NATIONAL INSTITUTE OF TECHNOLOGY

ROURKELA-769008 (ODISHA)

An Institute of National Importance under Ministry of HRD, GOI

NOTICE INVITING TENDER

Tender Notification No: NITR/PW/ME/2018/64 **Dated: 29/09/2018**

The National Institute of Technology, Rourkela invites bids from the eligible bidders for procurement of **ANSYS ACADEMIC RESEARCH AND DESKTOP COMPUTER**

Last date of Submission of Bid **: 29/10/2018 at 03:00 PM**
Date of opening of Technical Bid **: 30/10/2018 at 03:00 PM**

For Details:
http://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx
Contact: Dr. Tarapada Roy , ME; Ph: +91-661-2462507;
Email: tarapada@nitrkl.ac.in
Bidding through: https://eprocure.gov.in/eprocure/app

sd/-
REGISTRAR

NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA-769008, ODISHA

(TENDER NOTICE NO.: NITR/PW/ME/2018/64 dated: 29/09/2018)

[PURCHASE OF ANSYS ACADEMIC RESEARCH AND DESKTOP COMPUTER]

Item No	DESCRIPTION	Quantity
1	**ANSYS ACADEMIC RESEARCH (MECHANICAL & CFD, HFSS and EM)**	01 TASK FOR EACH (i.e. **MECHANICAL & CFD, HFSS and EM)**
2	**DESKTOP COMPUTER**	04

1. Quantity required **: as mentioned above** (**All information regarding technical specification provided in the Annexure-I**)
2. Delivery **:** Within 60 days from the date of purchase order
3. **Last Date of submission of Tender : 29/10/2018 at 03:00 PM**
4. **Date of opening of technical bid : 30/10/2018 at 03:00 PM**
5. The firm should not have been black listed at any time.
6. The submission of following bids by the tenderer should be through https://eprocure.gov.in/eprocure/app. Please follow the guidelines as per the portal.

PURCHASE OF ANSYS ACADEMIC RESEARCH AND DESKTOP COMPUTER
(Tender Notice No.: NITR/PW/ME/2018/64 dated: - 29/09/2018) Due on 29/10/2018 at 03:00 PM

7. **Liquidated damage clause** will be charged for any delay in supply of goods.
8. The validity of the tender shall be **90 days** from the date of opening of the bids.
9. Detailed advertisement including all tender documents is also available in our website at http://nitrkl.ac.in/OldWebsite/Jobs_Tenders/9Equipment/Default.aspx
10. NIT reserves the right to qualify or deny prequalification of any or all applicants without assigning any reasons.

(REGISTRAR)
NIT, Rourkela
Fax No- 0661-2462022
Ph. No -0661-2472021

Annexure-I

Technical Specifications for ANSYS ACADEMIC RESEARCH (MECHANICAL & CFD, HFSS and EM) (ITEM NO 1)

ITEM NO.	DESCRIPTION
1.	**<u>ANSYS Mechanical & CFD</u> (01 TASK EACH):** Advanced problem size limited bundle of Multiphysics, Mechanical, CFD, Explicit simulation technology, includes BladeModeler, BladeGen, DesignModeler, DesignXplorer & MCAD Geometry Interfaces. ***<u>Structural & Fluids Solver Capability</u>*** ➢ ANSYS AIM Pro ➢ ANSYS DesignSpace ➢ ANSYS Mechanical ➢ ANSYS Rigid Dynamics (Rigid Body Dynamics) ➢ ANSYS Emag (legacy, replaced by ANSYS Maxwell) ➢ ANSYS Multiphysics capability (includes LF Emag, HF Emag & FLOTRAN) ➢ ANSYS CFX Full Capability Solver ➢ ANSYS MFS Solver (Single code coupling) ➢ ANSYS MFX Solver (Fluid Structural Interaction) ➢ ANSYS Mechanical User Programmable Features (USER300 & related commands) ➢ ANSYS Fluent ➢ ANSYS Fluent NOx ➢ ANSYS Fluent Fiber Module ➢ ANSYS Fluent MHD Module ➢ ANSYS Fluent Population Balance Module ➢ ANSYS Polyflow (Full Capability) ➢ ANSYS Autodyn (2D & 3D) ➢ ANSYS Explicit STR (Autodyn Lagrange) ➢ ANSYS Icepak ➢ ANSYS Aqwa Suite ***<u>MCAD Geometry Interfaces</u>*** ➢ Neural File Import (IGES, STEP) ➢ ANSYS Geometry Interface for Parasolid ➢ ANSYS Geometry Interface for SAT ➢ ANSYS Geometry Interface for Solidworks ➢ ANSYS Geometry Interface for CATIA V5 Reader ➢ ANSYS Geometry Interface for CATIA V6 Reader ➢ ANSYS Geometry Interface for SolidEdge ➢ ANSYS Geometry Interface for Autodesk ➢ ANSYS Geometry Interface for NX ➢ ANSYS Geometry Interface for Creo Parametric ➢ ANSYS Geometry Interface for Creo Elements/Direct Modeling (One Space ➢ ANSYS Geometry Interface for JT ➢ ANSYS Direct CAD interface for SDRC I-DEAS (Legacy - Use with ICEM CFD only)

Pre & Post Processing Features & Workbench Applications

- ANSYS PrepPost (Includes ANSYS M-APDL Prep7, Post1)
- Workbench Schematic (Project Page)
- ANSYS DesignModeler
- ANSYS Workbench Meshing (Includes Extended Meshing)
- ANSYS DesignXplorer
- ANSYS Workbench Mechanical Application (Simulation)
- ANSYS Workbench Resources (Engineering Data)
- ANSYS Workbench Design Point Updates
- ANSYS Composite PrepPost
- ANSYS CFX-Pre
- ANSYS CFD-Post
- ANSYS Autodyn PrepPost
- ANSYS Fluent Prep & Post
- Polydata
- ANSYS ICEM CFD Meshing
- ANSYS LS-DYNA PrePost & Drop Test Module
- Parametric Variational Technology (VT) at the element level
- ANSYS Fatigue Module
- ANSYS FEModeler
- FEModeler - Mesh Morpher
- ANSYS TurboGrid
- ANSYS Blademodeler (Bladegen, BladeEditor & VISTA CPD, CCD, AFD & RTD)

PERFORMANCE COMPUTING

- **Built-in HPC (Minimum16 cores per task)**
- Ability to extend built-in HPC (at extra cost)
- Mechanical & Fluids HPC - Shared Memory, Distributed Memory, Domain
- General Purpose GPU Support (ANSYS Mechanical & ANSYS Fluent solvers)
- ANSYS Remote Solver Manager (RSM)
- VT Accelerator & Frequency Sweep VT (Legacy- Replaced by Design Point

ANSYS EM ((01 TASK):

Bundle of low frequency electromagnetics (Maxwell) and system level (Simplorer Advanced) simulation technology, also includes RMXprt, Pexprt & MCAD AnsoftLinks interfaces.

- ANSYS Q3D Extractor 3-D solver
- ANSYS Q3D RL (AC & DC) & CG modeler
- ANSYS Q3D Transmission line modeler
- ANSYS Maxwell Transient solvers
- ANSYS Maxwell AC Electromagnetic Solver
- ANSYS Maxwell Magnetostatic Solver
- ANSYS Maxwell Electric Field Solver
- ANSYS Maxwell Vector Hysteresis Modeling
- ANSYS Maxwell Dynamic Link with ANSYS Simplorer
- ANSYS RMxprt Brush & Electronic Commutator Machine
- ANSYS RMxprt Induction & Synchronous Machine
- ANSYS PExprt 2D Conduction, AC Conduction, Eddy Current & Eddy Axial Field

- ANSYS PExprt Circuit, Electrostatic, Motor & Magnetostatic Solvers
- ANSYS Simplorer Advanced
- ANSYS Simplorer VHDL-A/MS
- ANSYS Simplorer CoDesign Interface for MATLAB & Simulink
- ANSYS Simplorer CoDesign Interface for Mentor Graphics ModelSim
- ANSYS Simplorer C Programming Interface
- Import Ansoft Neutral Files from Ansoft Products
- Import from 3rd party EDA exported data
- ANSYS Alinks for MCAD (IGES, STEP, Pro/E)
- ANSYS Alinks for Parasolid
- ANSYS Alinks for CATIA V4 & V5
- ANSYS Alinks for NX
- ANSYS Alinks for Solidworks
- ANSYS Alinks for AutoDesk Inventor

ANSYS HFSS ((01 TASK)

Bundle of high frequency electromagnetics (HFSS), RF & Signal Integrity (Designer & SI Wave) simulation technology, also includes Q3D extractor, Optometric, EDA & MCAD AnsoftLinks interfaces).

ANSYS HFSS

- ANSYS HFSS Frequency Domain Solver
- ANSYS HFSS Time Transient Solver
- ANSYS HFSS Integral Equation Solver
- ANSYS HFSS Hybrid Solver
- ANSYS HFSS Phyical Optics Solver
- ANSYS HFSS Fullwave Spice Export
- ANSYS Q3D Extractor 3-D solver
- ANSYS Q3D RL (AC & DC) & CG modeler
- ANSYS Q3D Transmission line modeler
- ANSYS Designer RF & SI - Integrated Schematic &
- Layout
- ANSYS Designer RF & SI - Linear/DC Analysis
- ANSYS Designer RF & SI - Field solver dynamic
- links
- ANSYS Designer RF & SI - Solver on demand
- ANSYS Designer RF - Planar EM
- ANSYS Designer RF - System Analysis
- ANSYS Designer RF - Smith/transmission line
- ANSYS Designer RF - Harmonic Balance, Oscillator
- & Envelope
- ANSYS Designer SI - Transient
- ANSYS Designer SI - QuickEye & VerifEye
- ANSYS Designer SI - IBIS-AMI
- ANSYS Designer SI - 2D Extractor
- ANSYS SIwave I2R DC solver
- ANSYS SIwave Plane Resonance Solver
- ANSYS SIwave Automated Capacitance decoupling
- analysis
- ANSYS SIwave AC Solver (SYZ)

	➢ ANSYS SIwave Frequency Sweep Solver ➢ ANSYS SIwave Near & Far Field Solvers ➢ ANSYS SIwave Synopsis HSPICE integration ➢ ANSYS SIwave Flight Time Calculator (Signal Net ➢ Analyzer) ➢ ANSYS SIwave Circuit Analy. **Details of the deviation must be provided along with technical bid.**

TECHNICAL SPECIFICATIONS FOR DESKTOP COMPUTER (ITEM NO 2)

ITEM NO.	Specification	Sub Specification	Value
2.	Processor	Processor Make	Intel
		Processor Generation	7^{th}
		Processor	Intel Core i7-7700K (4.2 GHz, 8 MB Cache, 4 Cores)
	Motherboard	Chipset	Intel Q270
		Expansion Slots (PCIe x 1) (Number)	2
		Expansion Slots (PCIe x 4) (Number)	1
		Expansion Slots (PCIe x 16) (Number)	2
	Graphics	Graphics Type	Dedicated/Discrete
		Graphic Memory	2GB
	Operating System	Operating System (Pre-Loaded)	Windows 10 Professional
	RAM	Type of RAM	DDR 4
		RAM Size (GB)	32
		RAM Expandability upto (GB)	64
		RAM Speed (MHz)	2400
	Storage	Hard Disk (GB)	2000
	Cabinet	Cabinet	Tower
		Cabinet Volume (Litres)	21.01**(Range of the width for at least one cabinet with PCIe slot (express)): 18-20 centimetre)**

		Internal Bays	3
		External Bays (Number)	1
		DIMM Slots (Number)	4
	Connectivity	Wireless	Wi-Fi 802.11ac + Bluetooth
		Network Connectivity	10/100/1000 on board Integrated Gigabit Port
	Ports	USB Port 2.0 (Number)	4
		USB Port 3.0 (Number)	6
		Serial Port	False
		Parallel Port	False
		VGA	False
		HDMI	False
		Display Port	True
	Monitor	Monitor Size (INCHES)	24
		Monitor Resolution (PIXELS)	1920x1080
		Monitor Certification	TCO 7.0
	Power	Power Supply (Watt)	250
		Minimum Power Efficiency(%)	85
	Certification	ROHS Compliance	Yes
		BEE / Energy Star for the given Model	True
	Input Devices	Mouse	Optical
		Keyboard	Standard
	Generic	Optical Drive	DVD R/W
		Internal Speaker	True
		On Site OEM warranty of whole system (in years)	3
Details of the deviation must be provided along with technical bid.			

Other Qualification Criteria:

1. Proprietary certificate of the OEM for the Product of **Item no. 1** must be provided along with technical bid.(If Applicable)
2. Copy of the authorization from the Manufacturing Company in case of Authorized Distributor /Dealer (if any) will be provided along with the technical bid.
3. Scanned copies of the technical brochure of the **item no. 1 and item no. 2** (**Annexure-I**) given in the quotation must be included in the technical bid.
4. Web references of the **item no. 1 and item no. 2** (**Annexure-I**) must be provided along with the technical bid.
5. Pointwise technical compliance along with any deviation of the mentioned specifications for item no. 1 and item no. 2 ((**Annexure-I**) must be indicated along with technical documents.
6. Make and model no. of **item no. 2** must be provided in the technical bid.