

# KAMLA NEHRU INSTITUTE OF TECHNOLOGY,

# **SULTANPUR (U.P)- 228118**

Phone & Fax - 05362-240454

## INVITATION FOR QUOTATIONS FOR

#### CIVIL WORKS UNDER SHOPPING PROCEDURES

То			
Dear Si	rs,		
	Sub: INVITATION FO	OR QUOTATIONS FOR CIVIL WOR	KS
1.	You are invited to submit y	your most competitive quotation for th	e following works:-
	Brief Description	Approximate value of Works (Rs.)	Period of of the Works Completion
		As per Annexures attached	
2.	various currencies towards		ional Development Association (IDA) in intends to apply part of the proceeds of this ation for quotations is issued
3.		<b>npur(UP)</b> , invites bids for civil works	
4.		e downloaded from the institute websit	
5.			up table) in shape of demand draft or cash
6.	receipt in favor of <b>Directo</b>	r KNII Sultanpur(UP), ation of your quotation, we are enclosi	ng the following:
0.			Specifications;
	T ( ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	11	
	v. Instructions to Bio	aders	
7.	WBTEQIP-II, K.N.I.T. S	Sultanpur-228118 (UP) before the sti	IP-II Cell, Coordinator (Procurement), pulated date and time on OR before 15:00 30 hrs in the presence of the bidders who

We look forward to receiving your quotations and thank you for your interest in this project.

wish to attend in the committee room of the institute.

Sd/-

**Coordinator (Procurement)** 

On behalf of the

Director, K.N.I.T.Sultanpur(UP) – 228118

#### **Instruction to bidders**

- 1. Quotation shall remain valid for a period not less than **90 days** after the deadline date specified for submission.
- 2. The work must be completed in all respect within specified period from the date of award of work.
- 3. Each downloaded duly quoted package should be submitted along with nationalized/scheduled bank demand draft of appropriate amount as an Earnest money deposit (EMD) in favour of "Director, K.N.I.T. Sultanpur (UP), (@2% for each package), else bid(s) is/are liable for rejection in toto. **Separate draft of EMD** should be for each package.
- 4. Rate must be quoted item wise only. Rate quoted in Percentage or in other form will not be considered. All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price.
- 5. The contract shall be for the whole works as described in the Bill of quantities, drawings and technical specifications. Corrections, if any, shall be made by crossing out, initialling, dating and re writing.
- 6. 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. Any quotation received after the deadline for submission of quotations will be rejected and returned unopened to the bidder.
- 7. Each bidder shall submit only one quotation. The rates should be quoted in Indian Rupees only.
- 8. Qualification of the bidders The bidder shall provide qualification information which shall include.
  - (a) Total monetary value of civil / Refurbishment works preformed on last three years (with a copy of such proof) should not be less than Rs.5.0 lacs.
  - (b) Income tax clearance certificate of PAN No. from the concerned IT circle.
  - (c) Details of any litigation, current or during the last 3 years in which the bidder is involved, the parties concerned and disputed amount in each case.
  - (d) should possess valid electrical license for executing building electrification works (in the event of the works being sub contracted, the sub-contractor should have the necessary license);
- 9. The quantity of work may be vary up to +20%.
- 10. The bidder is advised to visit the site of work at his own expense and obtain all information that may be necessary for preparing the quotation.
- 11. The bidder shall seal the quotation in an envelope addressed to the **Director KNIT Sultanpur(UP).** The envelope will also bear the following identification:-

Quotation for	(Name of the Contract)
Do not open before	(time and date of quotation opening)

- 12. Information relating to evaluation of quotations and recommendations for the award of contract shall not be disclosed to bidders or any other persons not officially concerned with the process until the award to the successful bidder is announced.
- 13. Payments to the party for the refurbishment/repairing work may be released in the following manner:-

#### Payment of 50% amount of the award of contractcan be made after 75% of the total work executed

14. Within 15 days of receiving letter of acceptance, the successful bidder shall deliver the performance security (either a bank guarantee or a bank draft in favour of the **Director KNIT Sultanpur(UP).** ) for an amount equivalent of 3 % of the contract price. The Performance Security shall be valid till the expiry of the period of maintenance of the work.

- 15. The work must be completed within the time allowed for the same. Incase of any delay the contractor has to pay compensation for the delay @200/- per day subjected to the maximum 10% of the value of total work. The date of completion can be extended by the approval of **Director KNIT Sultanpur(UP)** on proper justification.
- 16. The "Period of Maintenance" for the work is six months from the date of taking over possession or one full monsoon season whichever occurs later. During the period of maintenance, the contractor will be responsible for rectifying any defects in construction free of cost to the Employer.
- 17. The **Director KNIT Sultanpur(UP)** reserve the right to accept or reject any bid and to cancel the bidding process and reject all bids at any time prior to the award of contract.
- 18. The "Defects Liability period" for the work is six month from the date of completion. During this period the contractor will be responsible for rectifying any defects in work free of cost to the Employer.
- 19. Rest condition will be as for P.W.D. Norms.
- 20. All legal disputes are subjects to the jurisdiction of **Sultanpur (UP)** court only.

Sd/-

**Coordinator (Procurement)** 

On behalf of the

Director, K.N.I.T.Sultanpur(UP) - 228118

#### QUOTATION

Description of the Works:		
To:		
Subject : Construction of		
Reference : Letter No	dated	from
Sir,		
	•	pove in accordance with the Conditions of estimated rates, i.e., for a total Contract Price of -
Rs.**		[in figures]
Rs		[in words].
This quotation and your written accept us you are not bound to accept the lower		pinding contract between us. We understand that
We hereby certify that we have take bribery.	en steps to ensure that no perso	on acting for us or on our behalf will engage in
We hereby confirm that this quotation	on is valid for 90 days as require	ed in the Instructions to Bidders.
Yours faithfully,		
Authorized Signature :		Date:
Name & Title of Signatory:		
Name of Bidder :		
Address :		

- \* To be filled in by the Employer before issue of the Letter of Invitation.
- \*\* To be filled in by the Bidder, together with his particulars and date of submission at the bottom of this Form.

#### LETTER OF ACCEPTANCE

#### CUM NOTICE TO PROCEED WITH THE WORK

## (LETTERHEAD OF THE EMPLOYER)

	Dated :
	[Name and address of the Contractor]
To:	_
	_
	_
	_
Dear Sirs,	_
•	Quotation dated for execution of the for the contract price of Rupees [amount in words and figures], is hereby accepted by us.
(equivalent to 3% of the contract price) within 1: form of Bank guarantee or a Bank draft in favour	reformance security for an amount of Rs.  5 days of the receipt of the letter. The Performance Security in the rof <b>Director KNIT Sultanpur(UP)</b> shall be valid till the expiry of Failure to furnish the Performance Security will
	agreement form and proceed with the work not later than structions of the Engineer, and
With the issuance of this acceptance let above said work stands concluded.	tter and your furnishing the Performance Security, contract for the
	Yours faithfully,

Su/-

Sd/-

**Coordinator (Procurement)** 

On behalf of the

Director, K.N.I.T.Sultanpur(UP) – 228118

#### Format of certificate

<u> </u>	level in respect of construction of have been executed in accordance with the approved
drawing and technical specifications.	11
	Signature
	Name & Designation
	(Official address)
Place :	
Date:	
	Office seal

## Kamla Nehru Institute of Technology, Sultanpur

#### **Civil Works**

## Package Code- TEQIP-II/UP/UP2G05/54

#### PackageName

## TEQIP-II/UP/KNIT/CivilWorks/Shopping/01

Estimated Total Cost Rs. 1500000=00  Earnest Money Deposit (EMD) – Rs. 30000=00  Period of Completion of Work-90 days				
S.No.	Name of Equipment	Specification	Quantity	
1	Refurbishment work at CSA Hall	S/F of vitrified tiles, S/F of split AC, Electrification and repairing at CSA HAll	01	
2	Refurbishment work at TEQIP Office	Al. section work on door,window, S/F of split AC,Plastic Painting, PVC flooring etc.	01	
3	Refurbishement of Toilet block in Academic Area	Tile on Floors and Walls, replacement defective and non functional items etc.	01	

## Bill of qty for Supply and fixing of vitrified tiles, S/F of split A.C., Electrification and repairing at C.S.A. Hall.

Sr.No.	Item	Qty	Rate	Amount (Rs.)
1	Providing & laying of 8 to 10 mm thick ivory or light shade Vitrified			
	tiles of 600 mm x 600 mm size in flooring or skirting laid with 1:3			
	cement mortar (1 Cement: 3 Coarse sand) finishing with cement			
	slurry & with pigment grouting & polishing complete I/C supply of			
	all materials, labour T& P required for proper completion of word			
	incising base concrete 1:2:4: (1 Cement: 2 coarse sand: 4grit 20mm)			
	average base thickness 40mm etc. Including dismantling of old	m2		
	flooring of the hall.	350 <sup>m2</sup>		
2	15mm cement plaster in repair in 1:3 as (N.B.O. 17.59 (i))	10 <sup>m2</sup>		
3	White washing two coat as (N.B.O. 18.12+18.13)	945.37 <sup>m2</sup>		
4	Oil bound distempering two coat as (S.I. 650+650)	690.39 <sup>m2</sup>		
5	Finishing wall with water proof cement paint two coat (S.I.661+662)	131.91 <sup>m2</sup>		
6	Enamel painting two coat as (S.I. 642+643)	172.95 <sup>m2</sup>		
7	S/F Split A.C. (2 Ton) With Stabilizer (90-250V range) (Standard	3 Nos		
	Make, complete specifications must be mentioned)			
8	Electrification works (As per detail Attached )** given just below			
	Total			

## Estimate for power wiring /Ac wiring at CSA Hall\*\*

S.No	Description of item	Quantity	Rate Rs.	Amount Rs.
1	S&F of 6A SPMCB (10 KA) 1002(A)	06 Nos		
2	S&F of 63A 4Pole MCB 1021 (A)	01 No		
3	S&F Surfuce /flush mounting 4 ways TPN DB without MCB with additional metal door complete in all respect 1026 (C)	01 No		
4	S/F of AC box – 30A /240V	03 Nos		
5	Wiring point for ligut with 1.059mm FRPVC insulated multistrand single core copper conductor cable in PVC conduit pipe on surface complete with switch and ceiling rose /angle /batten holder complete in all respect. 121 (C)	15 Nos		
6	Wiring point for fan / fresh air fan (Ligut duty exhaust fan ) with 1.0 sq.mm FR pvc insulated multisdtreand single core copper conductor cable in pvc conduit with 1.5 sq.mm FR pvc insulated multistrond copper conductor cable as earth wire drawn in side the conduit, and switch ceiling rose complete in all recpect 123 (C)	14 Nos		
7	Supply and wiring of submain with two number 4.0 sq.mm FR pvc inswated 1100V grade multistrand single core copper conductor cable 20mm dia duty (2 mm thick) pvc conduit on surface with one number 2.5 sq mm multistrand copper conductor caple as earth complete in all respect 211 (C)	350 mtrs		

8	Supply and laying of aluminium conducter pvc insulated armoured	50 mtrs		
	served sheathed cable 1100V grade surface the cable run shall be fixed			
	on Ms clamps etc. complete in all respect.			
	(i) 16 sq.mm 4core 501 (i)			
			Total	

#### Bill of qty for Aluminum Section work, Split A.C. Plastic painting and PVC flooring in TEQIP OFFICE

Sr.No.	Item	Qty	Rate	Amount (Rs.)
1	Supply and fixing of aluminum section door and window having			
	2mm thick Aluminum section excluding coating & an average			
	coating of 20 micron fully glazed made4 of aluminum door tube			
	(open able ) The rate will include cost of all materials fixture 4mm			
	thick glass, handles, locks, Screw, necessary beeding & excluding			
	cost of floor spring if required for proper completion of work as	20 sqm		
	per direction of Engineer I/C			
2	Cost of Floor Spring (Make must be mentioned)	1 Nos		
3	S/F Split A.C. (2 Ton) With Stabilizer (90-250V range) (Standard	1 Nos		
	Make, complete specifications must be mentioned)			
4	Wall painting (Two coat) with plastic emulsion paint of approved			
	brand and manufacture on decorative wall surface to give an even			
	shade including toughly brushing the surface clean of all dirt grease	80 sqm		
	loose places and prepared smooth (Including cost of Polly) as per			
	direction of Engineer I/C (N.B. 18.58+18.59)			
5	Supply and fixing of 2mm thick PVC flooring with the help of			
	resin &pressing it as floor including supply of all materials labour			
	T&P etc. required for proper completion of works as pre direction			
	of Engineer I/C (N.S.)	30 sqm		
6	Supply of curtain (approved quality with stitching) (N.S.)	20Rm		
	Total			

#### Bill of qty for Refurbishment of Toilet block in Academic Area

Sr.No	Item	Qty	Rate	Amount (Rs.)
1	Supply and fixing 6mm (1/4") thick china white glazed tiles in flooring or in skirting or dado laid with 1:3 cement and approved coarse sand			
	mortar finished with white cement slurry jointing and polishing complete including supply of all materials labour and tools & plants etc. Required for proper completion of the work. (as S/I 628)	300sqm		
2	Dismantling of old white glazed earthen ware W.C. pan (N.S.)	5 Nos		
3	Dismantling of old wash hand basin with fitting (N.S.)	10 Nos		
4	Dismantling of old Urinal pot including fitting	20 Nos		
5	Dismantling of old Damage PVC bib cock	10 Nos		
6	Dismantling of old Cistern	10 Nos		
7	Supply and fixing of white glazed earthen ware W.C. pan 580mm dia	5 Nos		

	(Orissapan ) (approved quality )		
8	Supply and fixing of low level cistern with fittings (approved quality)	5 Nos	
9	Supply and fixing of flat back or angular front Lipper urinal basin of	20 Nos	
	white glazed earthen ware 465 x 355 x 265mm with fittings (approved		
	quality)		
10	Supply and fixing of wash hand basin (Size 550 x400mm of ) white	20 Nos	
	glazed earthen ware with fittings (C.P. pillar cock C.P. waste jali waste		
	pipe (C.P. Angle cock led connection etc) ) (approved quality ) (NS)		
11	S/F of looking mirror of Atul make with Indian polish of 600mm x	10 Nos	
	450mm Dia size with beveled edge on hand board sheet with dip (NS)		
12	S/F of CP Brass towel rail 750 x20mm together with pair of C.P. brass	10 Nos	
	bracket to fit the towel rail (NS)		
13	Dismantling of old damage sewage pipe including cutting of floor (NS)	50rm	
14	Supply and fixing of New PVC pipe (3"d) for sewage as per diction of	50rm	
	Engineer in charge (Including fittings & materials ) (NS)		
15	Dismantling of old damage G.I. pipe line (NS)	150rm	
16	Supply and fixing of G.I. pipe line for repairing work (Including fitting		
	(a) 15mm dia	70rm	
	(b) 20mm dia	20rm	
	(c) 25mm dia	30rm	
17	S/F of CP brass bib cock	10 Nos	
18	Supply and fixing of fullway gate vowel		
	(a) 20mm dia		
	(b) 25mm dia	5 Nos	
10	47 47 47 47 47 47 47 47 47 47 47 47 47 4	10 Nos	
19	15mm cement plaster in repair in 1:3 as (NBO 17.59 (i))	100 <sup>m2</sup>	
20	Water proof cement painting two coal as (S-I 661+662)	200 <sup>m2</sup>	
21	S/F of flush door shutting	30 <sup>m2</sup>	
22	Enamel painting two coat as (S.I. 642+643)	200 <sup>m2</sup>	
Make	of fitting items should be mentioned		
	Total		

#### Kamla Nehru Institute of Technology, Sultanpur

#### **Civil Works**

## Package Code- TEQIP-II/UP/UP2G05/55

#### PackageName

## TEQIP-II/UP/KNIT/CivilWorks/Shopping/02

		Estimated Total Cost Rs.  Earnest Money Deposit (EMD) – Period of Completion of V	Rs. 45000=00
S.No.	Name of Equipment	Specification	Quantity
1	Repairing and extension of drainage in hostel area	Repairing and extension of drainage in hostel area	01
2	Repairing and extension of foot path (road side) in hostel area	Repairing and extension of foot path(road side) in hostel area with S/F of Paver etc.	01

#### Bill of qty for Repairing and Extension of drainage in hostel area

	of de, for repairing with Discountry of the moster when					
Sr.No	Item	Qty	Rate	Amount (Rs.)		
1	Earth work in excavation in trenches for drain as (S.I. 251)	$400^{\mathrm{m}2}$				
2	Providing and laying in cement concrete 1:5:10 as (S.I. 274)	45 <sup>m2</sup>				
3	Class -150 B/w in 1:6 as (S.I.303)	$70^{\text{m}2}$				
4	15mm cement plaster in 1:3 (1 cement : 3 coarse sand) as (NBO	800 <sup>m2</sup>				
	17.59 (i))					
5	R.C.C. work in 1:2:4 for drain cover as (S.I. 283)	25 <sup>m2</sup>				
6	M.S. work for R.C.C. as (S.I. 504 (b))	20qtl.				
	Total					

#### Bill of qty for Repairing of rood side with S/F of Paver

	Bill of qey for Repairing of Food state with 5/1 of Faver					
Sr.No	Item	Qty	Rate	Amount (Rs.)		
1	Supply and laying of 80mm thick I Shopped mechanically compressed inter locking cement convert paver block manufactured by high pressure & controlled vibration machine having plan dimension 200x (160+120mm) with minimum 5mm thick topping of O.P. cement mixed with 20% marble powder. The compressive strength of concrete paver block shall not be less then 30MPa & 4.5 kg/no. including cast of bedding sand and joint filling with sand all materials, labour, T&P etc required for proper completion of work as directed by Engineer in-charge and including U.P. VAT (NS)	1600 <sup>m2</sup>				
2	Distention of brick laid on footpath including stacking of dismantled materials as directed by Engineer in charge as (S.I. 697)	750 <sup>m2</sup>				
	Total					



## KAMLA NEHRU INSTITUTE OF TECHNOLOGY, SULTANPUR (U.P.) 228118

Advt. No:KNIT/TEQIP-II/15/01

# NOTICE INVITING QUOTATION (Under National Shopping of TEQIP-II)

- 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. Director, KNIT Sultanpur invites sealed quotations from eligible bidders for supply of goods, equipments /civil work for different departments /central facility of the Institute under TEQIP-II. Separate quotations should be submitted to the Office of the TEQIP-II for each package of various Departments / Central Facility:
  - (i)Civil Engg. (ii)Mechanical Engg (iii) Electrical Engg. (iv) Electronics Engg.(v) Furniture (vi) Air Conditioners with Stabilizers (vii) Smart Class Room Items (Projector, Interactive Board, Photocopier etc.)(viii) Anti Virus (ix) UPS (x) Civil Works (Refurbishment repairing etc.)
- 3. Quotation opening schedule: (I) Quotations for Packages of Civil and Mechanical Engg. can be submitted on or before 23/02/2015 up to 15.00 hrs and will be opened on same day 23/02/2015 at 15.30 hrs & (II) Quotations for Packages of Electrical Engg., Electronics Engg, Furniture, Air Conditioners with Stabilizers, Smart Class Room Items, Anti Virus, UPS can be submitted on or before 24/02/2015 upto 15.00 hrs and will be opened on same day 24/02/2015 at 15.30 hrs in the committee room of the institute.(III) Quotations for Packages of Civil Works can be submitted on or before 25/02/2015 up to 15.00 hrs and will be opened on same day 25/02/2015 at 15.30 hrs.
- 4. Quotations can be submitted using downloaded forms available on the institute website, along with a Bank Draft Earnest Money Deposit(EMD).
- 5. The submission of quotation, evaluation and the award of contract shall be guided entirely by the terms & condition specified in the quotation documents and as per guidelines of World Bank.
- 6. Institute reserves all rights to reject any one or all quotations without assigning any reason thereof.

For EMD, Specifications, Tender Document and other details visit our website: www.knit.ac.in

**DIRECTOR** 



## KAMLA NEHRU INSTITUTE OF TECHNOLOGY,

## **SULTANPUR (U.P)- 228118**

Phone & Fax - 05362-240454

# INVITATION FOR QUOTATION (Under National Shopping of Goods/Equipments TEQIP-II)

You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications. Sealed and separate quotations for the different packages of various departments are invited for supply of items along with earnest money deposit (EMD) in the shape of Demand Draft of PNB/SBI/BOB/BOLLD/CBI/UBI in favour of Director KNIT Sultanpur Avadh (UP)/ cash receipt of the Institute.

#### Quotation opening schedule:

- (i) Quotations for Packages of Civil and Mechanical Engg. should be submitted on or before 23/02/2015 upto 15.00 hrs and will be opened on same day 23/02/2015 at 15.30 hrs in the committee room of the institute.
- (ii) Quotations for packages Electrical Engg., Electronics Engg., Furniture, Air Conditioners with Stabilizers, Smart Class Room Items (Projector, Interactive Board etc.), Anti Virus, UPS should be submitted on or before 24/02/2015 upto 15.00 hrs and will be opened on same day 24/02/2015 at 15.30 hrs in the committee room of the institute.
- (iii) Quotations for Packages of Civil Works can be submitted on or before 25/02/2015 up to 15.00 hrs and will be opened on same day 25/02/2015 at 15.30 hrs in the committee room of the institute.

#### **GENERAL INSTRUCTIONS**

- Government of India has received a credit from the International Development Association (IDA) towards the cost
  of the Technical Education Quality Improvement Programme[TEQIP]-Phase II Project and intends to apply
  part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations
  under National shopping is issued.
- 2. Each downloaded duly quoted package should be submitted along with nationalized/scheduled bank demand draft of appropriate amount as an Earnest money deposit (EMD) in favour of "Director, K.N.I.T. Sultanpur (UP), (@2% for each package), else bid(s) is/are liable for rejection in toto. **Separate draft of EMD** should be for each package.
- 3. Supplier(s)/Bidder(s) should be manufacturer/distributor/dealer/authorized firm of the mentioned product(s)/goods and should submit the copies of ST No., company/firm registration or equivalent registration with the Central/State Government of India if any. Copies of OEM / Latest authorized dealership certificate for respective items should be enclosed.
- 4. The quotation(s)/bid(s) shall be sent in sealed envelope either by courier / post or in person only, within stipulated time period given in the respective package/bid document. The sealed envelope should clearly indicate on the left side corner of the envelope the Package no. The bid(s)/quotation(s) shall be submitted to the office of the Coordinator (Procurement), WBTEQIP-II, K.N.I.T. Sultanpur-228118 (UP) before the stipulated date and time. Bidder(s) should ensure that the bids submitted them are reached to the Coordinator (Procurement), well within stipulated day and time. Delay in submission of bid(s) for whatsoever reason will not be considered. Such bids are liable for rejection.

- 5. Prices quoted should be inclusive of all taxes. Rate should be quoted "FOR" K.N.I.T. Sultanpur 228118 (UP). Rate should be quoted in Indian Rupees **inclusive of** all Taxes, Duties, Transportation, Insurance, Installation, Commissioning etc. All duties and other levies payable by the supplier under the contract shall be included in the unit price. Break up of applicable taxes shall be quoted separately for all items.
- 6. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
- 7. The Prices should be quoted in Indian Rupees only. Format for submission of quotation is in Annexure-I.
- 8. The contract shall be for the full quantity as described above. Corrections, if any, shall be made by crossing out, initialing, dating and re writing. Signature of the Supplier should be there on every page of the bid.
- 9. The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account. Quotation shall remain valid for a period not less than 45 days from date of opening.
- 10. Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which are properly signed; and confirm to the terms and conditions, and specifications. The Quotations would be evaluated for all items together for each package.
- 11. Award of contract: The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.
  - (i) Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
  - (ii) The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
- 12. Payment shall be made in Indian Rupees as follows:

  Satisfactory Delivery Installation and Acceptance 100% of total cost
- 13. All supplied items should be under warranty of 12 months from the date of successful acceptance of items.
- 14. Commissioning / Installation is at suppliers cost. Supplier should provide free demonstration for the equipment / item provided. At least one hard copy/soft copy (CD) of working manual of each equipment/item(s) should be provided during the supply of goods at free of cost.
- 15. (a) Conditional Bid(s)/Quotation(s) will not be accepted. (b) Any breach of term(s) of contract at any stage and/or non-execution of firm Purchase Order by the supplier(s)/Bidder(s) shall be lead to forfeiture of Earnest money deposit(s).
- 16. All legal disputes are subjects to the jurisdiction of **Sultanpur (UP)** court only.
- 17. Right to accept or reject any bid or all bids without assigning any reason is reserved with the Institute (or Purchaser).

Sd/-

**Coordinator (Procurement)** 

On behalf of the

Director, K.N.I.T.Sultanpur(UP) - 228118

#### Annexure-I

## FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: \_\_\_\_\_

To:					
	The Director,				
	K.N.I.T. Sultanpur	-228118	(UP)		
Sl.	Description of goods	Qty.	Unit	Quoted Unit rate in Rs.	Total
No.	(with full			(Including Sales tax and other taxes payable ,Ex Factory	Price
	Specifications)			price, excise duty, packing and forwarding, transportation,	( Rs.)
				insurance, other local costs incidental to delivery and	
				warranty/ guaranty commitments)	
			1	Total Cost	
				Total Cost Rs.	
		•		ordance with the technical specifications for a total contra	•
of R	s. ———	(Amoun	t in fig	gures) (Rupees ——amount in words) w	ithin the
perio	d specified in the Invita	tion for	Quotati	ons.	
We o	confirm that the normal	comme	rcial wa	arranty/ guarantee of — months shall app	oly to the
offer	ed items and we also co	nfirm to	agree v	with terms and conditions as mentioned in the Invitation	Letter.
Weh	nereby certify that we ha	ive taker	steps t	to ensure that no person acting for us or on our behalf wi	ll engage
in br	ibery.				
Signa	ature of Supplier				
Nam	e:	_			
Addr	ess:				
Cont	act No:				

#### KNIT, Sultanpur

#### **Geotechnical Engineering Lab**

Package Code- TEQIPII/UP/UP2G05/4

PackageName- TEQIP-II/UP/KNIT/CE/GE/Lab/Shopping/01

	Earnest Money Deposit (EMD) – Rs. 41000=0				
		Delivery Period—	45 days		
S/N	Name of Equipment	Specifications	Qty		
1	Triaxial Shear Apparatus equipped with electronic outfit	Equipped with direct reading of strain, total load and pore pressure, plug-in transducer module system, complete with all accessories	1		
2	Consolidation Test Apparatus with Electronic Outfit	3 gang electronic, total pressure of 10 kg/cm <sup>2</sup> , fitted with transducer modules and readout unit having 3-6 channels	1		
3	C.B.R. Test Apparatus fitted with Electronic Outfit	Load frame 50kN, digital indicator, load cell 50kN, strain gauges in full bridge configuration	1		
4	Direct Shear Apparatus fitted with Electronic outfit	2kN capacity, equipped with direct reading of strain, total load and strain and plug-in transducer module system, complete with all accessories	1		
5	Unconfined Test Apparatus with Electronic Outfit	Equipped with direct reading of strain, total load and strain and plug- in transducer module system, complete with all accessories	1		
6	Swell Pressure Apparatus	Capacity 50kN, fitted with proving ring of high sensitivity complete with all accessories	1		
7	Pore Pressure Apparatus	10-20 kg/cm <sup>2</sup> capacity, Bourdon type pressure gauge, divisions- 0.1 bar	2		
8	Permeameters: Constant Head, falling Head, Granular Soils	Complete with sample holding moulds, panel for manometers, overhead tank, rammer etc. with all accessories	1 each		
9	Equipment for Sedimentation Analysis	Inclusive of bench top stirrer, constant temperature bath, soil hydrometer, sedimentation jar and accessories	2		
10	Gas Jar Apparatus for Specific Gravity	1litre capacity, complete with rubber bung and glass cover, should be capable of rotating two jars at appx. 50 rpm	2		
11	Constant Pressure System	Oil-water/air-water type, pressure capacity 7-17 kg/cm <sup>2</sup> in 0.5 kg/cm <sup>2</sup> or less increments	1		

#### KNIT, Sultanpur

## **Environmental Engg. lab**

## Package Code- TEQIPII/UP/UP2G05/3

## PackageName- TEQIP-II/UP/KNIT/CE/GE/Lab/Shopping/03

	Earnest Money Deposit (EMD) – Rs. 5000=0				
	Delivery Period—45 o				
S/N	Name of Equipment	Specifications	Qty		
1	High Volume Air Sampler	USEPA compliant PM <sub>10</sub> and PM <sub>2.5</sub> systems for Indoor or outdoor sampling of airborne total suspended particulates (TSP), flow range-0-2 cubic meters per minute (cmm), suitable for spot or continuous monitoring, built-in rotometer for instantaneous flow reading, timer, should Include 4" (10.16 cm) diameter filter holder assembly. For use in normal, non-explosive atmosphere and should have the provision for gaseous sampling by gaseous sampling attachment	01		

## KNIT, Sultanpur

## Surveying / Geoinformatics Lab

Package Code- TEQIPII/UP/UP2G05/4

PackageName - TEQIP-II/UP/KNIT/CE/GI/Lab/Shopping/04

Earnest Money Deposit (EMD)	- Rs. 28500=00
Delivery P	eriod—45 days
Specification	Quantity
1. 20 seconds least count     2. with Tubular Magnetic Compass     3. with Optical Plumbing Arrangement complete in Teak Wood box     4. Telescopic Stand of extruded aluminium section with water proof cover	10
Range $500 \text{ m}$ Accuracy $\pm 1.0 \text{ mm}$ Units of Measurement metric and fps system  Battery Life $15000 \text{ measures}$	2
Image Erect  Magnification 30x  Objective Aperture 45 mm  Minimum focussing dist. 1.4m  Stadia Ratio 100  2. Angle Measurement  Encoder System Absolute Encoding  Display Resolution 1" or 5"  3. Display	5
	Specification  1. 20 seconds least count 2. with Tubular Magnetic Compass 3. with Optical Plumbing Arrangement complete in Teak Wood box 4. Telescopic Stand of extruded aluminium section with water proof cover  Range 500 m  Accuracy ± 1.0 mm  Units of Measurement metric and fps system  Battery Life 15000 measures  1. Telescope  Image Erect  Magnification 30x  Objective Aperture 45 mm  Minimum focussing dist. 1.4m  Stadia Ratio 100  2. Angle Measurement  Encoder System Absolute Encoding  Display Resolution 1" or 5"

		Angular Accuracy 2"	
		Display Units DEG/ MIL/ GON	
		4. Compensator	
		Inclination Sensor Automatic Vertical	
		Compensator Range +/- 3'	
		5. General Specifications	
		Plummet Type Laser	
		Plate Vial Accuracy 30"/2 mm	
		Circular Vial Accuracy 8'/2 mm	
		Operating Temperature $-20^{\circ}\text{C to} + 50^{\circ}\text{C}$	
		Battery Backup 36 Hours	
		Standard Accessories to accompany the machine	
4 Tota	al Station	1. Telescope	2
		Image Erect	
		Magnification 30x	
		Objective Aperture 40 mm	
		Minimum focussing dist. Less than 1.8m	
		Field of View 1 <sup>0</sup> 30'	
		2. Angle Measurement	
		Accuracy 1"	
		Least Count 1"	
		Angle Method Absolute Encoder	
		3. Distance Measurement Range	
		Range with Prism 5 km or better	
		Range without Prism 500 m or better	

		Accuracy with Prism 2 mm ±2 ppm XD	
		Accuracy without Prism 4 mm ±2 ppm XD	
		4. Compensator	
		Dual Axis Compensator	
		Compensator Range +/- 3' or better	
		5. General Specifications	
		Plummet Type Laser	
		Internal Memory 16 GB	
		External Memory 64 GB	
		Battery Backup 36 Hours	
		Operating Emperature -20° C to +50° C	
		Humidity 95% non condensing	
		Keyboard Colour touch screen on both sides with Alphanumeric keyboard	
		Software Data downloading software with all the civil engineering capabilities (area calculation, volume calculation, contouring, level plotting, etc.) as basic features and also compatible with AUTO CAD	
		Data Communication via Bluetooth, pen drive, USB data cable as standard features	
		Standard Accessories to accompany the machine	
5	Hand Held GPS	<ul> <li>Capable of showing instant longitude &amp; latitude. 2</li> <li>Built in Barometric Altimeter &amp; electronic compass</li> <li>Battery operated: two AA size battery with 18 hours life typical.</li> <li>Color display: 256 colour TFT: 2.2 X 1.6 inch (min)</li> <li>Receiver Sensitivity: high</li> <li>Accepts Micro SD card (min 2 GB included)</li> <li>More than 100 plus user datums</li> <li>G-Sensor, E-Compass</li> <li>USB cable and software for USB &amp; serial interface, computer cable(if any), user manual &amp; other accessory.</li> <li>carrying case</li> <li>waterproof casing (IP X 7)</li> </ul>	5
		Warranty: min 1 year.	

## KNIT, Sultanpur

## **Hydraulics / Fluid Mechanics Lab**

## Package Code- TEQIPII/UP/UP2G05/5

#### PackageName - TEQIP-II/UP/KNIT/CE/FM/Lab/Shopping/05

		Earnest Money Deposit (EMD) –	Rs. 5000=00
		Delivery Peri	od—45 days
S.No.	Name of Equipment	Specification	Quantity
1	Tilting Flume	<ul> <li>Self containing water circulating system with single phase operation</li> <li>Section 250X200mm, min. 5 m length</li> <li>Can provide 1 in 25 slope on upward and downward slope</li> <li>Having measuring arrangement for flow velocity</li> <li>With notches, weir, venture flume experimental setup for hydraulic jump and other models for conducting experiment of Open Channel Flow</li> </ul>	1
2	Flow Visualisation Apparatus	<ul> <li>Made of Perplex sheet</li> <li>Operational with hydraulic bench setup for visual observation on a very low Reynold's number</li> <li>of Flow pattern around aerofoil, circular, triangular and sure models</li> </ul>	1

## KNIT, Sultanpur

## **Concrete / Materials Testing Lab**

#### Package Code- TEQIPII/UP/UP2G05/6

## PackageName- TEQIP-II/UP/KNIT/CE/MT/Lab/Shopping/06

	Earnest Money Deposit (EMD) – Rs. 8000=				
		Delivery Peri	iod—45 days		
S.No.	Name of Equipment	Specification	Quantity		
1	Cement Tensile Testing M/C	Manually Operated as per IS 269	1		
2	Compression Testing M/C	Capacity 2000KN Motorised units three gauge(Computerised)	1		
3	Concrete Test Hammer	Concrete Test Hammer	1		
4	Concrete core drill	Concrete core drill	1		

## KNIT, Sultanpur

## **Hydraulics / Fluid Mechanics Lab**

## Package Code- TEQIPII/UP/UP2G05/7

## PackageName-TEQIP-II/UP/KNIT/CE/TE/Lab/Shopping/07

		Earnest Money Deposit (EMD) -	- Rs. 8000=00			
	Delivery Per					
S.No.	Name of Equipment	Specification	Quantity			
1	Motorised Bitumen Extractor	<ol> <li>Centrifuge type</li> <li>Capacity 1500 gms</li> <li>230 Volts A.C. single phase</li> </ol>	1			
2	(A) Cannon-Manning Viscometer (Complete Absolute and Kinematic viscosity testing equipment)	<ol> <li>As per IS: 1206(Part-II)</li> <li>Constant Temperature Bath with accuracy of ±0.2°C</li> <li>Silicone bath oil suitable upto 150°C</li> <li>Vacuum System</li> <li>Thermometer for Bath: range 37.8 to 82°C</li> <li>Timing Device (Digital): capable of reading upto 4 second</li> <li>Sensor built inside housing</li> <li>8 kind of units display</li> <li>Recording of max and min readings</li> <li>Data storage</li> </ol>	1			
	(B) Electronic Vacuum Regulator					

## KNIT, Sultanpur

## Package Code- TEQIPII/UP/UP2G05/14

## Package Name-TEQIPII/UP/KNIT/ME/EMMT/Lab/Shopping/01

	Earnest Money Deposit (EMD) – Rs. 25300=00				
	Delivery Period—45 days				
S.No.	Name of Equipment	Specification	Quantity		
1	Universal testing machine with Double Shear Attachment and extensometer	Computerised, Capacity- 400 kN	1		
2	Brinell Hardness testing machine	Electro-mechanical version, Capacity 300 kgf	1		
3	Rockwel Hardness testing machine	Mechanical version. Capacity 150 kgf	1		
4	Impact testing machine	Electronic microprocessor based, For Izod and Charpy test	1		
5	Fatigue testing machine	Mechanical version	1		
6	Universal force table	Complete sets with weight and table	3		
7	Belt Pulley Experiments	Complete Sets	2		
8	Inclined plane apparatus	Complete Sets	2		
9	Screw Jack experiments apparatus	Complete Sets	2		
10	Bell Crank Lever experiments models	Complete Sets	2		
11	Apparatus for Reaction at support	Complete Sets	4		
12	Simple jib crane	Complete Sets	2		
L			L		

## KNIT, Sultanpur

## Package Code- TEQIPII/UP/UP2G05/15 PackageName-TEQIP-II/UP/KNIT/ME/MST/Lab/Shopping/02

	Earn	est Money Deposit (EMD) – R	s. 31200=00	
Delivery Period—45 days				
S.No.	Name of Equipment	Specification	Quantity	
1	Universal testing machine with Double Shear Attachment	Computerised, Capacity- 200 kN	1	
2	Corrosion test apparatus	Temperature up to 250°c	1	
3	Muffle furnace	Digital Temp. Controller, Range up to 2000 <sup>0</sup> C	1	
4	Metallurgical microscope Trinocolor computerised image analyser	Magnification up to 2000X, Coating thickness and Grain size measurement	1	
5	Metallurgical microscope Trinocolor	Magnification 50x to 1500x	5	
6	Jominy end quench Test	Mandatory accessories and consumables	1	
7	Micro- Vickers harness testing Machine	Computerised Version	1	
8	Vickers Hardness testing machine	Computerised Version	1	
9	Heat-Treatment Furnace	Digital Temp. Controller, Range up to 2000 <sup>0</sup> C	1	
10	Double Disc Polishing Machine	With variable speed and cooling facility	1	
11	Belt Polishing Machine	With abrasive belt and single phase motor	1	
12	Grinding Machine	Single phase grinding machine with standard accessories	1	

#### KNIT, Sultanpur

## **Applied Thermodynamics Lab**

## $Package\ Code-\ TEQIPII/UP/UP2G05/16\ PackageName-TEQIP-II/UP/KNIT/ME/AT/Lab/Shopping/03$

	Earnest Money Deposit (EMD) – Rs. 1600=0			
		Delivery	Period—45 days	
S.No.	Name of Equipment	Specification	Quantity	
1	Model of Lancashire boiler(Fire tube boiler)	Table top models cut section optional	1	
2	Model of Babcock and Wilcox Boiler(Water tube boiler)	Table top models cut section optional	1	
3	Pressure & Velocity Compounded Steam Turbine	Table top models cut section optional	1	
4	Impulses Turbine	Table top models cut section optional	1	
5	Pure Reaction Turbine		1	
6	Model of Steam Engine	Table top models cut section optional	1	
7	Sectional Working Model of 2 Stroke Petrol Engines	Table top models cut section optional	1	
8	Sectional Working Model of 4 Stroke Petrol Engines	Table top models cut section optional	1	
9	Sectional Working Model of 2 Stroke Diesel Engines	Table top models cut section optional	1	
10	Sectional Working Model of 4 Stroke Diesel Engines	Table top models cut section optional	1	
11	Gas Turbines Or Turbojet Engine	Table top models cut section optional	1	

#### KNIT, Sultanpur

## Measurement and Metrology Lab

## Package Code- TEQIPII/UP/UP2G05/17

## PackageName - TEQIP-II/UP/KNIT/ME/MM/Lab/Shopping/04

Earnest Money Deposit (EMD) – Rs. 4900			
	Delivery Pe	ry Period—45 days	
S.No.	Name of Equipment	Specification	Quantity
1	Digital vernier Calipers	LC 0.02mm and range 300mm	2
2	Strain Gauge measurement	Range 0-100 micro strain and resolution 1 micro strain	2
3	Tachometer, Digital type	Tachometer, Digital type	2
4	Slip Gauges Set of 83 pieces (complete set),	grade 1and size 1mm	1
5	Sets of Limit Gauges	Plug Gauge 20mm and 30mm, Snap gauge 19-25mm, Taper gauge	1
6	Pressure Measuring Experiment	Range 0-10Kg/cm <sup>2</sup> , Resolution 0.1 Kg/cm <sup>2</sup>	2
7	Temperature Measuring Experiment	RTD sensor based, Range up to 1000 $^{0}$ C and resolution 0.10 $^{0}$ C	1
8	Temperature Measurement Tutor using Thermocouple	Range up to 1000 <sup>o</sup> C and resolution 0.10 <sup>o</sup> C	1
9	Speed Measurement Using Stroboscope	Digital, Flash range 250-18000 flashes/min. With course and fine control resolution 1 rpm	1

## KNIT, Sultanpur

## Fluid Machinery Lab

#### Package Code- TEQIPII/UP/UP2G05/18

## Package Name-TEQIP-II/UP/KNIT/ME/FM/Lab/Shopping/05

	Earnest Money Deposit (EMD) – Rs. 8700=0				
	Delivery Period—45 day				
S.No.	Name of Equipment	Specification	Quantity		
1	Impact of Jet experiment	Centrifugal pump with all mounting accessories	1		
2	Francis Turbine	Complete Set accessories	1		
3	Kaplan Turbine	Complete Set with accessories	1		

#### KNIT, Sultanpur

#### **Heat and Mass Transfer Lab**

## Package Code- TEQIPII/UP/UP2G05/19

#### PackageName

## TEQIP-II/UP/KNIT/ME/HMT/Lab/Shopping/06

	Earnest Money Deposit (EMD) – Rs. 4100=00				
	Delivery Period—45 da				
S.No.	Name of Equipment	Specification	Quantity		
1	Heat Transfer Through Composite Wall Apparatus	Composite wall assembly of different materials control panel with digital Ammeter and digital volt meter	1		
2	Heat Transfer Through Lagged Pipe Apparatus	Inner pipe 50mm, middle pipe 100mm and outer pipe 150mm dia., with digital controls	1		
3	Critical Heat Flux Apparatus	Digital control panel, thermometer, heater and glass trough hosing	1		
4	Thermal Conductivity of Liquid Apparatus	Digital control panel, insulation bags to house guarded hot plate assembly, heater and cooling plate	1		
5	Thermal Conductivity of Insulating Powder	Digital control panel, mica heater, inner sphere 100mm dia. And outer sphere 200 mm dia.	1		

#### KNIT, Sultanpur

## **Dynamics of Machine Lab**

## Package Code- TEQIPII/UP/UP2G05/20

## PackageName - TEQIP-II/UP/KNIT/ME/DM/LAB/Shopping/07

	Ear	nest Money Deposit (EMD)	) – Rs. 3700=00
		Delivery P	eriod—45 days
S.No.	Name of Equipment	Specification	Quantity
1	Static- dynamic balancing Machine	Range 2-50 kg	1
2	Vibrating Table Apparatus (Longitudinal & transverse both)	Accessories for min 10 Exp.	1
3	Study of simple linkage models/mechanisms	Model	1
4	Study of inversions of four bar linkages	Model	1
5	Study of inversions of single slider crank mechanisms	Model	1
6	Experiment on Gears tooth profile, interference etc	Model	1
7	Experiment on Gear trains	Model	1
8	Experiment on critical speed of shaft (Whirling of Shaft)	Motor <sup>1</sup> / <sub>4</sub> HP, RPM 100- 6000, shaft with attachment for changing the end conditions	1
9	Experiment on Brake	Model	1
10	Experiment on clutch	Model	1

#### Department of Mechanical Engineering, KNIT, Sultanpur

#### **Automobile Engineering Lab**

## Package Code- TEQIPII/UP/UP2G05/21 PackageName- TEQIP-II/UP/KNIT/ME/AE/Lab/Shopping/08

	Earnest Money Deposit (EMD) – Rs. 13500=00			
		Delivery Period—	45 days	
S.No.	Name of Equipment	Specification	Quan tity	
1	Model of fuel supply system of an automobile(Diesel and Petrol)	Study models /cut section	2	
2	Motor Car Steering Model	Study models /cut section	1	
3	Multi Point Fuel Injection (MPFI) System of an Automobile (Actual Working Model)	Study models /cut section	1	
4	Model of Breaking System of any Vehicle	Study models /cut section	3	
5	Coil Ignition System of an Automobile	Study models /cut section	1	
6	Transmission System of an Automobile	Study models /cut section	1	
7	Mock Layout of Car Wiring	Study models /cut section	1	
8	Lubrication System of an Automobile	Study models /cut section	1	
9	Cooling System of an Automobile (with Actual Part)	Study models /cut section	1	
10	Actual Cut Section Gear Box : 4 Forward and 1 Reverse	Study models /cut section	1	
11	Differential Gear Assembly (Actual Cut Section)	Study models /cut section	1	
12	Multi Cylinder four Stroke Petrol Engine test rig. with Rope Brake Dynamometer with Morse Test arrangement	Four Cylinder petrol engine test rig with attachment and accessories	1	
13	Front Wheel Drive Car chassis, Four Stroke Four Cylinder Petrol Engine (Motor Driven)	Study models /cut section	1	
14	Carburettor (Maruti Car Type)	Study models /cut section	1	
15	Fuel Pump (Mechanical)	Study models /cut section	1	
16	Electrical Fuel Pump	Study models /cut section	1	
17	Rear Axle Assembly (Actual Cut Section)	Study models /cut section	1	

#### KNIT, Sultanpur

## Central Workshop

## Package Code- TEQIPII/UP/UP2G05/22

## Package Name-TEQIPII/UP/KNIT/ME/Workshop/Shopping/09

		F	Earnest Money	Deposit (EMD) – Rs	. 31500=00
				Delivery Perio	d—45 days
S.No.	Name of Equipment	Specification			Quantity
1	Power hacksaw	Main motor 0.75-1.0 kW	7		1
		Coolant motor 0.75-1.0 l	kW		
2	Universal wood working planner machine	Moulding capacity: 20 t Motor Power required: 2			1
3	Spot welding machine	Electrode pressure : 300 Electrode working range Arm spacing : 65/445 m	e: 250 mm		1
4	Centre Lathe machine	Spindle Speed range	rpm	16 from 40- 2040 forward 7 from 60- 1430 reverse	1
		Feed range (longitudinal)	mm/rev	60 from 0.04- 2.24	
		Feed range (cross)	mm/rev	60 from 0.02- 1.12	
5	Automatic forging machine	Press range 250-500 tons	S	•	1

#### KNIT, Sultanpur

#### CAD/ CAM Lab

## Package Code- TEQIPII/UP/UP2G05/23

## PackageName-TEQIP-II/UP/KNIT/ME/CAD/Lab/Shopping/10

	Earnest Money Deposit (EMD) – Rs. 15000=			
		<b>Delivery</b>	Period—45 days	
S.No.	Name of Equipment	Specification	Quantity	
1	CAD Software	modelling, simulation, analysis and manufacturing	01	

# Department of Electronics Engineering KNIT- Sultanpur

## Package Code- TEQIPII/UP/UP2G05/26 PackageName - TEQIP-II/UP/KNIT/EL/Emb.Lab/Shopping/02

		Earnest Money Deposit (EMD) – Rs	s. 38500=00
		Delivery Perio	d—45 days
S.No.	Name of Equipment	Specifications	Quantity
1.	Universal Embedded Development Package	Facility for 8, 16, 32 Bit processors, with debugging facility .With USB Programming, user manual etc.	2
2.	Universal Arm Development Board,	with Support Various ARM series of controllers etc	2
3.	Universal PIC development board,	with USB programming, facility with various family daughter boards PIC 18F452 daughter board PIC 16F877 daughter boards	2
4.	Embedded Biometric Development System	Embedded Biometric Development System	2
5.	Embedded Programmable Project Board	Embedded Programmable Project Board	10
6.	Universal FPGA/ CPLD development systems ,	with USB interface, Various daughter Boards	05
7.	Vertx 4 development system,	with Interface	05
8.	Interfacing modules:	Accelerometer Interface application Modules Proximity (speed) interface application modules Humidity interface application modules Pressure interface application modules  IR Experimental Module (RC 5) protocol RF Experimental Module SD MMC interfacing card Graphical LCD Display Interfacing Module, Temperature Measurement Interfacing  Module Traffic light study Interfacing  Module Speed control using PWM For DC Motor Interfacing Module Stepper Motor Interfacing  Module Elevator Interfacing  Module Relay – buzzer interfacing card  7 segment interfacing card	04
9.	Robotics Training System.	with touch operated ON/Off switch Auto set, Record & Play capability	01

10.	rogrammable analog Board	FPAA AN221E04 Based configurable designs development board	05
		Dynamically reconfigurable through serial port	
		Compatible to AnadigmDesigner2 Software for downloading	
		Analog interface blocks for level shifting, amplifying, attenuating,	
		filtering and differential to single ended conversion of signal	
		High Speed/Precision OPAMP's.	
		All analog interface blocks can be configured as Input/Output	
		Two Dedicated output interface blocks can be configured	
		Digital/Analog, Differential Amplifier for the dedicated output	
		Onboard 16 MHz oscillator and Power Regulation	
		Ability to separate, electrically and physically, the digital section leaving a purely analog board with SPI EPROM and digital interface pins.	
11.	VLSI Protoboard	Daughter Modules for MATrix	05
		- CPLD Module (Xilinx XC9572 PLCC84)	
		- FPGA Module (Xilinx FPGA Spartan II XC2S200	
		PQ208), - FPGA Module (Xilinx FPGA Spartan III XC3S400	
		PQ208)	
		Add on Modules	
		- Pluggable Microcontroller Module, - ADC/DAC Module	
		- Liquid Crystal Display (LCD) Module	
		- Relay Module, - Dot matrix Rolling Display panel	
		- Keypad adaptor., - Power Supply with Cable	
		- JTAG Programming Cable for XILINX PLDs	
		- User Manual,	
12.	System C Tool	software tool for synthesizing System C automatically to RTL VHDL or Verilog to design, debug and simulate hardware and	01
		systems using the C++ development environment.	
		synthesis tool for Xilinx FPGAs.	

# Department of Electronics Engineering KNIT- Sultanpur

# Package Code- TEQIPII/UP/UP2G05/29

# Package Name-TEQIP-II/UP/KNIT/EL/Comm. Lab/Shopping/05

	Earnest Money Deposit (EMD) – Rs. 30000=0			
	Delivery Period			
S.No.	Name of Equipment	Specification	Quantity	
01.	Network Simulator & communication kits	- LAN & wireless -network protocol & topology -AM , FM , PM, PCM , DM , QAM , PAM, FSK, PSK,QSK , FDM , TDM, CDMA	01	
02.	CDMA-DSSS Developer	(Bit error rate measurement, DSSS& FHSS  Modulator/Demodulator	02	
03.	Wireless/ Mobile Communication Trainer	Wireless/ Mobile Communication Trainer	03	
04.	Satellite Communication Trainer	Satellite Communication Trainer	02	
05.	Wireless Sensor Network Kit	Wireless Sensor Network Kit	02	

# Department of Electronics Engineering KNIT- Sultanpur

# Package Code- TEQIPII/UP/UP2G05/30

# Package Name-TEQIP-II/UP/KNIT/EL/Comm. Lab/Shopping/06

		Earnest Money Deposit (EMD) –	Rs. 21000=00
		Delivery Pe	riod—45 days
S.No.	Name of Equipment	Specification	Quantity
01.	DSP Based Development Boards	Fixed and floating point,  PC interface, cross compiler with signal processing software for RTS design	03
02.	Analog, Digital, Symbolic, RF, HDL, MCU and Mixed- Mode Circuit Simulation & PCB Design Software	Analog, Digital, Symbolic, RF, HDL, MCU and Mixed-Mode Circuit Simulation & PCB Design Software	05
03.	Miscellaneous DSO, DMM, DFG, Sensors and discreet components	DSO, DMM, DFG, Sensors and discreet components	

#### KNIT, Sultanpur

#### **POWER SYSTEM LAB**

#### Package Code- TEQIPII/UP/UP2G05/32

#### PackageName-TEQIP-II/UP/KNIT/EE/PS/Lab/Shopping/01

#### Earnest Money Deposit (EMD) – Rs. 9900=00 Delivery Period—45 days S.No. Name of Equipment Specification Quantity DC network Analyser 1 DC network Analyser 1 Transmission line model: 22V, 2Amp with different type of loads and meters 1 2 I.D.M.T. over current relay With all accessories to determine its characteristics. 1 3 with accessories like auto transformer, meters and loading 1 Distance relay study Trainer 4 rheostat / transformer with all accessories to determine is characteristics Percentage Differential Relay 1 5 True RMS voltage, THD, power factor, VAR, power Power Quality Analyzer 1 6 harmonics voltage and current wave form

#### KNIT, Sultanpur

# **Electrical drives Laboratory**

# Package Code- TEQIPII/UP/UP2G05/33

#### PackageName-TEQIP-II/UP/KNIT/EE/ED/Lab/Shopping/02

	Earnest Money Deposit (EMD) – Rs. 11800=00			
	Delivery Period—45 days			
S.No.	Name of Equipment	Specification	Quantity	
1	Four quadrant dc motor Converter control trainer For single phase and Tree phase circuits	ol trainer 50Hz, - Single phase full wave/half wave controlled, Converter		
2	Voltage Source Inverter/PWM Inverter fed Three phase induction motor control unit	Input supply:  Single phase: 230V, 50 Hz, Three Phase: 400V, 50 Hz, Voltage source inverter, Three phase squirrel cage induction motor 400V, 1KW, 50Hz, Pendulum machine with control unit suitable for Loading purpose, Gyrating mass 200 Kg cm <sup>2</sup> , Experimental manual	1	
3	Field Oriented Frequency Inverter fed Three phase induction motor control unit	e The state of the		
4	AC Voltage controller unit:	Single phase AC voltage controller with inductive load, Three phase AC voltage controller with star/Delta, Connector load	1	

		Burst Firing controller. Experimental manual	
5	DC chopper unit	2.5 KHz GTO Chopper 10KHz Power Transistor chopper  5 KHz IGBT Chopper 15 KHz MOSFET Chopper 400 Hz thyristor chopper DC shunt motor 220V, 300W, 3000rpm DC stabilized power supply 220V, 5A DC tachogenerator Output voltage: ± 20V/1000rpm  Experimental manual	1
6	SCR Commutation circuit Trainer	Line commutation circuit  Forced commutation circuit, Self commutation circuit  Voltage commutation circuit, Current commutation circuit  Complementary commutation circuit	1
7	Experimental module of modified series Inverter	Experimental module of modified series Inverter	1
8.	Experimental module of single phase three phase current source inverter	Experimental module of single phase three phase current source inverter	1

#### KNIT, Sultanpur

#### RENEWABLE ENERGY LAB

# Package Code- TEQIPII/UP/UP2G05/34

# PackageName -TEQIP-II/UP/KNIT/EE/RE/Lab/Shopping/03

	Earnest Money Deposit (EMD) – Rs. 39600=00				
	Delivery Period—45 days				
S.No.	Name of Equipment	Specification	Quantity		
1	Solar PV Training and Research Kit	2 PV module of module of 37Wp each, maximum power voltge- 17V, maximum power current-2.25Amp, Charge controller- 5A/12V, Battery bank consist of two batteries- 12v/4.5 Ah, Inverter-100W, 10-15 V,	1		
2	Solar PV Grid-Tied Training System	Stand alone inverter to form artificial grid-200W, Battery bank consist of two bateeries-12V/26Ah, Grid Tied inverter- 300W, Control unit and other accessories.	1		
3	Solar PV Emulator	Max power- 300W, Rated votage- 0 to 50 V, Rated Current- 0-8 Amp	1		
4	Wind Energy training System	Artificial wind generating unit, wind turbine with AC to DC converter, Battery banks-24V/80Ah and necessary accassories.	1		
5	Wind turbine emulator	Power generating unit 220V(AC)/1000VA, DC-DC converter-2500W, Three phase inverter-1000VA/ switching frequency is 10 KHz, Control unit and necessary accessaries	1		

#### KNIT, Sultanpur

#### **Virtual Instrumentation Lab**

# Package Code- TEQIPII/UP/UP2G05/35

# PackageName-TEQIP-II/UP/KNIT/EE/VI/Lab/Shopping/04

	Earnest Money Deposit (EMD) – Rs. 4200=00				
	Delivery Period—45 days				
S.No.	Name of Equipment	Specification	Quantity		
1	Polarity tester battery operated for CTs	Polarity tester battery operated for CTs	1		
2	Transducers Kit:	Thermo couple, strain gauge, LVDT, Load cell, Thermistor, RTD with display unit	1		
3	Process Instrumentation Trainer	Process Instrumentation Trainer	1		
4	Temperature Process Control Trainer	Temperature Process Control Trainer	1		

#### **Central Shopping (UPS)**

# Package Code- TEQIPII/UP/UP2G05/48

# Package Name-TEQIP-II/UP/KNIT/UPS/Shopping/01

	Earnest Money Deposit (EMD) – Rs. 29500=00				
	Delivery Period—45 days				
S.No.	Name of Equipment	Specification	Quantity		
1	UPS 5KVA	UPS 5KVA, 17 AH, 2 hour backup.	15		
2	UPS 2KVA	UPS 2KVA, 01 hour backup.	05		

**Central Shopping (A.C.)** 

# Package Code- TEQIPII/UP/UP2G05/49

# PackageName

# TEQIP-II/UP/KNIT/AC/Shopping/02

		Earnest Money Deposit (EMD) – I	Rs. 11000=00
		Delivery Peri	iod—45 days
S.No.	Name of Equipment	Specification	Quantity
1	AC with stabilizer	2.0 Ton Split AC ( Of Standard Make with all specifications and Make should be mentioned ) with stabilizer (90-250V)	08
2	1.5 Ton AC with stabilizer	1.5 Ton AC ( Of Standard Make with all specifications and Make should be mentioned ) with stabilizer (90-250V)	02

#### **Campus Wide Networking**

# Package Code- TEQIP-II/UP/UP2G05/50

#### PackageName

# TEQIP-II/UP/KNIT/CWN/AV/Shopping/02

	Earnest Money Deposit (EMD) – Rs. 12000=00				
		Delivery Per	iod—45 days		
S.No.	Name of Equipment	Specification	Quantity		
1	Antivirus 300 Users for 03 Years Server Version	Antivirus 300 Users for 03 Years Server Version	01		

#### **CENTRAL SHOPPING (Smart Class Room)**

#### Package Code- TEQIP-II/UP/UP2G05/52

#### Package Name-TEQIP-II/UP/KNIT/Central/Shopping/01

	Earnest Money Deposit (EMD) – Rs. 10000=00		
		Delivery Per	iod—45 days
S.No.	Name of Equipment	Specification	Quantity
1	Projector LCD/DLP	Projector LCD/DLP	03
2	Interactive White Board	Interactive White Board	02
3	Photocopier Machine	Photocopier Machine	01
4	Audio visual System	Audio visual System	02

#### **CENTRAL SHOPPING (Furniture)**

# Package Code- TEQIP-II/UP/UP2G05/53

#### PackageName

# TEQIP-II/UP/KNIT/CE/Furniture/Shopping/13

	Earnest Money Deposit (EMD) – Rs. 3400=00		
		Delivery Per	riod—45 days
S.No.	Name of Equipment	Specification	Quantity
1	Computer Furniture	Computer Table and Chairs	20 each