

No:-UEV/80DYE/666/2016. Fort-campus, Mumbai-400032

Date: - 27/10 /2016

## Tender Notice.

The Registrar, University of Mumbai Fort, Inviting wax sealed tenders from the experience and specialized Electrical & Energy Management Audit Agencies for Kalina & Fort Campus Buildings, etc. The last date for the submission of wax sealed tender is 07/11/2016 at 3.00pm, TO The University Engineer office, room-118,The University of Mumbai, Fort Campus .The Tender will be open on same day if possible or as per given tender conditions. The cost of the Schedule II-A/B is **Rs.1000/-**the amount is to be paid inthe Account section of the University of Mumbai, Fort-32.& Schedule II-A/B will be issued in University Engineer office RN- 118 Fort on showing of the amount paid receipt.

The Register, University of Mumbai has reserves the right to reject all or any tender without assigning any notice. And his decision will legally bind to all Agencies.

Sd/-

The Registrar
University of Mumbai



No:UEV/80DYE/1252/2016. Kalina- Mumbai-400098. Date:-01/10/2016.

#### **TENDER NOTICE**

APPOINTMENT OF ELECTRICAL AUDIT & ENERGY MANAGEMENT SERVICE COMPANY FOR CARRYING COMPREHENSIVE ELECTRICAL & ENERGY AUDIT OF VARIOUS DEPARTMENTS & BUILDINGS / BHAVANS / HOSTELS / ALL STAFF QUARTERS / BUNGLOWS / MESS / CANTEEN / ALL LIBRARIES & HISTORICAL TOWERS ETC. IN UNIVERSITY OF MUMBAI AT KALINA AND FORT CAMPUS.

The University of Mumbai to engage the services of a Professional Electrical Audit & Energy Management Service Company having registered office in Mumbai / Thane or Navi Mumbai region of Maharashtra for Carrying Comprehensive Electrical Audit in University of Mumbai Kalina. The interested applicants to submit the offer for providing the aforesaid services in two-bid system (i.e Prequalification bid and price bid) as per the enclosed format (Schedule -I & II).

### Key objectives of the Electrical & Energy Audit: -

- Assessment of the complete electrical distribution system.
- Assessment of connected load vis-à-vis sanctioned load / contract demand.
- Assessment of electricity bills for the penalties imposed by the power supply agency for exceeding contract demand, delayed payment charges and non-maintenance of power factor.
- Assessment of quality of electrical safety and protective systems like Main switches, MCCBs, MCBs, ELCBs/RCBs, Isolators etc.
- Assessment of insulation resistance of cables, wires etc.
- Assessment of earthing system.
- Assessment of quality of electrical wiring practices, switchgears used.
- Assessment of Branch safety gadgets.
- Assessment of UPS/Battery, hub/servers for safety and proper location.
- Assessment of energy consumption vis-à-vis connected load.
- Assessment of lighting arrangement.

#### Scope of Work: -

Scope of work includes Comprehensive Electrical & Energy audit on the following measures:-

- A. Visiting each & every Departments & Buildings & Mess/Canteen in University of Mumbai and verifying the installation by competent Electrical engineer in Mumbai Region (as detailed in the formats enclosed).
- B Installation Audit
- C. Energy Audit.
- D. Suggestion on Corrective measures necessary towards electrical fire and safety measures, Up gradation in the electrical system electrical load, connected load vis-à-vis sanctioned load, enhancement of contract demand, billing penalties etc.
- E. Submission of Comprehensive Report as per Annexure enclosed and studied/ verified during site inspection. Two report copies to be prepared i.e one for the CDU Office.

#### Procedure: -

Based on the details of the services, the agency will have to quote Professional fee for Departments/ Buildings/Bhavans/Hostels/ all staff Quarters/ Bunglows / Mess / Canteen / All Libraries and Historical Towers etc. in University of Mumbai at Kalina and Fort campus. plus applicable service tax for the subject assignment. The professional fees shall be quoted as per Schedule -II. The University of Mumbai will not reimburse any amount towards travelling expenses, visit of the Branch, lodging / boarding, manpower employed or on Tiffin. The entire work shall be completed within 2 months.

The Registrar , University of Mumbai reserves the right to reject any or all applications without assigning any reasons.

The offer should be submitted in two bid system i.e Envelop-I subscribed as "Prequalification for Appointment of Electrical Audit & Energy Management Service Company for Carrying Comprehensive Electrical Audit of as states in above locations in University of Mumbai at Kalina & Fort campus " and Envelop-II subscribed as " Price Bid for Carrying Comprehensive Electrical Audit of in The University of Mumbai Kalina & fort Campus " and both the envelopes should be sealed and write subject name of the work on envelopes & to be put into the third envelop sealed properly and subscribed as "Appointment of Electrical Audit & Energy Management Service Company for Carrying Extensive Electrical Audit of The University of Mumbai ,Kalina & Fort Campus" & dropped in the tender box in Room No-118, 1st Floor, Campus Development unit on or before 07.11.2016 till 15.00 hrs. The sealed Envelop-I i.e Prequalification Bid will be opened at 15.30hrs on the same day or on any working Day in the presence of bidder or their representative and Envelop-II A & B i.e Price Bid will be opened on later date of only prequalified agencies with due information of date & time of opening. All the Envelops should be address to:

TO,

THE UNIVERSITY ENGINEER,
CAMPUS DEVELOPMENT UNIT,
ROOM NO -118, 1<sup>ST</sup> FLOOR, THE UNIVERSITY OF MUMBAI,
FORT ,MUMBAI - 400 032.

# Appointment of Electrical Audit & Energy Management Service Company for Carrying Comprehensive Electrical & Energy Audit of The University of Mumbai in Kalina & Fort Campus.

#### 1. General Information: -

The University of Mumbai intends to Appointment Professional Electrical Audit & Energy Management Service Company for Carrying Comprehensive Electrical & Energy Audit of. The agency to be appointed shall provide professional services for carrying out Comprehensive Electrical audit on the following measures:

- a. Installation Audit
- b. Energy Audit
- c. Suggestion on Corrective measures
- d. Comprehensive Report.

All the Electrical Audit & Energy Management related Service of The University of Mumbai is controlled by The University Engineer of Campus Development Unit of Fort and Kalina Campus.

# 2. Duties / scope of work expected from the Electrical Audit & Energy Management Service Company

- 2.1 To provide professional services for carrying out comprehensive Electrical and energy audit of the complete electrical installation in various Departments/Buildings/Bhavans/Hostels/ all staff Quarters / Bunglows / Mess / Canteen / All Libraries and Historical Towers etc. in University of Mumbai at Kalina and Fort campus at The University of Mumbai at Kalina & Fort Campus and give comprehensive report to the Campus Development Unit & Suggesting corrective measure.
- 2.2 The Electrical Installation includes all the supply originating from the Power supply agency to the respective incomer distributions and thereafter outgoing distribution system. The study includes complete lighting and power load, All floor electrical distribution, Air-conditioners, pumps, UPS, Servers, Earthing system, DG sets and Power factor controlling panels etc.
- 2.3 The key objective to cover under the Electrical & Energy Audit of in various Departments, Buildings/Bhavans & Mess/Canteen at Kalina & Fort Campus will be as under: -
  - Assessment of the complete electrical distribution system.
  - Assessment of connected load vis-à-vis sanctioned load / contract demand.
  - Assessment of electricity bills for the penalties imposed by the power supply agency for exceeding contract demand, delayed payment charges and maintenance of power factor.
  - Assessment of quality of electrical safety and protective systems like Main switches, MCCBs, MCBs, ELCBs/RCBs, Isolators etc.
  - Assessment of insulation resistance of cables, wires etc.
  - Assessment of earthing system.
  - Assessment of quality of electrical wiring practices, switchgears used.
  - Assessment of various Departments , Buildings/Bhavans & Mess/Canteen safety gadgets.
  - Assessment of UPS/Battery, hub/servers for safety and proper location.
  - Assessment of energy consumption vis-à-vis connected load.
  - Assessment of lighting arrangement.

2.4 The study should also comprise of suggesting measure for efficient energy conservation and exploring intensive routes for utilization of lower energy by;

Optimal utilization of the various facilities for savings in energy Extension of the life of Electrical assets by giving thrust to predictive maintenance techniques and averting probable breakdowns.

2.5 The comprehensive energy audit should incorporate the following measures: a.

#### A Installation Audit

System & Human Safety

Capacity Utilization

Interchange ability, expandability & scope for retrofits and improvement modifications.

Maintenance Practices for equipment/system & records.

### B. **Energy Audit**

Bench marking of energy consumption

Energy conservation and saving.

Evaluating energy efficient alternatives.

Payback period calculations and recommendations.

### C. Power Quality Analysis & Harmonic Data logging

Power quality measurement.

Identify and differentiate internal problems from those due to power quality.

Suggest corrective measures.

#### D. Corrective measures

To suggest improvement measures on the existing electrical system.

- E. Thermal Imaging Reports of each circuit.
- F. Online Earth Testing Report of each circuit
- G Comprehensive Report on the above study for implementation to the concerned Departments/ Buildings/Bhavans/Hostels/ all staff Quarters/ Bunglows / Mess / Canteen / All Libraries and Historical Towers etc. in University of Mumbai at Kalina and Fort campus
- 2.6 The scope includes arranging all required tools and tackles, measuring instruments, data loggers, wires & cables and technicians required for completion of the scope of work. It also includes work instructions from concerned Departments, Buildings/Bhavans and Mess/Canteen to Campus Development Unit & visiting site, preparing sketch designs which shall be in accordance with local governing codes / standards, regulations, etc., and reports on the scheme so as to enable the Bank to take a decision for e.g. for power factor improvement, what rating of Capacitor Banks are required to be installed / up gradation for the visiting sites.
- 2.7 Submitting a proper PERTCHART / Bar Chart incorporating all the activities required for the completion of the work in time to Campus Development Unit Office. The programme should also include various stages of services to be
- 2.8 The comprehensive report shall be based on the study of the work covered under the scope of work.
- 2.9 Assuming full responsibility for supervision and proper execution of works covered under the scope of contract. 2.10 Deploy a full time/temporary Site Engineer for supervision of work under scope of contract.

- 2.11 Any other services connected with the works usually and normally rendered by the Electrical Audit & Energy Management Service Company, but not referred to herein above.
- 2.12The supervising staff deployed by the agency shall maintain following registers on daily basis i.e. Daily Progress Report, Hindrance Register, etc.
- 2.13 The agency should conduct meeting weekly with concerned Engineer on the progress of work.
- 2.14 The offer to be submitted in two-bid system as referred above and as per Schedule -I & Schedule -II of these document.
- 2.15 All pages of these documents should be duly signed by the agency withproper stamp of the company.
- 2.16 The work has to be completed in all respect within 60 days from the 10th day of Acceptance of Work order. For any delay in execution of work, liquidated damages will be required @1% per week of the total value of work subject to maximum of 10% of the total cost of work.
- 2.17 The work should be executed in through professional way and in true workmanship. The work will be carried out without hampering / disturbing day to day functioning of the The University offices / Departments Etc.

# PRE-QUALIFICATION OF ELECTRICAL AUDIT & ENERGY MANAGEMENT SERVICE COMPANY \*\*\*\*\*\*\*

General information of the Agency who provide professional services for carrying out Comprehensive electrical & energy audit of the complete electrical installation of different organizations in Mumbai Metropolitan Region (comprising of Mumbai, Thane ,Navi mumbai) and give comprehensive report to the University of Mumbai suggesting corrective measures.

Intending agencies are requested to furnish details about their firm, technical experience, competence and evidence of their financial standing as per enclosed Schedule for considering their names for proposed work.

- 1. Selection of the agency will be based on the ability and competence required for good quality jobs to be performed by them.
- 2. If the space provided in the schedule is insufficient for giving full details, the same may be given on a separate sheet of paper.
- 3.Information furnished toUniversity of Mumbai will be kept as strictly confidential.
- 4.Decision of the University of Mumbai regarding the selection of the agency for the proposed work will be final and binding and no further correspondence will be entertained. Only the pre-qualified agencies will be informed about opening of price bid date.
- 5. Intending agencies are requested to read carefully before filling the particulars in the schedule.
- 6. Incomplete applications will not be considered.
- 7. Information / details furnished by selected party, if found to be false at any time in future or any information affecting selection is willingly / unwillingly withheld, if come to the notice of the University of Mumbai at any point of time, the party's selected can be cancelled immediately.
- 8. Where copies are required to be furnished, these should be certified copies.
- 9. Application form is not transferable.

# DETAILS OF ELECTRICAL AUDIT & ENERGY MANAGEMENT SERVICE COMPANY:-

1, NAME OF THE FIRM:	
Address :	
TELEPHONE NO. :	
Office :	
Mobile :	
FAX :	
E-Mail :	
2.A) WEATHER PROPRIETARY / :	
PARTNERSHIP / PVT. LTD. /	
PUBLIC LTD.,	
(FURNISH CERTIFICATE OF REGISTRATION/	
PARTNERSHIP DEED TO BE ENCLOSED	
as Annexure-I)	
B) NAME OF THE PROPRIETOR, :	
PARTNERS, DIRECTORS	
I)	
II)	
III)	
C) YEAR OF ESTABLISHMENT :	
3. REGISTRATION WITH REGISTRAR :	
OF COMPANIES (NO. & DATE)	
(FOR CORPORATION ONLY)	
4. REGISTRATION WITH TAX AUTHORITIES:	
I) INCOME-TAX NO. :	
II) SERVICE TAX NO :	
III) EPF No. :	
IV) ESI No. :	
(FURNISH COPIES OF CERTIFICATE OF REGISTRATION WITH RELEVA	NT AUTHORITIES TO
BE ENCLOSED AS ANNEXURE II-A, II-B, II-C, II-D)	

5.	REGISTRATION WITH BUREAU OF ENERGY
	EFFICIENCY AS CERTIFIED ELECTRICAL AUDITOR :
	(MENTION REGISTRATION NO. & ATTACH THE COPY OF REGISTRATION )

6. FURNISH COPIES OF AUDITED BALANCESHEET AND PROFIT & LOSS A/C.
FOR THE LAST 3 YEARS.
(ENCLOSE COPIES AS
ANNEXURE IV-A, IV-B, IV-C)

7. REGISTRATION WITH GOVT. / PUBLIC
SECTOR / BANKS (CERTIFICATE OF REGISTRATION TO BE ENCLOSED AS ANNEXURE-V)

Name of the organisation	YEAR SINCE EMPANELLED

8. GIVE DETAILS IF AT PRESENT INVOLVED IN LITIGATION IN SIMILAR TYPE OF CONTRACTS

SR.	NAME OF	NAME OF	Nature	Work	DATE OF	VALUE RS.
No.	PROJECT	EMPLOYER	OF WORK	ORDER	COMPLETION	
				DATED	OF WORK	

- 9. DETAILS OF CIVIL SUIT, IF ANY, THAT AROSE DURING EXECUTION OF CONTRACT IN THE PAST 03 YEARS.
- 10. SPECIFY MAXIMUM VALUE OF SINGLE: VALUE PROJECT EXECUTED DURING THE LAST THREE YEARS.
- 11. DETAILS OF WORK EXECUTED DURING THE LAST 3 YEARS (PLEASE MENTION THE QUALIFYING WORKS & ATTACH THEIR COPIES)

,	Work				,	IF WORK
TYPE OF	EXECUTED	NATURE			DURATION OF	LEFT
Work	FOR (NAME	OF WORK	LOCATION	VALUE RS.	WORK WITH	INCOMPLETE
	OF	(IN BRIEF)			DATE OF	OR
	INSTITUTION				COMMENCE	TERMINATED
	/ Body)				&	(GIVE
					COMPLETION	REASONS)



# **SCHDULE-I**

<u></u>	<del></del>
DETAILS OF ELECTRICAL AUDIT & ENERGY 1, NAME OF THE FIRM: ADDRESS:	Y MANAGEMENT SERVICE COMPANY:-
2.A) WEATHER PROPRIETARY / PARTNERS	HIP / PVT. LTD. / PUBLIC LTD. :
(Furnish certificate of registration/ p Annex-I)	ARTNERSHIP DEED TO BE ENCLOSED AS
B) NAME OF THE PROPRIETOR, PARTNERS	s, Directors :
I)	
II)	
C) YEAR OF ESTABLISHMENT :	
3. REGISTRATION WITH REGISTRAR :	
OF COMPANIES (NO. & DATE)	
(FOR CORPORATION ONLY)	
4. REGISTRATION WITH TAX AUTHORITIES	: <u>:</u>
I) INCOME-TAX NO. :	
II) SERVICE TAX NO :	
III) EPF No. :	
IV) ESI No. :	
(FURNISH COPIES OF CERTIFICATE OF RE	GISTRATION WITH RELEVANT AUTHORITIES TO
BE ENCLOSED AS ANNEXURE II-A, II-B,	II-C, )
5. REGISTRATION WITH BUREAU OF ENER EFFICIENCY AS CERTIFIED ELECTRICAL (MENTION REGISTRATION NO. & COPY OF THE PROPERTY OF T	AUDITOR :
6. FURNISH COPIES OF AUDITED BALANCE SHEET AND PROFIT & LOSS A/C. FOR	THE LAST 3 YEARS.
(ENCLOSE COPIES AS ANNEXURE IV-A, 7. REGISTRATION WITH GOVT. / PUBLIC S	SECTOR / ORGANIZATION (CERTIFICATE OF
REGISTRATION TO BE ENCLOSED AS AN	· · · · · · · · · · · · · · · · · · ·
NAME OF THE ORGANISATION	YEAR SINCE EMPANELLED

Name of the organisation	YEAR SINCE EMPANELLED

8.	GIVE DETAILS IF AT PRESENT INVOLVED IN	:
	LITIGATION IN SIMILAR TYPE OF CONTRACTS	

SR.	NAME OF	NAME OF	Nature	Work	DATE OF	VALUE RS.
No.	PROJECT	EMPLOYER	OF WORK	ORDER	COMPLETION	
				DATED	OF WORK	

- 9. DETAILS OF CIVIL SUIT, IF ANY, THAT AROSE DURING EXECUTION OF CONTRACT IN THE PAST 03 YEARS.
- 10. Specify maximum value of single value project executed during the LAST THREE YEARS.
- 11. DETAILS OF WORK EXECUTED DURING THE LAST 3 YEARS (PLEASE MENTION THE QUALIFYING WORKS & THEIR WORK ORDER)

	Work					IF WORK
TYPE OF	EXECUTED	Nature			DURATION OF	LEFT
Work	FOR (NAME	OF WORK	LOCATION	VALUE RS.	WORK WITH	INCOMPLETE
	OF	(IN BRIEF)			DATE OF	OR
	INSTITUTION				COMMENCE	TERMINATED
	/ Body)				&	(GIVE
					COMPLETION	REASONS)

SD/-University Engineer University of Mumbai



#### **SCHDULE-II-A**

SUB:- ELECTRICAL AUDIT AND ENERGY MANAGEMENT SERVICE COMPANY FOR CARRYING COMPREHENSIVE ELECTRICAL & ENERGY AUDIT IN CONCERNED DEPARTMENTS/ BUILDINGS/BHAVANS/HOSTELS/ALL STAFF QUARTERS/BUNGLOWS/MESS/CANTEEN/ALL LIBRARIES AND HISTORICAL TOWERS ETC. IN UNIVERSITY OF MUMBAI AT KALINA & FORT CAMPUS.

ITEM	WORK DESCRIPTION	Provide	Total
No	Name of sites: Hostels / All staff Quarters/	Complete	Amount
	BUNGLOWS / MESS / CANTEEN / ALL LIBRARIES AND	details of	for the
	HISTORICAL TOWERS ETC. IN UNIVERSITY OF MUMBAI AT	Each	survey
	KALINA & FORT CAMPUS	electrical	site in Rs.
		installation	
	D	Locations	
1	Post Office		
2	HEALTH CENTER		
3	S.P. LADIES HOSTEL		
4	STAFF QTRS. B		
5	STAFF QTRS C		
6	STAFF QTRS G		
7	PHROZSHAH MEHTA BHAVAN		
8	DR. SHANKAR DAYAL SHARMA (I.D.E) BUILDING		
9	STAFF QTRS. D		
10	STAFF QTRS. E		
11	STAFF QTRS. F		
12	GARWARE INSTITUTE		
13	GARWARE NEW BLDG.& CANTEEN		
14	SPORTS COMPLEX		
15	Dr. BABASAHEB AMBEDKAR BHAVAN		
16	SANSKRIT BHAVAN		
17	GUEST HOUSE (ANNA BHAU SATHE)		
18	ABUL KALAM /EDUCATION BUILD DEPARTMENT		
19	MDK HOSTEL PUMP & EXAM PUMP HOUSE		
20	CLASS IV QTRS		
21	BUNGLOW-STAFF QTRS 12 / A		
22	BUNGLOW-STAFF QTRS 12 / B		
23	BUNGLOW-STAFF QTRS 12 / C		
24	J.P. NAIK BHAVAN		
25	I.C.S.S.R BUILDING		
26	MAIN SUVARNA CANTEEN		
27	MARATHI BHASHA BHAVAN		
			Pg11

ITEM No	WORK DESCRIPTION NAME OF SITES: HOSTELS / ALL STAFF QUARTERS/	Provide Complete	Total AMT (for
	BUNGLOWS / MESS / CANTEEN / ALL LIBRARIES AND HISTORICAL TOWERS ETC. IN UNIVERSITY OF MUMBAI AT	details of Each	Elect Audit
	KALINA & FORT CAMPUS	electrical installation Locations	survey
28	SHIKSHAK BHAVAN		
29	ALKESH DINESH MODI INSTITUTE		
30	VC'S BANGLOW & SERVANT QTRS		
31	M.J.P BHAVAN/ANNEX BUILDING/EXAM CANTEEN		
32	EURASIAN STUDIES		
33	ZANDU BUILDING		
34	RANADE BHAVAN		
35	LECTUR HALL COMPLEX		
36	J.N. LIBRARY		
37	COUNSELLING CENTER		
38	DHNESHWAR BHAVAN		
39	TILAK BHAVAN		
40	ANIMAL HOUSE & GREEN HOUSE		
41	30 H.P.PUMP HOUSE &15HP PUMP HOUSE		
	& its associated Distribution Network		
42	NEW LECTURE HOUSE		
43	SPORTS PAVILION, at MARINE LINES		
	FORT CAMPUS BUILDING		
44	UNIVERSITY OF MUMBAI ,HEAD OFFICE		
	BUILDING Fort		
45	RAJABHAI TOWER & LIBRARY BUILDING		
46	CONVOCATION HALL		
47	JAGNATHSETH BOYS HOSTEL, at Church Gate		
48	V.V.BHAVAN at Church Gate		
49	INTERNATIONAL STUDENT HOSTEL at Church Gate		
50	JAANALMAL BAJAJ MANAGEMENT BUILDING at		
	Church Gate		
	Total Tender cost for the Electrical Audit Work		

	•	-	
Amount	in	WOTH C	•-

STAMP & SIGNATURE of The AGENCY



#### SCHDULE-II-B

SUB:- ELECTRICAL AUDIT AND ENERGY MANAGEMENT SERVICE COMPANY FOR CARRYING COMPREHENSIVE ELECTRICAL & ENERGY AUDIT IN CONCERNED DEPARTMENTS/ BUILDINGS/BHAVANS/HOSTELS/ALL STAFF QUARTERS/BUNGLOWS/MESS/CANTEEN/ALL LIBRARIES AND HISTORICAL TOWERS ETC. IN UNIVERSITY OF MUMBAI AT KALINA & FORT CAMPUS OF THE UNIVERSITY OF MUMBAI IN KALINA & FORT CAMPUS.

ITEM	WORK DESCRIPTION	Provide	Amount
No			in Rs
МО	NAME OF SITE:-HOSTELS / ALL STAFF QUARTERS	Complete	III KS
	Bunglows / Mess / Canteen / All Libraries &	details of	
	HISTORICAL TOWERS ETC. IN UNIVERSITY OF MUMBAI AT	Each	
	KALINA & FORT CAMPUS as per page no 11,12	electrical	
	(quote separately for each building ,etc.)	Installation	
	Name of site:	Locations	
1]	ASSESSMENT OF THE COMPLETE ELECTRICAL		
-	DISTRIBUTION SYSTEM AS PER METER		
01			
2]	ASSESSMENT OF CONNECTED LOAD VIS-À-VIS		
	SANCTIONED LOAD / CONTRACT DEMAND.		
3]	ASSESSMENT OF ELECTRICITY BILLS FOR THE PENALTIES		
٦]	IMPOSED BY THE POWER SUPPLY AGENCY FOR		
	EXCEEDING CONTRACT DEMAND, DELAYED PAYMENT		
	CHARGES AND DELAYED PAYMENT CHARGES &		
	MAINTENANCE OF POWER FACTOR .		
4]	ASSESSMENT OF QUALITY OF ELECTRICAL SAFETY AND		
•	PROTECTIVE SYSTEMS LIKE MAIN-SWITCHES ,MCCBS,		
	MCBs, ELCBs RCBs, Isolators etc. (All ratings)		
	Medo, Ebebo Rebo, Robertoko Bre. (1888 idilinta)		
5]	ASSESSMENT OF INSULATION RESISTANCE OF CABLES,		
,	WIRES ETC. (ALL RATINGS)		
	· ·		
6]	ASSESSMENT OF EARTHING SYSTEM( ALL TYPES )		
7]	ASSESSMENT OF QUALITY OF ELECTRICAL WIRING		
1	PRACTICES, SWITCHGEARS USED IN VARIOUS LOCATIONS.		
	ALL RATINGS)		
	TIBB TETTITOO)		
8]	ASSESSMENT OF LIGHTING LOAD ARRANGEMENT( ALL		
,	RATINGS)		
01	Accreament of LIDC / Damment with / convers		
9]	ASSESSMENT OF UPS/BATTERY, HUB/SERVERS FOR		
	SAFETY AND PROPER LOCATION AND THEIR		
	CABLING/BREAKERS/ LOAD ETC. DETAILS .( ALL RATINGS)		
			PG 13

ITEM	WORK DESCRIPTION	Provide	Amount
No	NAME OF SITE: HOSTELS / ALL STAFF QUARTERS	Complete	in Rs
	BUNGLOWS / MESS / CANTEEN / ALL LIBRARIES &	details of	
	HISTORICAL TOWERS ETC. IN UNIVERSITY OF MUMBAI AT	Each	
	KALINA & FORT CAMPUS as per page no 11,12	electrical	
	(quote separately for each building ,etc.)	Installation	
	Name of site:	Locations	
10]	ASSESSMENT OF ENERGY CONSUMPTION VIS-À-VIS		
	CONNECTED LOAD.		
111	ELECTROCAL ACCESSATEMENT OF ALL DANIEL DOADES IN		
11]	ELECTRICAL ASSESSMENT OF ALL PANEL BOARDS IN CAMPUS. (ALL RATINGS)		
	CAMI 03.( ALL KATINGS)		
1.01	A COROCA FRANCISCO DO CARROL A DE LA DEL ANORMA DA MARIA		
12]	ASSESSMENT OF POWER LOAD ARRANGEMENT. (ALL		
	RATINGS)		
13]	ASSESSMENT OF ALL FLOOR ELECTRICAL DISTRIBUTION		
13]	SYSTEM IN CAMPUS.		
	OTOTEM IN CAMILOO.		
14]	ELECTRICAL ASSESSMENT OF ALL AIR CONDITIONERS /		
1	HVAC /WATER & AIR COOLED AIR HANDLING		
	REFRIGERATION SYSTEM IN CAMPUS. (ALL TONNAGE		
	System)		
	,		
15]	ELECTRICAL ASSESSMENT OF ALL PUMPS IN CAMPUS.(		
-	ALL RATINGS)		
16]	ELECTRICAL ASSESSMENT OF ALL LIFTS IN CAMPUS. (ALL		
	PASSENGER CAPACITIES)		
1 771	D		
17]	ELECTRICAL ASSESSMENT OF ALL D.G.SETS IN CAMPUS.(		
	ALL RATINGS)		
18]	ASSESSMENT OF THE ABOVE LOCATIONS SAFETY		
10]	GADGETS.		
Note	1)Provide single line diagram in Soft & Hard copy		
	format Minmum4 steps, from Electrical meter		
	location to ending POINT i.e (UPTO different loads)		
	2)ALL RELATED REPORT OF ABOVE ANALYSIS		
	3) Building names are given in page no 11 & 12		
	quote separately for each building on page no		
	13,14& attach all details with schedule II FORM		
	etc.)		
	TOTAL AMOUNT FOR THE ABOVE SURVEY SITES IN RS.		

TOTAL AMOUNT IN WORDS:

(INCL. OF TAXES)

Sd/-University Engineer University of Mumbai