NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

DEPARTMENT OF CENTRE FOR SYSTEM DESIGN, NITK SURATHKAL

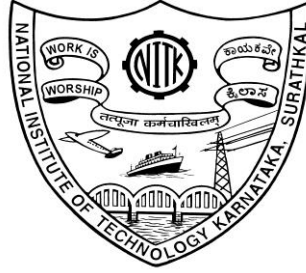### POST SRINIVASNAGAR, MANGALORE – 575 025 (D K)

Phone: (0824) 2474000.   Fax: (0824) 2474033
E- mail: info@nitk.ac.in   **Website: http://www.nitk.ac.in**

TENDER DOCUMENT

Tender Notification No: NITK/CSD/DHI-BLDC/2020/OrCADPCB/PU-04   Date: 21/08/2020

Name of Goods	: **OrCAD PCB Designer Software**
Estimated amount put to Tender	: ₹ 8, 80,000/- (Including GST)
EMD Amount (2% of estimated amount)	: Rs, 17,600/-
Time for Supply of item	: 04 Weeks
Date for Request tender document	: 14/09/2020, 03.00 p.m.
End date for submission of e-tender	: 14/09/2020, 04.00 p.m.
Address for Submission of Tender	: https://mhrd.euniwizarde.com
Opening date of technical bid	: 15/09/2020, 04.00 p.m.
Contact Details of Buyer	: Dr. Pruthviraj U Asst. Professor, Dept. of Water Resources & Ocean Engineering NITK Surathkal – 575025, (P) 0824-2473915, pruthviu@gmail.com

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

POST SRINIVASNAGAR, MANGALURU – 575 025

(An Autonomous Body of the Ministry of HRD, Govt. of India)

Phone: (0824) 2474 000.   Fax: (0824) 2474 033/ 2474 039

Email: registrar@nitk.ac.in   Website: http://www.nitk.ac.in

Tender Notification No: **NITK/CSD/DHI-BLDC/2020/OrCADPCB/PU-04**   **Date: 21/08/2020**

NOTICE INVITING e-TENDER (e-NIT)

The National Institute of Technology Karnataka, Surathkal (in short – NITK, Surathkal) is an autonomous institute under Ministry of HRD Govt of India imparting Technical Education and engaged in Research Activities. It is proposed to procure equipment for Central Research Facility.

Online Tender (https://mhrd.euniwizarde.com/) is invited for the following items in **two cover system** (i.e., Technical bid and financial bid) subject to the following terms and conditions, from the reputed manufacturers or it's authorized dealers so as to reach this office on or before scheduled date and time. The tender (Technical bid) will be opened online on the due date as mentioned. Bidders can verify their bid status through online portal https://mhrd.euniwizarde.com/. The financial bid of only such bidders whose technical bid is accepted shall be opened on the same day or later pre-informed date.

1. **Name of Goods**   : OrCAD PCB Designer Software

2. **Estimated Cost**   : : ₹ 8,80,000/- (Including GST)

3. **E M D (2% of estimated amount)**   : Rs. 17,600/-

4. **Date for Request tender document**   : 14/09/2020, 03.00 p.m.

5. **End date for submission of e-tender**   : 14/09/2020, 04.00 p.m.

6. **Address for Submission of Tender**   : https://mhrd.euniwizarde.com

7. **Date of opening of technical bid**   : 15/09/2020, 04.00 p.m.

Contact Details of Buyer   : Dr. Pruthviraj U
Asst. Professor,
Dept. of Water Resources & Ocean Engineering
NITK Surathkal – 575025,
(P) 0824-2473915, pruthviu@gmail.com

Sd/-
Co-ordinator

SECTION 1 A:- PROCEDURE FOR SUBMISSION OF E-TENDER

The bidders are required to submit soft copies of their bid electronically on the e-Wizard Portal using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the e-Wizard Portal, prepare their bids in accordance with the requirements and submit their bids online on the e-Wizard Portal. For more information bidders may visit the e-Wizard Portal https://mhrd.euniwizarde.com

1. **REGISTRATION PROCESS ON ONLINE PORTAL**
    1. Bidders to enroll on the e-Procurement module of the portal https://mhrd.euniwizarde.com by clicking on the link "Bidder Enrolment" as per portal norms.
    2. The bidders to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the e-Wizard Portal.
    3. Bidders to register upon enrolment their valid Digital Signature Certificate (DSC: Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India with their profile.
    4. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse. Foreign bidders are advised to refer "DSC details for Foreign Bidders" for Digital Signature requirements on the portal.
    5. Bidder then logs in to the site through the secured log-in by entering their user ID/password and the password of the DSC / e-Token.

2. **TENDER DOCUMENTS SEARCH**
    1. Various built-in options are available in the e-Wizard Portal which is further synchronizing with CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters include Tender ID, organization, location, date, value, etc.
    2. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, a form of contract, location, date, other keywords, etc. to search for a tender published on the Online Portal.
    3. Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would

enable the Online Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

4. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification/help from the Helpdesk.

3. BID PREPARATION

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.

2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.

3. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that needs to be submitted. Any deviations from these may lead to rejection of the bid.

4. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF / XLS / PNG, etc. formats. Bid documents may be scanned with 100 dpi with black and white option.

4. BID SUBMISSION

1. Bidder to log into the site well in advance for bid submission so that he/she uploads the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

2. The bidder to digitally sign and upload the required bid documents one by one as indicated in the tender document.

3. Bidder to select the payment option as Online" to pay the tender fee/ EMD wherever applicable and enter details of the instrument.

4. A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders to note that they should necessarily submit their financial bids in the prescribed format and no other format is acceptable.

5. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, the opening of bids, etc. The bidders should follow this time during bid submission.

6. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.

7. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

8. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

9. Kindly have all relevant documents in a single PDF file of compliance sheet.

10. **The off-line tender shall not be accepted and no request in this regard will be entertained whatsoever.**

5. AMENDMENT OF BID DOCUMENT

At any time prior to the deadline for submission of proposals, the institutions reserve the right to add/modify/delete any portion of this document by the issuance of a Corrigendum, which would be published on the website and will also be made available to the all the Bidder who has been issued the tender document. The Corrigendum shall be binding on all bidders and will form part of the bid documents.

6. ASSISTANCE TO BIDDERS

1. Any queries relating to the tender 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 tender.

2. Any queries relating to the process of online bid submission or queries relating to e-Wizard Portal, in general, may be directed to the 24x7 e-Wizard Helpdesk. The contact number for the helpdesk is **011-49606060, 23710092, 23710091, Sanjeet Kumar Jha +91-8882495599, 9350530626, Gagan +91 8448288987, 8448288988 and Vijay +91 9113518121, 8448288989**

7. INSTRUCTIONS TO THE BIDDERS

1. **Process for Bid submission through MHRD portal is explained in Bidder Manual. Bidders are requested to download Bidder Manual from the home page of MHRD website (https://mhrd.euniwizarde.com). Steps are as follows (Home page ⟹ Downloads ⟹ Bidder Manuals).**

2. The tenders will be received online through portal https://mhrd.euniwizarde.com. In the Technical Bids, the bidders are required to upload all the documents in .pdf format.

3. Possession of Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/ e-Token in the company's name is a prerequisite for registration and participating in the bid submission activities through https://mhrd.euniwizarde.com. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available on the web site https://mhrd.euniwizarde.com.under the link `DSC help'.

   Tenderers are advised to follow the instructions provided in the `Instructions to the Tenderers for the e-Submission of the bids online through the e-Wizard Portal for e-Procurement at https://mhrd.euniwizarde.com.

4. **The bidder has to "Request the tender" to MHRD portal before the "Date for Request tender document", to participate in bid submission.**

8. All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.

9. Any order resulting from this e-tender shall be governed by the terms and conditions mentioned therein.

10. No deviation to the technical and commercial terms & conditions are allowed.

11. The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of the bid(s).

SECTION 1 B: INSTRUCTION TO BIDDER (ITB)

1. **The bid should be submitted in two covers System-Technical Bid and Financial Bid** online through portal https://mhrd.euniwizarde.com:

1.1 **Envelope No.1 – Technical Bid:** The agencies should give details of their technical soundness and provide a list of customers of a previous supply of similar items to Universities, Institutes or Government Departments/ Undertakings/ public sectors with contact details. The details of the Bidder/ profile should be furnished along with the copy of all related documents. This envelope should be uploaded **online tender (https://mhrd.euniwizarde.com/)** and digitally signed as "**Envelope No. 1 – Technical Bid i.e. Checklist (Excel format).**

1.2. **Document to be scanned and submitted by uploading in the technical bid:**

a)   The Bidder should possess a Licence certificate for manufacture /supply of the item.

b)   List of Owner/partners of the firm and their contact numbers

c)   The Bidder should possess Income-tax PAN Number.

d)   The Bidder should possess a valid GST registration number.

e)   Catalogue of the Product with detailed product specifications.

f)   List of Service Centres

g)   List of customers with contact details.

h)   The average annual turnover should not be less than 30% of the estimated cost put to tender/Tender for the job work. The copy of the Balance sheet, Profit & Loss A/c., Trade or Manufacturing A/c for the last 3 years should be enclosed

i)   **Warranty Period Offered for the tendered item to be specified. If the Warranty period is not conforming to the schedule of requirements given in section 3 of the document, the bid is liable to be treated as non-responsive and rejected.**

j)   **EMD payment needs to make through Online. EMD shall bear no interest. Any bid not accompanying with EMD is liable to be treated as non-responsive and rejected.**

k)   NSIC/ MSME registration certificate (in case of bidders claiming exception of EMD while submitting a bid)

l)   **Contract form given in section 5 needs to be submitted.**

The above documents should be furnished in the technical bid envelope.

2. Envelope No.2 – Financial bid: The agencies should submit their financial bid as per the (.xlxs) format is given in Section 4 of the Notice Inviting Tender in this cover. The rate should be quoted in figures and upload online bid.This envelope should upload online only as "Envelope No. 2 – Financial Bid".

Both the Envelope No. 1 and 2 should be uploaded through online portal (https://mhrd.euniwizarde.com).

3   The tender will be accepted only from the **manufacturers or its authorised supplier.**

4.   The Institute **reserves the right to visit the factory** before or after the issue of supply order to satisfy itself regarding the quality of production. In case of any remarks /default noted, the EMD will be forfeited even if pre-qualified.

5.   **The Financial Bid shall be in the format of Price Schedule given in Section 4. The Contract form as per format is given in section 5 shall be submitted. The incomplete or conditional tender will be rejected.**

6.   Details of the item to be carried out, approximate quantity and the specifications are mentioned in **"Section 3"** appended to this Notice Inviting Tender.

7.   **The item to be used is strictly according to the specification and subject to test by the Institute/concerned authorities. It must be delivered and installed in good working condition.**

8.   The Institute **reserves the right to cancel or reduce the quantity** included in the schedule of requirements at any time after acceptance of the tender with a notice. The Contractor/Supplier shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the work/supply in full but he did not derive in consequence of the foreclosure of the whole or part of the works.

9.   **Performance Security of 5 % of the contract value in terms of Bank Guarantee by scheduled banks shall be given by the successful bidder for the total period of Warranty.**

10. **The release of EMD:** The EMD shall be released after receipt of performance security from the successful bidder.

11   **The validity of bids:** The rate quoted should be valid for a minimum of 90 days. No claim for escalation of the rate will be considered after opening the Tender.

12 **Clarification of Tender Document:**
A prospective bidder requiring any clarification of the Tender Document may communicate to the contact person given in this notice inviting tender. The contact person will respond to any request for clarification for the Tender Document received not later than 5 working days prior to the last date for the receipt of bids

13 **Amendment of Tender document:** At any time prior to the last date for receipt of bids, Institute may for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the Tender document by an amendment.

14   **Institute may at its own discretion extend the last date for the receipt of bids.**

15   The bids shall be written in English language and any information printed in another language shall be accompanied by an English translation, in which case for the purpose of interpretation of the bid, the English translation shall govern.

16 The Institute reserves the right of accepting any bid other than the lowest or even rejecting all the bids. The decision of the Institute Purchase Committee is final in all matters of tender and purchase.

17 The bidder should give the following declaration while submitting the Tender.

18 Relaxation for Start-up, MSEs, Make in India will be as per GOI norms.

19 Any other details required may be obtained from the contact person (Buyer) given in the Notice Inviting Tender during the office hours.

DECLARATION

I/we have not tampered/modified the tender forms in any manner. In case, if the same is found to be tampered/modified, I /we understand that my/our tender will be summarily rejected and full Earnest money deposit will be forfeited and I /we are/are liable to be banned from doing business with NITK, Surathkal and/or prosecuted.

Signature of the Bidder　: _____

Name　and Designation　: _____

Business Address　　　　: _____

_____

Place:　　　　　　　　　　　　　　　　**Seal of the Bidder's Firm**
Date:

SECTION 2: CONDITIONS OF CONTRACT

1. The supplier should quote the rate for Door Delivery (FOR).

2. The Rate should be quoted in INR only.

3. No custom duty exemption certificate will be provided from the institute.

4. NITK is a DSIR recognized research organization and hence eligible for concessional / exempted rate of GST @5% (For indigenous items).

5. The rate quoted should be on a unit basis. Taxes and other charges should be quoted separately, duly considering exemptions if any.

6. Rate quoted should be inclusive of Testing, commissioning and installation of equipment and Training.

7. Payment: No advance payment will be made. Payment will be made only after the supply of the item in good and satisfactory condition and receipt of performance security by the supplier.

8. Guarantee and Warranty period should be specified for the complete period conforming to section 3 of this tender document.

9. The period required for the supply and installation of the item should be specified conforming to section 3 of this tender document.

10. In case of dispute, the matter will be subject to Mangalore Jurisdiction only.

SECTION 3: SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED DETAILS

[To be filled up by the Department / Center of NITK, Surathkal]

Item(s) Name to be procured : **OrCAD PCB Designer Software**

Type (Equipment / Software / Furniture / Others) : **Software**

Brief Specifications of the Item(s) : **As per Annexure "A"**
(Attach Additional Sheet if necessary)

Quantity : **1 No**

Any other details / requirement : **Nil**

Warranty Period required : **01 Year**

Delivery Schedule expected
after release of Purchase order
(In Weeks) : **04 Weeks**

EMD (in Rupees) : **Rs. 17,600/-**

Performance Security to be given
by Successful Bidder after release of : **5% of PO value**
Purchase Order (in Rupees)

SECTION 4 - PRICE BID
[To be used by the bidder for submission of the bid]

Reference Number: Date:

Sr. No.	Description of the Item and Specification	Qty. in Units	Unit Price (Rs.)	Discount %	GST (%)	Other charges if any (please specify details)	Total Price (Rs.)
1							
2							

1. Delivery Mode: Delivery at NITK Surathkal, at the site only.
      Total Bid Price in the above column should be inclusive of all taxes and levies transport, loading, unloading, etc.
      Delivery Period:.................. days.
      Validity Date: Minimum 90 days from the date of submission of Tender/Tender.
2. Payment Term: Payment within 30 days from the date submission of bill Acceptance Certificate to concerned Dept./ Sect.

 PAN No. : ....

GST Registration No. : ....

Seal and Signature:..

Name & Business Address:...

Note: Price Bid should be submitted in given format only.
Place:
Date:

SECTION 5:   CONTRACT FORM

[To be provided by the bidder in the business letter head]

1.   (Name of the Supplier's Firm) hereby abide to deliver them by the delivery schedule mentioned in section 3 tender document for the supply of the items if the purchase order is awarded.

2.   The item will be supplied conforming to the specifications stated in the tender document without any defect and deviations.

3.   Warranty will be given for the period mentioned in the tender document and service will be rendered to the satisfaction of NITK, Surathkal during this period.

Signature of the Bidder   : _____

Name   and Designation : _____

Business Address   : _____

                                        _____

Place: **Seal of the Bidder's Firm**
Date:

BANK GUARANTEE FORMAT FOR PERFORMANCE GUARANTEE BOND

(To be typed on Non-judicial stamp paper of the value of Indian Rupees of One Hundred) (TO BE ESTABLISHED THROUGH ANY OF THE NATIONAL BANKS (WHETHER SITUATED AT MANGALORE OR OUTSTATION) WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT MANGALORE OR ANY SCHEDULED BANK (OTHER THAN NATIONALISED BANK) SITUATED AT MANGALORE. BONDS ISSUED BY CO-OPERATIVE BANKS ARE NOT ACCEPTED.)

To,
Registrar,
National Institute of Technology Karnataka,
Srinivasnagar P.O., Surathkal
Mangalore – 575025

LETTER OF GUARANTEE

WHEREAS National Institute of Technology Karnataka (Buyer) has invited Tenders vide Tender No.............................. Dt. .... for purchase of .... AND WHEREAS the said tender document requires that any eligible successful tenderer (seller) wishing to supply the equipment / machinery, etc. in response thereto shall establish an irrevocable Performance Guarantee Bond in favour of **"Registrar, National Institute of Technology Karnataka, Surathkal"** in the form of Bank Guarantee for Rs .... (**10% (ten percent) of the purchase value**) and valid till **one year or up to warranty period whichever is later** from the date of issue of Performance Guarantee Bond may be submitted within 30 (Thirty) days from the date of Order Acknowledgement as a successful bidder.

NOW THIS BANK HEREBY GUARANTEES that in the event of the said tenderer (seller) failing to abide by any of the conditions referred in tender document / purchase order / performance of the equipment / machinery, etc. this Bank shall pay to National Institute of Technology Karnataka, Surathkal on demand and without protest or demur Rs .... (Rupees......................................).
This Bank further agrees that the decision of National Institute of Technology Karnataka, Surathkal (Buyer) as to whether the said Tenderer (Seller) has committed a breach of any of the conditions referred in the tender document/purchase order shall be final and binding.

We, ... (name of the Bank & branch) hereby further agree that the Guarantee herein contained shall not be affected by any change in the constitution of the Tenderer (Seller) and/ or National Institute of Technology Karnataka, Surathkal (Buyer).

Notwithstanding anything contained herein:
1. Our liability under this Bank Guarantee shall not exceed Rs. .... (Indian Rupees .... only).
2. This Bank Guarantee shall be valid up to ....(date) and
3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if National Institute of Technology Karnataka (NITK) Surathkal serve upon us a written claim or demand on or before..........................(date).
This Bank further agrees that the claims if any, against this Bank Guarantee, shall be enforceable at our branch office at .... situated at .... (Address of local branch).

Yours truly,
Signature and seal of the guarantor:
Name of Bank & Address:
Date:
Instruction to Bank: Bank should note that on expiry of Bond Period, the Original Bond will not be returned to the Bank. The bank is requested to take appropriate necessary action on or after expiry of bond period.

BANK GUARANTEE FORMAT FOR EARNEST MONEY DEPOSIT / BID BOND

(To be typed on <u>Non-judicial stamp paper</u> of value Indian Rupees One Hundred)

(TO BE ESTABLISHED THROUGH ANY OF THE NATIONAL BANKS (WHETHER SITUATED AT MANGALORE OR OUTSTATION) WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT MANGALORE OR ANY SCHEDULED BANK (OTHER THAN NATIONALISED BANK) SITUATED AT MANGALORE. BONDS ISSUED BY CO-OPERATIVE BANKS ARE NOT ACCEPTED)

LETTER OF GUARANTEE

To

Registrar,
National Institute of Technology Karnataka,
Srinivasnagar P.O., Surathkal
Mangalore – 575025

　　　　IN ACCORDANCE WITH YOUR TENDER for the supply of …............................, M/s. ....
(hereinafter called the "Bidder") having its Registered Office at....................................., wish to participate in the said bid for the supply...as an irrevocable Bank Guarantee against Earnest Money Deposit for an amount of Rs. …................... (Rupees...............................) valid up to **(180 days from the date of**
issue of Bank Guarantee), is required to be submitted by the bidder as a condition precedent for participating in the said bid, which amount is liable to be forfeited by the Purchaser on (1) the withdrawal or revision of the offer by the bidder within the validity period, (2) Non acceptance of the Letter of Indent / Purchase order by the Bidder when issued within the validity period, (3) failure to execute the contract as per contractual terms and condition within the contractual delivery period and (4) on the happening of any contingencies mentioned in the bid documents.

During the validity of this Bank Guarantee:
We, …......................(Bank name) having the registered Office at   guarantee and undertake to pay immediately on first demand by NITK Surathkal, an amount of Rs........................... (Rupees.   ) Without any reservation, protest, demur and recourse. Any such demand made by the NITK Surathkal shall be conclusive and recourse. Any such demand made by the purchaser shall be binding on the Bank irrespective of any dispute or difference raised by the Bidder.
The Guarantee shall be irrevocable and shall remain valid up to   (180 days from the date of issue of Bank Guarantee) If any further extension is required, the same shall be extended to such required period on receiving instruction from the Bidder, on whose behalf the is Guarantee is issued.
Notwithstanding anything contained herein:
　　　∗ Our liability under this Bank Guarantee shall not exceed Rs.................... (Rupees....................).
　　　∗ This Bank Guarantee shall be valid up to   (date).
　　　∗ We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee Only and only if you serve upon us a written claim or before   (date).

This Bank further agrees that the claims if any, against this Bank Guarantee shall be enforceable at our branch office at .... situated at ....(Address of local branch).

                                        Yours truly,
                                        Signature and seal of the guarantor:
                                        Name of Bank:
                                        Address:
                                        Date:

Instruction to Bank: Bank should note that on expiry of Bond Period, the Original Bond will not be returned to the Bank. The bank is requested to take appropriate necessary action on or after expiry of bond period

Detailed Technical Specifications

Item name: OrCAD PCB Designer Software
Estimated Cost: Rs. 8.8 Lakhs
Number of licenses required: 1
1. **OrCAD PCB Designer Software (Qty: 1) installed at Aditya Auto Products & Engineering (India) Private Limited, Bangalore.**

AMC, Technical Support & Updates: One year.

Rate quoted should be inclusive of Testing, commissioning and Installation of Software and Training.

Summary:
OrCAD PCB design suites provide the industry's best mix of cutting edge capabilities and excellent scalability with various options to add capabilities as the design needs grow. OrCAD PCB design solutions offer fully integrated front-end design, analog/mixed signal simulation, signal integrity analysis, and place-and-route technologies that boost productivity and shorten time to market.
Technical Specifications
OrCAD PCB Designer Professional with PSpice (V-17.4)

➢ **Schematics Specifications**
- Unlimited no. of pages in a design
- Unlimited no. of components in a single page of the design
- More than 44,000 schematic symbols
- More than 31,000 PSpice models
- Flat and Hierarchical Design support
- Auto-Backup
- Footprint Viewer
- Auto-recovery
- Auto-connect for two or more points-helps to wire the components quickly
- Inter tool communication
- Spread sheet based part creation
- Homogenous and Heterogeneous package creation
- Off-page connectivity
- Grids based placement of parts
- Customized Bill of Material report
- Cross Reference of parts
- DRC/ERC with user defined constraints
- Annotation of the design
- More than 44 different kind of net list
- Set the constraints for PCB design
- Back Annotation of the Design

- Inter-sheet References
- Generate part for any net list/source file
- Importing Eagle Schematics
- Importing Altium Schematics
- Advanced Annotation
- Design Difference Viewer
- Export Intelligent PDF
- Export ISCF(Intel Schematics)
- Fisheye view of the circuit
- Online help Documentation

> **PCB Specifications**
- Via-in-Pad Rules, Blind / Buried Via Support
- Auto placement / Quick place / Floor planner
- Dynamic Shapes with Real-Time Plowing & Healing
- Customizable, Automated Drill Legend / NC Output
- Gerber 274X, 274DArtwork Output Generation
- Support for IPC 2581
- Valor® ODB++, ODB++(X) & Universal Viewer
- HTML-based Reports
- Interactive Etch Editing (push-n-shove of traces)
- Automatic Silkscreen Generation
- Split Plane Support
- SKILL(programming language) Runtime & Scripting Support
- PCB / CAD Interfaces -DXF, IDF,IDX, IFF Import, PADS®, P¬CAD®
- Manual Test prep (test point generation & reuse)
- Snap Functions (precise drafting of lines /shapes)
- Same Net Clearance DRC Support
- Stacked Via Edit, Move
- Single-sided Design Jumper Support
- Support for Physical Rules
- Support for Spacing Rules
- Support for SameNet Rules
- Online design rule check
- Forward-and back-annotation of properties / pin-and-gate swaps
- Graphical schematic part and library editor
- Cross-probing and cross-placing OrCAD PCB Editor
- FPGA design-in / pin import & export
- Database Diary
- Multiple PCB net list interfaces

- Select by Lasso
- Property editor for pins, components, nets
- Differential Pair Routing and Rules Support
- Placement / Circuit Replication
- Component Alignment Functions
- Blind / Buried Micro via Stacking, Split, & Merge Support
- Interactive Delay Tuning (single and differential signals)
- Automatic Test Prep (test point generation & reuse)
- Constraint Regions / Differential Pair Region Constraints
- Min / Max Length Rules Support
- Online Design Rule Checking
- Support or Backdrilling
- Route Vision
- Placement Vision
- Flip, Rotate, Align, Push, and Move Components
- Placement Density Analysis
- Support for Differential Pair Constraint Rules
- Support for Region based Rules
- Single Net impedance matching
- Support for Scribble routing
- Differential Pair Static Phase Control
- Constraint Feedback Heads-up displays-delay tuning meter
- Via arrays support for adding stitching vias
- Support for Contour routing
- Group routing with spacing ctrl and adding vias
- Propagation Delay
- Relative Propagation Delay
- Net Scheduling and T-points
- Stub length DRC
- Design True DFM Wizard
- Design for Test Checks
- Design for Assembly Checks
- Design for Fabrication Checks
- High Speed Analysis Impedance Workflow
- High Speed Analysis Coupling Workflow
- Differential Pair Dynamic Phase Control Rules
- Package Pin Delay (for die-2-die delay) rules
- Z-Axis delay feedback
- Component Lead Editor

- 3D view of the board with step model support
- Support for embedded net names
- Cross section editor-updated
- Padstack Editor IPC2581 Compliant-updated
- Segment over void detection
- Spread lines between voids
- Multi Cross Section support for Rigid Flexi
- Rigid Flexi Zone Management
- Dynamic Zone Placement
- Inter Layer Checks for Rigid Flexi
- Layer set rules
- Eagle and Altium Translator
- Via-Via Line Fattening
- Tear drops
- Online DRC
- Design Sync
- Ultra librarian, Samacys interface

➢ **Signal Integrity Specifications**
- Sigxplorer
- Support for Reflection Analysis
- Support for Crosstalk Analysis
- IBISICM model support– Signal Integrity
- Spectre-to-DML– Signal Integrity
- HSPICE-to-IBIS– Signal Integrity
- Lossy transmission lines– Signal Integrity
- Coupled (3 net) simulation– Signal Integrity
- Differential pair exploration and simulation– Signal Integrity
- Macro modeling support (DML) – Signal Integrity
- IBIS5.0 support– Signal Integrity
- Custom Stimulus– Signal Integrity
- Topology Append– Signal Integrity

➢ **PSpice Specifications**
- Perform AC, DC, Time-Domain, Bias Point, Temperature, Frequency Analysis
- PSpice Model Code Generator
- Parametric Analysis
- Analog Behavior Modeling Libraries
- Circuit performance at different temperatures
- Cross probing the results on the PSpice A/D window

- IBIS/DML Model Support
- View the current, voltage, power and differential rating
- View the discrete results in the form Voltage, Current & Power
- Perform FFT on the signal
- Different type of measurements like Bode plots, Nyquist plots
- Stimulus Editor
- Expression based plots
- Supports 8 cores simulation(64 bit)
- HTML Based Simulation Reports
- Stimulus signal-User/Custom defined input
- Frequency Response Analysis(FRA)
- File based inputs-Helps to feed the input from an external file
- Analog Behavioral Modeling- Using Algebraic models in the circuit
- Spice code based simulation
- Setting initial condition for passive components
- Model editor for creating/editing new semiconductor parts
- Magnetic parts editor for power electronic components
- Encryption of models
- Save and Load Bias points
- Help- Learning PSpice
- Learning PSpice Free Templates
- Device Modeling Interface

Timeline Requirement: The system should be delivered to M/s Aditya Auto, Pvt Ltd, Bangalore within 04 weeks of Purchase Order release.

Delivery Address: **M/s Aditya Auto Products and Eng (I) Pvt Ltd**
                   180, Bommasandra Industrial Area
                    Bengaluru – 560099