



Eastern University, Sri Lanka

BIDDING DOCUMENT

For
ELTA ELSE DP for Faculty of Science
Accelerating Higher Education Expansion and Development Operation
(AHEAD)

Name of Work:

**REFURBISHMENT WORKS AT FACULTY OF SCIENCE,
EASTERN UNIVERSITY, SRILANKA, VANTHARUMOOLAI**

IFB No : EUSL/OTS/AHEAD/R2/NCB/FOS/19/07

Employer

Vice Chancellor
Eastern University, Sri Lanka
Vantharumoolai, Chenkalady.

Issued To

Issued By

Date.....

For Clarification:

Deputy Director Procurement 065 2059393 (voice)

Deputy Director- Engineer 065 2240582 (voice)

CONTENTS

Page No.

Invitation for Bid -----	01
Section 01 - Instructions to Bidders -----	02
Section 02 - Standard Forms [Contract] --- -	03
Section 03 - Conditions of Contract -----	06
Section 04 - Form of Bid and Qualification Information -----	08 - 09
Section 05 - Schedules -----	11
Section 06 - Specification-----	13
Section 07 Bill of Quantity -----	14
Section 08 - Drawings	16



Eastern University, Sri Lanka

Invitation for Bids (IFB)
National Competitive Bidding (NCB)
IFB No: EUSL/OTS/AHEAD/R2/NCB/FOS/19/07

Accelerating Higher Education Expansion and Development Operation (AHEAD)

The Chairman, Project Procurement Committee, on behalf of the OTS, AHEAD Operations, Eastern University, Sri Lanka will receive sealed bids from interested eligible and qualified bidders for the work mentioned in the table given below and receiving will be closed at 2.00 pm on 29.11.2021 Bidding documents shall be obtained from Director/OTS/AHEAD-Project up to 28.11.2021 at OTS Office, Eastern University, Sri Lanka".

S. No.	Name of Work	Estimated Cost Excluded VAT (Rs)	Required ICTAD/CIDA Valid Grade and the Specialty
1.0	REFURBISHMENT WORK AT FACULTY OF SCIENCE, EASTERN UNIVERSITY, SRILANKA, VANTHARUMOLAI	5,946,000.00	C7 and C6 (Building)

1. Bidding will be conducted through National Competitive Bidding Method (NCB). Since the total cost of estimate of this Procurement is below Rs.50 Mn., regional preference and CIDA grade preference shall apply as stipulated in Public Finance Circular No.04/2016(ii).
2. All bidders shall be registered with the Institute for Construction Industry Development Authority (CIDA) (former ICTAD), under the grade and specialty given in the above.
3. Bid shall be valid up to 77 calendar days from the date of closing of bids.
4. A completed set of bidding documents in English Language may be purchased by interested bidders on the submission of a written application by Bidder himself or by bidders' representatives to the address Deputy Director, Procurement, OTS AHEAD Operations, Eastern University, Sri Lanka and upon payment of non-refundable fee of LKR 3,500/= (Three Thousand five hundred only) per procurement document, from 9.00 am to 3.00 pm up to 28.11.2021. The mode of payment shall be either in cash or bank draft in favor of "AHEAD Project, Eastern University, Sri Lanka".
5. The Bidders can also download the bidding documents from the University Website i.e. www.esn.ac.lk. Those who are obtaining bidding documents from the University Website should submit the completed documents along with a Bank Draft drawn in favor of the "AHEAD Project, Eastern University, Sri Lanka" for Rs. 3,500/- (Three Thousand five hundred only) as non-refundable fee or the payments could be made at any branch of the Bank of Ceylon to the credit of Account No 82845710 Eastern University, Sri Lanka and the deposit slip should be attached with the original Bidding documents.
6. Bid must be accompanied by bid security as mentioned below.
7. Bids shall be accompanied by a Bid Security which shall be;
 - in the format included in the Bidding document
 - in favor of **Vice Chancellor, Eastern University, Sri Lanka**
 - for an amount of **Rs. 70,000.00**
 - valid up to **20.02.2022**
 - issued by any commercial bank operating in Sri Lanka approved by the Central Bank of Sri Lanka or Construction Guarantee Fund

8. Bids in two copies indicating in Original and Duplicate, must be delivered to the address given below on or before **14.00 hour on 29.11.2021**. Late bids will be rejected
**Deputy Director/Procurement, OTS/AHEAD Project,
Office of the Registrar, Senate Building,
Eastern University, Sri Lanka, Vantharumoolai, Chenkalady.
Tp. No.: 0652059393**
9. Bids will be opened immediately after the closing time at the above address.
10. Bidders or their authorized representatives are requested to be present at the opening of Bids.
11. Pre-Bid meeting will be held on **19.11.2021** at **2.00pm** at CQA Board Room, EUSL.
12. Interested bidders may obtain further information from the **Deputy Director/Procurement** or **Works Engineer** of Eastern University, Sri Lanka at Chenkalady during any working days during office hours from 9.00hrs to 15.00hrs. [**Deputy Director/Procurement, - OTS (AHEAD) - 0652059393, Deputy Director-Engineer - 065 2240582**].
13. Any changes in the above due to the prevailing COVID 19 pandemic situation will be published in the University website 'www.esn.ac.lk'.
14. The decision of the Project Procurement Committee is final and conclusive.

**The Chairman
Project Procurement Committee
Eastern University, Sri Lanka
Vantharumoolai
Chenkalady.
07.11.2021**

Section 01
Instructions to Bidders

(a) INSTRUCTION TO BIDDERS

Instruction to Bidders applicable to this contract shall be First Edition – September 2003 of Standard Bidding Document of Works – Minor Contracts (ICTAD/SBD/03) in Sri Lanka, published by the Institution of Construction Training and Development (ICTAD), (Presently CIDA), Sri Lanka.

This publication (ICTAD/SBD/03) can be purchased at the Institute of Construction Training and Development (ICTAD), Swasiripaya, 123, Wijerama Mawatha, Colombo 7.

Instruction to Bidders Shall be Read in Conjunction with Section - 5.

Instruction to Bidders will not be a part of the contract and will cease to have effect once the contract is signed

Section 02

Standard Forms (Contract)

- Letter of Acceptance
- Agreement
- Performance Security
- Advance Payment Security
- Retention Money Guarantee
- Bid Security

FORM OF LETTER OF ACCEPTANCE

[Letter head paper of the Employer]

..... *[date]*

To:

.....*[name of the Contractor]*

.....*[address of the Contractor]*

This is to notify you that your Bid dated..... for construction and remedying defects of the *[name of the Contract and identification number, as given in the Contract Data]* for the Contract price of Rupees.....
.....*(amount in figures and words)*
as corrected in accordance with Instructions to Bidders and! or modified by a Memorandum of Understanding² (if any), is hereby accepted.

You are hereby instructed to proceed with the execution of the said Works in accordance with the Contract documents.

The Start Date shall be:..... *(fill as per Clause 6.1 of Conditions of Contract)*.

The amount of Performance Security is: ... *(fill as per Clause 4.4 of Conditions of Contract)*.

The deadline for submission of Performance Security is..... *(fill as per Clause 4.4 of Conditions of Contract)*.

Authorized Signature:.....

Name and title of Signatory.....

Name of Agency:

FORM OF AGREEMENT

This Agreement made the [day] of [month] 20..... [year], between [name and address of Employer] (hereinafter called and referred to as "the Employer"), of the one part, and [name and address of Contractor] (hereinafter called and referred to as "the Contractor"), of the other part:

Whereas the Employer desires that the Contractor execute [name and identification no of Contract] (hereinafter called and referred to as "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and remedying of any defects therein.

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract hereinafter referred to.
2. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execute and complete the Works and remedy any defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year aforementioned in accordance with laws of Sri Lanka.

.....

Authorized signature of Contractor

.....

Authorized signature of Employer

COMMON SEAL

COMMON SEAL

In the presence of
Witnesses:

- 1) Name and NIC No.....
Signature
Address
- 2) Name and NIC No.
Signature
Address

**FORM OF PERFORMANCE SECURITY
(Unconditional)**

NUMBER:.....

DATE:.....

SUM GUARANTEED:

To: *The Vice Chancellor.*

Eastern University, Sri Lanka.

Vantharumoolai, Chenkalady.

(hereinafter called and referred to as "the Employer")

WHEREAS..... *[name and address of Contractor]* (hereinafter called and referred to as "the Contractor") has undertaken, in pursuance of contract No. dated to execute..... *[name of Contract]* (hereinafter called and referred to as "the Contract");

AND WHEREAS it has been stipulated by the Employer in the said Contract that the Contractor shall furnish the Employer with a Guarantee issued by a recognized organization for the sum specified therein as security for compliance with its obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Rupees..... *[amount of guarantee]*

.....*[amount in words]*, such sum being payable in the type and proportions of currencies in which the Contract Price is payable, and we undertake to pay the Employer, upon the Employer's first written demand and without cavil or objection, any sum or sums within the said amount as aforesaid without the Employer's needing to prove or to show grounds or reasons for the Employer's demand for the sum specified therein.

We hereby waive the necessity of the Employer's demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between the Employer and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice or any such change, addition or modification.

This guarantee shall be valid until a date 28 days from the date of issue of the Taking Over Certificate.(after completion of successful defects liability period)

Signature and the Seal of the Guarantor:

Name of the Bank:

Address:.....

Date:

Witness:

FORM OF ADVANCE PAYMENT SECURITY

NUMBER:.....

DATE:.....

SUM GUARANTEED:.....

To: *The Vice Chancellor*
Eastern University, Sri Lanka
Vantharumoolai, Chenkalady.

(hereinafter called and referred to as "the Employer")

Name of the Contract :.....

In accordance with the provisions of the Conditions of Contract, of the above mentioned contract

..... (*name and address of contractor*) (hereinafter called and referred to as "the Contractor") shall deposit with the Employer a bank guarantee to guarantee its proper and faithful performance under the said Contract in and amount of [*amount of guarantee*] [*amount in words*]

We, the [*the name and address of the organization*], as instructed by the contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Employer on its first demand without whatsoever right of cavil and objection on our part and without the Employer's needing to prove or to show grounds or reason for the Employer's demand for the sums specified therein and without its first claim to the Contractor, in the amount not exceeding Rupees [*amount of guarantee*] [*amount in words*] such amount to be reduced periodically by the amounts recovered by the Employer from the proceeds of the contract.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract document which may be made between the Employer and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice or any such change, addition or modification.

No drawings may be made by the Employer under this guarantee until we have received notice in writing from the Employer that an advance payment of the amount listed above has been paid to the Contractor pursuant to the Contract.

This guarantee shall remain valid and in full effect from the date of the advance payment received by the Contractor under the Contract until the Employer receives full repayment of the same amount from the Contractor.

Signature and the Seal of the Guarantor:

Name of the Bank:

Address.....

Date:

Witness:

FORM OF RETENTION MONEY GUARANTEE

NUMBER:.....

DATE:.....

SUM GUARANTEED:

To: *The Vice Chancellor*

Eastern University, Sri Lanka

Vantharumoolai, Chenkalady

(hereinafter called and referred to as "the Employer")

Whereas, it has been stipulated by the Employer in clause 10.5 of the Conditions of Contract that he would release to the contractor the full sum mentioned under the contract in pursuance of clause 10.5, on the contractor furnishing an unconditional guarantee acceptable to the Employer to the full value of the retention money, valid upto 28 days beyond the end of the Defects Notification Period.

We.....(name and address of the
Guarantor)

as instructed by the Contractor, unconditionally and irrevocably, guarantee to pay the Employer upon the Employer's first written-demand and without cavil or objection, any sum or sums within the said amount as aforesaid without the Employer's needing to prove or to show grounds or reasons for the Employer's demand for the sum specified therein and the said amount of Rupees.*amount of Guarantee*)
..... *[amount in words]* in the event the contractor fails to carry out his obligations to rectify defects which he is responsible to rectify under the contract.

This guarantee shall be valid up-to..... *[date]*

Signature and Seal of the Guarantor:

Name of Bank :.....

Address:.....

Date:

Witness:.....

FORM OF BID SECURITY

To: *The Vice Chancellor,
Eastern University, Sri Lanka
Vantharumoolai, Chenkalady*

WHEREAS, *[name of bidder]* (hereinafter called and referred to as "the Bidder") has submitted its Bid dated ...*[date]* for the Design and Construction of.....*[name of Contract]* (hereinafter called and referred to as "the Bid.").

KNOW ALL PEOPLE by these presents that WE *[name of organization]* having our registered office at..... (hereinafter called and referred to as "the Guarantor"), are bound unto *[name of Employer]* (hereinafter called and referred to as "the Employer") in the sum of Sri Lanka Rupees.....1 for which payment well and truly to be made to the said Employer, the Guarantor binds itself, its successors, and assignees by these presents.

SEALED with the Common Seal of the said Guarantor this day of.....20.....

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified in the bidding documents; or
2. If the Bidder refuses to accept the correction of errors in its Bid; or
3. If the Bidder, having been notified of the acceptance of its Bid by the Employer, during the period of bid validity, fails or refuses to:
 - (a) execute the Form of Contract Agreement; or
 - (b) furnish the Performance Security, in accordance with the Instructions to Bidders

We undertake to pay the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate its demand, provided that in its demand the Employer will note that the amount claimed by it is due to it, owing to the occurrence of one or more of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including twenty-eight (28) days after the period of bid validity, and any demand in respect thereof should be received by us no later than the above date.

DATE..... SIGNATURE OF THE GUARANTOR.....

WITNESS..... COMMON SEAL

.....
(Signature, Name, and Address)

The bidder should insert the amount of the guarantee in words and figures.

Section 03
Conditions of Contract

*Conditions of Contract Shall be Read in
Conjunction with Contract Data*

a) GENERAL CONDITIONS OF CONTRACT

General Conditions of Contract applicable to this contract shall be First Edition - September 2003 of Standard Bidding Document of Works – Minor Contracts (ICTAD/SBD/03) in Sri Lanka, published by the Institution of Construction Training And Development (ICTAD), Presently CIDA, Sri Lanka.

This publication (ICTAD/ SBD/ 03) can be purchased at the Institute of Construction Training and Development (ICTAD), Sawsiripaya, 123, Wijerama Mawatha, Colombo 07.

Conditions of Contract Shall be Read in Conjunction with Schedules Section.5

Section 04

Form of Bid and Qualification Information

FORM OF BID

Name of Contract: REFURBISHMENT WORK AT FACULTY OF SCIENCE, EASTERN UNIVERSITY,
SRILANKA, VANTHARUMOOLAI.

To: The Vice Chancellor
Eastern University, Sri Lanka,
Vantharumoolai, Chenkalady.

Gentlemen,

1. Having examined the Conditions of contract given in the Standard Bidding Document - Procurement of Works - Minor Contracts [ICTAD/SBD/03 - First Edition, September 2003], Schedule, Specifications, Drawings and Bills of Quantities and Addenda for the execution of the above-named Works, we/I the undersigned, offer to execute and complete such Works and remedy any defect therein in conformity with the aforesaid Conditions of Contract, Schedule, Specifications, Drawings, Bills of Quantities and Addenda for the sum of Sri Lankan Rupees
.....(LKR.....) (Excluding VAT) or such other sums as may be ascertained in accordance with the said Conditions.
2. We/I acknowledge that the Schedule forms part of our Bid.
3. We/I undertake, if our Bid is accepted, to commence the Works as stipulated in the Schedule, and to complete the whole of the Works comprised in the Contract within the time stated in the Schedule.
4. We/I agree to abide by this Bid for the period of 77 days from the date of closing of bids or any extended period and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
5. Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding Contract between us/me.
6. We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this day of.....20.....in the capacity of
.....duly authorized to sign tenders for and on behalf of
(IN BLOCK CAPITALS)

Signature

Address:

Witness:.....

Qualification Information

	Eligibility Requirement	Bidder's Qualification	
ICTAD Registration		To be filled by the Bidder	
Registration Number			
Grade	C7 and C6		
Specialty	Building		
Expiry Date			
VAT Registration No			
Construction Program	(attached as annex) – To be submitted by the Bidder along with the Bid		
Legal Status	(Public company/Private Company/Partnership/Sole Proprietor) (attach the copies of the legal status)		
Authentication of signatory	(attached as annex) - To be submitted by the Bidder with the Bid.attached copies of power of Attorney for other than Sole Proprietor		
Value of Construction works performed during last 5 years	Eligibility Requirement (Rs)	Bidder's Qualification (To be filled by Bidder)	
Year 2019			
Year 2018			
Year 2017			
Year 2016			
Year 2015			
Average			
	Eligibility Requirement	Bidder's Qualification (To be filled by Bidder)	
Value of similar works completed in last 03 years (indicate only the three largest projects) Note: The bidder should submit evidence for this	5,000,000.00	1. Year..... Amount Rs.....	
		2. Year..... Amount Rs.....	
		3. Year..... Amount Rs.....	
Major items of construction equipment proposed	Type and capacity (insert requirement)	Required Nos.	Proposed by bidder (Make, Capacity)
	1. Aluminium Tools	Item	
	2. Carpentry tool	Item	
	3. Electrical Tools	01 Nos	
Qualification an experience of key staff	Category, experience and qualifications (insert requirement)	Required Nos.	Proposed by bidder (name, experience and qualifications)

	1.Technical Officer: NCT(Civil) 05 years experience.	01	
List other information required			

Signature of the Bidder:

Name and Address of the Bidder

Section 5

Schedules

Schedule

ITB Clause	Conditions of Contract Clause	Item	Data
1.	1.1.8	Employer is:	Name: Vice Chancellor Address: <u>Eastern University,</u> <u>Sri Lanka, Vantharumoolai,</u> <u>Chenkalady</u>
2.	1.1.10	Engineer is:	Name: <u>Works Engineer</u> Address: <u>Eastern University,</u>
		Engineer Representatives:	Works Superintendent & Works Supervisor Eastern University.
1.&13	1.1.21	Summary of works	The works consists of :
			S/f Aluminum partition, painting, Electrical works, S/f AC, curtaining ect.
			Located at:
			Vantharumoolai
			<u>Contract Number :</u>
			EUSL/OTS/AHEAD/R2/NCB/FOS/19/07
1.	1.1.14	Intended Completion Date	Intended completion date is 120 Calendar days from the start date.
2.		Source of fund	The source of fund is <u>GOSL</u>
3.		Eligibility	The requirement is; * As mentioned in the IFB
12.		Document of the Bid	Any other information.....
13.		Price Adjustment	The contract is not subject to price adjustment in accordance with sub clause 10.9 of the Conditions of Contract.
31	4.4	Performance Security	Amount of Performance ○ Security required is 05% of the Initial Contract price. issued by any commercial bank operating in Sri Lanka approved by the Central Bank

of Sri Lanka or Construction Guarantee Fund

The form acceptable is as given under Section.2

6.4	Late Completion	The amount to be paid is 0.05 % of Initial Contract price per day, subjected to maximum of 10 %of Initial Contract price.
8.1	Notification of defects and c clause.	<p>The period for Defect is 180 days</p> <p>contractor should comply this</p> <p>Notification is 180 days from taking over.</p>
10.3	Retention	<p>The amount of retention is 10 % Of Initial Contract Price.</p> <p>The maximum amount of retention is 5 % of Initial Contract Price.</p>
10.3	Employer's Payment Guarantee	<p>Insert the following:</p> <p>On production of the Performance Security by the Contractor, the employer shall obtain a payment guarantee from a Bank, up to a 10% of the Initial Contract Price. The Employer shall deliver this guarantee within 28 days of signing the Contract Agreement.</p> <p>In the event, the Engineer has certified the bill of the Contractor and the payment is not paid within the stipulated period of time, the Contractor shall request the Employer to issue a certificate to the Bank, where the payment guarantee has been issued, to pay 75% of the certified bill, after deducting all dues to the employer.</p> <p>The guarantee shall be returned to the employer at the earliest of the following employer.</p> <p>(a) When the final payment is made to the Contractor.</p>

- (b) When the obligations under the guarantee have been expired or discharged; or
 (c) When the contractor has performed all obligations under the contract.

10.4 Optional method
 For payment of
 Retention

On reaching the limit of the retention stated in the schedulers under Sub Clause 10.3 the Contractor may substitute full retention money with an unconditional guarantee acceptable to the employer to a value equal to the full retention money, and valid up to 28 days beyond the end of defects notification period. On receipt of such guarantee the employer shall repay the full retention money.

13.1 (c) Insurance, third Party

Minimum amount for third party insurance 110 % of the initial contract price.

13.1 (d) Insurance for Employer and Contractor's personal

Minimum amount for Insurance for Employment and contractor's Personal is Rupees 500,000.00 for each event.

33

1.1.11 Adjudicator

The Adjudicator proposed by the employer is As per 14.1 or 14.3

14.1

If the bidder disagrees with the proposal of the Employer or the Adjudicator was not proposed Then the Adjudicator shall be appointed by the Appointing Authority who shall be the Institute Construction Training Development (ICTAD)

14.2

Hourly rate:.....
 Reimbursable cost:.....
 (i.e. traveling, subsistence, accommodation etc)

Fees and types of reimbursable expenses to be paid to the Adjudicator shall be on a case to case

basis and shall be shared equally by
the Contractor and the Employer

Section 06

Specifications

GENERAL SPECIFICATIONS

Tenderers are hereby requested to refer and peruse the SPECIFICATIONS published by the Institute of Construction Training and Development (ICTAD)/CIDA listed hereinafter.

1. Specification for WATER SUPPLY, SEWERAGE AND STORM WATER DRAINAGE WORK - ICTAD Publication No. SCA/3/2 2
2. Specification for BUILDING WORK (Volume I) - ICTAD Publication No. SCA/4 - (Volume I)
3. Specification for BUILDING WORKS - Volume 2-ICTAD Publication No. SCA/4- (Volume II)
4. Specification for ELECTRICAL AND MECHANICAL WORKS Associated with Building and Civil Engineering - ICTAD Publication No. SCA/8 Second Edition (Revised) - August 2000

Any other Standard Specifications approved by the Government.

Note: The above documents should be made available at the Site by the Contractor

Section 07
Bill of Quantities

BOQ FOR REFURBISHMENT WORKS AT FACULTY OF SCIENCE, EUSL

GRAND SUMMARY

S.No	DESCRIPTION			AMOUNT
1	ESTIMATE FOR ESTABLISHING OF COMPUTER HUB AT ZOOLOGY BUILDING, FACULTY OF SCIENCE, EUSL			
2	ESTIMATE FOR ESTABLISHING OF COMPUTER LAB AT MATHS BUILDING, FACULTY OF SCIENCE, EUSL			
3	ESTIMATE FOR ESTABLISHING OF SMART CLASS ROOM AT CHEMISTRY BUILDING, FACULTY OF SCIENCE, EUSL			
4	ESTIMATE FOR ESTABLISHING OF ENGLISH LANGUAGE LAB AT ZOOLOGY BUILDING, FACULTY OF SCIENCE, EUSL			
5	ESTIMATE FOR VIRTUAL LECTURE ROOM AT ZOOLOGY BUILDING, FACULTY OF SCIENCE, EUSL			
	Sub Total (Carried to Form of Bid)			
	Add: VAT 8%			
	Grand Total			

Signature of the Bidder with seal:

Name of the Bidder:

Address of the Bidder:

Date:

Witness of the Signature:

Name:.....

Signature:.....

Name:

Signature:.....

2 75

**1.BOQ FOR ESTABLISHING OF COMPUTER HUB AT ZOOLOGY BUILDING,
FACULTY OF SCIENCE, EUSL**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	<u>AC OUTLET WIRING</u>				
A-01	Supply & Fixing Air condition outlet 01 No 20AMPS 4 pole MCB , 4 pole ABC box including necessary casing (wire length paid separately)	Nos	4.00		
A-02	Supplying and fixing of 4mm ² Single Core Cu/PVC/PVC Cable (Rate including necessary casing)	L.m	200.00		
A-03	Supplying and fixing of 2.5mm ² Cu/PVC Earth cable	L.m	80.00		
A-04	Supplying and fixing of 01Nos 4P 32Amp Isolater	Nos	1.00		
	AC OUTLET WIRING CARRIED TO SUMMARY				
B	<u>COMPUTER POINT WIRING</u>				
B-01	Supply and fixing of 2nos 13amp (as single point) socket outlet with wiring (including supply of earth wire & all other material required) of above socket outlet using approved type 2.5mm ² twin PVC/PVC copper cable and earth 2.5mm ² PVC/PVC copper cabledrawn through securely fixed concealed PVC 50mmx25mm casing in a ring circuit. rate including additional 13Amp socket outlet with sun box as per the drawing	Nos	61.00		
B-02	Supply & Installation of following sunk mounted distribution unit to comply with BS complete with all fixing earthing. Consumer units each comprising of Metal Box Fully steel Encloser (Approx. size 355mm x 655mm x 115mm) 02 Nos 4P 40Amp MCCB, 03 Nos 2P 40Amp Isolater, 03 Nos 2P 40Amp RCCB, 15 Nos 16Amp Brakers, 03 Nos Indicator Cu bar Wiring & other installation cost	Nos	1.00		
B-03	Supplying and fixing of 6mm ² Single Core Cu/PVC/PVC Cable (Rate including conduit/casing)	L.m	100.00		
B-04	Supplying and fixing of 4mm ² Cu/PVC Earth cable	L.m	30.00		
B-05	Supplying and fixing of Plastic casing 50mmx50mm necessary fixing	L.m	30.00		
	COMPUTER POINT WIRING CARRIED TO SUMMARY				

2 2

**1.BOQ FOR ESTABLISHING OF COMPUTER HUB AT ZOOLOGY BUILDING,
FACULTY OF SCIENCE, EUSL**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C	<u>MISSELANIOUS</u>				
C-01	Painting walls with 1 coat of Emulsion paint including preparing surface of old work.	Sq.m	210.00		
C-02	Supplying and fixing of 76mm Aluminium Partition using approved quality Brownz anodaized section bars and 4mm thick double side white colour composit board with necessary accessories. Height shall be 0.75m (Sample should be submit to approval by engineer before commence the work)	Sq.m	27.00		
C-03	Supplying and fixing of 100mm Aluminium Brownz Door Single hung glazed & panelled (4mm thick double side white colour composit board) at bottom -with necessary butt hinges, locking arrangements and Door closer (Sample should be submit to approval by engineer before commence the work)	Sq.m	2.60		
	MISSELANIOUS CARRIED TO SUMMARY				
D	<u>PROVISIONAL SUM</u>				
D-01	Allow for removing of existing AC units fixing of ceiling sheet and any unforeseen works to be attended while construction on going	Item	Allow	Pro.Sum	30,000.00
	PROVISIONAL SUM CARRIED TO SUMMARY				30,000.00

SUMMARY

S.No	DESCRIPTION			AMOUNT
A	AC OUTLET WIRING			
B	COMPUTER POINT WIRING			
C	MISSELANIOUS			
D	PROVISIONAL SUM			30,000.00
	Sub Total -01			
	Dtd: Pro.Sum			(30,000.00)
	Sub Total -02			
	Dtd: Discount if any			
	Sub Total -03			
	Add: Pro.Sum			30,000.00
	Sub Total -04 (Carried to Grand Summary)			

22 25

**2.BEQ FOR ESTABLISHING OF COMPUTER LAB AT MATHS BUILDING,
FACULTY OF SCIENCE, EUSL**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	<u>AC OUTLET WIRING</u>				
A-01	Supply & Fixing Air condition outlet 01 No 20AMPS 4 pole MCB , 4 pole ABC box including necessary 50mmx25mm casing (wire length paid separately)	Nos	3.00		
A-02	Supply & Installation of following sunk mounted distribution unit to comply with BS complete with all fixing earthing, live busbar and Neutral bar etc. Consumer units each comprising of (MDB-01)	Nos	1.00		
	Metal Box Fully steel Encloser (Approx. size 350mm x 350mm x 100mm) 01 Nos 4P 100Amp MCCB, 01 Nos 4P 63Amp MCCB, 03 Nos 4P 32Amp Isolater, 03 Nos Indicator Cu bar Wiring & other installation cost				
A-03	Supplying and fixing of 4mm ² Single Core Cu/PVC/PVC Cable (Rate including necessary casing)	L.m	200.00		
A-04	Supplying and fixing of 10mm ² Single Core Cu/PVC/PVC Cable (Rate including necessary casing)	L.m	10.00		
A-05	Supplying and fixing of 2.5mm ² Cu/PVC Earth cable	L.m	50.00		
A-06	Supplying and fixing of ABC Cable 3x70mm ² + N 54.6mm ² 4core (PVC Coated) with lug for main connection from Electrical post	L.m	50.00		
A-07	Supplying and fixing of 4mm ² Cu/PVC Earth cable (Rate including necessary casing)	L.m	50.00		
A-08	Supplying and fixing of Plastic casing 50mmx50mm necessary fixing	L.m	25.00		
A-09	Supplying and fixing of Earth 2" dia GI (2.3mm thk) pipe 6' long.	Nos	1.00		
	AC OUTLET WIRING CARRIED TO SUMMARY				

2 8

**2.BOO FOR ESTABLISHING OF COMPUTER LAB AT MATHS BUILDING,
FACULTY OF SCIENCE, EUSL**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B	<u>COMPUTER POINT WIRING</u>				
B-01	Supply and fixing of 2nos 13amp (as single point) socket outlet with wiring (including supply of earth wire & all other material required) of above socket outlet using approved type 2.5mm ² twin PVC/PVC copper cable and earth 2.5mm ² PVC/PVC copper cabledrawn through securely fixed concealed PVC 50mmx25mm casing in a ring circuit. rate including additional 13Amp socket outlet with sun box as per the drawing	Nos	61.00		
B-02	Supply & Installation of following sunk mounted distribution unit to comply with BS complete with all fixing earthing. Consumer units each comprising of (MDB-02) Metal Box Fully steel Encloser (Approx. size 355mm x 655mm x 115mm) 02 Nos 4P 40Amp MCCB, 03 Nos 2P 40Amp Isolater, 03 Nos 2P 40Amp RCCB, 12 Nos 16Amp Brakers, 03 Nos Indicator Cu bar Wiring & other installation cost	Nos	1.00		
	COMPUTER POINT WIRING CARRIED TO SUMMARY				
C	<u>MISSELANIOUS</u>				
C-01	Supplying and fixing of 76mm Aluminium Partition using approved quality Brownz anodaized section bars and 4mm thick double side white colour composit board with necessary accessories. Height shall be 1.0m (Sample should be submit to approval by engineer before commence the work)	Sq.m	36.00		
C-02	Supplying and fixing of 20oz loop pile wool carpet (made in USA) with necessary edging for neat finishing at Door entrance area (Sample should be submit to approval by engineer before commence the work)	Sq.m	105.00		
C-03	Painting walls with 1 coat of Emulsion paint including preparing surface	Sq.m	120.00		
C-04	Painting Soffit with 1 coat of Emulsion paint including preparing surface	Sq.m	110.00		

Sw *X*

**2.BOQ FOR ESTABLISHING OF COMPUTER LAB AT MATHS BUILDING,
FACULTY OF SCIENCE, EUSL**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C-05	Painting one coat of Enamel including washing ceiling and smoothing down with sand paper for door, window and grill	Sq.m	32.00		
C-06	Safely Removing Existing Fluorescent bulb and handed over to client	Nos	12.00		
C-07	Supplying and fixing 1200mm long 18W LED fluorescent lamp set (without wiring) (The prime cost around Rs.1,500.00) Guarantee cards should be provided from accredited agent before installation. Sample should be approved by Engineer. (Rate including necessary casing)	Nos	12.00		
	MISCELLANEOUS CARRIED TO SUMMARY				
D	<u>PROVISIONAL SUM</u>				
D-01	Allow for removing of existing exhaust fan, fixing of projector, repairing windows shades & fill the existing holes and any unforeseen works to be attended while construction on going	Item	Allow	Pro.Sum	50,000.00
	PROVISIONAL SUM CARRIED TO SUMMARY				50,000.00

SUMMARY

S.No	DESCRIPTION			AMOUNT
A	AC OUTLET WIRING			
B	COMPUTER POINT WIRING			
C	MISCELLANEOUS			
D	PROVISIONAL SUM			50,000.00
	Sub Total -01			
	Dtd: Pro.Sum			(50,000.00)
	Sub Total -02			
	Dtd: Discount if any			
	Sub Total -03			
	Add: Pro.Sum			50,000.00
	Sub Total -04 (Carried to Grand Summary)			

8 2

**3. BOQ FOR ESTABLISHING OF SMART CLASS ROOM AT CHEMISTRY BUILDING, FACULTY OF
SCIENCE, EUSL**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	<u>AC OUTLET WIRING</u>				
A-01	Supply & Fixing Air condition outlet 01 No 20AMPS 4 pole MCB , 4 pole ABC box including necessary 50mmx25mm casing	Nos	5.00		
A-02	Supply & Installation of following sunk mounted distribution unit to comply with BS complete with all fixing earthing, live busbar and Neutral bar etc. Consumer units each comprising of 01 Nos 4P 100Amp MCCB, 05 Nos 4P 32Amp Isolater, 03 Nos Indicator with Metal Box Fully steel Encloser (Approx. size 350mm x 350mm x 100mm) Cu bar Wiring & other installation cost	Nos	1.00		
A-03	Supplying and fixing of 4mm ² Single Core Cu/PVC/PVC Cable	L.m	600.00		
A-04	Supplying and fixing of 2.5mm ² Cu/PVC Earth cable	L.m	150.00		
A-05	Supplying and fixing of 4mm ² Cu/PVC Earth cable	L.m	60.00		
A-06	Supplying and fixing of ABC Cable 3x70mm ² +N 54.6mm ² 4core (PVC Coated) with lug for main connection from Electrical post	L.m	90.00		
A-07	Supplying and fixing of Plastic casing 100mmx50mm necessary fixing	L.m	30.00		
A-08	Supplying and fixing of Plastic casing 50mmx50mm necessary fixing	L.m	20.00		
A-09	Supplying and fixing of Earth 2" dia GI (2.3mm thk) pipe 6' long.	Nos	1.00		
	AC OUTLET WIRING CARRIED TO SUMMARY				

Handwritten marks

**3. BOQ FOR ESTABLISHING OF SMART CLASS ROOM AT CHEMISTRY BUILDING, FACULTY OF
SCIENCE, EUSL**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B	<u>COMPUTER POINT WIRING</u>				
B-01	Supply and fixing of 2nos 13amp (as single point) socket outlet with wiring (including supply of earth wire & all other material required) of above socket outlet using approved type 2.5mm ² twin PVC/PVC copper cable and earth 2.5mm ² PVC/PVC copper cabledrawn through securely fixed concealed PVC 50mmx25mm casing in a radial circuit. rate including additional 13Amp socket outlet with sun box as per the drawing	Nos	50.00		
B-02	Supply & Installation of following sunk mounted distribution unit to comply with BS complete with all fixing earthing. Consumer units each comprising of 01 Nos 4P 63Amp MCCB, 03 Nos 2P 63Amp Isolater, 03 Nos 2P 63Amp RCCB, 30 Nos 16Amp Brakers, 03 Nos Indicator with Metal Box Fully steel Encloser (Approx. size 355mm x 655mm x 115mm) Cu bar Wiring & other installation cost	Nos	1.00		
B-03	Supplying and fixing of 10mm ² Single Core Cu/PVC/PVC Cable (Rate including necessary casing)	L.m	10.00		
B-04	Supplying and fixing of Plastic casing 50mmx50mm necessary fixing	L.m	60.00		
	COMPUTER POINT WIRINGCARRIED TO SUMMARY				
C	<u>MISSELANIOUS</u>				
C-01	Removing Florcent bulb	Nos	20.00		
C-02	Supplying and fixing 1200mm long 18W LED flourcent lamp set (without wiring) (The prime cost around Rs.1,100.00) Guarantee cards should be provided from accredited agent before installation. Sample should be approved by Engineer.	Nos	20.00		
C-03	Painting walls with 1 coat of Emulsion paint including preparing surface of old work.	Sq.m	200.00		
C-04	Painting Soffit with 1 coat of Emulsion paint including preparing surface of old work.	Sq.m	250.00		

**3. BOQ FOR ESTABLISHING OF SMART CLASS ROOM AT CHEMISTRY BUILDING, FACULTY OF
SCIENCE, EUSL**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C-05	Painting one coat of Enamel including washing cearing and smoothing down with sand paper for door, window and grill	Sq.m	100.00		
C-06	Supplying and Fixing of cloth Curtain with Aluminium trail (Plain curtain material to be used.Tailaring works shoul be in proper order and maintain 1" frill between 5" cap.another 1' height frill with tassels to be fixed top of the curtain as two layer.Colour of the curtain material will be decided by the client). Rate shall including of 6" projection of both widning side, 4" projection of top and 1' projection of bottom of opening and necessary trais,hooks and bends ect.Cloth material rate arround 300.00 to 350.00 per mtr)	Sq.m	60.00		
C-07	Supplying and fixing of 20oz loop pile wool carpet (made in USA) with necessary edging for neat finishing at Door entrance area (Sample should be submit to approval by engineer before commence the work)	Sq.m	180.00		
	MISSELANIOUS CARRIED TO SUMMARY				
D	<u>PROVISIONAL SUM</u>				
D-01	Removing existing electrical Casing, Excaust fan & Curtain. All removing item handover to client	Item	Allow	Sum	
D-02	Allow for any unforeseen works to be attended	Item	Allow	Pro.Sum	50,000.00
	PROVISIONAL SUM CARRIED TO SUMMARY				

SUMMARY

S.No	DESCRIPTION			AMOUNT
A	AC OUTLET WIRING			
B	COMPUTER POINT WIRING			
C	MISSELANIOUS			
D	PROVISIONAL SUM			
	Sub Total -01			
	Dtd: Pro.Sum			(50,000.00)
	Sub Total -02			
	Dtd: Discount if any			
	Sub Total -03			
	Add: Pro.Sum			50,000.00
	Sub Total -04 (Carried to Grand Summary)			

2 7

**4. BOQ FOR ESTABLISHING OF ENGLISH LANGUAGE LAB AT ZOOLOGY BUILDING,
FACULTY OF SCIENCE, EUSL**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	<u>AC OUTLET WIRING</u>				
A-01	Supply & Fixing Air condition outlet 01 No 20AMPS 4 pole MCB , 4 pole ABC box including necessary 50mmx25mm casing	Nos	4.00		
A-02	Supplying and fixing of 4mm ² Single Core Cu/PVC/PVC Cable	L.m	120.00		
A-03	Supplying and fixing of 2.5mm ² Cu/PVC Earth cable	L.m	30.00		
	AC OUTLET WIRING CARRIED TO SUMMARY				
B	<u>COMPUTER POINT WIRING</u>				
B-01	Supply and fixing of 2nos 13amp (as single point) socket outlet with wiring (including supply of earth wire & all other material required) of above socket outlet using approved type 2.5mm ² twin PVC/PVC copper cable and earth 2.5mm ² PVC/PVC copper cable drawn through securely fixed concealed PVC 50mmx25mm casing in a radial circuit. rate including additional 13Amp socket outlet with sun box as per the drawing	Nos	35.00		
B-02	Supply & Installation of following sunk mounted distribution unit to comply with BS complete with all fixing earthing. Consumer units each comprising of 15 Nos 16Amp Brakers Wiring & other installation cost	Nos	1.00		
	COMPUTER POINT WIRING CARRIED TO SUMMARY				
C	<u>MISSELANIOUS</u>				
C-01	Supplying and fixing of 100mm Aluminium Brownz Door Single hung glazed & panelled (4mm white cladding sheet) at bottom -with necessary butt hinges, locking arrangements and Door closer (Sample should be submit to approval by enginner before commence the work)	Sq.m	2.75		
	MISSELANIOUS CARRIED TO SUMMARY				

2 3

**4. BOQ FOR ESTABLISHING OF ENGLISH LANGUAGE LAB AT ZOOLOGY BUILDING,
FACULTY OF SCIENCE, EUSL**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D-01	PROVISIONAL SUM				
D-01	Allow for removing of existing AC units and any unforeseen works to be attended	Item	Allow	Pro.Sum	50,000.00
	PROVISIONAL SUM CARRIED TO SUMMARY				50,000.00

SUMMARY

S.No	DESCRIPTION			AMOUNT
A	AC OUTLET WIRING			
B	COMPUTER POINT WIRING			
C	MISSELANIOUS			
D	PROVISIONAL SUM			50,000.00
	Sub Total -01			
	Dtd: Pro.Sum			(50,000.00)
	Sub Total -02			
	Dtd: Discount if any			
	Sub Total -03			
	Add: Pro.Sum			50,000.00
	Sub Total -04 (Carried to Grand Summary)			

2 25

5. BOQ FOR VIRTUAL LECTURE ROOM AT ZOOLOGY, EUSL, VANTHARUMOOLAI

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.0	Supplying and fixing of 25mmx25mm Al. Box Bar (Bronzed) (Sample should be submit to approval by enginner before commence the work)	L.m	250.00		
2.0	Supply & fixing of 50x25mm (2"x1") -2.00mm thick GI box bar with anticorrosive paint should be applied for welded area. (Sample should be approved by Engineer)	L.m	60.00		
3.0	Supply & fixing of 25mm x 25mm (1"x1") -2.0mm thick GI box bar with anticorrosive paint should be applied for welded area. (Sample should be approved by Engineer)	L.m	12.00		
4.0	Supplying and fixing of 4mm thick white colour composit board (Sample should be submit to approval by enginner before commence the work)	Sq.m	95.00		
5.0	Supplying and fixing of 25mm thick (24kg/m ³) Glass Wool for ceiling area & exsisting partition area (Rate including for necessary fixing arrangement, Accessories and etc)	Sq.m	95.00		
6.0	Supplying and fixing of 20oz loop pile wool carpet (made in USA) with necessary edging for neat finishing at Door entrance area (Sample should be submit to approval by engineer before commence the work)	Sq.m	25.00		
7.0	Supplying and fixing of 9mm thk (8'x4') Gypsum ceiling board to fix with composit board . (Sample should be submit to approval by engineer before commence the work) (composit board paid sepretately)	Sq.m	95.00		
8.0	Painting Gypsum Board with 2 coat of Emulsion paint.	Sq.m	95.00		
9.0	13amp socket outlet wiring to be carried out with 2 x 2.5mm ² or twin wire pvc insulated pvc sheathed copper cables and 2.5mm ² earth cable terminated in a terminal wired in concealed conduit or casing in wall and slab/ceiling supplied and installed in working order	Nos	10.00		
10.0	Lamp point (Spot light) wiring only (wiring and installation (including supply of all materials) of the below light points using approved type PVC insulated PVC sheathed 1mm ² copper cable drawn through securely fixed concealed PVC conduit or casing)	Nos	4.00		

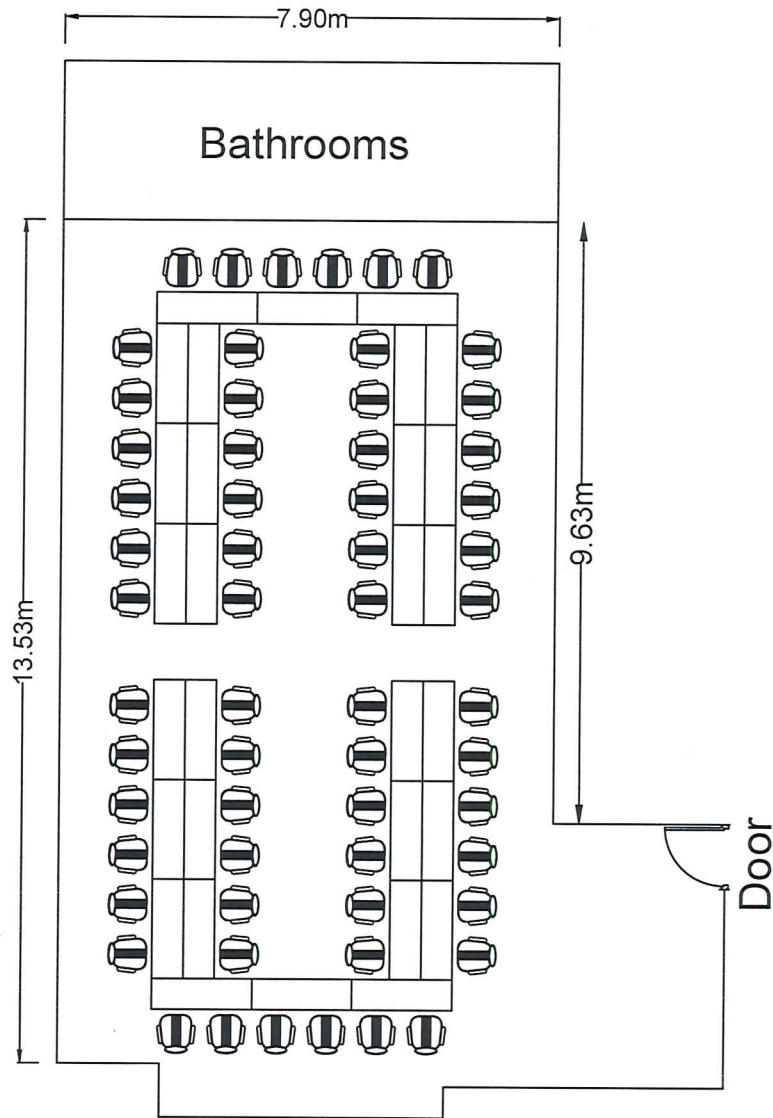
2 2

5. BOQ FOR VIRTUAL LECTURE ROOM AT ZOOLOGY, EUSL, VANTHARUMOOLAI

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
11.0	20amp 2pole Isolater with 2pole ABC box wiring to be carried out with 2x2.5mm ² pvc insulated pvc sheathed copper cables and 2.5mm ² earth cable terminated in a terminal wired in concealed conduit in wall and slab/ceiling supplied and installed in working order	Nos	1.00		
12.0	Supplying and fixing ABC Box type 900	Nos	1.00		
13.0	Supplying and fixing Main, 40Amps.	Nos	1.00		
14.0	Supplying and fixing RCCB, 40Amps.	Nos	2.00		
15.0	Supplying and fixing M.C.Bs 10,16,20 amps.	Nos	8.00		
16.0	Supply and fixing 10 Sq.mm Cu/pvc/pvc pvc coated single supply main wire with necessary fittings (Rate including Casing or conduit)	L.m	100.00		
17.0	Supplying & fixing of General LED lights for studio, LED video light for studio, Regular light stand, Tripod with pan, Tilt fluid head and fixing of Projector and Any unforeseen works while construction period	Item	Allow	Pro.Sum	200,000.00
	Sub Total -01				
	Dtd: Pro.Sum				(200,000.00)
	Sub Total -02				
	Dtd: Discount if any				
	Sub Total -03				
	Add: Pro.Sum				200,000.00
	Sub Total -04 (Carried to Grand Summary)				

Handwritten signature and initials

Section 08
Drawings



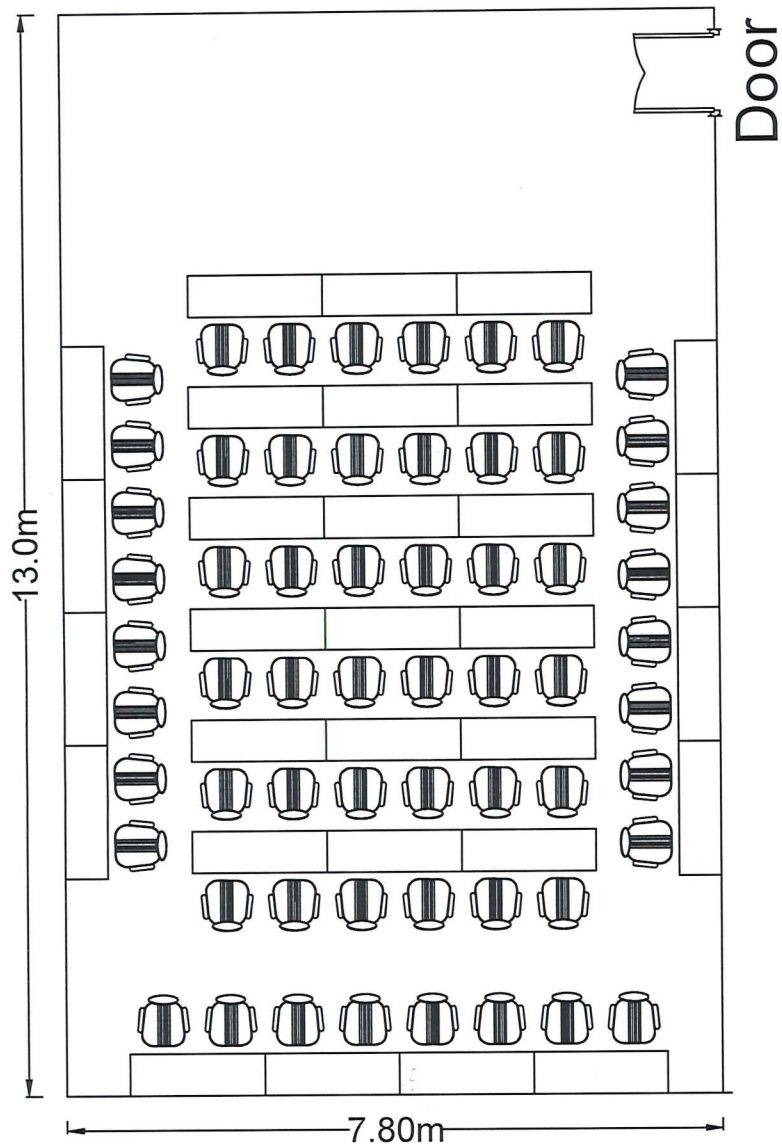
1. ESTABLISHING OF COMPUTER HUB
AT ZOOLOGY BUILDING,
FACULTY OF SCIENCE, EUSL

14th
22/10/2024
Dean
Faculty of Science
Eastern University, Sri Lanka
Chenkalady - 30350.

Date	
EUSL/CON/SC/21/01	

Sketch for Plan view	
Design by :-	<i>[Signature]</i>
Drawn by :-	<i>K. J. D. C.</i>
Recommended by:-	

[Handwritten mark]



2. ESTABLISHING OF COMPUTER LAB AT MATHS BUILDING, FACULTY OF SCIENCE, EUSL

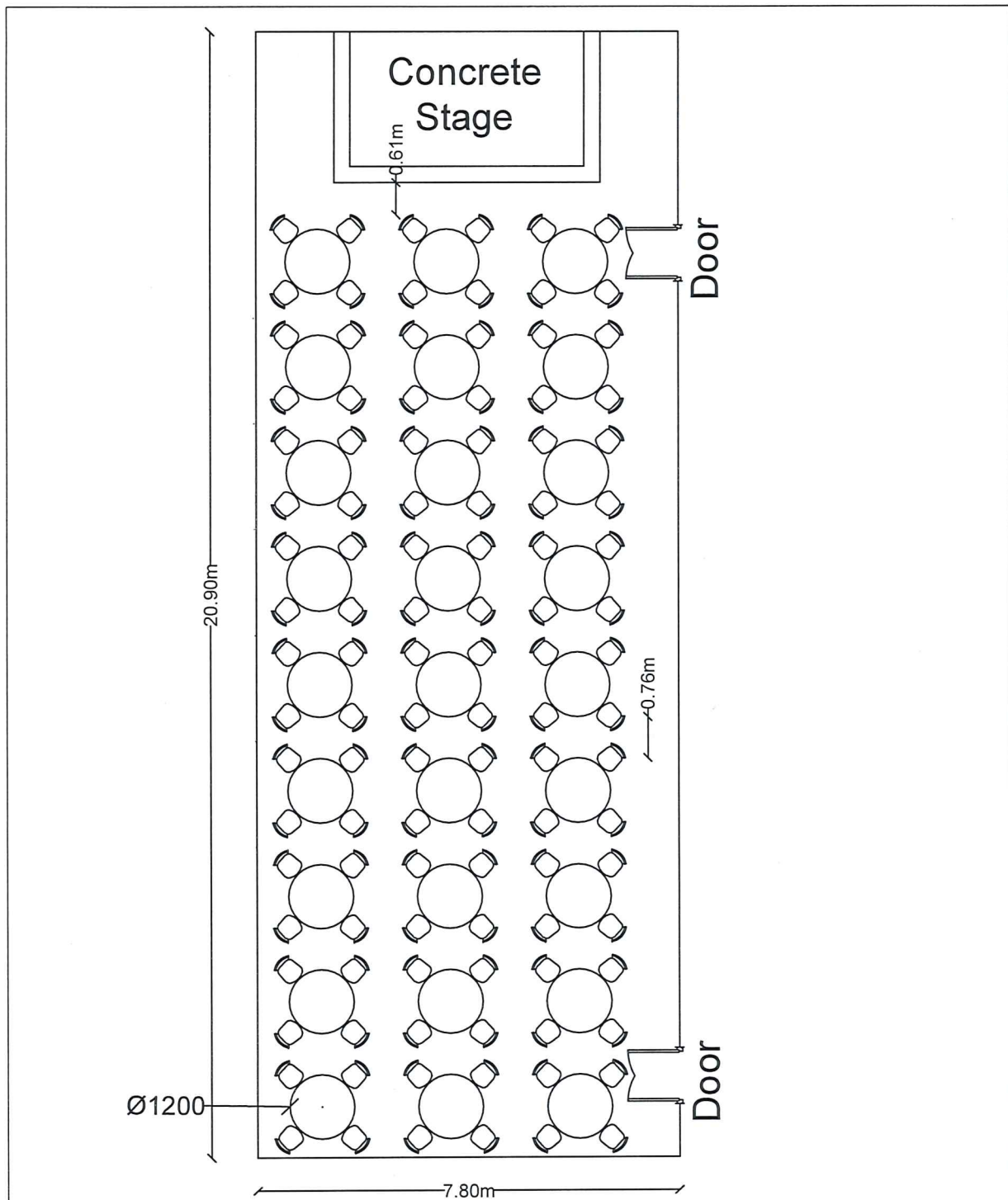
[Signature] 22/10/2021

HEAD
Department of mathematics
Eastern University, Sri Lanka
Chenkalady - 30350.

Sketch for Plan view	
Design by :-	<i>[Signature]</i>
Drawn by :-	<i>[Signature]</i>
Recommended by:-	

Date	
EUSL/CON/SC/21/02	

[Signature]



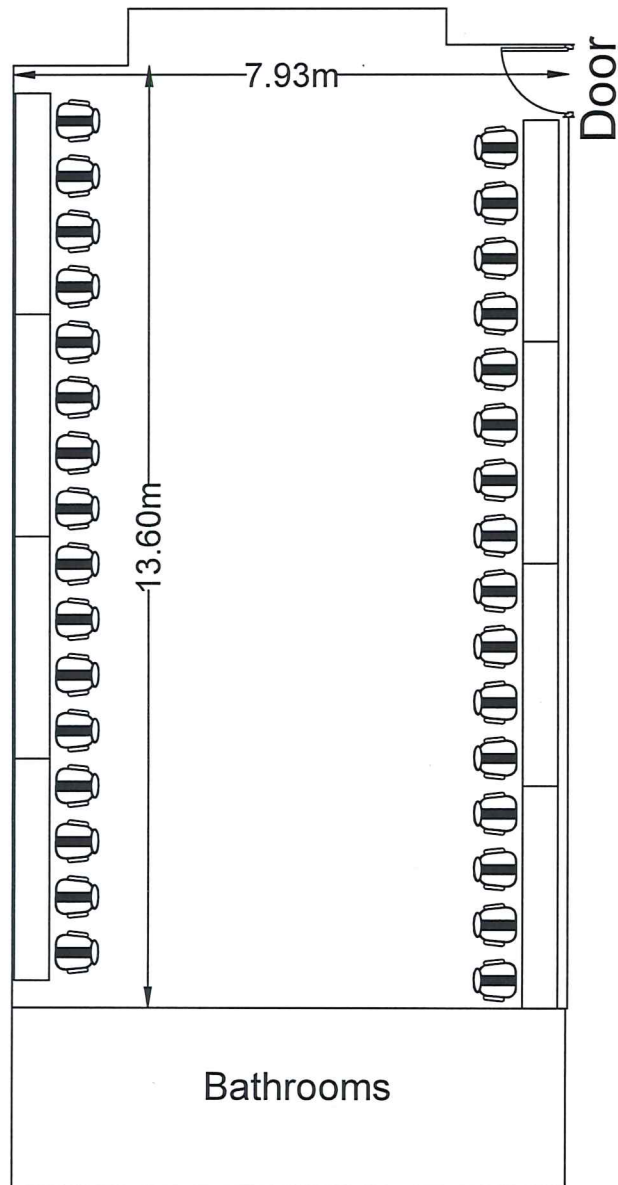
3. ESTABLISHING OF SMART CLASS ROOM AT CHEMISTRY BUILDING, FACULTY OF SCIENCE, EUSL

Date	
EUSL/CON/SC/21/03	

11/11/2021
22/10/2021


Dean
Faculty of Science
Eastern University, Sri Lanka
Chenkalady - 30350



Sketch for Plan view	
Design by :-	<i>[Signature]</i>
Drawn by :-	<i>[Signature]</i>
Recommended by:-	



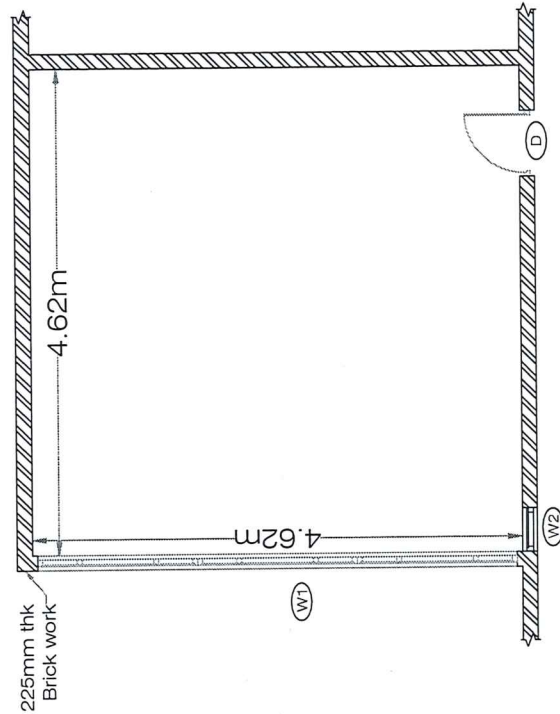
4. ESTABLISHING OF ENGLISH
LANGUAGE LAB AT ZOOLOGY
BUILDING, FACULTY OF SCIENCE, EUSL

Date	
EUSL/CON/SC/21/04	

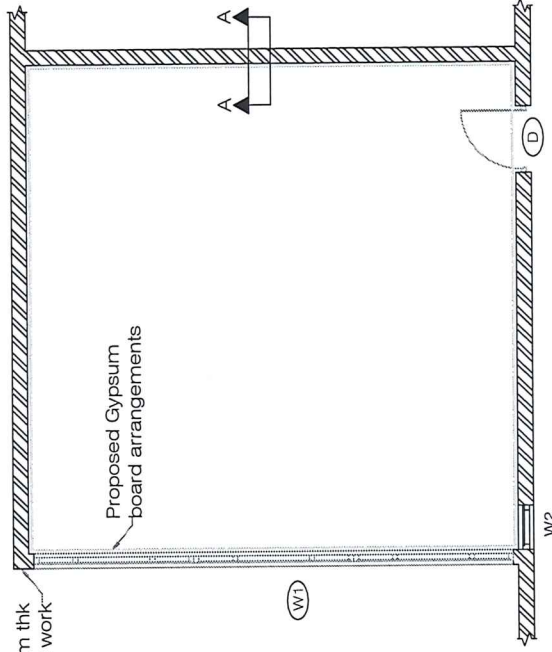

 27/10/2021
 Dean
 Faculty of Science
 Eastern University, Sri Lanka
 Chenkalady - 30350

Sketch for Plan view	
Design by :-	
Drawn by :-	
Recommended by:-	

W1- 76mm Al. Window (4.62m x 2.43m)
W2- 76mm Al. Window (0.64m x 1.65m)
D- 100mm Al. Door (0.92m x 2.00m)



Existing view

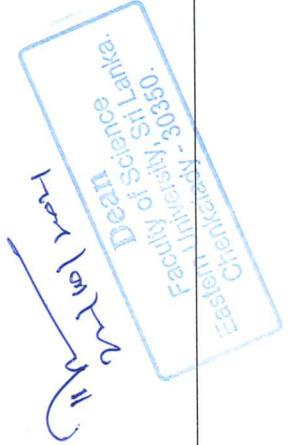


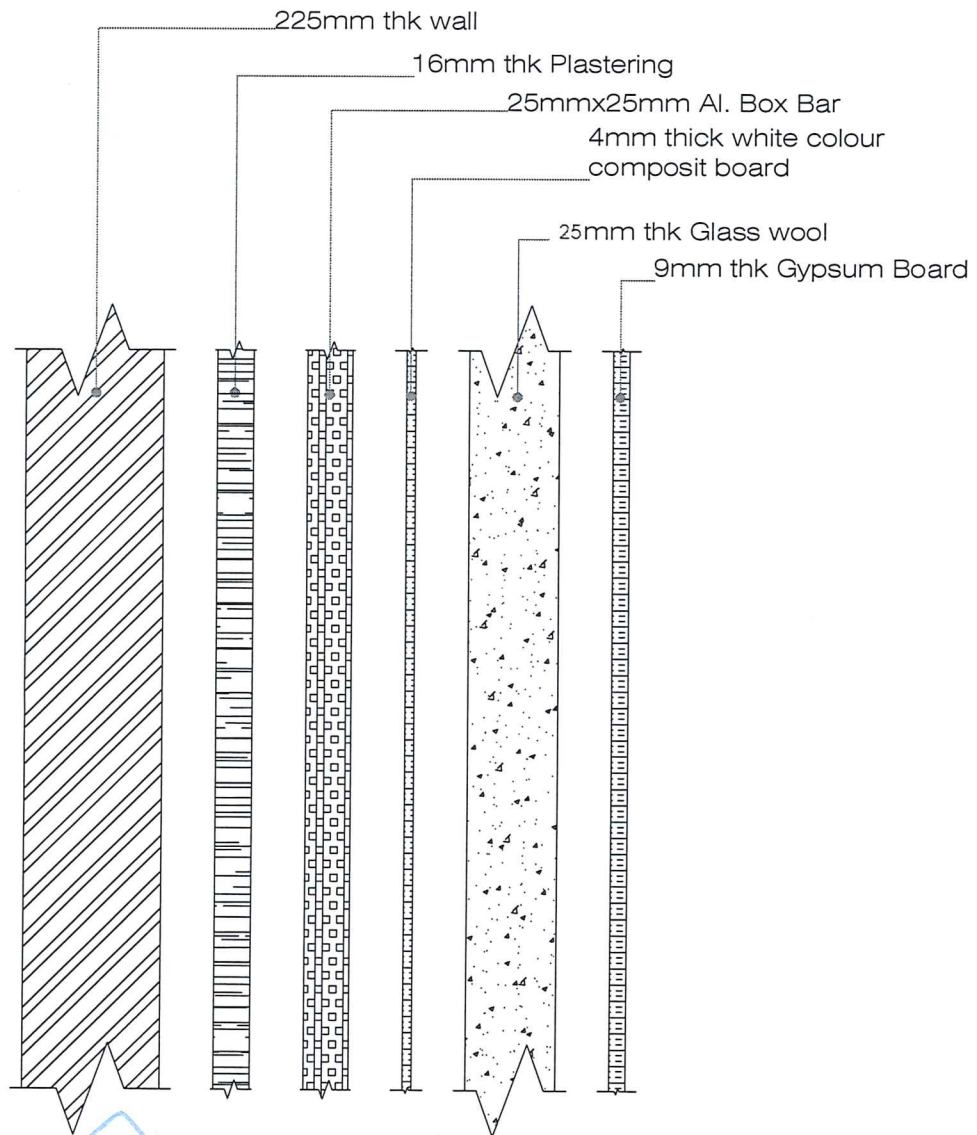
Proposed view

5. VIRTUAL LECTURE ROOM AT ZOOLOGY, EUSL, VANTHARUMOOLAI

Date	
EUSL/CON/SC/21/05	

Sketch for Plan view	
Design by :-	<i>R</i>
Drawn by :-	<i>K. Jagan</i>
Recommended by:-	





A-A Section view

225mm thick wall cross section view

**5. VIRTUAL LECTURE ROOM AT ZOOLOGY,
EUSL, VANTHARUMOLAI**

Sketch for section view	
Design by :-	<i>[Signature]</i>
Drawn by :-	<i>[Signature]</i>
Recommended by:-	

Date	
EUSL/CON/SC/21/05a	