

**PUNJAB ENGINEERING COLLEGE
(DEEMED TO BE UNIVERSITY)
Sector12, Chandigarh 160012**



**E-TENDER DOCUMENT FOR PURCHASE OF
CASTING SIMULATION SOFTWARE**

BY

**DEPARTMENT OF MATERIALS &
METALLURGICAL ENGINEERING**

**PUNJAB ENGINEERING COLLEGE (DEEMED TO BE UNIVERSITY),
CHANDIGARH**

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SECTION I
INVITATION FOR E-TENDER
FOR PURCHASE OF EQUIPMENT LISTED IN TABLE I

1. The Punjab Engineering College (Deemed to Be University), Chandigarh invites e-bids from eligible bidders for supply of **equipment as per Table 1**.
2. Interested & eligible bidders may obtain further information from Prof. R.K. Mahajan, Materials & Metallurgical Engineering Department, Punjab Engineering College (Deemed to Be University), Sector 12, Chandigarh 160012, India.
E-mail: profrkmahajan@gmail.com, Contact numbers: 0172-2753956 Mobile: +91-9530593982, 9988480900
3. The bidding document is downloadable from institute website <http://www.pec.ac.in> as well as website of Chandigarh Administration (<http://etenders.chd.nic.in>).
4. The bid must be accompanied by an EMD as specified in the bid document and must be delivered to the office address mentioned below by the date and time indicated below.
5. Bid will be opened in the presence of bidder's representative(s) who may choose to attend on the specified date and time.

TABLE 1: EQUIPMENT NAME QUANTITY AND EMD

S.No.	Name of the Equipment	Quantity	EMD
1.	Casting Simulation Software	01	Rs. 20,000/-

TABLE 2: TIMESCHEDULE

I	Date of Publication	31.12.2019
II	Downloading of e-tender document	Start Date : 31.12.2019 End Date : 22.01.2020
III	Date of submission of e-tender	Start Date : 31.12.2019 End Date: 22.01.2020 upto 5:00 PM
IV	Physical submission of EMD, affidavit regarding not being black listed and other Necessary pre-qualification documents	Start Date : 31.12.2019 End Date : 22.01.2020
V	Opening of Technical Bid (online)	Date: 23.01.2020
VI	Opening of Financial Bid of only eligible Technically qualified bidders as determined by the Committee	To be intimate later online and by email
VII	Place of opening of bids	Seminar Room, Department of Materials & Metallurgical Engineering, Punjab Engineering College (Deemed to Be University), Sector 12, Chandigarh-160012
VIII	Address for Communication	Head of Department Materials & Metallurgical Engineering Department, Punjab Engineering College (Deemed to Be University), Chandigarh-160012 e-mail: headmett@pec.ac.in

Important Notes:

I.	Bidders shall have to submit their bids on-line in electronic format with digital signatures.
II.	All terms and conditions, instructions to bidder regarding e-tendering process etc. may kindly be seen from the Detailed Notice Inviting Tender (DNIT) available on Chandigarh Administration website (http://etenders.chd.nic.in) or on the Punjab Engineering College (Deemed to Be University), Chandigarh website(www.pec.ac.in).
III.	The bidder has to submit the original documents in physical form such as EMD, & affidavit of not being black listed on the date fixed for the same as above. The failure will entail summarily Rejection of its tender.
IV.	The under signed reserves the rights to reject or accept any or all tenders without assigning any reasons.

Director
Punjab Engineering College
(Deemed to Be University)
Sector-12, Chandigarh

PUNJAB ENGINEERING COLLEGE (DEEMED TO BE UNIVERSITY), CHANDIGARH

SECTION II

TERMS AND CONDITIONS OF CONTRACT

1. Bidders are advised to study all technical and commercial aspects, instructions, forms, terms and specifications carefully in the tender document. Failure to furnish all information/documents required in the tender document or submission of a bid not substantially responsive to the tender document in every respect will be at the bidder's risk and may result in the rejection of the bid.
2. The tenderer should indicate specifically the basic price, packing and forwarding charges, GST and other charges separately. No additional information/document/revision will be entertained after the due date.
3. **The tenderer should give their quotes in Indian currency only keeping in mind that our institute (Punjab Engineering College (Deemed to Be University), Chandigarh) is exempted from the payment of custom and excise duty. Custom & excise duty exemption certificate will be issued on request.**
4. The Bidders shall have to submit their Bids online in electronic format with digital signatures. For participation in the e-tendering process, the Bidders need to register themselves on <http://etenders.chd.nic.in/nicgep>. On registration, they will be provided with a user ID and a system generated password enabling them to submit their Bids online using Digital Signature Certificates (DSC).
5. Tenders without digital signatures will not be accepted by the Electronic Tendering System. No Tender will be accepted in physical form and in case, it has been submitted in the physical form only, it shall be rejected out rightly.
6. Technical Bids will be opened online as per time schedule mentioned in e-tender notice **(SECTION I Table 2)**.
7. Before submission of online bids, bidders must ensure that self-attested scanned copies of all the necessary documents as mentioned in **SECTION III "Technical Bid"** and **SECTION IV "Financial Bid"** of this tender document have been uploaded with the bid, failing which their bids may be out rightly rejected and will not be considered.
8. It is mandatory for all the bidders to upload all the documents mentioned under tender document.
9. Bidder is required to upload scanned copy of EMD as specified in the tender documents and send original along with other hard copies of desired documents to be sent in technical bid envelope.
10. The details of EMD specified in the tender documents should be the same as submitted online (scanned copies) otherwise tender will be rejected.
11. The conditional bids shall not be considered and may be rejected out-rightly in very first instance.
12. The financial bids through e-tendering of only those bidders shall be opened who will qualify in the technical bid criteria.
13. The bidder must have an experience of supplying similar equipment in Government institutes/departments/colleges/universities/research labs/industrial & commercial organizations etc. in India during last three financial years i.e. 2016-17, 2017-18 and 2018-19.
14. An affidavit as per specimen enclosed as Annexure-2.2 of SECTION II should accompany the tender. The tenderer who has been black listed or his/her tenders have ever been cancelled or any legal proceedings have ever been initiated/pending or any penalty has ever been levied on account of delay or non-completion of supply order by any State/UT/Central Government, his/her tender will be out rightly rejected. **A scanned copy of affidavit shall be uploaded online and in physical form along with EMD.**
15. Downloading and submission of tender will be done by E-tendering process through

- the online website of Chandigarh Administration <http://etenders.chd.nic.in/nicgep>.
16. **EARNEST MONEY DEPOSIT (EMD):** The Tender should be accompanied with Earnest money as mentioned in the Table-1 of SECTION I to be paid in the form of A/C payee demand draft/banker's cheque/FDR/Bank guarantee in favour of Director, Punjab Engineering College (Deemed to Be University), Chandigarh which shall remain valid for a period of 45 days beyond final/financial bid validity period. No firm/tenderer will be exempted from submission of EMD. The EMD deposited by the tenderer in respect of another similar tender will not be considered against this tender. Apart from submission of EMD in physical form, scanned copy of EMD duly attested and countersigned by the firm shall also be uploaded along with the technical bid. The EMD of unsuccessful tenders will be refunded after finalization/allotment of tender. No interest will be payable on the EMD. The EMD will be forfeited, if the tenderer withdraws his/her bid after submission of the tender. Bid without the EMD shall be rejected.
 17. **TECHNICAL BID:** The tenderer should submit scanned copies of documentary proof of his/her eligibility as mentioned in SECTION III "Technical Bid" of this tender document.
 18. Financial Bid will be opened of only those bidders who qualify in the technical bid criteria through e-tendering process.
 19. **FINANCIAL BID:** The financial bid (SECTION IV) shall be submitted by the bidder through e-tendering. The financial bid should contain basic price, packing and forwarding charges, GST and other charges separately. The rates should be mentioned both in figures as well as in words. Any change in rate or term & conditions by the tenderer after wards will entail for forfeiture of earnest money deposit, cancellation of tender and black listing of the firm.
 20. The bid should not have corrections or overwriting.
 21. **PERFORMANCE SECURITY DEPOSIT:** The successful tenderer will have to deposit performance security @ 5 % of the total value of contract awarded within 15 days of issuance of work/supply order by the competent authority to be paid in the shape of fixed deposit receipt or bank guaranty from any commercial bank in favor of Director, Punjab Engineering College (Deemed To Be University), Chandigarh and the security deposited in connection with any other similar tender will not be considered against this tender. The performance security shall remain valid for a period of 60 days beyond all contractual obligations, including warranty period. If successful tenderer fails to submit the requisite performance security deposit within 15 days of supply order, earnest money deposit (EMD) deposited by the tenderer will be forfeited and purchase order cancelled.
 22. Tender received through e-tendering shall be opened online by the committee duly constituted by the authorities of Punjab Engineering College (Deemed to Be University), as per schedule given in tender notice in the Seminar Hall, Materials & Metallurgical Engineering Department, Punjab Engineering College (Deemed to Be University), Chandigarh. In the event of date of opening of tender is declared a holiday, the due date of opening of the tender will be the next working day at the same hours.
 23. The bidder shall submit the hard copy of e-tender along with forwarding letter (Annexure-2.1 of SECTION II as given on next page) duly signed.
 24. The Director, Punjab Engineering College (Deemed to Be University), Chandigarh reserves the right to accept or reject any or all tenders without assigning any reason.

ANNEXTURE- 2.1**From**

Subject: Submission of Tender for Purchase of

Dear Sir/Madam,

With reference to your above-mentioned notice inviting tenders, I/We hereby offer to provide (Fill name of the item or items) to Punjab Engineering College (Deemed to Be University), Chandigarh.

I/We shall supply the Equipment(s) truly and faithfully as set forth in the terms and conditions of the e-tender document. I/We shall be responsible for all complaints as regards to the quality of product and in case of any dispute; the decision of the Director, Punjab Engineering College (Deemed to Be University), Chandigarh shall be final and binding on me/us.

A DD/banker's cheque/FDR No. _____ Dated.....and drawn on _____
 Amounting to Rs. (Rupees

_____ Only) in favor of Director, Punjab Engineering College (Deemed to Be University), Chandigarh, payable at Chandigarh is enclosed as earnest money.

I/We shall have no claim to the refund of earnest money/performance security deposited against this tender in the event of my/our non-compliance of the contract, provided such contract is completed within the period of validity of my/our tender and to the entire satisfaction of purchase committee of Punjab Engineering College (Deemed to Be University).

I/We further understand that my/our earnest money and performance security shall stand forfeited in case of unsatisfactory supply of equipment/service/violation of any term, or if I/We withdraw my/our tender at any stage during the period of validity. My/our tender shall remain valid for a period of 120 days from the last date prescribed for submission of the tender against the above-mentioned notice.

My/our tender along with terms and conditions with relevant columns and annexure duly filled in under my/our attestation and with each page of the tender paper including the enclosed terms and conditions signed by me/us (in the capacity of sole owner or authorized person (general or special power of attorney attached) is submitted for your favorable consideration.

I/We have read and understood all the terms and conditions carefully and have signed the same in token of our absolute and unconditional acceptance.

Thanking you,

Place

Yours faithfully,
 Signatures
 Date with stamp
 Name & Full
 Address with
 telephone/mobile
 numbers

ANNEXURE-2.2

(To be furnished on non-judicial stamp paper of Rs. 20/- duly attested by the 1st Class Magistrate or Notary Public)

AFFIDAVIT

I/We/M/s _____ is/are a registered
 firm/establishment/organization/Company etc. as per Registration
 Certificate No. _____ issued by
 _____ having registered office at _____
 _____ (address) and manufacturing/supply base
 at _____

_____ (address) do here by declare and solemnly affirm that I/We have neither been black-listed nor mine/our tenders have ever been cancelled by any State/UT/Central Government, nor any partner or share holder either directly or indirectly connected with has any subsisting interest in the business of my/our firm nor any legal proceedings have ever been initiated/pending has ever been levied due to delay in non-completion/non-compliance of work/service/supply order by any State/UT/Central Government or by any authority.

Place: _____

DEPONENT

Dated: _____

Verification

I/We do here by solemnly declare and affirm that the above declarations are true and correct to the best of my knowledge and beliefs. No part of it is false and nothing has been concealed therein.

Place: _____

DEPONENT

Dated: _____

PUNJAB ENGINEERING COLLEGE (DEEMED TO BE UNIVERSITY), CHANDIGARH
SECTION III
“TECHNICAL BID”

TABLE 3: SCHEDULE OF REQUIREMENT

KEY SPECIFICATION OF CASTING SIMULATION SOFTWARE

GENERAL:

- FEM/FDM (Finite Difference Method) Technology
- Software should be able to take the casting model in neutral format, capable to import models from any CAD software.
- Automatic mesh generation
- Creating of sub-mesh
- Automatic/Manual correction in meshes.
- Modification in mesh frame, element change, inner gate.
- Automatic generation of mould.
- Marking number of in-gates with color code.
- Setting of tracking points for checking the temperature and the velocity of molten metal.
- Setting of marker point in pre-processing for analysis results.
- Displaying of meshes in 3D views, front, top and side views
- Post-processing facility

A. Software to be capable of doing following type of casting simulations.

- Gravity Casting (Sand mold casting)
- Pressure Die Casting(High pressure/Low pressure)
- Vacuum Casting
- Investment Casting
- Centrifugal casting
- Semi-solid casting
- Metallic mold casting
- Thixotropic mold

B. Software to be capable of doing following analysis:

- Fluid Flow
- Solidification
- Die Temperature
- Thermal Stress
- Heat treatment

C. Software to be capable of simulating following materials:

- SG Iron
- Cast Iron
- All Grade of steel (MS, SS, GS etc.)
- Aluminum and its alloys
- Copper and its alloys
- Magnesium

D. Features:

- Software having material library.

- Software to have all types of casting attributes of gating system like pouring basin, sprue, runner, ingates, riser, chills, mould painting with graphite suspension or powder etc.
- Compatible with CGS and S.I. units.
- Library based simulation for Material Library, Mold Library.
- Addition of User defined Materials.
- Directly linkup with Jmat-Pro, solid works, etc. or/also STL should be able to import files from any CAD software in STL format.
- Fluid flow analysis should consider the behavior of back pressure of filling metal.
- Fluid flow also to include the shot sleeve analysis in simulation of Pressure Die casting.
- Porosity prediction using Niyama Parameter.
- Output of fluid flow to show advance results like vorticity, filling pressure, cooling rate, air contact time etc.
- Defining the value of Critical solidification (f_s)/parameters.
- Temperature calculation dependency
- Die temperature to include parting agent spray and inflow volume of cooling route.
- Die temperature to include cycle time/cooling time.
- Die temperature to show the cooling rate/cooling line.
- Thermal Stress to be analyzed for casting as well as mold.
- Thermal stress should show the casting distortion.
- Thermal stress should show all major stress values and principal stresses, von-mises etc.
- Software to show the results of Heat treatment.
- Software to shows the volume, surface area and modulus of casting.
- Ability to stop and re-start simulation at any stage.
- Ability to queue the project according the preference.
- Having material library with process temperature dependent properties.
- Assigning of the properties of chills.
- Outputs to be shown using animated videos.
- Videos to be exported/GIF file.
- Automatic report generating of shrinkage ratio/behavior.
- User controlled outputs like rotations, speed etc. for output videos should be possible
- Result analysis using section view.
- User defined results scaling option for better visualization.
- Display of meshes in the results should be possible.
- Export of result file for further analysis to structural FEA software like ANSYS, Solid works and Nastran/Abacus.
- Automatic process report to generate for analyzing the process inputs.
- The software vendor should have the technical support centers in India.

E. Other Requirements:

- Minimum Hardware Requirements to be provided by the vendor
- Operating System requirements to be provided by the vendor
- No. of Users = Minimum 4 users
- Users Training: Minimum for one week at college campus / premises
- License validity lifetime/perpetual
- Free upgradation for 01 year
- Latest version to be supplied at the time of delivery

Checklist for Pre-qualification Criteria to be followed by bidders for technical bid

1. Name of the firm/organization's authorized person, his telephone/Mobile No./e-mail/Fax number on a letter head of the company/firm/organization.
2. Earnest money deposit as mentioned in Point 16 of SECTION II of this tender document.
3. Copies of ITR of last three financial years 2016-17, 2017-18 and 2018-19 should be attached
4. Self-attested copies of PAN/TAN Card/GST No.
5. Certificate of acceptance of terms & condition mentioned in Section II and Section V of tender document.
6. Manufacturer's authorization certificate.
7. Affidavit of not being blacklisted (Affidavit as per **Annexure 2.2 of SECTION II**).
8. Covering letter (**Annexure 2.1 of SECTION II**)
9. List of user customers of said equipment.
10. Proof of supplying similar equipment in Government institutes/departments/colleges/universities/research labs/industrial & commercial organizations etc. in India during last three financial years i.e. 2016-17, 2017-18 and 2018-19.

NOTE: All above mentioned documents should be duly in order and are essential to Qualify for Technical Bid.

PUNJAB ENGINEERING COLLEGE (DEEMED TO BE UNIVERSITY), CHANDIGARH**SECTION IV
FINANCIAL BID****SECOND COVER TITLED AS “FINANCIAL BID” CONSIST OF**

Financial (Price) Bid for Purchase of Equipments listed in table 1 of section II to be delivered by the bidder in the Department of Materials & Metallurgical Engineering, Punjab Engineering College (Deemed to Be University), Sector12, Chandigarh is to be submitted online in excel sheet provided.

Notes:

1. Rate should be quoted in Indian Rupees showing basic price, packing and forwarding charges, GST & other taxes, if any, separately on FOR Punjab Engineering College (Deemed to Be University), Chandigarh basis.
2. The institute is registered with the Department of Scientific & Industrial Research (DSIR) for purpose of availing custom duty exemption in terms of Govt. Notification no.51/96-Customs dated 23.07.1996 and Central Excise Duty Exemption in terms of Govt. notification no.10/97- Central Excise dated 01-03-1997as amended from time to time and the same can be issued on request.

PUNJAB ENGINEERING COLLEGE (DEEMED TO BE UNIVERSITY), CHANDIGARH

SECTION V

GENERAL TERMS AND CONDITIONS

1. Clarification of Bidding Documents

A prospective Bidder requiring any clarification of the bidding documents may notify the Punjab Engineering College (Deemed to Be University) in writing or by email or fax or telephone/mobile at the PEC's mailing address indicated in the Invitation for bids.

2. Amendment of Bidding Documents

At any time prior to the deadline for submission of bids Punjab Engineering College (Deemed to Be University) 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. In order to allow prospective bidders a reasonable time to take the amendment into account in preparing their bids, the Punjab Engineering College (Deemed to Be University), at its discretion, may extend the deadline for the submission of bids.

3. Language of Bid

The bid prepared by the bidder, as well as all correspondence and documents relating to the bid exchanged by the bidder and the Punjab Engineering College (Deemed to Be University) shall be written in English language. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the English language in which case, for purposes of interpretation of the bid, the translation shall govern.

4. Period of Validity of Bids

Bids shall remain valid for 120 days after the deadline for submission of bids prescribed by the Punjab Engineering College (Deemed to Be University). A bid valid for a shorter period shall be rejected by the Punjab Engineering College (Deemed to Be University) as non-responsive.

5. Opening of Bids by the Punjab Engineering College (Deemed to Be University)

The PEC will open the technical bids in the presence of bidders' representatives who choose to attend on 23.01.2020 at 11:00 A.M. and in the following location:

Seminar Room
Department of Materials & Metallurgical Engineering
Punjab Engineering College
(Deemed to Be University),
Sector12, Chandigarh, 160012

The Bidders' representatives who will be present shall sign a register evidencing their attendance. In the event of date of opening of tender being declared a holiday, the due date of opening of the tenders will be the next working day at the same hours and venue.

6. Warranty

The entire equipment shall be in warranty (from OEM) for a period of one year from the date of successful commissioning & handing over the system.

7. Payment

- Payment for Goods and Services shall be made in Indian Rupees only as follows:
 1. on Final Acceptance.
 2. 100 percent of the contract price shall be paid on successful commissioning, installation, training and satisfactory performance/working.
- The Suppliers shall request for payment to Punjab Engineering College (Deemed to Be University) in writing accompanied by an invoice in duplicate describing as

appropriate, the goods delivered and the services performed, and by documents, submitted and upon fulfillment of other obligations stipulated in the contract.

- Payments shall be made promptly by the Punjab Engineering College (Deemed to Be University), Chandigarh.
- Payment shall be made in Indian Rupees only.
- No advance payment will be made. Payment will be released after satisfactory receipt of goods/materials, successful commissioning/working, demonstration/training and installation.

8. Documents comprising the Bids

The Bids prepared by the tenderer shall comprise of following components:

- Bid to be furnished as per the format for technical specifications.
- Technical literature for each product/service, covering full technical specifications.
- Bid prices, all taxes shown separately, should be quoted item wise as per format provided in excel sheet only, duly signed by the authorized person and complete as per the format for PEC basis.
- Maximum educational institution discount as could be offered should be mentioned.

9. Others Terms and Conditions

- An EMD/bid security of equipment should be submitted in the form of an account payee demand draft/banker Cheque from any Commercial Bank valid for 45 days beyond final bid validity period in favour of Director, Punjab Engineering College (Deemed to be University), Chandigarh. **Tender without earnest money shall be considered unresponsive and rejected out rightly.**
- A Performance security of 5 % of the total cost of the equipment will have to be deposited by the successful bidder awarded the supply order in the form of Bank Guarantee from a scheduled bank, which should be valid for 60 days beyond the completion of warranty/contract period.
- Performance Security will be forfeited and credited to the institute (Punjab Engineering College (Deemed to Be University), Chandigarh) in the event the supplier does not honor the warranty/contract and other terms and conditions of the tender.
- Price quoted, all taxes/levies shown separately, should be on FOR Punjab Engineering College (Deemed to Be University), Chandigarh basis.
- The Institute is registered with the Department of Scientific & Industrial Research (DSIR), Govt. of India, New Delhi for purpose of availing custom duty exemption in terms of Govt. Notification no. 51/96- customs dated 23.07.1996 and Central Excise Duty Exemption in terms of Govt. notification no. 10/97-Central Excise dated 01-03-1997 as amended from time to time.
- The delivery period of the supply of the equipment and successful commissioning/installation shall be completed within 04 weeks from the date of supply order. The penalty will be charged @ 0.5 % of the total cost of equipment FOR Punjab Engineering College per week after the expiry of delivery and successful commissioning/installation period mentioned in the purchase order if the request for extension of delivery date made by the supplier is not accepted by the Punjab Engineering College (Deemed to Be University). Extension may not be granted.
- Detailed catalogue should be sent along with supply of equipment.
- All legal disputes will be subject to Chandigarh Jurisdiction only and will be interpreted under Indian Laws.
- The Director Punjab Engineering College (Deemed to Be University) reserves to himself the right to reject any or all tenders without assigning any reasons.
- The firm who has been blacklisted by Centre/State Govt./UT/Boards/Corporations/any

government authority/Punjab Engineering College (Deemed to be University) is not eligible for the Tender.

- **All rates should be quoted FOR Punjab Engineering College (Deemed to Be University), Chandigarh basis.**
- **The institute being a premier Government Education and Research Institute funded by Chandigarh Administration, discounts as applicable to Research Institute/Educational Institutes may be provided in the tender.**
- The bidders shall not be allowed to change/alter or modify the bids after expiry of the deadlines for the receipts of bids.
- The firm is entirely responsible for any damage or losses occurred to the equipment/material in the transit. The firm will not lodge any complaints regarding the damage occurred in the transit and shall bear all expenses.
- In a tender, either an Indian agent on behalf of the Principal/(Original Equipment Manufacturer) OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same tender for the same item/product.
- EMD/Performance security will stand forfeited if a bidder withdraws its bid during the period of bid validity specified by the bidder in the bid form, and in case of successful bidder, if the bidder fails to supply the equipment or to furnish performance security in accordance with the tender.
- Bids received after the due date will not be considered.
- The tenderer is required to bring their own testing and measurement instruments which are required for the installation, commissioning and testing. These can be taken back after completion of the process.
- In case, any free gift scheme/cash scheme is launched by the company same will be offered by the vender to Punjab Engineering College (Deemed to Be University), Chandigarh free of cost.
- Generally the bid offer will be received/opened on the day as specified in the schedule, If The scheduled date is declared a holiday, and then the tender shall be received/opened on the next working day at the same time.
- The agency shall arrange to provide demonstration/training to the faculty/lab staff regarding operation/maintenance of equipment free of cost.
- A technical compliance chart of the quoted equipment mentioning technical specifications of quoted product verses asked specifications is compulsory. Attach the compliance chart with technical bid.
- Tender validity should be 120 days from the opening of tender.
All terms and Conditions of this tender document are acceptable to me/us.

Signature of Bidder

PERFORMANCE SECURITYFORM

(On Non-Judicial Stamp Paper)

BANKGUARANTEE BOND FOR PERFORMANCE WARRANTY

To

The President of India,
Through the Director Punjab Engineering College (Deemed to Be University),
Sector-12, Chandigarh-160012

Dear Sir,

Sub: _____

1. You, on behalf of President of India, have entered into a contract with reference No. ____ with _____ (herewith after referred to "as the contractor/supplier") for the supply of (hereinafter referred to as stores) for the price and on the terms and conditions contained in the said contract.
2. In accordance with the terms of said contract the Contractor has undertaken to produce a Bank Guarantee for Rs. _____ being 10 % of landed cost of equipment (Rs. _____) of the total value of the said stores supplied to you for the due fulfillment of its obligations to the President of India for due performance as per the contract during warranty period.
3. In consideration thereof, we happily, expressly, irrevocably and unconditionally undertake and guarantee as principal obligors on behalf of the contractor that in the event the President of India submits a written demand to us that the contractor has not performed according to the contractual obligations included in the said contract, we will pay you on the written demand, without demur and without reference to the contractor any sum up to a maximum amount of Rs. (Rupees _____). Your demand shall be conclusive evidence to us that such repayment is due under the terms of the said contract. Payment by us to you will be made within (30) days from receipt of your written request making reference to this guarantee and on demand.
4. This guarantee shall not be revoked without your express consent and shall not be affected by your granting any indulgence to the contractor, which shall include but not be limited to post payment from time to time of the exercise the same in any manner at any time and either to forbear or to enforce any covenant continued or implied in the said contract or any other course remedy or security available to you, and our bank shall not be released from its obligations under this guarantee by your exercising any of your rights with reference to matters aforesaid or any of the morbid reason of any other indulgence shown by you or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving our bank from its obligation under this guarantee.
5. Notwithstanding anything here in contained, our liability under this guarantee is restricted to Rs. _____ (Rupees _____) and the guarantee shall remain in force upto and including the day of being reported to us by you returned to us duly discharged.

6. Unless a demand or claim under this guarantee is made on us in writing on or before the said expiry date as provided above or unless this guarantee is extended by us all your rights under this guarantee shall be prescribed and we shall be discharge from the liabilities here under.
7. This guarantee shall not be affected by any change in the constitutions of our bank or of the contractor or for any other reason whatsoever.

We, _____
lastly under take not to revoke this guarantee during its currency except with the prior consent from your office in writing.

8. Not with standing anything contained herein:
- i. Our liability under this Bank Guarantee shall not exceed Rs. _____ (Rupees. _____).
 - ii. This Bank Guarantee shall be valid up to _____.
 - iii. 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 demand on or before _____.
9. This Bank Guarantee shall be returned to our _____ Branch at _____ once the purpose of the issuance has been fulfilled or upon expiry of this guarantee whichever is earlier. Even return of Original Bank Guarantee is essential for invoking the guarantee with specific request letter from the beneficiary.

Witness 1: _____, Signature _____

Witness 2: _____, Signature _____

For _____ Bank For _____ Bank

Authorized Signatory

Authorized Signatory