# COMSATS

#### **COMSATS Institute of Information Technology**

Lahore Campus, Defence Road, Off Raiwind Road, Lahore

Case# 1270 Tender # CIIT-TN-13-14-472

#### **TERMS AND CONDITIONS**

# [All pages (BoQs & Terms & Conditions) are mandatory to be signed/stamped, Rates should be quoted on our prescribed format, failing which the bid may be rejected]

- 1. The contract will be executed and handed over in satisfactory conditions up to the entire satisfaction of COMSATS Institute of Information Technology, Lahore Campus.
- Documents along with Pay Order / Demand Draft amounting Rs. 1,000/- as a tender documents fee (Non-Refundable) in favor of COMSATS Institute of Information Technology, Lahore to the address given below. No bid will be accepted without tender documents' fee
- 3. Part / Advance payments is not allowed.
- 4. The exact completion/delivery time from the date of the purchase / work order will be 120 days for C&F Quoted Items and 40 Days for FOR (Pak Rupees) Quoted Items. The handing over / completion time for this contract is of critical importance.
- 5. The prices of C&F Quoted items should be inclusive of all Freight Charges and other items should be quoted in Pak Rupees (inclusive of all taxes) as per BoQs requirement.
- 6. The payment will be made in Pak Rupees to the Local Vendor/Supplier against the conversion rate of actual GD-1(Conversion Rate) for C&F Quoted Items/Equipments as per following formula.
  - Foreign Currency (as per PO) x Conversion rate of GD-1 = Total Amount in Pak Rupees
- 7. Shipment will be cleared by COMSATS Lahore Campus from Custom Authorities for C&F Quoted Items.
- Any addition, deletion or modification of any clause of the procurement terms & conditions of CIIT by any vendor will not be acceptable and may lead to rejection of the bid.
- **9.** COMSATS Institute of Information Technology, Lahore Campus, will follow the PPRA rule of **single stage two envelope procedure**;
  - The bid shall comprise a single package containing two separate envelopes.
     Each envelope shall contain separately the financial proposal and the technical proposal;
  - ii. The envelopes shall be marked as <u>"FINANCIAL PROPOSAL"</u> and <u>"TECHNICAL PROPOSAL"</u> in bold and legible letters to avoid confusion;
  - iii. Initially, only the envelope marked "TECHNICAL PROPOSAL" shall be opened;
  - iv. The envelope marked as <u>"FINANCIAL PROPOSAL"</u> shall be retained in the custody of the procuring agency without being opened;

- v. The procuring agency shall evaluate the technical proposal in a manner prescribed in advance, without reference to the price and reject any proposal which does not conform to the specified requirements;
- vi. During the technical evaluation no **amendments** in the technical proposal shall be permitted;
- vii. The financial proposals of bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance;
- viii. After the evaluation and approval of the technical proposal the procuring agency, shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bids only. The financial proposal of bids found technically nonresponsive shall be returned un-opened to the respective bidders;
- ix. and
- x. The bid found to be the lowest evaluated bid shall be accepted.
- 10. Bidders who do not qualify cannot challenge the finding of the evaluation.
- 11. The bids should be submitted in a sealed envelope up to 19-01-2015 on or before 14:00 hrs and will be opened on the same date at 14:30 hrs in the presence of available bidders.
- 12. The envelope should be marked as under.

#### **Manager Purchase**

**COMSATS Institute of Information Technology, Lahore Campus.** 

Defence Road, Off Raiwind Road, Lahore.

Tel: 042-111-001-007, Ext: 875

- 13. The envelope shall also bear the word "CONFIDENTIAL" and following identification quotation of "Lab Equipment for Electrical Engineering Department (Equipment, Furniture & Fixture, Desktop Computer & Air Conditioner)".
- 14. The bid form (Annex-I) must be duly filled in, stamped and signed by the authorized representative of the bidder.
- 15. If the vendors fail to deliver the order in time then the vendor will be charged penalty as under:
  - a. 1% per day of the invoice price for 5 working days.
  - b. 2% per day of the invoice price for further 5 working days.
  - c. If the vendor fail to deliver the items during the extended then the supply order may be cancelled, earnest money and payment may be forfeited.
- **16.** The prices of C&F Quoted items should be inclusive of all Freight Charges and other items should be quoted in FOR (inclusive of all taxes) as per BoQs requirement.
- 17. All prices should be valid for at least <u>120 days.</u> Withdrawal or any modification of the original offer within the validity period shall entitle CIIT to forfeit the earnest money in favor of the CIIT and / or put a ban on such vendor participation in CIIT tenders / works.
- 18. It is the sole responsibility of the agent / supplier / manufacturer to comply with the applicable laws, be national or international.

- 19. In case of any dispute, decision of the Director CIIT-Lahore, will be final and binding upon the parties.
- 20. The CIIT-Lahore reserves the right to modify equipment specifications/quantities at any time before the award of work.
- 21. The bidder is required to furnish in form of Bank deposit /C.D.R / Pay order equivalent to 2% of the total Bid price as Earnest Money crossed in favor of "COMSATS Institute of Information Technology, Lahore Campus". Any bid not accompanied by Earnest Money shall be rejected without any right of appeal.
- 22. Warranty will be on the part of supplier which is **One Year** as per following after the completion of supply/work
- 23. <u>05%</u> of the total value of the Invoice will be retained as per above mentioned warranty period as security by COMSATS Institute of Information Technology, Lahore Campus, and will be released after the completion of warranty period, which will start from the date of completion of work
- 24. COMSATS Institute of Information Technology, Lahore Campus, reserves the rights to accept or reject any or all bids without assigning any reason whatsoever.

#### No offer of a supplier/firm will be considered if: -

- i. Received without earnest money
- ii. Received later than the date and time fixed for tender submission
- iii. The tender is unsigned/ unstamped
- iv. The offer is ambiguous
- v. The offer is conditional
- vi. The offer is from a firm, which is black listed, by any Govt. Office.
- vii. The offer is received by telephone/telex/fax.
- viii. Any unsigned / ambiguous erasing, cutting / overwriting etc. is made.
- 25. The tendered should furnish a certificate as worded below in token of acceptance of all the terms and conditions of the tender. Otherwise the tender will not be considered under any circumstances.

I / We

•	Company / Vendor Name:
•	Postal Address:
•	Tel. / Mobile:Email:
•	NTN # :GST#:

the undersigned certify that the terms and conditions as contained in the documents vise, "Terms and Conditions for Tender Notice of COMSATS Institute of Information Technology, Lahore are accepted and that in the event of selection of my/our rate the agreement in the prescribed form will be entered into.



### <u>BoQs of Lab Equipment for Electrical Engineering Department (Equipment, Furniture & Fixture, Desktop Computer & Air Conditioner)" CIIT-Lahore</u>

	Rates to be quoted in C&F Lahore freight charges at Lahore Air Description						
Sr.#	Name of Equipment	Major Specification	Qty	Quoted Model	Quoted Currency	Unit Price(C&F Lahore Airport)	Total Price (C&F Lahore Airport)
<u>Equip</u>	ment for MPI Lab						
1	STMicroelectronics STM32F4 ARM M4 Core University Training Board or Equivalent	Based on STM32F407 ARM Core MCU On board Debugger and Programmer MEMS based DSP Audio Input Interface DSP Audio Output Interface Accelerometer Interface Leds Control Interface S Y 4 Keypad Interface S Push Input Buttons USB Port Interface RS 232UART Interface RS 232UART Interface Temperature Sensor Interface ADR Sensor Temperature Receiver ADC interface	30 Nos				
2	ST Microcontroller based Training boards with course ware and assocuated licenses for software for 12 work stations or equivalent	1. STM32F4Discovery (USB Port and access to all GPIOs) 2. STM32F4DIS-BB (Ethernet Port, SD memory Card) 3. STM32F4DIS-CAM (camera board) 4. STM32F4DIS-LCD (TFT LCD) 5. STM32F4DIS-CAM (Wi-Fi access board)	10 Nos				
	Sub To	otal in C&F including all freight	charge	es (Item W	ise)		

Equip	oment for Control La	b			
1	NI ELVIS II - Modular Engineering Educational 780381-01 or Equivalent	☐ Integrated suite of 12 instruments ☐ Oscilloscope, DMM, Function Generator, Variable Power Supply, Bode Analyzer, Dynamic Signal Analyzer, Arbitrary Waveform Generator, DIO, Impedance Analyzer, Two Wire Current Voltage Analyzer, Three Wire Current Voltage Analyzer ☐ 100 MS/s oscilloscope option (NI ELVIS II+) ☐ Includes Basic Breadboard for Circuits and Electronics ☐ Complete integration with NI Multisim for teaching circuits concepts ☐ Extend your lab with companion products from Quanser, Freescale, Emona, and more	02 Nos		
2	Quanser QNET Vertical Take-Off and Landing (VTOL) Add-on Board For Teaching Flight Dynamics and Control with NI ELVIS 780293-01 or Equivalent	The Vertical Take-Off and Landing (VTOL) module introduces students to the fundamentals of aerospace engineering, such as basic flight dynamics and control     High quality rugged propeller assembly     Variable-speed fan with safety guard     High resolution encoder     Fully document system model and parameters     Reliable QNET base and amplifier components     Plug-and-play design facilitates quick and easy lab setup     Compact and easy to store     Protective cover to shield the circuitry     Readymade Curriculum     Topics     Flight dynamics, (e.g. modeling the plant)     Identifying parameters     experimentally     Model validation     Proportional—Integral—Derivative (PID) control     Cascade control     Dealing with actuator dynamics     Note: The QNET VTOL can	10 Nos		

		be also used to teach other				
		topics that are not included in				
		the Quanser-developed				
		courseware				
		The QNET Rotary Inverted				
		Pendulum Trainer is a				
		versatile unit ideally suited to teach and demonstrate the				
		fundamentals of				
		inverted pendulum balance				
		and control. Developed				
		exclusively for NI ELVIS				
		platform and LabVIEW <sup>TM</sup>				
		software, the system can				
		easily be configured to teach hybrid swing-up and LQR				
	Quanser QNET	control fundamentals.				
	Rotary Inverted	Students learn how to:				
	Pendulum for NI	☐ Model a pendulum				
	ELVIS II	☐ Design and implement a				
3	Teach	state-feedback controller to	10			
	Fundamentals of	balance the pendulum in the upright position	Nos			
	Rotary Pendulum Balance and	☐ Design and implement a				
	Control 780294-01	controller to swing up the				
	or Equivalent	pendulum				
		Readymade Curriculum				
		Topics:  ☐ System modeling				
		☐ Parameter estimation				
		☐ Balance control				
		☐ Linear-Quadratic Regulator				
		design				
		☐ Non-minimum phase☐ Friction compensation				
		☐ Non-linear swing up control				
		☐ Energy-based control				
		☐ Hybrid control				
	Power Cord, 240V,					
4	10A, North		22 Nos			
	American 763068 or equivalent		NOS			
	or equivalent					
	Sub To	otal in C&F including all freight	charge	es (Item W	ise)	
Equip	ment for Electric Macl	hine Lab				
		Experiment				
		1.14				
		1. Measuring the feature of DC				
	Electrical machine	generator 2. Measuring the feature of				
1	Lab Trainer	separately excited DC motor	10			
1	Model: EES-195	3. Speed regulation	Nos			
	or Equivalent	characteristic research of				
		separately excited DC motor				
		4. Measuring series excitation, compound excitation DC motor				
		mechanical features				
	•	t		1		

5. Researching single phase			
transformer operating			
characteristic			
6. Single phase transformer			
parallel operation;			
7. Three phase transformer li	ık		
recognition and connect line			
8. The working performance			
research of three squirrel cag	٠,		
asynchronous motor			
9. Measuring the mechanical			
features of three squirrel cag	;		
asynchronous motor			
10. Operating characteristic			
research of three phase wour	d		
rotor motor			
11. Operating characteristic			
research of capacitor split-			
phase single phase			
asynchronous			
•			
1. motor			
12. Operating characteristic			
research of three phase			
synchronous motor			
13. Three phase asynchronou			
motor reversible control circ	iit		
14. Working station automat	c		
go and back cycle control			
circuit			
15. Three phase synchronous			
motor sequential control			
circuit;			
16. The Y — control circuit of	f		
three phase synchronous mot	or		
17. Three phase synchronous			
motor dynamic braking circu	it		
18. Three phase wound rotor			
type synchronous motor			
type synemonous motor			
Component list			
Component list			
1 Work station			
1600mm×800mm×1550mm			
2 Three phase power supply			
switch panel Include voltage			
indication, power turn on			
display, overload and leakag	;		
protection etc 1			
3 Three phase isolation			
transformer 500VA×3 3			
4 AC three phase adjustable			
power supply 500VA×3 1			
5 AC single adjustable powe			
supply 500VA 1			
6 DC adjustable power suppl	y		
DC 0V-175V, 5A 1			
7 Digital AC voltmeter 0-500	V		
2			
8 Digital AC ammeter 0-3A	2		
9 Digital DC voltmeter 0-300			
, 2.5.m. 20 (oldinotol 0 50)	·		

		<b>,</b>				,
	Sub-T	2 10 Digital DC ammeter 0-3A 2 11 AC watt meter 2 12 Digital power factor meter 1 13 DC permanent-magnet tacho-generator Output voltage 36V, 1500 r/min Δ< 1 0.5% 14 permanent-magnet DC dynamometer 110V/2.8A, 250W, 1500 r/min 1 15 adjustable resistor 1 16 variable resistor 0→30Ω, 1.8A 1 17 resistor 100Ω, 100W 3 18 single phase winding core type 100VA 2	charac	os (Itam W	isa)	
Eavin			charge	es (Item vv		
Equip	ment for Microwave L	ab				
1	Scientech 2261 Antenna Training System/ Scientech 2261A Motorized Antenna Unit or Equivalent	TRAINING PROGRAM:  • Polar plots & polarization for around 20 types of antennas.  • Modulation Generator: Wave modulation & demodulation.  • Antenna gain, Antenna beam width measurements.  • Element current, Front-back ratio study.  • Antenna matching effects.  • Antenna radiation with varying distance.	8 Nos			
2	Nvis 9002/9002A Microwave Test Bench (Klystron Based/Gunn based): Or Equivalent	TRAINING PROGRAM:  • Study of the characteristics of Klystron tube and to determine its electronic tuning rang  • To determine the frequency in a rectangular waveguide working on TE10 mode  • To measure the polar pattern and the gain of following antennas  - Standard Gain Horn - Pick up horn  - Slotted Broad Wall - Slotted Narrow Wall  - Dielectric Antenna - E-plane Sectorial Horn  - H-Plane Sectorial Horn - Pyramidal Horn - Parabolic Dish  • To study the square law behaviour of a microwave crystal detector.  • To study the voice communication by using microwave test Bench.	8 Nos			
3	Uninterruptible Power Supply	• To study the variable attenuator  pure Sine Wave UPS 4KW  complete with Batteries	1 Nos			

- Price should be quoted of every single item inclusive of all freight charges (Only for C&F Quoted Items) on the attached BoQs form only. Do not use your own company letter head; otherwise your bid may be rejected.
- Quoted currency should be mentioned in given column (Only for C&F Quoted Items).

### BoQs of Furniture & Fixture Items for Electric Machine Lab Electrical Engineering Department

S 11	I. N		04		be quoted of all taxes
Sr.#	Item Name	Specification	Qty	Unit Price (Rs)	Total Price (Rs)
1	Work Benches Dimensions (7'*3'*3')	Made in formite lamination of 16mm in approved color. Size: L:1700mm, W: 915mm, H: 915mm with 25mm top.  Back vanity at 35mm from back and of the size 1700mm x 600mm x 16 mm.  Side vanities at 915mm x 915mm x 16mm.  Four drawers on lefe side sized 360mm x 115mm x 450mm with handles and centrally lock.  On right side, one drawer of 360mm x 115mm x 450mm and one shutter of 385mm x 115mm x 915mm with handles and locks.  Two shutters in the middle of the table 300mm deep, sized 400mm x 500mm with locks and handles.  Total unit should be made in KD fitting technque with matching PVC lipping and PVC ground blides along with imported good quality hardware with wire cups where ever required.	10 Nos		
2	Work Benches Dimensions (5.6'*3'*3')	Made in formite lamination of 16mm in approved color. Size: L:1700mm, W: 915mm, H: 915mm with 25mm top.  Back vanity at 35mm from back and of the size 1700mm x 600mm x 16 mm.  Side vanities at 915mm x 915mm x 16mm.  Four drawers on lefe side sized 360mm x 115mm x 450mm with handles and centrally lock.  On right side, one drawer of 360mm x 115mm x 450mm and one shutter of 385mm x 115mm x 915mm with handles and locks.  Two shutters in the middle of the table 300mm deep, sized 400mm x 500mm with locks and handles.  Total unit should be made in KD fitting technque with matching PVC lipping and PVC ground blides along with imported good quality hardware with wire cups where ever required.	4 Nos		

3	Wooden Stools	360mm x 360mm x 610mm with foot support, matching polish and design at the centre as approved.	50 Nos	
4	Wooden cabinet	Made in 16mm formite lamination. Sized H: 1850mm, D: 650mm, W=1220mm with two shutters with handles and locking with mechanism of four adjustable shelves inside. Total unit should be made in KD fitting technque with matching PVC lipping and PVC ground blides along with imported good quality hardware with wire cups where ever required.	2 Nos	
5	Bag rack	Made in 16mm formite lamination. Sized L: 2500mm, H: 1850mm, D=300mm. Five shelves at equal space with four partitions. Total unit should be made in KD fitting technquie with matching PVC lipping and PVC ground blides along with imported good quality hardware	1 Nos	
6	Office Desk/Table	Made in 16mm formite lamination. Sized H: 760mm, D:760mm, L: 1230mm with keyboard tray at left side, drawers and shutters at right side with locks and handles with CPU ventilation in vanity. Vanity size: 1230mm x 600mm x 16mm and 270mm deep from back. Total unit should be made in KD fitting technquie with matching PVC lipping and PVC ground blides along with imported good quality hardware with wire cups where ever required.	1 Nos	
7	Office Chairs	Executive high back revolving chair having five figure PP pedestal and Arms, fully upholstered with best quality foam and black leatherite.	2 Nos	
		Sub Total in Pak Rupees (Inclusive of all taxes)		

## BoQs of Air Conditioner & Desktop Computer for Electric Machine Lab Electrical Engineering Department

				Rates to be	e quoted in all taxes	clusive of
Sr.#	Item Name	Specification	Qty	Quoted Model/ Brand	Unit Price	Total Price
<u>1</u>	Air Conditioner (4 Ton) with Installation	Orient/Haier or Equivalent Compressor Mitsubishi or equivalent, Refrigerant R22, Refrigerant Pipe Pure Grooved Copper,Fixed Frequency, Cooling Capacity 48000 BTU, Power Supply (Ph/V/Hz) 3,440,50, Type Cabinet AC Compressor warranty Three Years	02 Nos			

	Installation of 4-Ton Air Conditioner MS Brackets for Indoor and Outdoor units 4.6mm thickness and paint on frame, with 3/4" dia PVC pipe (popular or equivalent) for drainage, control wire from indoor to outdoor as per required load, refrigerant copper pipe guage 22, 60mm x 60mm PVC duct (Adam Jee or Equivalent) to cover insulated metal tubing between in-door and outdoor units and PVC drainage pipe; including the cost of carriage to site and fixing in position; lacquer spray on all copper pipes, all installation make with screws, complete in all respects and to the entire satisfaction of the engineer in charge. Note: 10 Rft refrigent pipe including Control Wire and drain pipe will be provided with installation kit. Additional pipe used if any will be seperately charged. Gas leakage and Valves	02 Job		
	Sub Total in Pak Rupees (Inclusi	ve of all	taxes)	
		4.56		
	Refrigent Copper Pipe (if extra from 10 Feet)	1 Rft		
	Refrigent Copper Pipe (if extra from 10 Feet)  Electric flexible control wire size (if extra from 10 Feet)	1 Rft 1 Rft		
	Electric flexible control wire size (if extra from 10			
	Electric flexible control wire size (if extra from 10 Feet)	1 Rft		

#### Note:

- The final payment will be made after the completion of installation of Units & exactly measurement of RFT quoted items.
- Price should be quoted inclusive of all taxes (only for Pak Rupees Quoted Items) on the attached BoQs form only. Do not use your own company letter head; otherwise your bid may be rejected.

