

National Institute of Technology, Rourkela

Tender No: TEQIP-II/NITR/192

(High Performance computing system)

Clarification to tender Document of High Performance Computing System
(**Package No 192**) after Pre bid meeting on 09.09.2016 at 4.00 PM.

Date of opening of the Bid (Only for Package No 192) has been changed from 12.09.2016 to 14.09.2016 at 4.00 PM

Sl. No	Page No	Existing	To be modified to/ To be read as
1.	42	Components of Proposed HPC Setup:	
A		1 Master Node, 1 Login Node and 1 management node	To remain as it is. There will be one master node, one login node and one management node.
B		2 No of GPU nodes with Nvidia Tesla/ Intel Phi accelerator	To be dropped. No GPU nodes are required.
C		4 No of Storage I/O Nodes	4 No of Storage I/O Nodes
D		Master Node (1U Rack Servers)	Master node/ Login node/ Management node – 1 each (1U rack server)
E		3.2/4 TB 10K rpm Hard Disk (2 disks with hardware RAID1)	4X1.8TB 10K rpm SAS Hard Disk (4 disks with hardware RAID 1/ 5)
F		Login /Management Node (1U Rack Servers) – 1unit	Point absorbed in D above.
G		Compute Nodes with common infrastructure with each having – 24 units: 1 TB Hard Disk capacity (2 disks with hardware RAID1)	2X1 TB SAS HDD capacity (2 disks with hardware RAID1)
H	43	Storage I/O Nodes (For parallel file system) – 3units	Storage I/O Nodes (For parallel file system) – 4units 4units to be included instead of 3
I		1TB Hard Disk capacity (2 disks with hardware RAID1)	2X1.8 TB Hard Disk capacity (2 disks with hardware RAID1)
2.	44	Sl no2. Compute Node Specifications: Each of the compute nodes in the chassis/enclosure should be configured with the following:	
A		ii. Memory Requirement - 128 GB to be configured using 2133MHz RDIMMs. Adequate DIMMs to be configured to populate all memory channels in a balanced manner.	ii. Memory Requirement - 128 GB to be configured using 2400MHz RDIMMs. Adequate DIMMs to be configured to populate all memory channels in a balanced manner.

			Compute node should be scalable to 16 DIMMs.	
	B		iii. Memory Scalability - Should be capable of scaling upto 512 GB Memory. Memory should still work at 2133MHz with 2 DIMMS per channel. Compute node should have minimum 16 DIMM slots.	iii. Memory Scalability - Should be capable of scaling upto 512 GB Memory. Memory should still work at 2400MHz with 2 DIMMS per channel. Compute node should have minimum 16 DIMM slots.
	C		vi. Disks required - To be configured with 1 x 1000GB SATA SFF disks @ 10Krpm	Disks required - To be configured with 2 x 1000GB SAS SFF disks @ 10krpm
3.		44	Master Node / Login Nodes	Master Node/ Login Nodes/ Management node (3 nodes one for each of the functionality)
	A	44	vii. Form Factor - 2U rack mountable or smaller form factor.	vii. Form Factor - 1U rack mountable or smaller form factor.
	B	44	ii. Memory - 128 GB(16GB x 8) DDR4, 2133 MHz ECC Memory, in balanced configuration for maximum performance	ii. Memory - 128 GB(16GB x 8) DDR4, 2400 MHz ECC Memory, in balanced configuration for maximum performance
	C	44	iii. Hard Drives - 6 x 1000GB 10K RPM SAS Disks, Hardware RAID with support for 0,1 and 5. (For login nodes only 2 x 1000GB 10K RPM SAS Disks)	iii. Hard Drives - 4 x 1.8TB 10K RPM SAS Disks, Hardware RAID with support for 0,1 and 5.
4		44	Master Node/ Login Node/ Management node Form Factor – 2U rack mountable servers or smaller	Master Node/ Login Node/ Management node Form Factor – 1U rack mountable servers or smaller
5		45	4 Master Node/ Login Node/ Management node	4. The nodes should be of same specification as Master node.
6		45	Storage nodes	The storage node should have 2XFC ports for connectivity to SAN storage.
7		45	Intel® Parallel Studio XE Cluster Edition for Linux* - Floating Commercial 2sts for 3yrs	Academic license pricing should be included
8			Optional Pricing	Optional pricing for additional compute node to be provided. This price should include OS and all other node dependent licenses.
9			Additional points 1. Installation, Training and support has to be provided by the OEM directly. 2. Warranty from manufacturer is essential to be provided. Part number in BOQ should be provided.	

			<ol style="list-style-type: none">3. System offered should have capacity to expand to 30 compute nodes with addition of compute nodes only. No other hardware in form of enclosure, InfiniBand switch etc should be required for this purpose.4. The Software for workload manager should be full featured and not express edition/ minimal functionality edition.5. The Intel Lustre file system software should be enterprise edition.6. The system rack should be a full height rack (42U).
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Additional Clarification related to Storage System to be Connected (Existing Infrastructure)

1. **Storage system details: Capacity-500TB, Make- HP, Model- 3PAR Store-Serv 7400 4-N Storage Base, HP Product Name: QR485A, No. of Controllers- 4**
2. **SAN Switch: No. of SAN Switch- 2; Make- CISCO; Model- MDS9148 multilayer fabric switch. Nearly 20 ports are available on each of the SAN switches for future expansion including user requirement against this tender.**

CORRIGENDUM

Date: 02.09.2016

With reference to IFB No.: NITR/TQ-II/NCB/2016/1368, Dated 02.08.2016 for the supply of equipments under TEQIP-II project, this is for information of all concerned that the SBD including **technical specification for Dynamic Mechanical Analyser, Package No. 205, has been changed** and the revised SBD has been uploaded for reference.

All other terms and conditions shall remain unaltered.

**Nodal Officer (Procurement)
TEQIP-II**

	NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA-769008 (ODISHA) TEQIP-II
INVITATION FOR BIDS (IFB) NATIONAL COMPETITIVE BIDDING FOR GOODS	
IFB No.: NITR/TQ-II/NCB/2016/1368 Date 02.08.2016	
The National Institute of Technology Rourkela invites sealed bids from eligible bidders for the following equipment under TEQIP-II project.	
<ol style="list-style-type: none">1. High performance computing system, Package No.1922. 2 Smart studios in existing building for recording of courseware for E-learning purpose, Package No.2013. Ultra Clean experimental facility, Package No.2024. Refrigeration experimental facility, Package No.2035. Heat transfer laboratory, Package No.2046. Dynamic mechanical analyser, Package No.205	
For	
Details: http://nitrkl.ac.in/Jobs_Tenders/9Equipment/Default.aspx Contact: Nodal Officer (Procurement); Ph: 0661-2462963; Email: teqip@nitrkl.ac.in	
N.B.: Corrigendum/Notice, if any, will be posted on Institute website only.	



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008**

**INVITATION FOR BIDS (IFB)
NATIONAL COMPETITIVE BIDDING FOR GOODS**

Date: 02.08.2016

IFB No. NITR/TQ/NCB/2016/1368

1. The Government of India has received a Credit 4685-IN from the International Development Association and a Loan (Loan IN) from the International Bank for Reconstruction and Development in various currencies towards the cost of TEQIP II project and it is intended that part of the proceeds of this credit will be applied to eligible payments under the contracts for which this Invitation for Bids is issued.

2. The National Institute of Technology, Rourkela now invites sealed bids from eligible bidders for supply of Packages listed below:

Sl. No.	Name	Package No.
1	High Performance computing system	192
2	2 Smart studios in existing building for recording of courseware for E-learning purpose	201
3	Ultra clean experimental facility	202
4	Refrigeration experimental facility	203
5	Heat transfer laboratory	204
6	Dynamic mechanical analyser	205

3. Interested Bidders may obtain further information on purchase of bid documents, time table for issue of bids and submission, cost of bid and methods of payments, technical specification, bid security and pre bid meeting, from the office of the TEQIP II National Institute of Technology, Rourkela, India, or visit the Institute website as per details below:

http://www.nitrkl.ac.in/Jobs_Tenders

Address: Nodal Officer (Procurement), TEQIP- II,
National Institute of Technology,
Rourkela- 769008, India
Ph:- 0661 – 2462010/2462963/2462529

Seal of office:

**Nodal Officer (Procurement)
TEQIP-II
National Institute of Technology
Rourkela-769008**

Important Dates

Package Name	Event	Date	Time
High Performance computing system (Pkg. No. 192)	Date of Commencement of Sale of Bidding Document	12/08/2016	09:00
2 Smart studios in existing building for recording of courseware for E-learning purpose (Pkg. No. 201)	Pre-bid Conference	09/09/2016	16:00
Ultra clean experimental facility (Pkg. No. 202)	Last Date of submission of Bid	12/09/2016	15:00
Refrigeration experimental facility (Pkg. No. 203)	Bid Opening Date	12/09/2016	16:00
Heat transfer laboratory (Pkg. No. 204)			
Dynamic mechanical analyser (Pkg. No. 205)			