.3 SCOPE OF SUPPLY

Scope of Supply includes the following:

- Supply of the equipment / system as specified in Clause 4.1 above
- Installation & Commissioning as specified under Clause No.4.4.3
- Training as specified under Clause No.4.4
- On site comprehensive Warranty as specified under Clause No.4.5

4.4 INSPECTION & TESTS

4.4.1 General

- The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified here. The Supplier shall at its own expense and at no cost to the NAL carry out all such tests and/or inspections of the Goods and Related Services as are specified in the chapter 4 or as discussed and agreed to during the course of finalization of contract.

- (ii) The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at the point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data - shall be furnished to the inspectors at no charge to the NAL
- (iii) Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- (iv) The NAL or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the NAL and what inspections and tests the NAL requires and where they are to be conducted. The NAL shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes.
- (v) Should any inspected or tested Goods fail to conform to the specifications, the purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.
- (vi) The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at final destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.
- (vii) The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- (viii) With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent, if any, shall be responsible for follow up with their Principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after customs clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/ Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.
- (ix) Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance Manuals together with Drawings of the goods and equipment built. These shall be in such details as will enable the Purchase to operate, maintain, adjust and repair all parts of the works as stated in the specifications.
- (x) The Manuals and Drawings shall be in the ruling language (English) and in such form and numbers as stated in the Contract.
- (xi) Unless and otherwise agreed, the goods and equipment shall not be considered to be completed for the purposes of taking over until such Manuals and Drawing have been supplied to the Purchaser.
- (xii) On successful completion of acceptability test, receipt of deliverables, etc and after the Purchaser is satisfied with the working of the equipment, the acceptance certificate signed by the Supplier and the representative of the Purchaser will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the equipment. Acceptance certificate form as given in Annexure-I (Chapter 8) should be signed by authorised representative of Supplier & Purchaser.
- (xiii) Installation demonstration is to be arranged by the supplier and the same is to be done within 15 days of the arrival of the equipment at site.

4.4.2 Manufacturer's Inspection Certificate

After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser reserves the options to be present at the supplier's premises during such Pre- dispatch inspection and testing.

4.4.3 Installation, Commissioning & Acceptance Test

The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at Purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified.

In the event of the ordered item failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.

Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.

4.4.3 (1) FINAL ACCEPTANCE TESTS

| Sl. No. | Requirements | Remarks |
|---------|---|-------------------|
| 4.4.3a | Accuracies and performance tests have to be proved out at NAL after up-gradation as per ISO 10360 standards. | Vendor to specify |
| 4.4.3b | Vendor is solely responsible for up-gradation, installation, commissioning and effective functioning of the CMM as per the accuracy requirements detailed in this specification list. | Vendor to specify |
| 4.4.3c | Vendor shall provide Calibration certificate for the CMM. | Vendor to specify |

4.4 TRAINING AT CSIR-NAL

| | | |
|----|--------------------|--|
| 1) | Location | CSIR-NAL |
| 2) | Number of persons | Six |
| 3) | Period of Training | 10days from the date of installation / commissioning (Two stages of 5 days) |
| 4) | Nature of Training | Detailed training to be provided in the areas of CMM operations, CMM Programming and applications, Electrical, Electronic interface & maintenance to NAL engineers for 10 days. The training session is split into two stages of 5 days each with a gap of 15 days in between. |

4.5 INCIDENTAL SERVICES

(i) On site Comprehensive Warranty:

| Sl. No. | Requirements | Remarks |
|---------|--|-------------------|
| 4.7.a | Comprehensive warranty has to be provided for the entire upgraded CMM system including software for 3 years from the date of acceptance by CSIR-NAL. | Vendor to specify |
| 4.7.b | The Vendor has to provide total product support for the CMM in terms of both hardware and software for 10 years from the date of installation and commissioning for effective functioning of the CMM. | Vendor to specify |
| 4.7.c | Calibration & CAA correction has to be carried out twice during 1 st year (6 th and 12 th month) and once at the end of 2 nd and 3 rd year of warranty period at free of cost to CSIR-NAL. | Vendor to specify |
| 4.7.d | Down-time call attendance should be within 48 hrs. | Vendor to specify |
| 4.7.e | In case the Equipment / System remains non-operational for more than 7 days then warranty period will be extended for the equivalent period for which Equipment / System remains non-operational. Warranty extension in such case shall be done without prejudice to any other Term & condition of the contract. | Vendor to specify |

| | | |
|-------|--|-------------------|
| 4.7.f | All software upgrades i.e., both version and release upgrades have to be provided free of cost for THREE years during the warranty period. | Vendor to specify |
|-------|--|-------------------|

(ii) Non Comprehensive AMC :

| | | |
|----|--|---|
| 1. | THREE years of Non-Comprehensive AMC after completion of regular warranty period of THREE years, which includes three breakdown / preventive maintenance per year, one calibration visit per year which is to be carried out during first visit of preventive maintenance and provide software up-gradations inclusive of version and release upgrades as part of the Non-comprehensive AMC. Scope of work for AMC is mentioned in the Annexure - 1. | Vendor to specify To be quoted as option |
|----|--|---|

4.6 **DELIVERY SCHEDULE** (including supply, installation, commissioning, training & acceptance)

| Delivery of the Item | | Installation, Commissioning & Training | | Acceptance of the item |
|--|---|--|--|---|
| Days/ Weeks/Months | Location | Days/ Weeks/Months from the date of receipt of equipment | Location | Days/ Weeks/Months from the date of Installation, Commissioning & Training |
| 3 months from release of purchase order/ Acceptance of LC | Metrology & Calibration Lab, APMF Division, CSIR-NAL, Kodihalli campus, Bengaluru-17 | 4 Weeks from the Date of Receipt of the Equipment | Metrology & Calibration Lab, APMF Division, CSIR-NAL, Kodihalli campus, Bengaluru-17 | 2 Weeks |

4.7 **Commercial evaluation of bid**

The bid will be treated as **incomplete** if bidder has **not quoted** for all the components given in scope of supply (clause 4.3) and **the incomplete bid will be rejected**. The bidder should also quote for all incidental services (clause 4.7). The bid will be commercially evaluated for the components in the scope of supply.

Scope of work for AMC

The following are the scope of work that is to be carried out:

- a) Visual inspection of the Wenzel LH87
- b) Inspection of Mechanical System
- c) Inspection of Electrical and Controls system
- d) Functionality test
- e) Inspection and Calibration of the above machine.

The following are the sub-works under each scope of work:

a) Visual inspection

- * Check the covers and look for any obvious sign of interference or rubbing of moving parts.
- * Look for any sign of dirt or scratches on the moving axes, guide ways and positioning scales.
- * Remove the covers and check for damage or wear to the cables and make sure that the cableways are clean and all dirt protection systems are working.

- * Check condition of the surface table and look for any sign of damage.
- * Check the condition of the reference sphere.
- * Check the condition of each drive bar / belt.
- * Check the condition of the Z-axis cables.
- * Any other visual inspection that may be required.

b) Inspection of Mechanical system

- * Thoroughly clean and grease wherever necessary before starting any checks / tests.
- * Check condition of air bearings and air pressure.
- * Check that each axis is held firmly in all the bearings and is running smoothly.
- * Check that air pad clearances are correct.
- * Check that each drive bar belt is tight and without any slackness or backlash.
- * Check that the drive wheels are at the correct tension onto the drive bars / belt.
- * Check that the drive belts are at the correct tension onto the drive pulleys.
- * Check that the probe holder is not worn out and correctly holds the probe.
- * Check that the Z-axis counter balance system is correct.
- * Check the pneumatic system for effective sealing without leak.
- * Any other mechanical movement checks and functional checks.
- * Leveling of machine and adjustment of pneumatic active dampers.
- * Cleaning of Air filter units and replacement of the filter elements.
- * Any other mechanical system checks required for effective functioning of the CMM.

c) Electrical / Controls Inspection

- * Check that all cable connections are correctly made, in the cabinets and on the machine.
- * Check that all switches and indicators are working correctly and replace if necessary.
- * Check inside the control rack for any signs of burning or loose components.
- * Test that input voltage supplies levels (A.C) are correct.
- * Check the position of each reader head. The clearance gap must be correct with a good electrical signal.
- * Any other checks that may be required for effective functioning of the CMM.

d) Functionality test

- * Test that the Z-axis brake mechanism is working (wherever applicable).
- * Test that all axis-locking devices are working.
- * Test that all axes are driving smoothly and are in the correct direction.
- * Test that the emergency stop system and all the limit switches are working.
- * Test that the machine will initialize and find the correct zero position.

- * Test that the probing system is working correctly.
- * Test all the functions of the joystick hand box.
- * Test any other peripheral equipment or attachments that are operational with the machine such as computer peripheral equipments viz., Printer, Modem, Networking, etc.

e) Inspection and Calibration

- * Check the machine surface table for its level and adjust if necessary.
- * Check for squareness errors between all axes.
- * Check each axis for linear accuracies.
- * Check for volumetric accuracies.
- * A full verification of the machine accuracy in accordance to ISO 10360 standard to be performed and assurance of certificate of conformity should be provided.

General Terms and Conditions:

- * The service engineer from the firm should visit once in four months (three visits in a year) to carry out the above maintenance.
- * The Calibration of the machine has to be carried out during the **first** visit (of every year) as per ISO 10360.
- * Any other setting of the machine if called for, has to be carried out by the vendor for proper functioning of the CMM.
- * After calibration, if any errors are found in the CMM, the error compensation should be made in the software.
- * All software upgrades i.e., both version and release upgrades have to be provided free of cost to NAL during AMC period and relevant training has to be offered free of cost.
- * The vendor shall bring all necessary tools, instruments as required for maintenance of the CMM.
- * The vendor shall ensure that the down-time of the CMM shall not exceed two working days during maintenance.
- * Warranty period has to be extended for the number of days the equipment remains out of order during the warranty period.

CHAPTER 5

Eligibility & Qualification Requirements

5.1 Eligibility Criteria

a) **Legal Valid Entity:**

The Bidder shall necessarily be a legally valid entity either in the form of a Limited Company or a Private Limited Company registered under the Indian Companies Act, 1956 or Country of Origin.

Bidder in the form of consortium and Partnership is not permitted.

Copy of Certificate of Incorporation issued by Registrar of firms/companies is to be submitted in support of this criterion.

b) Indian Agent quoting on behalf of Foreign Principal supplier should submit a certified **copy of an Agreement/Memorandum of understanding (MOU)** between both the parties.

c) The bidder shall furnish documentary evidence to demonstrate that the bidder satisfies the bidders' **eligibility criteria**, as mentioned in **ITB Clause 1.1.2** in the form as per **Annexure-K of Chapter- 8**.

d) An **undertaking (self-certificate)** is to be submitted that the Organization has not been blacklisted during last 3 years by any Central / State Government Department/Organization in the form as per **Annexure-L of Chapter- 8**.

5.2 Technical Qualification Criteria

a) The Bidder should be a manufacturer /authorized representative of a manufacturer who must have designed, manufactured, tested and supplied the equipment(s) similar to the type specified in the "Technical Specification". Authorised representative / Indian Agent to submit the **Manufacturers' Authorization Form Chapter-8: Annexure B** with the technical bid.

b) Equipment / System offered must be of the most recent series/models incorporating the latest improvements in design. The models should be in successful operation for at least one year as on date of Bid Opening. The bidder (OEM/Direct Distributor/Dealer) should have supplied and installed during **past 2 years, at least two similar equipment / systems** as mentioned in Chapter-4.

The Bidder should furnish the information on all past supplies and satisfactory performance during past 3 years in the **Performance Statement Form** (Chapter-8, Annexure D). Bidders shall invariably furnish documentary evidence (Client's certificate) in support of the **satisfactory operation of the equipment / system**.

c) Details of Service Centres and information on service support facilities that would be provided after the warranty period (in the **Service Support Form-Chapter-8 Annexure-F**).

d) Foreign bidder/suppliers quoting directly, should submit a letter of Authorisation in favour of Indian Agent/Representative indicating complete address, contact person and validity of Authorization if any along with their technical bid. Foreign bidder/suppliers quoting directly should ensure that adequate and specialized expertise is already available **or** will be made available following the execution of the contract in the Purchaser's country, to ensure that **the support services are responsive and adequate** as per **ITB 1.13.2(c)**.

5.3 Financial Qualification Criteria

a) The Bidders are requested to submit **Audited Balance Sheet** for the **last three financial year** alongwith Technical Bid.

5.4 Either the Indian Agent on behalf of the foreign principal or the foreign principal directly could bid in a tender **but not both**. However, the offer of the Indian Agent should also accompany the authorization letter from their principal. Further, to maintain sanctity of tendering system **one Indian agent cannot represent two different foreign principals in one tender**.

CHAPTER - 6A

PRICE SCHEDULE FOR GOODS BEING OFFER FROM ABROAD

(BIDDER SHOULD QUOTE IN THIS FORMAT)

| Tender No.: | | | | | | |
|---|---|---|------|--------------------------|------|--------|
| Quotation No. | | | | Date: | | |
| Quotation Valid upto | | | | | | |
| Country of Origin | | | | Currency | | |
| Sr. No. | Description of Item | HSS Code | Unit | Quantity | Rate | Amount |
| 1 | Item Name | | | | | |
| 2 | Required Spares/Consumables (if any) | | | | | |
| 3 | Accessories (if any) | | | | | |
| 4 | Additional items | | | | | |
| Sub-Total: Ex-Works Price | | | | | | |
| Less: Discount% (if any) | | | | | | |
| Sub-Total : Net Ex-Works Price | | | | | | |
| Add: FCA/FOB Charges | | | | | | |
| Sub-Total: INCOTERM: FCA/FOB International Airport,Country | | | | | | |
| Add: CIP/CIF Charges | | | | | | |
| Total (A): | | | | | | |
| OTHER CHARGES | | | | | | |
| 5 | Installation & Commissioning Charges (if any) | | | | | |
| 6 | Training (if any) | | | | | |
| Sub-Total : Before Tax | | | | | | |
| Add: GST on Sr. No.5 & 6 (if applicable) | | | | | | |
| 7 | Bank Charges (if any) | | | | | |
| 8 | Any other specific charges | | | | | |
| Total (B): | | | | | | |
| Grand Total (A+B): CIP/CIF Charges - Bengaluru Price | | | | | | |
| For SI. No.5 & 6 - TDS will be deducted at actuals. | | | | | | |
| OTHER TERMS | | | | | | |
| Sr. No. | Approximate weight of the Consignment | Approximate dimensions of the consignment | | | | |
| 1 | | | | | | |
| 2 | Mode of Shipment | | | | | |
| 3 | Port of Destination | | | Final Destination | | |
| | | | | | | |
| 4 | Delivery Term (INCO Term) | | | | | |
| 5 | Delivery Schedule including Item, Installation, Commissioning, Training & Acceptance | | | | | |
| 6 | Payment Term | | | | | |
| 7 | Warranty | | | | | |
| NOTE: | Agency Commission, if any would be payable only in Indian Rupee as per the Exchange Rate mentioned in the Bill of Entry. | | | | | |

CHAPTER - 6B

PRICE SCHEDULE FOR GOODS BEING OFFER FROM INDIA

(BIDDER SHOULD QUOTE IN THIS FORMAT)

| Tender No.: | | | | | | | |
|---|--|---|------|----------|---|--------|--|
| Quotation No. | | | | | Date: | | |
| Quotation Valid upto | | | | | | | |
| Country of Origin | | | | | Currency | | |
| Sr. No. | Description of Item | HSS Code | Unit | Quantity | Rate | Amount | |
| 1 | Item Name | | | | | | |
| 2 | Required Spares/Consumables (if any) | | | | | | |
| 3 | Accessories (if any) | | | | | | |
| 4 | Additional items | | | | | | |
| | | | | | Sub-Total: Ex-Works Price | | |
| | | | | | Less: Discount% (if any) | | |
| | | | | | Sub-Total : Net Ex-Works Price | | |
| | | | | | Add: Packing & Forwarding Charges (if any) | | |
| | | | | | Add: Transportation Charges (if any) | | |
| | | | | | Add: Insurance Charges (from Warehouse to Warehouse) (if any) | | |
| | | | | | Sub-Total : Before Tax | | |
| | | | | | Add: GST / IGST (against Concessional Certificate) | | |
| | | | | | Total (A): | | |
| OTHER CHARGES | | | | | | | |
| 5 | Installation & Commissioning Charges (if any) | | | | | | |
| 6 | Training (if any) | | | | | | |
| | | | | | Sub-Total : Before Tax | | |
| | | | | | Add: GST on Sr. No.5 & 6 (if applicable) | | |
| 7 | Bank Charges (if any) | | | | | | |
| | | | | | Total (B): | | |
| | | | | | Grand Total (A+B): F.O.R CSIR-NAL | | |
| For Sl. No.5 & 6 - TDS will be deducted at actuals. | | | | | | | |
| 8 | Annual Maintenance Contract / Charges | | | | | | |
| | Comprehensive | | | | Non-Comprehensive | | |
| Grand Total in Figures | | | | | | | |
| Grand Total in Words | | | | | | | |
| OTHER TERMS | | | | | | | |
| Sr. No. | Approximate weight of the Consignment | Approximate dimensions of the consignment | | | | | |
| 1 | | | | | | | |
| 2 | Mode of Shipment | | | | | | |
| 3 | Port of Destination | Final Destination | | | | | |
| | | | | | | | |
| 4 | Delivery Term | | | | | | |
| 5 | Delivery Schedule including Item, Installation, Commissioning, Training & Acceptance | | | | | | |
| 6 | Payment Term | | | | | | |
| 7 | Warranty | | | | | | |

CHAPTER 7

Contract Form

Contract No. _____ Date: _____

THIS CONTRACT AGREEMENT is made
the [insert: number] day of [insert: month], [insert: year].

BETWEEN

- (1) The Council of Scientific & Industrial Research registered under the Societies Registration Act 1860 of the Government of India having its registered office at 2, Rafi Marg, New Delhi-110001, India represented by National Aerospace Laboratories, Bengaluru (hereinafter called "the Purchaser"), and
- (2) [insert name of Supplier], a corporation incorporated under the laws of [insert: country of Supplier] and having its principal place of business at [insert: address of Supplier] (hereinafter called "the Supplier").

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., [insert brief description of Goods and Services] and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of [insert Contract Price in words and figures, expressed in the Contract currency(ies)] (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

01. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
02. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:

| | |
|-----|--|
| (a) | This Contract Agreement |
| (b) | General Conditions of Contract |
| (c) | Special Conditions of Contract |
| (d) | Technical Requirements (including Schedule of Requirements and Technical Specifications) |
| (e) | The Supplier's Bid and original Price Schedules |
| (f) | The Purchaser's Notification of Award |
| (g) | [Add here any other document(s)] |

03. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
04. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
05. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Union of India on the day, month and year indicated above.

For and on behalf of the Council of Scientific & Industrial Research

Signed : [insert signature]
in the capacity of [insert title or other appropriate designation]
in the presence of [insert identification of official witness]

Signed : [insert signature]
in the capacity of [insert title or other appropriate designation]
in the presence of [insert identification of official witness]

For and on behalf of the Supplier

Signed : [insert signature of authorized representative(s) of the Supplier]
in the capacity of [insert title or other appropriate designation]
in the presence of [insert identification of official witness]

CHAPTER 8

OTHER STANDARD FORMS

| Sr. No. | Name of the Form | Annexure |
|----------------|---|-----------------|
| 1 | Bidder Information Form | A |
| 2 | Manufacturers' Authorization Form | B |
| 3 | Bid Security Form / Earnest Money Deposit | C |
| 4 | Performance Statement Form | D |
| 5 | Deviation Statement Form | E |
| 6 | Service Support Detail Form | F |
| 7 | Bid Form | G |
| 8 | Performance Security Form | H |
| 9 | Acceptance Certificate Form | I |
| 10 | Indemnity Bond | J |
| 11 | Eligibility Certificate | K |
| 12 | Non Black List Certificate | L |

NOTE: The Successful Bidder shall submit Documents with reference to Annexure – H, I & J after Award of Contract as mentioned in Purchase Order.

Bidder Information Form

- (a) [The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted. This should be done of the letter head of the firm]

Date : [insert date (as day, month and year) of Bid Submission]

Tender No : [insert number from Invitation for bids]

| | |
|-----|--|
| 01. | Bidder's Legal Name [insert Bidder's legal name] |
| 02. | In case of JV, legal name of each party: [insert legal name of each party in JV] |
| 03. | Bidder's actual or intended Country of Registration: [insert actual or intended Country of Registration] |
| 04. | Bidder's Year of Registration: [insert Bidder's year of registration] |
| 05. | Bidder's Legal Address in Country of Registration: [insert Bidder's legal address in country of registration] |
| 06. | Bidder's Authorized Representative Information Name: [insert Authorized Representative's name] Address: [insert Authorized Representative's Address] Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers] Email Address: [insert Authorized Representative's email address] |
| 07. | Attached are copies of original documents of: Articles of Incorporation or Registration of firm named in 1, above. |

Signature of Bidder _____

Name _____

Business Address _____

MANUFACTURERS' AUTHORIZATION FORM

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.]

Date : *[insert date (as day, month and year) of Bid Submission]*

Tender No. : *[insert number from Invitation For Bids]*

To : *[insert complete name and address of Purchaser]*

WHEREAS

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Bidder]* to submit a bid the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 2.20 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of: *[insert complete name of Bidder]*

Dated on _____ day of _____, _____ *[insert date of signing]*

BID SECURITY FORM

Whereas _____
(hereinafter called the tenderer)

has submitted their offer dated _____
for the supply of _____
(hereinafter called the tender)

Against the Purchaser's Tender No. _____
KNOW ALL MEN by these presents that WE _____
of _____ having our registered office at _____
_____ are bound unto _____ (hereinafter called the "Purchaser")

In the sum of _____

For which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this _____ day of _____ 20____.

THE CONDITIONS OF THIS OBLIGATION ARE:

| | |
|-----|--|
| (1) | If the tenderer withdraws or amends or modifies or impairs or derogates from the Tender in any respect within the period of validity of this tender. |
| (2) | If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity |
| (3) | If the tenderer fails to furnish the Performance Security for the due Performance of the contract. |
| (4) | Fails or refuses to accept/execute the contract. |

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorized officer of the Bank)

Name and designation of the officer
Seal, name & address of the Bank and address of the Branch

Note: Whenever the bidder chooses to submit the Bid Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

PERFORMANCE STATEMENT FORM

Details of similar equipment / systems supplied & installed during past 3 years in India & Abroad

Name of the Firm _____

| Order Placed by (full address of Purchaser) | Order No. and date | Description and quantity of ordered equipment | Value of order | Date of completion of deliver as per contract | Date of actual completion of delivery | Remarks indicating reasons for late delivery, if any | Has the equipment been installed/ working satisfactory? (Attach a certificate from the purchaser / Consignee) | Name of Contact person along with Telephone No., Fax No. and e-mail address |
|---|-----------------------|--|----------------------|---|---|---|---|---|
| | | | | | | | | |

Signature and Seal of the manufacturer/Bidder

Place :

Date :

DEVIATION STATEMENT FORM

PART -I

The following are the particulars of deviations from the requirements of the tender specifications:

| CLAUSE | DEVIATION | REMARKS (INCLUDING JUSTIFICATION) |
|---------------|------------------|--|
| | | |

Place:

Date:

Signature and seal of the
Manufacturer/Bidder

NOTE:

Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

PART – II
(Refer Clause 1.25 of Tender Document)

| Sr. No. | TENDER REQUIREMENT | COMPLIANCE | Document Submitted |
|---------|--|--------------------------------------|--------------------|
| 1 | Bid is Signed | Yes / No | Yes / NA |
| 3 | Bid Validity (90 days after the date of Bid opening) | Yes / No Bid valid up to _____ | Yes / NA |
| 4 | Warranty: One-year warranty from Installation & Commissioning and date of acceptance | Yes / No | Yes / NA |
| 5 | Agree to submit Performance Security 10% of PO Value as per Clause 2.12.1 & as specified in SCC | Yes / No | Yes / NA |
| 6 | Original Equipment Manufacturer/Authorised Indian Agent agree to submit Contract Agreement in the form as per Chapter-7 (For procurement above Rs.25 Lakh) | Yes / No | Yes / NA |
| 7 | Original Equipment Manufacturer/Authorised Indian Agent agree to submit Indemnity Bond as per Chapter-8 & Annexure-J (For procurement above Rs.25 Lakh) | Yes / No | Yes / NA |

The Bidder should submit other documents such as fulfillment of financial qualification criteria, Schedule of Requirement (Chapter-3) and various forms as specified in Chapter-8.

SERVICE SUPPORT DETAIL FORM

| Sr. No. | List of similar type of equipments serviced in the past 3 years | Address, Telephone Nos., Fax No. and e-mail address of the buyer | Nature of training Imparted/ service provided | Name and address of service provider |
|---------|---|--|---|--------------------------------------|
| | | | | |

Signature and Seal of the manufacturer/Bidder.....

Place :

Date :

Bid Form

[The Bidder shall fill in this Form in accordance with the instructions indicated No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date : [insert date (as day, month and year) of Bid Submission]

Tender No. :

To : Director, CSIR-NAL, Bengaluru

We, the undersigned, declare that:

| | |
|-----|---|
| (a) | We have examined and have no reservations to the Bidding Documents, including Addenda No.: [insert the number and issuing date of each Addenda] |
| (b) | We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services [insert a brief description of the Goods and Related Services] as specified in Chapter 4 |
| (c) | The total price of our Bid, excluding any discounts offered in item (d) below, is: [insert the total bid price in words and figures, indicating the various amounts and the respective currencies] |
| (d) | The discounts offered and the methodologies for their application are: Discounts. If our bid is accepted, the following discounts shall apply. [Specify in detail each discount offered and the specific item of the Schedule of Requirements to which it applies.] |
| (e) | Our bid shall be valid for the period of time specified in ITB Clause 1.16, from the date fixed for the bid submission due date in accordance with ITB Clause 1.19 and it shall remain binding upon us and may be accepted at any time before the expiration of that period |
| (f) | If our bid is accepted, we commit to obtain a performance security in accordance with ITB Clause 1.41 and GCC Clause 2.12 for the due performance of the Contract |
| (g) | The following commissions, gratuities, or fees have been paid or are to be paid with respect to the bidding process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity] |

| Name of Recipient | Address | Reason | Amount |
|-------------------|---------|--------|--------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

(If none has been paid or is to be paid, indicate "none.")

| | |
|-----|--|
| (h) | We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed. |
| (i) | We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive. |

Signed : [insert signature of person whose name and capacity are shown]

In the capacity of [insert legal capacity of person signing the Bid Submission Form]

Name : [insert complete name of person signing the Bid Submission Form]

Duly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]

Dated on _____ day of _____, _____ [insert date of signing]

PERFORMANCE SECURITY FORM

MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

To,

.....

WHEREAS

(name and address of the supplier) (hereinafter called “the supplier”) has undertaken, in pursuance of contract no. datedto supply (description of goods and services) (herein after called “the contract”).

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of (amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the day of, 20.....

(Signature of the authorized officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name & address of the Bank and address of the Branch

Note: Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

Acceptance certificate form

No.

Dated:

M/s.

| |
|-------|
| _____ |
| _____ |
| _____ |

Sub: Certificate of commissioning of equipment

- 01.** This is to certify that the equipment as detailed below has/have been received in good condition along with all the standard and special accessories (subject to remarks in Para 2). The same has been installed and commissioned.

| | | |
|-----|--|--|
| (a) | Contract No. Date: | |
| (b) | Description of the equipment | |
| (c) | Name of the consignee | |
| (d) | Scheduled date of delivery of the consignment to the Laboratory / Institutes | |
| (e) | Actual date of receipt of consignment by the Laboratory / Institutes | |
| (f) | Scheduled date for completion of installation/commissioning | |
| (g) | Actual date of completion of installation/commissioning | |
| (h) | Penalty for late delivery (at Laboratory / Institutes level) Rs. | |
| (i) | Penalty for late installation (at Laboratory / Institutes level) Rs. | |

- 02** Details of accessories/items not yet supplied and recoveries to be made on that account:

| Sr. No. | Description | Amount to be recovered |
|---------|-------------|------------------------|
| | | |

- 03** The acceptance test has been done to our entire satisfaction. The supplier has fulfilled his contractual obligations satisfactorily

OR

The supplier has **failed to fulfil** his contractual obligations with regard to the following:

| Sr. No. | Failure | Amount to be recovered |
|---------|---------|------------------------|
| (a) | | |
| (b) | | |
| (c) | | |

The amount of recovery on account of failure of the supplier to meet his contractual obligations is as indicated at para 03.

For Supplier

Signature

Name

Designation

Name of the firm

Date

For Purchaser

Signature

Name

Designation

Name of the Laboratory / Institute

Date

INDEMNITY BOND

No. _____

Date:_____

1) Amalgamation/Acquisition

In the event of M/s. _____proposes for amalgamation, acquisition or sale of its business to any other firm during this contract period, M/s._____ and proposed Buyer/Successor of the Principal Company are liable to execute, fulfill contractual obligations without any deviations. For this purpose M/s. _____/M/s._____ and proposed Buyer/Successor of the Principal Company shall indemnify itself to the Director, National Aerospace Laboratories, Bengaluru to fulfill the contractual obligations as per the terms of the CSIR-NAL Global Tender and quotation of M/s. _____No. _____ dated_____ and National Aerospace Laboratories P.O. No._____dated _____. The contractual obligations are supply, installation, commissioning, warranty maintenance/replacement of spares, accessories etc. as per the above mentioned Purchase Order.

2) JointVenture, Consortium or Association

If the Supplier is a joint venture, consortium, or association, all the parties shall be jointly and severally liable to the CSIR-NAL for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the CSIR-NAL.

3) Patent Indemnity

The Supplier shall, subject to CSIR-NAL's compliance and indemnify and hold CSIR-NAL and its employees and officers harmless from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which CSIR-NAL may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of: (a) the installation of the Goods by the Supplier or the use of the Goods in India; and (b) the sale in any country of the products produced by the Goods.

For M/s. _____
Principal Supplier.

For M/s _____
Indian Agent.

Eligibility Certificate

This is to certify that we are not associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation of Bids / Tender No. _____ dated _____.

Authorised Signatory

Name: _____

Designation: _____

Non-Black listing Self Certificate

This is to certify that M/s. _____ has not been blacklisted by any Central / State Government Department / organization in last 3 years.