

**Punjab Engineering College
(Deemed to be University)
Chandigarh
Sector 12, Chandigarh 160012**



E-tender Document

for

Purchase of

**DSP Based Induction Motor
Control Setup being a proprietary**

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

SECTION I: INVITATION FOR E - TENDER

1. The Punjab Engineering College (Deemed to be University), Chandigarh invites e-bids from eligible bidders for purchase of Electrical components.
2. Interested eligible Bidders may obtain further information from EED, Punjab Engineering College (Deemed to be University), Sector 12, Chandigarh-160012, India.
3. The bidding document can be downloadable from institute website <http://www.pec.ac.in> & Chandigarh administration web site <http://etenders.chd.nic.in>
4. All bids 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. Bids will be opened in the presence of Bidders' representatives who choose to attend on the specified date and time.

TABLE – 1

S. No.	Name of the Work	EMD	Performance Security Deposit
1	Purchase of DSP Based Induction Motor Control Setup being a proprietary AS PER SECTION III	Rs. 50000/-	@ 5% of the value of the contract

TABLE - 2 Time Schedule

I	Date of publication	
I	Downloading of e-tender document	Start date: 06/12/2019 End date: 30/12/2019
III	Date of submission of e-tender	Start date: 06/12/2019 End date: 30/12/2019
IV	Physical submission of EMD	Start date: 06/12/2019 End date: 30/12/2019
V	Opening of Technical Bid (online) and meeting for scrutiny of technical bid and declaring eligible bidders.	Date: 31/12/2019 at 10:30 AM
VI	Opening of Financial Bid of only eligible technically qualified bidder as determined by the Committee.	To be informed after checking eligibility of Bidders
VII	Place of opening of bids	Electrical Engg. Deptt Punjab Engineering College (Deemed to be University), Sector 12, Chandigarh 160012
VIII	Address for communication	Electrical Engg. Deptt Punjab Engineering College (Deemed to be University), Sector 12, Chandigarh 160012

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) institute website (www.pec.ac.in).
III.	The bidder has to submit the original documents in physical form such as EMD, eligibility documents and other desired documents on the date fixed for the same as above. The failure will entail summarily rejection of its tender.
IV.	The undersigned 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. Qualifications for Tendering: Tenderers should possess the following qualifications:

The Bidder should be either OEM/Authorized service partner of OEM/OEM Dealer

2. Scope of Work

Supply of DSP Based Induction Motor Control Setup being a proprietary as per Table 3 of Section III

3. Earnest Money Deposit:

- i. Tender have to be accompanied by an Earnest Money Deposit (EMD) of Rs. 50000/ (Rs. Fifty thousand only) in form of FDR/Demand Draft/Banker Cheque/Bank Guarantee from any commercial Bank in favor of Director, Punjab Engineering College (Deemed to be University) Chandigarh which shall be valid for 45 days beyond final bid validity period. Tender without earnest money shall be considered unresponsive and rejected.
- ii. Performance security @ 5% of the total value of contract will be obtained from the successful bidder awarded the contract in the shape of Fixed Deposited Receipt or bank guarantee from a commercial bank which should be valid for period of 60 days beyond the completion of obligations of the supplier including warranty. Performance security is to be forfeited and credited to the institute in the event of breach of contract obligation by supplier in terms of relevant contract.

4. Opening of tenders:

The PEC will open all bids, in the presence of Bidders' representatives who choose to attend, at **10:30 AM** on **31/12/2019** and in the following location:

Electrical Engineering Department
Punjab Engineering College (Deemed to be University)
Sector 12 Chandigarh 160012

The Bidders' representatives who are 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 Tender will be the next working day at the same hours and venue.

- 5.** 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.

6. The bidder shall submit the covering letter (Annexure - 2.1 of SECTION II) duly signed by the authorized signatory.
7. The details of EMD, specified in the tender documents, should be the same as submitted online (scanned copies) otherwise tender will be rejected.
8. The conditional bids shall not be considered and may be rejected outright in very first instance.
9. The financial bids through e-tendering of only those bidders shall be opened who will qualify in the technical bid criteria.
10. The bidder shall submit Proprietary article certificate of OEM
11. The bidder shall submit Rate reasonability certificate to the extent that the rates quoted by the firm are the same and not higher than those quoted with other government, public sector or private organizations during the financial year 2019-20.
12. The bidder shall submit Audited copies of Financial Statements for last three financial years i.e. 2016-17, 2017-18 and 2018-19 and shall also submit the ITR for last three years with minimum turnover annually.
13. The bidder shall submit Self-attested copies of PAN/TAN Card/GST.
14. The bidder shall submit Authorization certificate from OEM

ANNEXURE – 2.1

From

Subject: Submission of Tender for purchase of DSP based Induction Motor Control Setup

Dear Sir,

With reference to your above-mentioned notice inviting tenders, I/We hereby offer to provide Electrical component **as per table 3 of section III** for Punjab Engineering College (Deemed to be University), Chandigarh.

I/We shall supply the above said item truly and faithfully as set forth in the terms and conditions of the tender document. I/We shall be responsible for all complaints as regards to 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 FDR/DD No. _____ Dated _____ drawn on _____ intended for the prescribed amount of Rs. _____ (Rupees _____ Only) in favor of Director, Punjab Engineering College (Deemed to be University), Chandigarh, payable at Chandigarh is enclosed as earnest money as desired.

I/WE shall have no claim to the refund of earnest money / performance security prescribed against this tender in the event of my/our non-compliance of the contract, provided such contract is implemented within the period of validity of my/our tender.

I/We further understand that my/our earnest money shall stand forfeited in case of unsatisfactory supply of equipment's/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/general or special attorney attached) is submitted for your favorable consideration.

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

Thanking you,

Place

Yours faithfully,

Signatures
Date with stamp
& Full Address

ANNEXURE - 2.2

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

AFFIDAVIT

I/We/M/s _____ are registered Company/Ltd Company etc. as per Registration Certificate No. _____ issued by _____ having registered office at _____ and manufacturing/supply base at _____ do hereby declare and solemnly affirm that I/We have not been Black-listed, nor mine/our Tenders have ever been cancelled by any State/UT/Central Government or any partner or shareholder either directly or indirectly connected with or has any subsisting interest in the business of my/our firm nor any legal proceedings have ever been initiated/pending or any penalty has ever been levied due to delay of non-completion of work/service/supply order by any State/UT/Central Government or by any authority.

Place: _____

DEPONENT

Date: _____

Verification

I/We do hereby 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

Date: _____

SECTION III
“Technical Bid”

TABLE 3 List of components of DSP Based Induction Motor Control Setup being a proprietary

S. No.	Description	Qty	Delivery
		02 No	Schedule 06 weeks
	<p>Technical Specifications for DSP Based Induction Motor Control Setup:</p> <p>1. Educational Practice Board for TMS320F28335 Processor</p> <ul style="list-style-type: none"> - C2000 Delfino series TMS320F28335 Digital Signal Controller - 150 Mhz. Max operating speed - On chip 32-bit floating point unit - 68K bytes on-chip RAM, 512K bytes on-chip Flash memory - On board IEEE 1149.1 JTAG emulation connector with LED indication - 6 channel DMA controller (For ADC, McBSP, ePWM, XINTF, SARAM) <p>On-Board Memory</p> <ul style="list-style-type: none"> - 1M bytes (64kx16) off-chip SRAM memory, 256K EEPROM interface , USB for Flashing <p>On board Data Transfer Interfaces</p> <ul style="list-style-type: none"> - USB Connector for UART-A interface, DB9 connector for UART-A interface - LED indication for Transmit and Receive data at UART-A, 3 pin header for UART-B interface - DB9 connector for CAN-A interface with onboard hardware Loop back mode feature - 4 pin header for CAN-B interface with onboard hardware Loop back mode feature - SPI and I2C devices <p>Onboard Input/ Output Interfaces and other Facilities</p> <ul style="list-style-type: none"> - Power-On LED indication - Connector for Watchdog timer output - 20 Pin (10x2 header) Connector for 16 GPIO lines - DB25 Connector for 8 Digital Input and 8 Digital Output interface with +5V compatibility - Error + Trip +5V compatible connector for Inverter control module - LED at GPIO Pin as GPIO Test point - I2C based Off-Chip EEPROM interface - I2C based Off-Chip RTC interface <p>Onboard Special functionality</p> <ul style="list-style-type: none"> - MATLAB/SIMULINK compatible - DB9 connector for 6 channel capture interface - DB25 connector for 12 channel PWM interface - Two DB15 connector for 8 Channel On-Chip ADC-A interface and 8 Channel On-Chip ADC-B interface (with 3V protection using OpAmps with unity gain output) - Potentiometer to test On-Chip ADC - DB9 connector for 4 channels SPI based on board DAC interface - Reset Switch with LED indication - Switch for Run/Program mode switching with LED indication - 4-way DIP Switch for 16 different boot mode selection - Input Voltage - 9V DC - Test points for All the PWM, ADC and Power - Board to be supplied in a proper wooden box packing - A workbook featuring the case studies and working procedures on various on chip and off chip peripherals of Educational practice board for TMS320F28335. All the sample programs and codes for different peripherals to be provided along with the setup and demonstrated. -TMS320F28335 DSP and EPB_28335 kit are compatible with Matlab Simulink. Customer has to establish Matlab Simulink link between CCS and Matlab on his/her own. <p>2. USB JTAG Emulator (Compatible with CCSv5 and above only)</p> <ul style="list-style-type: none"> - The emulator provides JTAG access to Texas Instruments' JTAG based devices - It is compatible with Code Composer Studio™ development environment 		

- TI creates the reference design and our 3rd party partners create the JTAG emulator products for end use
- Debug features (Emulation Connect/Disconnect, Read/Write memory, Read registers, Load program, Run, Halt, Step, Software and Hardware Breakpoint support, Real-Time Mode)
- Support for targets with 1.8v and 3.3v IO voltages
- Support for USB High Speed (480 Mbit/s)
- Supports cable-break detection
- Supports target power loss detection
- Support for multiple FTDI devices
- Adaptive clocking
- LED light to indicate active USB connection
- Compatible with CCSv5 only
- The working of USB JTAG Emulator should be demonstrated with the above mentioned DSP kit

3.PWM Isolator Kit

- A Pluggable General purpose PWM Isolator kit for direct connection with DSP board to generate fully Isolated and amplified PWM signals
- It converts the 5V DC PWM signals generated from the DSP board to 15V DC level which can be further given to the power module under study.
- PWM isolator outputs 12 channel isolated +15 V PWM signals
- PWM input signal voltage is of +5 V, Input Power supply range is from +9V DC to +36V DC
- Thermal Trip facility provided
- Capable to capture errors signal available from inverter module, Microcontroller interface for Error signal and Thermal trip
- On board LED indication for Thermal Trip and Error signals, On board Power On LED, test points for signal testing and fuse for protection
- Power supply to be provided with the board, Board to be supplied in a proper wooden box packing

4. Inverter Stack Module

Specifications

- The specifications can be configured based on the following parameters
- Stack: Rectifier + Inverter + Brake Chopper
- Voltage: Input AC Voltage, Output AC Voltage (controlled)
- Output Current: 30 A max (at 2KHz switching Freq) and 10A (at 20KHz switching freq.)
- Output Frequency : 50 Hz
- Switching Frequency: 20 KHz max
- Ambient Temperature: 40 deg C.
- Cooling Method: Forced Air Cooled

Features

- Three IGBT gate module (Inverter leg) made up of 2 IGBT with an anti-parallel diode
- Optional Brake Chopper module made up of 1 IGBT with an anti-parallel diode
- Optional three phase bridge rectifier module with Blocking voltage of 1600 V and high surge current carrying capability
- Gate Driver module to interfaces and isolates the Control Unit and to control the IGBT's dynamic behavior and its short - circuit protection with Input signal level of 0/15V and Interlocking time between the input signals of 3 μ s.
- The Gate Driver also monitors the errors: power supply under-voltage (below 13 V), short-circuit between Collector and Emitter and the error reset time is typically 9 μ s. On detection of error/fault, the Gate Driver switches off the IGBT.
- Optional DC capacitor bank and snubber capacitors
- The kit stack assembly is provided with forced air cooling
- IGBT modules are mounted on 250 mm heat sink along with the axial fan connected to it to dissipate the heat generated by the IGBTs.
- Normally Closed Thermal contact switch is provided for temperature protection
- Facility to be provided on the inverter stack so as to feed the PWM inputs directly from the PWM isolator module. Cable set to be provided along with the kit.

5. DC generator (1HP 1500 RPM) with Load Panel

DC generator:

- Power Rating : 1 HP
- Phase : Single Phase

- RPM : 1500
 - Field voltage : 230V DC
 - Connection : It will be mechanically coupled with Induction motor
- Load Panel:
- Power Rating : 1 HP
 - Load arrangement : 25W, 50W, 100W, 150W, 200W (Using toggle switches)
 - Supply input : 230 V AC input
 - Meter : DC Voltage and DC current
 - Meter Type : Digital
 - Connection : It will be connected with DC generator
 - Application : Using toggle switched load can be provided to DC generator and same load will be transferred to Induction motor

6. Induction Motor with Encoder

- Power Rating : 1 HP
- Phase : 3 Phase
- RPM : 1500
- Encoder : +5V encoder of 1024 PPR resolution
- Encoder assembly : inside motor assembly

7. Sensor Interfacing Kit-28335 (Current sensors only)

- It is current sensor interfacing kit and encoder interfacing kit
- The board is made for the 1HP Inverter stack and Motor control application
- Board consist 3 current sensor
- Three input facility for AC/DC current sensor from the input of the Inverter
- Current sensor range can be varied using jumper setting.
- Power supply: input supply for the sensor board is +15VDC, -15 VDC and +5VDC
- On-Board Power supply indication LEDs provided for +15VDC, -15 VDC and +5VDC
- DB15-Female connector is provided for output of the board from 0 to 3 V for all 3 sensors (It is provided to the DSP board)
- 0V to 3V is generated from the AC sensor output which can be fed to DSP kit.
- Proper connectors and cables to be provided with the kit
- Test points are provided for the sensor output at various stages and GND
- Encoder from the motor connection facility available
- Encoder output connector is provided to connect the board with the DSP/uC
- Power supply of +5VDC is provided to the encoder from the board
- DB9-Female connector is provided as EQep/capture connector to interface encoder to the DSP Board
- Test points are provided for the Encoder input and output signals (A, B, Index, Strobe, GND)
- Customization of board is possible for the different current range (0 Amp – 25 Amp)
- Current sensor [LA-25-NP]

Current Measurement range : 5A, 6A, 8A, 12A, 25A

Input Current waveform : AC or DC

Output Current waveform : Bidirectional Sine wave (Input is pure sine wave is assumed)

: Sine wave (Input is pure sine wave is assumed)

(Output sine wave will be above ground line)

: Rectified Sine wave (Input is pure sine wave is assumed)

: DC above ground level (Input is pure DC is assumed)

Fix Offset DC Bias voltage : 1.5 V

Offset DC Bias voltage range : 1.0V to 2.0V variable (Using Potentiometer)

Fix Offset AC output voltage : 3V peak to peak

Offset AC output voltage range: 2.5V to 3.5V variable (Using Potentiometer)

Bidirectional Sine wave range : 2.5V to 3.5V variable (Using Potentiometer)

8. Sensor Interfacing Kit-28335 (Voltage sensors only)

- It is voltage sensor interfacing kit and encoder interfacing kit
- The board is made for the 1HP Inverter stack and Motor control application
- Board consist 3 Voltage sensor
- Three input facility for AC/DC voltage sensor from the input of the Inverter
- Power supply: input supply for the sensor board is +15VDC, -15 VDC and +5VDC
- On-Board Power supply indication LEDs provided for +15VDC, -15 VDC and +5VDC
- DB15-Female connector is provided for output of the board from 0 to 3 V for all 3 sensors

<p>(It is provided to the DSP board)</p> <ul style="list-style-type: none">- 0V to 3V is generated from the AC sensor output which can be fed to DSP kit.- Proper connectors and cables to be provided with the kit- Test points are provided for the sensor output at various stages and GND- Encoder from the motor connection facility available- Encoder output connector is provided to connect the board with the DSP/uC- Power supply of +5VDC is provided to the encoder from the board- DB9-Female connector is provided as EQep/capture connector to interface encoder to the DSP Board- Test points are provided for the Encoder input and output signals (A, B, Index, Strobe, GND)- Customization of board is possible for the different voltage range- Voltage sensor [LV-25-P] <p>Voltage Measurement range : 10V- 500V Fixed</p> <p>Input Voltage waveform : AC or DC</p> <p>Output Voltage waveform : Bidirectional Sine wave (Input is pure sine wave is assumed)</p> <p>: Sine wave with DC offset (Input is pure sine wave is assumed)</p> <p>: Rectified Sine wave (Input is pure sine wave is assumed)</p> <p>: DC above ground level (Input is pure DC is assumed)</p> <p>Fix Offset DC Bias voltage : 1.5 V</p> <p>Offset DC Bias voltage range : 1.0V to 2.0V variable (Using Potentiometer)</p> <p>Fix Offset AC output voltage : 3V peak to peak</p> <p>Offset AC output voltage range: 2.5V to 3.5V variable (Using Potentiometer)</p> <p>Bidirectional Sine wave range : 2.5V to 3.5V variable (Using Potentiometer)</p>
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PRE-QUALIFYING CRITERIA

First cover titled as “Technical Bid” should contain the Self-attested scanned copies of following with consecutive Sr. No.:-

1. Name of the firm/organization & address Contact person name and telephone/ Mob. No./Fax. No./ on letter pad of the company/firm.
2. Earnest money deposit as mentioned in Point 3 of SECTION II of this tender document.
3. Audited copies of Financial Statements for last three financial years i.e. 2016-17, 2017-18 and 2018-19.
4. Self-attested copies of PAN/TAN Card.
5. OEM Authorization certificate
6. Certificate of acceptance of terms & condition mentioned in Section II of Tender Document.
7. Registration Certificate of the company issued by the competent authority
8. Affidavit of not being Black Listed (Affidavit as per Annexure 2.2 of SECTION II)
9. Covering letter (Annexure 2.1 of SECTION II)
10. Proprietary article certificate of OEM
11. Rate reasonability certificate to the extent that the rates quoted by the firm are the same and not higher than those quoted with other government, public sector or private organizations during the financial year 2019-20.
12. Income tax return 3 years + minimum turnover (Rs.15,00,000) as decided by the DPC.
13. If firm quote NIL charges, the bid shall be treated as unresponsive and will not be considered.
14. Document showing experience for providing similar equipment to reputed institutions etc. in last three years.

NOTE: All the above mentioned documents should be duly in order and are essential to qualify at Technical Bid Stage.

SECTION IV

FINANCIAL BID

SECOND COVER TITLED AS “FINANCIAL BID” CONSIST OF

Financial (Price) Bid for purchase of Electrical components for Punjab Engineering College (Deemed to be University), Sector 12, is to be submitted online in excel sheet provided.

Notes:

1. Rate should be quoted in Indian Rupees only exclusive of Taxes/Levies as per Indian law.
2. The Institute is registered with the Deptt. 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 01-03-1997 as amended from time totime.

SECTION VI

GENERAL TERMS AND CONDITIONS

1. Clarification of Bidding Documents

A prospective Bidder requiring any clarification of the bidding documents may notify the PEC in writing or by telex or cable or fax at the PEC's mailing address indicated in the Invitation for Bids. The PEC will respond in writing to any request for clarification of the bidding documents which it receives no later than 15 days prior to the deadline for submission of bids prescribed by the PEC.

2. Amendment of Bidding Documents

At any time prior to the deadline for submission of bids, the PEC 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 reasonable time in which to take the amendment into account in preparing their bids, the PEC, 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 PEC, 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 PEC. A bid valid for a shorter period shall be rejected by the PEC as non-responsive.

5. Warranty

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

6. 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 the Successful Installation & Training

The Supplier's request(s) for payment shall be made to the PEC in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted and upon fulfillment of other obligations stipulated in the contract.

Payment shall be made in Indian Rupees only.

No advance payment will be made. Payment will be released after satisfactory receipt of goods/material, demonstration/training and installation

8. Documents comprising the Bids

The Bids prepared by the Tenderers 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 should be quoted item wise as per format provided in excel sheet only duly signed and complete as per the format.
- Maximum educational discount as could be offered should be mentioned.

9. Cost of Tender

The tenderer shall bear all costs associated with the preparation and submission of its Bid, including the cost of presentation for the purpose of clarification of the bid, if so desired by the

PEC and the PEC will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering Process.

10. Others Terms andConditions

- An EMD/ bid security of equipment should be submitted in form of FDR/Demand Draft/Banker Cheque/Bank Guarantee from any commercial Bank in favor of Director, Punjab Engineering College (Deemed to be University) Chandigarh that shall be valid for 45 days beyond final bid validity period. Tender without earnest money shall be considered unresponsive and rejected.
- A Performance security @ 5% of the total value of contract will have to be deposited by the successful bidder awarded the supply order in form of Fixed Deposited Receipt or Bank Guarantee from a commercial 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 honour the warranty/contract and other terms and conditions of the tender.
- Please quote delivery period also. It should be less than 30 days from the date of supply order.
- All legal disputes will be subject to Chandigarh Jurisdiction 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) are not eligible for the Tender.
- The penalty will be charged @ 0.5% of cost of equipment per week till the complete installation of equipment, mentioned in the purchase order if delivery date is extended by the PEC.
- **All the rates will be FOR, Punjab Engineering College (Deemed to be University), Chandigarh.**
- The institute being a premier 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.
- In a tender, either 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.
- If an agent bids on behalf of the Principal/OEM, the same agent shall not bid on behalf of another Principal/OEM in the same tender for the same item/ product.
- Situation in which EMD/Performance security will stand forfeited if a bidder withdraws its bid during the period of bid validity specified by the bidder on the bid form (SECTION VII), and in case of successful bidder, if the bidder fails to supply the software or to furnish performance security in accordance with the tender.

- Bids received after the due date will not be considered.
- 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 as a holiday, then the tender shall be received / opened on the next working day at the same time.
- The institute has been exempted from custom and central excise duty. Tender validity should be 120 days from the opening of tender.
- All the terms and Conditions of this tender document are acceptable to me /us.

Signature of Bidder

PERFORMANCE SECURITY FORM
(on Non-Judicial Paper)

BANK GUARANTEE 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") for the development, fabrication and supply of _____ (herein after 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 (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 that 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 postponement 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 them or by 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 herein contained, our liability under this guarantee is restricted to Rs. _____ (Rupees. _____) and the guarantee shall remain in force up to 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 aforesaid 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 hereunder.
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 undertake not to revoke this guarantee during its currency except with the prior consent from your office in writing.

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

This Bank Guarantee shall be returned to our _____ Name of the Bank _____
Branch at _____ Office Address _____ 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: _____, Signature _____

Witness: _____, Signature _____

For _____ Bank

For _____ Bank

Authorized Signatory

Authorized Signatory