

Tender Document

Advt No : 14/2017-18

TOTAL ESTIMATED PRICE : INR 100 (Hundred) LAKHS

Procurement and Installation of High Performance Computing (HPC) System

(Two Part Bidding System)

Last Date of submitting Tender Document: 19/03/2018 latest by 3 PM



**Department of Computer Science and Engineering
National Institute of Technical Teachers' Training & Research
Block – FC, Sector – III, Salt Lake City, Kolkata – 700106
Tel +91-33-23370479/4125**

National Institute of Technical Teachers' Training and Research

(Under Ministry of HRD, Govt. of India)

Block –FC, Sector – III, Salt Lake City, Kolkata – 700 106

Tel: +91-33-233 70479/4125 Fax: +91-33-23376331

Website: <http://www.nitttrkol.ac.in>

Sealed tenders in two bid system are invited from manufacturer or their authorised business partner/authorised distributors for procurement and installation of **High Performance Computing (HPC) System**. The details of the specification and terms and conditions are available in the institute website and Central Public Procurement Portal (CPPP) of NIC, GOI [http://eprocure.gov.in/epublish] from **21/02/2018 to 19/03/2018**. Interested vendors may submit their quotation along with DD/i.f.o of Rs.500/- and EMD @4% on Estimated Price are payable through separate DD/i.f.o “**Director, NITTTR, Kolkata**” payable at Kolkata. The last date of submitting TD is **19/03/2018** upto **3 PM**. Tender will be opened at **4 PM** on the same date.

Advt. No. **14/2017-18**

Director

Technical Specifications of the HPC

Estimated Price : INR 100 Lakhs

I: Master Node: Quantity – 1 no.

Sl.	Components	Descriptions	Compliance (YES/NO)
1	Processor (64-bit)	Dual Intel Xeon Gold 6130 Processor (16 Cores, 2.10 GHz, 22 MB L3 Cache, 125 W) (Total 32 Cores)	
2	Chipset	Chipset Compatible With Processor	
3	Memory	128 GB Tru DDR4, 2666MHz or higher to meet the Memory populated performance requirement	
4	Internal Storage	2 x 600GB 10K RPM hot swappable SAS drives (Scalable upto 8 Drives)	
5	RAID Support	RAID 0, 1, 5	
6	I/O Devices	2 FDR Infiniband Port FDR Infiniband Cable/s as required 2 x 1 Gbps Ethernet Ports	
7	Optical Drive	Internal Slim DVDROM	
8	PCIe Gen 3.0 Slots	4 PCIe Gen 3.0 slots	
9	OS Support	Cent-OS Linux (Latest and Stable Version)	
10	System Management	Support for Local and Remote management of System	
11	Systems Serviceability	Proactive Platform Alerts (including PFA and SMART alerts) for processors, voltage regulators, memory, internal storage (SAS/SATA HDDs and SSDs, NVMe SSDs, M.2 storage, flash storage adapters), fans, power supplies, RAID controllers, and server ambient and sub-component temperatures	
12	Form Factor	Atmost 2U Rack form factor with sliding rails with cable support arm, fitted for easy mounting and maintenance	
13	Power Supply Fans	Redundant and hot pluggable power supply Platinum- Category , 6 Hot Swap Fans	
14	Fans and Cables	Redundant and Hot swap Fans, Power cables compatible with the quoted rack	
15	Warranty	5 years onsite comprehensive warranty (24 X 7) by OEM	
16	Gartner's Quadrant	The OEM should be enlisted in Leader's Quadrant in Gartner's Quadrant for Modular Servers	

II: CPU Compute Node : Quantity – 4 nos.

Sl.	Components	Descriptions	Compliance (YES/NO)
1	Processor (64-bit)	Dual Intel Xeon Gold 6152 Processor (22 Cores, 2.1 GHz, 30 MB L3 Cache, 140 W) (Total 44 Cores)	
2	Chipset	Chipset Compatible With Processor	
3	Memory	192 GB Tru DDR4, 2666MHz or higher to meet the Memory populated performance requirement	
4	Internal Storage	2 x 600GB 10K RPM hot swappable SAS drives (Scalable upto 8 Drives)	
5	RAID Support	RAID 0, 1, 5	
6	I/O Devices	(i) 1 FDR Infiniband Port (ii) FDR Infiniband Cable/s as required (iii) 2 x 1 Gbps Ethernet Ports	
7	PCIe Gen 3.0 Slots	1 PCIe Gen 3.0, 16x slots	
8	OS Support	Cent-OS Linux (Latest and Stable Version)	
9	System Management	Support for Local and Remote management of System	
10	Systems Serviceability	Proactive Platform Alerts (including PFA and SMART alerts) for processors, voltage regulators, memory, internal storage (SAS/SATA HDDs and SSDs, NVMe SSDs, M.2 storage, flash storage adapters), fans, power supplies, RAID controllers, and server ambient and sub-component temperatures	
11	Chasis/Form Factor	All Compute nodes to be Chassis based, chassis should support minimum of 4 servers all individually serviceable/ Or atmost 2U Rack mountable server also allowed to be quoted	
12	Power Supply Fans	Redundant and hot pluggable power supply Platinum- Category , 6 Hot Swap Fans	
13	Fans and Cables	Redundant and Hot swap Fans, Power cables compatible with the quoted rack	
14	Warranty	5 years onsite comprehensive warranty (24 X 7) by OEM	
15	Gartner's Quadrant	The OEM should be enlisted in Leader's Quadrant in Gartner's Quadrant for Modular Servers	

III: GPU Compute Node : Quantity - 2 nos.

Sl.	Components	Descriptions	Compliance (YES/NO)
1	Processor (64-bit)	Dual Intel Xeon Gold 6154 Processor (18 Cores, 3.0 GHz, 25 MB L3 Cache, 200 W) (Total 36 Cores)	
2	Chipset	Chipset Compatible With Processor	
3	Memory	192 GB Tru DDR4, 2666MHz or higher to meet the Memory populated performance requirement	
4	Internal Storage	2 x 600GB 10K RPM hot swappable SAS drives (Scalable upto 8 Drives)	
5	GPU Accelerator and Controller	One NVIDIA Tesla V100 GPU	
6	RAID Support	RAID 0, 1, 5	
7	I/O Devices	(i) 1 FDR Infiniband Port (ii) FDR Infiniband Cable/s as required (iii) 2 x 1 Gbps Ethernet Ports	
8	PCIe Gen 3.0 Slots	1 PCIe Gen 3.0, 16x slots	
9	OS Support	Cent-OS Linux (Latest and Stable Version)	
10	System Management	Support for Local and Remote management of System	
11	Systems Serviceability	Proactive Platform Alerts (including PFA and SMART alerts) for processors, voltage regulators, memory, internal storage (SAS/SATA HDDs and SSDs, NVMe SSDs, M.2 storage, flash storage adapters), fans, power supplies, RAID controllers, and server ambient and sub-component temperatures	
12	Form Factor	Atmost 2U Rack form factor with sliding rails with cable support arm, fitted for easy mounting and maintenance	
13	Power Supply Fans	Redundant and hot pluggable power supply Platinum- Category , 6 Hot Swap Fans	
14	Fans and Cables	Redundant and Hot swap Fans, Power cables compatible with the quoted rack	
15	Warranty	5 years onsite comprehensive warranty (24 X 7) by OEM	
16	Gartner's Quadrant	The OEM should be enlisted in Leader's Quadrant in Gartner's Quadrant for Modular Servers	

IV: Direct Attached STORAGE on Master Node : Quantity - 1 no.

Eligibility Criteria	Entire storage solution including storage array must be from same OEM as Server.
Storage Capacity	Minimum of 40 TB usable capacity in RAID 6 (4+2) layout using minimum of 6 TB or higher capacity 7.2K RPM NL-SAS disks.
Storage Server	The storage servers should be the latest generation processor based system with a minimum of 16 GB memory and appropriate adapter to connect to storage and cluster.
Storage Connectivity	16 GB FC (Fibre Connectivity) or 12 GB SAS. Appropriate card to be provided on Master Server.
Availability	There must not be any single point of failure in entire storage solution. Storage solution must have minimum two active-active controllers, 16GB cache across dual controller, redundant power supplies and fans.
Power Supply	Should Support Platinum Power Supply

V: Primary and Secondary Interconnect Devices

Sl.	Components	Descriptions	Compliance (YES/NO)
1	Cluster Interconnect Switch	For faster and primary interconnect, One Non-Blocking 56 GBPS FDR Infiniband Switch (with minimum 24 ports) as per the complete solution along with the rack mounting kit and redundant power supply.	
2	Cluster Management Switch	One L2 managed 24-Port Gigabit Ethernet Switch with required number of cables to connect all nodes and rack mounting kit.	
3	Warranty	5 years onsite comprehensive warranty (24 X 7) by OEM	

Note : The solution should be quoted with **required no. of cables** with suitable length to connect Master nodes, Compute Nodes, Storage nodes and others as required in solution.

VI: Software Specifications

Sl.	Components	Descriptions	Compliance (Y/N)
(A) Proprietary Software			
1	Compilers	Intel Parallel Studio XE CLUSTER Edition for Linux- Floating Academic 2 seat pack, with 5 years support.	
(B) Open Source OS and Software			
1	Operating System	Open source Linux based server version 64bit OS Cent-OS (latest and stable) with standard support for Master Node, CPU and GPU Compute Nodes, Storage, IO Nodes.	
2	Job Scheduler	PBS/ROCKS or any other open source Job Scheduler. The bidder must ensure the capability to support the same.	
3	Other Open Source Software	<ul style="list-style-type: none"> ➤ gfortran, gcc, gcc++, open MP, gdb, SCILAB, PAPI and Totalview ➤ Python, Numpy, SciPy, Setuptools, IPython, pythondev, pythonnumpy, pythonmatplotlib, pythontk, pythonlxml, PyReadline ➤ Vim, Gvim, Root, GRACE, Gnuplot, Hadoop, Scala 	
4	Cluster Management Software	<p>Server OEM Supported cluster management software to be proposed. The proposed Cluster Management Software and Job Scheduler must include the following features.</p> <ul style="list-style-type: none"> • Should be compatible to work on CentOS/Fedora/RHEL . • Should be able to provision above operating systems to compute nodes. • Should be able to auto-provision applications to compute nodes. • Should allow HPC management console to be accessible from any system in the network. • Should support different role based access to the HPC system. • Every role should be able to be remotely managed. • Should provide profile-based and fully automated provisioning features. • Should support Add/Modify/Delete compute nodes from GUI window. • GUI (Web) based monitoring feature to be part of proposed solution. • Should support major power management modules like ipmilan, ipmitool, ilo, bladecenter. • Proposed cluster management tool should support Master node HA feature. • Proposed cluster management tool to be fully supported by bidder. • GPU/MIC enabled scheduling & option to be supported 	

VII: Rack/Cabinet(42 U)

Sl.	Components	Descriptions	Compliance (YES/NO)
1	Rack/Cabinet	<ul style="list-style-type: none"> ➤ UL Certified 19” Rack: 42Ux 600mmwidth x 1000mm depth, Alloy Aluminum extruded frame fully Allen bolted construction all x,y,z axis, metal top vented all along the width and depth , 4 fan provision and cable entry provision covered with cover plate edge protected rubber grommet provide/bottom cover cable entry provision covered with cover plate edge protected rubber grommet provide , 3 pairs of support channel and castor provision at bottom side. Powder coated finish Texture Matt – 60 to 80uM ➤ Corrosion Resistance: Salt spray test according to ISO 9227 (NSS test) and IEC EN 60068-2-11 (Ka test) for 168 hours: degree of Rusting Ri1 according to ISO 4628-3, propagation ≤1 mm according to ISO 4628-8. ➤ Side panels are detachable with slam latches ventilation slot on side panels, full vented top cover & bottom cover with the cable entry provision. ➤ Front glass single door with cam lock & key ➤ Rear mesh Single door with cam lock & key ➤ Castors – 1 Set ➤ Front panel mounting hardware. – 1 No. ➤ 230V A/C 90 CFM fan mounted on top cover - 4 Nos. ➤ Power Distribution Unit - IEC 10 Amp { C-13 } - 12 Socket - IEC 16 Amp { C-19 } - 04 Socket - Single Pole / Screw Mountable / 32 Amp MCB / Alternating Current - Indicator - Black Fine Tex - 2 Nos. ➤ Earthing Kit – 1 No ➤ Monitor Tray 700mm D – 3 Nos. ➤ Keyboard Tray 	
6	Warranty	One Year Standard & 4 Years Extended Onsite Warranty	

VIII: Other Accessories

2	KVM Switch	18 Port KVM Switch with all required Cables & Accessories	
3	Monitor Console	17” TFT with built in Key Board and Touchpad in a 1U single rail slide away housing	
4	Warranty	5 years onsite warranty (24 X 7) by OEM	

II. Terms & Conditions:

1. The tenderer(s) should preferably be either manufacturer of machine / equipment / tool or an authorized business partner / marketing agent / service agent (second preference) of the OEM. In case of authorized business partner / marketing agent / service agent, Manufacturer's Authorization Form (MAF) from Original Equipment Manufacturer (OEM) is required as listed below:
 - (a) Intel Xeon Gold 6148 Processor
 - (b) TruDDR4 2666 Mhz RAM
 - (c) Nvidia V100 GPU
 - (d) 56 GBPS FDR Infiniband Switch
 - (e) Gigabit Ethernet Switch
 - (f) Intel Parallel Studio XE CLUSTER Edition

Every vendor is expected to attach MAF in the technical bid from the respective OEM as indicated above. However, MAFs for item no. **(a)**, **(c)**, **(d)** and **(f)** are mandatory in the technical bid to qualify along with other terms and conditions. In case any vendor fail to arrange the other MAFs **((b) and (e))** at the time of submission of the tender document, they can submit the rest MAFs by 7 working day once they qualify in the first phase so that the commercial bid of them can be opened. If they fail to submit within the stipulated 7 days, the commercial bid of those vendors will not be opened and they will be considered failed in technical bid. Work on rest of the successful bidders will proceed as usual without any impact in this regard.

The tenderer should quote all the items as a single set and need to be integrated with existing system as turnkey basis solution.

2. The brands / models / specifications mentioned are **indicative**. Equivalent or higher configuration products may also be quoted. Equivalent product, if any, should match (or be higher) with the specification mentioned in the tender document. However, for equivalent product, the tenderers should provide sufficient documents to justify equivalence. Additional models may also be quoted separately.
3. The quoted system should be as per the specification and should be 100% compatible with the existing system available in the Institute. Prospective tenderer(s) may visit National Institute of Technical Teachers' Training and Research (NITTTR), Kolkata with prior appointment for this purpose. The Institute at its discretion may upgrade / modify the specification if required.
4. The rate quoted must be F.O.R. NITTTR, KOLKATA inclusive of packing, forwarding, installation including fixing, cabling etc., operational training etc.. Excise duty, GST, Service Tax, Octroi, surcharge and insurance, if any must be indicated separately. Educational discount, if any should be indicated clearly. For imported items, Custom duty shall be indicated separately. NITTTR, Kolkata is registered with the Department of Scientific and Industrial Research (DSIR) for the purpose of availing customs duty exemption in terms of Govt. Notification No 10/97-Central Excise dated 1 March, 1997 as amended from time to time. The institute will provide the necessary documents for Excise

and Custom duty exemption on selected items while placing the purchase order. GST must be quoted in the tender, wherever applicable.

4.1 NITTTR, KOLKATA will not provide Central Sales Tax Form "D", wherever applicable.

4.2 All legal disputes shall be under the jurisdiction of the Kolkata Courts in the state of West Bengal.

5. **Earnest Money Deposit (EMD):**

1 “EMD at the rate of 4% of the Estimated Price, i.e. **INR 4 Lakh**” in the form of Crossed Account payee demand draft or fixed deposit receipt from commercial bank or Bank guarantee from a commercial bank drawn in favour of **Director, NATIONAL INSTITUTE OF TECHNICAL TEACHERS’ TRAINING AND RESEARCH, KOLKATA** on any scheduled bank at Kolkata shall be submitted along with the tender. Tender without earnest money deposit shall be **OUTRIGHT REJECTED**. A model format of bank guarantee for furnishing EMD is enclosed in Annexure – A.

5.2 Forfeiture of EMD: EMD of a tenderer will be forfeited if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender. Further, if the successful tenderer fails to furnish the required performance security within the specified period, its EMD will be forfeited.

5.3 Refund of EMD: EMD furnished by all unsuccessful tenderers shall be returned to them without any interest whatsoever, at the earliest after expiry of the final tender validity period but not later than 30 days after conclusion of the contract. EMD of the successful tenderer shall be returned, without any interest whatsoever, after receipt of performance security from it as called for in the contract.

5.4 No EMD is required from bidders who are registered with (i) Central Purchase organization (ii) NSIC, (iii) the concerned Ministry or Department, and (iv) similar other Organisation as applicable.

5.5 EMD in the form of DD / Cheque / FD / Bank guarantee should be in a separate envelop superscribing “EMD”.

6. **Each bidder shall submit only one tender.**

7. **Validity of Tender:**

Tender shall remain valid for a period not less than 6 months after the deadline date specified for submission.

8. **Delivery Period:**

The period of delivery shall be mentioned in the tender.

9. **Submission of Documents**

The tender should inter alia include the following :

9.1 Printed copy of the broucher/leaflet containing, Make, Model No. and specifications.

9.2 Copy of GST Registration certificate.

9.3 Copy of Income Tax acknowledgement (F.Y. 2016-17) and PAN Card

- 9.4 Copy of valid Trade License.
- 9.5 Copy of valid excise duty Clearance Certificate, if applicable
- 9.6 Copy of valid custom duty clearance certificate, if applicable
- 9.7 Copy of valid registration certificate from State/Central Government.
- 9.8 Copy of valid registration certificate of SSI Unit, if any.
- 9.9 The Tenderer (s) may furnish a list of clients serviced during the last three (3) years along with satisfactory completion certificates and furnish audited accounts for last three years.
- 9.10 Copy of work order of similar items provided to educational institute.

10. **Bid Price:**

While furnishing the quoted price, the tenderer(s) may note the following:

- 10.1 The contract shall be for each item of equipment / instrument / software as mentioned in the schedule of goods/services. Corrections, if any in quoted price, shall be made by crossing out, initialing, dating and rewriting.
- 10.2 All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price and Taxes should be quoted separately.
- 10.3 The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account, except revision of taxes and duties.
- 10.4 The prices should be quoted in Indian Rupees only.
- 10.5 The rate quoted must be both in words and figures.
- 10.6 The quantity against each item mentioned in the tender may vary according to the actual requirement at the time of placing Purchase Order.
- 10.7 **Liquidated Damages / Penalty Clause for Late delivery and Late Installation**
 - (a) In case of delay in supply (i.e. after the latest period of delivery) and installation on part of the supplier, a penalty @0.5% per week of order value will be charged for delayed period subject to maximum of 10% of the order value.
 - (b) The same rate of penalty shall be applicable for late installation of the equipment also.

11. **Award of Contract:**

The NITTTR, KOLKATA will award the contract to the bidder whose tender has been determined to be substantially responsive in terms of technical specifications, terms & conditions and price quoted.

- 11.1 Notwithstanding the above, NITTTR, KOLKATA reserves the right to accept or reject any tenderer(s) and to cancel the bidding process and reject all tenderer(s) at any time prior to the award of contract.
- 11.2 The bidder whose bid is accepted will be notified of the award of contract by the NITTTR, KOLKATA prior to expiration of the tenderer(s) validity period. The accepted terms of the offer shall be incorporated in the purchase order.

12. **Performance Security:**

- 12.1 Performance security at the rate of 10 % of the contract value in the form of account payee demand draft, fixed deposit receipt from commercial bank or Bank guarantee from a commercial bank in favour of Director, NITTTR, Kolkata shall be submitted within 21 days after the notification of the award of contract. Performance security should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations. A model format of Bank guarantee for providing performance security is enclosed at Annexure –B. The institute will release the payment once performance security is received.
- 12.2 Forfeiture of Performance Security: Performance security is to be forfeited and credited to the Institute Account in the event of a breach of contract by the supplier, in terms of the relevant contract.
- 12.3 Refund of Performance security: Performance security should be refunded to the supplier without any interest, whatsoever, after it duly performs and completes the contract in all respects but not later than 60 days of completion of all such obligations under the contract.

13. Payment:

Payment will be made after delivery & installation-cum-satisfactory commissioning of the goods / services and training of personnel.

14. Normal Commercial Warranty/ Guarantee:

Normal commercial warranty/ guarantee of five years shall be applicable to the supplied goods/ services and this should be specified clearly by the bidder. Warranty will start from the date of installation-cum-commissioning of the system. The vendor should ensure that start date of warranty from the manufacturer accordingly.

15. Live Demonstration:

Live demonstration of the item(s) should be arranged by the vendors at their cost, if asked by the Institute before issue of work order.

16. Evaluation of Tender:

Bids to be obtained in two parts as under:-

- (a) Technical bid consisting of all technical details along with commercial terms and conditions; and
- (b) Financial bid indicating item-wise price for the items mentioned in the technical bid. Financial bid must be provided in accordance with the items given in Part 'C'.

The technical bid and the financial bid should be sealed by the bidder in separate covers duly superscribed and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed.”.

- (c) “.... The technical bids are to be opened in the first instance, at prescribed time & date and the same will be scrutinized and evaluated by competent committee/authority with reference to parameters prescribed in the tender documents and the offers received from the tenderers. Thereafter, in the second stage, the financial bids of only the technically acceptable offers (as decided in the first stage above) are to be opened for further scrutiny, evaluation, ranking and placement of contract”

17. Points which are not explicitly covered under “**terms and conditions**” above shall be covered by Manual on Policies and Procedures for Purchase of Goods circulated by Ministry of MHRD, Govt. of India and **General Financial Rules 2017** by Govt. of India. A copy of the same is available in the office of the Department of Computer Science and Engineering for perusal of the tenderers. Tenderers are advised to go through the manual before submission of their tenderers. A soft copy of the manual can also be downloaded from <http://finmin.nic.in/>.
18. The non-transferable tender document excluding standard agreement form can be obtained from the Office of the Accountant as per above users on payment of **₹ 500/- (Rupees Five Hundred only)** in cash or Demand Draft in favour of the Director, NITTTR, Kolkata. **The users of downloaded tender document shall have to pay the cost of tender document i.e. ₹ 500/- by way of Demand Draft in favour of the Director, NITTTR, Kolkata payable at Kolkata while submitting their tender. Otherwise the Tender will not be accepted.**

You are requested to provide your offer as per schedule provided in Notice Inviting Tender in the sealed envelope super-scribing “**Tender Advt. No. 14/2017-18**”

To,
Director,
National Institute of Technical Teachers’ Training and Research,
Block – FC, Sector – III,
Saltlake City, Kolkata – 700 106
PIN: 700 106 Tel. No. +91(033) 2337-0479/4125
Fax No. 2337-6331

ANNEXURE - A

MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

Whereas
.....(hereinafter called the "tenderer").....
has submitted their offer dated
for the supply of.....
.....(hereinafter called the "tender").....
against the purchaser's tender enquiry No.
KNOW ALL MEN by these presents that WE
ofhaving our registered office at
.....are bound unto.....
(hereinafter called the "Purchaser")
in the sum of
for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its
successors and assigns by these presents. Sealed with the Common Seal of the said Bank this
.....day of20

THE CONDITIONS OF THIS OBLIGATION ARE:

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

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

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

(Signature of the authorized officer of the Bank)
Name and designation of the officer

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

ANNEXURE - B
MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

To
The Director,
NITTTR, Kolkata

WHEREAS

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

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

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

NOW THEREFORE we hereby, affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of

..... (amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

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

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

This guarantee shall be valid until the day of, 20

(Signature of the authorized officer of the Bank)
Name and designation of the officer
Seal, name & address of the Bank and address of the Branch