

छत्रपति शाहू जी महाराज विश्वविद्यालय, कानपुर
CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY, KANPUR



कल्यानपुर, कानपुर
KALYANPUR, KANPUR

Electronics & Communication Engineering Department
University Institute of Engineering and Technology
TENDER DOCUMENT

Cost of tender- Rs 500/-
Last date of Submission:
S.No. _____

Tender No. _____
Up to time

Sealed tender is invited for the purchase of various equipments for Department of Electronics and Communication Engineering of University Institute of Engineering and Technology, CSJM University, Kanpur till 27.03.2017, which will be submitted in the tender box kept at the office of estate officer and tender will be opened on same date on 3.30 pm. Sealed tender envelope must be labelled "Tender for supply of equipments in department under RUSA scheme, UIET, CSJMU 2016-17." The applicant can download the tender document from the University official website www.kanpuruniversity.org and attach bank draft of Rs. 500.00 in favour of the Finance officer CSJM University, Kanpur. Terms and conditions and other information are available on the official website of Kanpur University.

Details of Tender Document:

1. Name of tenderer
2. Father's Name
3. Address
4. Trade Tax No.
5. PAN/TIN No.
6. CST
7. Proof of Work Experience in Govt. Organization for similar equipment supply....
.....
8. Proof of Annual turnover
9. Email address
10. Telephone/Mob. No.

I/We except all the terms & conditions attached with the tender document. In case of approval of rates I/We will supply items according to work order.

Signature of Applicant

Eligibility Criteria of vendors

1. The tender should strictly be submitted in the format as per Performa enclosed.
2. If applying on behalf of a company as a dealer, a dealership document should be attached.
3. Original technical literature should be attached.
4. Quotation should be valid for minimum period of three months.
5. Warranty period will be at least one year.
6. Tenders with out the earnest money of Rs 41,300/- (Rupees forty one thousand ,three hundred only) shall not be considered. The earnest money will be in the form of DD in favour of Finance Officer, CSJM University; Kanpur payable at Kanpur otherwise tender will not be entertained.
7. The rates offered should be FOR Department of Electronics & Communication Engineering,UIET,CSJM University, Kanpur
8. The University reserves the right to reject all or any of the tenders without assigning any reason.
9. The firms having credential of supplying and installation of substantial variety of electronics and communication engineering kits and equipment in conformity of the items mention in the Bill of Quantities of this tender will be selected. The firms should have valid PAN & VAT / Central Sales tax Registration Number.
10. The firms must have its maintenance services at Kanpur/ Lucknow UP. The firms should satisfy that after sales services would be adequate in the event of placing order with them.
11. Even though any bidder may satisfy the above requirements, he/she would be liable to be disqualified if he/she has :
 - (a) Made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the eligibility criteria document.
 - (b) Records of poor performance such as abandoning work, not properly completing the contract, or financial failures/weaknesses etc.

Technical Bid and Financial Bid

1. **Technical Bid and Financial Bid should be submitted separately.**
2. **Technical Bid will be first considered by the Technical Committee and when technical bid is found satisfactory in all respects Financial Bid shall be taken in to consideration.**

Terms of Payment

1. 100% against successful installation.

Delivery

1. The delivery of the terms will have to be made within four (4) weeks time from the date of receipt of order. Delivery should be made at Electronics & Communication Engineering Department, University Institute of Engineering and Technology, CSJM University, Kanpur
2. In case of late delivery, penalty shall start after the expiry of the delivery period (i.e. 4 weeks from the date of receiving of order by the supplier).
3. Penalty shall be 0.5% of the total order amount per day for a period of two weeks and 1% of the total order amount per day up to one week after which the order may be cancel.

Installation

1. Installation must be done within one week from the date of delivery of items, failing which penalty shall be imposed.
2. Penalty shall be charged @ 0.5% of the total order amount per day for a period of two weeks and @ 1% per day thereafter for another two weeks. After which the items may be rejected or cancelled.

Registrar

Technical Bid

CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY, KANPUR

Name and address of firm
..... Telephone No.....

Dealer certificate details.....

Enlistment details.....

Experience details.....

Service tax number..... VAT/TIN No.....

EPF No.....PAN No.....

Details of Earnest Money

EMD Amount Rs.....Name of bank & branch.....

D.D./FDR No.....Date.....

Details of Tender cost

Tender Cost Rs.....University Receipt /D.D No.....

Name & branch of bank.....Date.....

I have read all the terms and condition and I pledge to abide by them.

Date.....

Signature & Stamp of Tenderer

Encls.

Registrar
C.S.J.M. University, Kanpur

Electronics & Communication Engineering Department
CSJM University, Kanpur

S.No.	Equipment/kit Name	Qty
01.	Optical Time Domain Reflectometer	01
02.	Optical Light Source pocket Size Dual wavelength	01
03.	Optical Power Meter	01
04.	Optical Fiber Terminal Block	01
05.	Optical Manual Variable Attenuator	01
06.	Optical Splitters/Coupler (1 x 2 / 1x2)	01
07.	Optical WDM Coupler (2 x 1)	02
08.	Optical Switch (1x2)	02
09.	Fiber Inspection Microscope	01
10.	End Face cleaner – 1 No	01
11.	Bulk head cleaner – 1 No	01
12.	LAUNCH TABLE Dimension: 4ft x 5	01
13.	Optical Fiber Spool SM – 14km	01
14.	OPTICAL ADAPTORS	09
15.	<p><u>Coarse Division Multiplexing System</u></p> <p>i. Four Laser Sources with 1.25Gbps CWDM Laser Diode Modules at wavelengths of 1510nm, 1530nm, 1550nm,1570nm</p> <p>ii. FourDetectors with 1.5 GHz InGaAs PIN Photo diode Module with Responsivity of 0.9 A/W in 9/125μm fiber</p> <p>iii.CWDM multiplexer and demultiplexer with 4 channels</p> <p>iv.Three Port Circulator</p> <p>v. Fiber Bragg Grating</p>	1 set

- Last date of submitting tenders —27/03/17
- Date of opening of tender —27/03/17

(In the presence or absence of tenderer(s)).

- The undersigned reserves the right to cancel all / any tender(s).

Registrar
CSJM University,
Kanpur.

FINANCIAL BID (Electronics & Communication Engineering)
CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY, KANPUR

1. Optical Time Domain Reflectometer (OTDR) - 1 No MTS4000 with E4126LA Module						
Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
Display Type	TFT Color Touch Screen	01				
Screen Size	7"					
Display Resolution	800 x 480 pixels					
Internal memory	32MB					
I/O Interface type	2xUSB, 1 mini USB, 1x RJ-45 LAN 10/100/1000 Mbps					
Battery type	Rechargeable Lithium-ion battery					
Power Supply	AC/DC adapter Input 100-250V, 50-60 Hz, Output 12V DC/2.5A					
Size (1 x h x w)	260 x 135 x 90 mm/10.2 x 5.3 x 3.5in					
Weight (with Battery only)	1.4 kg (3lbs)					
Operating temperature range (all options)	-20°C to +50°C (-4° F to 122°F)					
Humidity, non-condensing	95%					
Wavelengths	1310/1550 +/-20nm					
Dynamic Range	35/33Db					
Event dead zone	1.5m					
Attenuation dead zone	6 m					
Sampling resolution	4 cm					
No. of acquisition points	Upto 128 000					
Distance accuracy	±1 m ±sampling resolution ±1.10-5 x distance (excluding group index uncertainties)					
Display range	0.5 to 260 km					
Optical Connector (Chose any ONE)	FC , SC , ST, DIN					
2. Optical Laser Source - Pocket Sized Dual Wavelength Light Source						
Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
Emitter type	Dual FP laser (laser class 1)	01				
Wavelength range	1310nm +/- 20nm ; 1550nm +/- 20nm					

Spectral width (rms)	Typically <5nm					
Output level (CW) (9/125 μm fiber) - 7dBm	Typically -3.00 to 0.00 dBm (+/- 1 dB)					
Modulated output level (Auto Wavelength)	Typically -9.00 to -6.00dBm (+/- 1 dB)					
Level stability (short term) 15mins	Typically +/- 0.02 dB					
Modulated output signal (Rectangular modulation ration 1:1) Selectable	270 Hz, 1 kHz, 2 kHz					
CW Mode	Continuous wave signal					
Auto-λ Mode	Output signal includes λ information (detectable by all JDSU power meters)					
DUAL Mode	Both wavelengths activated					
Optical connectors	Two outputs (one for each wavelength) each with the same connector SC, Option for FC, ST or DIN					

3. Optical Power Meter

Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remark
Display Range	-75 to +26dBm	01				
Max. permitted input level	+ 30dBm					
Intrinsic uncertainty ¹	+/- 0.13 dB (+/- 3%)					
Wavelength range	800 to 1700 nm					
Standard wavelength settings	850,1300, 1310,1550,1625 nm					
Standard Optical Interface	Universal 2.5mm / (1.25 mm adapter Optional)					
Photo diode type	InGaAs					
Result display in	dBm, dB /W					
Modulation detection	270Hz, 1 kHz, 2 kHz					
Wavelength detection on (Auto-λ)	Yes					
Power Supply	Four-way power: NiMH, dry batteries, RBP2 Li-Ion Battery Pack, PS4 Universal					

	AC/DC Power Supply 12 V Internal charging for RBP2 Li-Ion Battery Pack					
Recommended calibration interval	3 years					
Ambient temperature , Nominal range use	-10 deg C to + 55 deg C					
Dimensions (w x h x d)	Approx. 208 x 112 x 64mm					
Weight	Approx 750 g.					

4. OPTICAL FIBER TERMINAL BLOCK - 1 No.

Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
Insertion Loss	Typically < 0.2 dB	01				
Back Reflection	< -40dB with the index matching oil					
Pull strength	> 500 gram when fully clamped					
Fiber Sizes Singlemode(in microns) Multimode(microns)	9/125 50/125,62.5/125,100/140					
Size	50(L) x 20(H) x 20(D) mm					
Durability	1000's of connections under normal operating conditions.					

5. MANUAL VARIABLE ATTENUATOR- 1 No.

Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
Attenuation Range 1310/1550nm	65/60 dB	01				
Maximum Insertion Loss Single-mode (SM)	<2.0 dB					
Return Loss SM	>60dB					
Maximum optical input power	200mW					
Attenuation Accuracy	+ 0.8dB					
Display Resolution	0.1 dB					
Repeatability	+ 0.1 dB					
Polarization Dependent Loss	< 0.1 dB					
Recalibration period (recommended)	03 year					
Battery operation time	>300 hours					

Dimensions WxHxD	11.5 x 6 x 12.5 cm					
Weight	500 grms					
Operating Temperature	-10 to +55deg C					
Storage Temperature	-40 deg to +70 deg C					
Humidity	Maximum 95% RH from 0 to 50 deg C					
6. FUSED COUPLER 1x2/ SPLITTER 2X1 , 1310/1550NM - 2 Nos.						
Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
Centre Wavelength	1310nm, 1550nm	02				
Insertion Loss (without connectors) Maximum	3.6 dB					
Excess Loss (without connectors) Typical	0.1 dB					
Uniformity Maximum	0.8 dB					
Dependent Loss Maximum	0.15 dB					
Optical Return Loss Minimum	50 dB					
Directivity Minimum	55 dB					
Temperature Coefficient Typical	0.002 dB/ deg C					
Package Dimensions:H package (LxWxH)	85 x 17.8 x 7.5mm					
Operating Temperature range	-40 to 85 deg C					
Storage Temperature range	-50 to 85 deg C					
Coupling Ratio	50/50					
Housing	Ø3.0mm cable					
Configuration	1x2					
Connector	FC/PC					
Pigtail Length	1 meter					
Fiber Type	Corning SMF-28					
7. FUSED WDM COUPLER 1x2/ SPLITTER 2X1, 1310/1550NM - 2 Nos.						
Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
Operating Wavelength Range 1310 nm band 1550 nm band	1290 to 1330 nm 1530 to 1570 nm	02				

Insertion Loss Maximum	0.6 dB					
Isolation Minimum	15 dB					
Polarization Dependent Loss Maximum	0.15 dB					
Optical Return Loss Minimum	50 dB					
Operating Temperature range	-40 to 85 deg C					
Storage Temperature range	-50 to 85 deg C					
Package dimension (H package : LxWxH)	85 x 17x7.0 mm					
Connector	FC/PC					
Pigtail Length	Meter					
Fiber Type	Corning SMF-28					
Housing	Ø3.0mm cable					
Configuration	1x2					
Connector	FC/PC					
Pigtail Length	1 meter					
Fiber Type	Corning SMF-28					

8. FIBER OPTIC SWITCH 1x2 (2x1) : 2 Nos.

Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
Wavelength Rang	1290 to 1330 nm and/or 1525 to 1610 nm	02				
Insertion Loss	0.8 dB					
Return Loss	55 dB					
Polarization Dependent Loss	0.1 dB					
Repeatability	+ 0.05 dB					
Crosstalk	-60 dB					
Optical input Power (CW)	300mW					
Switching Time	8 ms					
Cycle rate	10Hz					
Power Supply	5V DC/40mA + 10%					
Dimensions (WxHxD)	48.4 x 8.7 x 18.1 mm					
Operating Temperature range	0 to 6, or -5 to 70deg C short term					
Temperature	-40 to 85 deg C					
Humidity (non-condensing)	<85% RH, or 90% RH short term					
Qualification	GR-1221-CORE, GR-1073-CORE					
Fiber Length	1 meter					

Fiber Type	9/125/900 μm					
Wavelength	1525 to 1575nm					
Configuration	1x2					
Connector	FC/HPC					
9. Fiber Inspection Microscope - 1 No						
Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
Magnification	200x	01				
Field Of View	1050μm 900 μm					
• At 100x						
• At 200x						
IR attenuation filter	Built in					
Controls	Rocker Switch					
Power source	Battery					
Source lifetime	>100000 hrs					
10. End Face cleaner - 1 No						
Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
Operation	Slide type	01				
Lifetime	>500 times					
Applicable connector	SC, FC, ST, LC, MU for PC and APC					
Adapters	Included					
11. Bulk head cleaner - 1 No						
Parameter	Values	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
Ferule type	2.5mm	01				
Operation	Push - Click operation					
Lifetime	>800 times					
Applicable connector	SC,FC,ST (both PC and APC)					
Item	parameter	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remarks
12. LAUNCH TABLE	Dimension: 4ft x 5ft Proper slot for placing various test Equipments. The table should have the provisions for various connections.	01				
13. FIBER SPOOLS	Type: Single Mode Connector: Suitable connector at the end. Separate 1km and 5 kms spools for a total length of 14 kms	01				

14. OPTICAL ADAPTORS	The suppliers should provide appropriate adapters to perform the above tests	09				
Item	parameter	Quantity	Rate/Unit(Rs.)	Tax	Cost(Rs.)	Remark
<u>15. Coarse Division Multiplexing System</u>	i. Four Laser Sources with 1.25Gbps CWDM Laser Diode Modules at wavelengths of 1510nm, 1530nm, 1550nm,1570nm ii. FourDetectors with 1.5 GHz InGaAs PIN Photo diode Module with Responsivity of 0.9 A/W in 9/125μm fiber iii.CWDM multiplexer and demultiplexer with 4 channels iv.Three Port Circulator v. Fiber Bragg Grating	01				

The supplier should also comply the following;

- The suppliers should provide appropriate adapters to connect the Fiber Spools.
- The supplier/principal company should provide a user list for similar item supplied.

Registrar
C.S.J.M. University, Kanpur