

INVITATION FOR PRE-QUALIFICATION FOR SUPPLY OF ENGINEERING LABORATORY EQUIPMENT AT THE EPE CAMPUS OF LAGOS STATE UNIVERSITY

1.0 INVITATION

Lagos State University, Ojo is desirous to undertake a pre-qualification exercise for the supply of **Engineering Laboratory Equipment**, at the **Epe Campus** of Lagos State University. The University is, therefore, inviting competent and **interested manufacturers** of Engineering Equipment, to apply for pre-qualification for the supply of **Engineering Laboratory Equipment**.

2.0 SCOPE OF WORK:

i. CHEMICAL ENGINEERING LABORATORY EQUIPMENT

ITEM	QTY	DESCRIPTION
i)	1	Continuous Distillation Unit. Automatic feeder, computer controlled. (The Continuous Distillation Unit, includes the Column)
ii)	1	Gas Absorption Column, computer controlled
iii)	1	Liquid-Liquid Extraction Unit, computer controlled
iv)	1	Chemical Reactors Training System, computer controlled, formed by:
	1	Base-Service Unit (computer controlled)
	1	Isothermal Reactor with Stirrer
v)	1	Rising Film Evaporator, computer controlled
vi)	1	Steam Generator
vii)	1	Cracking Column, computer controlled
viii)	1	Set for Flow Process Control

ii. FLUID MECHANICS LABORATORY EQUIPMENT

ITEM	QTY	DESCRIPTION
i)	1	Fluid Friction in Pipes with Hydraulics Bench, computer controlled
ii)	1	Multipump Testing Bench (4 types of pumps), computer controlled
iii)	1	Series/Parallel Pumps Bench, computer controlled
iv)	1	Bernoulli's Theorem Demonstration
v)	1	Flow Visualization in Channels
vi)	1	Pelton Turbine- computer controlled
vii)	1	Laminar Flow Demonstration
viii)	1	Venturi, Bernoulli and Cavitation Equipment.
ix)	1	Basic Hydraulic Feed System Software packages: Computer Aided Instruction Software
x)	1	Classroom Management Software Package (Instructor Software Only one is required and common for all Software Packages (Student/Module Software)
	1	Bernoulli's Theorem Demonstration Student/Module Software
	1	Flow Visualization in Channels Demonstration Student/Module Software
	1	Pelton turbine Demonstration Student/Module Software
	1	Laminar Flow Demonstration Student/Module Software
	1	Ventury, Bernoulli and Cavitation Equipment Demonstration

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		Student/Module Software Computer Aided Learning
	1	Computer Aided Learning System: Bernoulli's Theorem Demonstration Student/Module Software Package
	1	Computer Aided Learning System: Flow Visualization in Channel Student/Module Software Package
	1	Computer Aided Learning System: Pelton turbine Student/Module Software Package
	1	Computer Aided Learning System: Laminar Flow Demonstration Student/Module Software Package
	1	Computer Aided Learning System: Ventury, Bernoulli and Cavitation Equipment Student/Module Software Package

iii. THERMODYNAMICS & THERMOTECHNICS LABORATORY EQUIPMENT

ITEM	QTY	DESCRIPTION
i)	1	Boiling Heat Transfer Unit, computer controlled
ii)	1	Heat Exchangers Training System, computer controlled,
	1	Base Service Unit (computer controlled)
	1	Concentric Tube Heat Exchanger
	1	Shell & Tube Heat Exchanger
	1	Jacketed Vessel Heat Exchanger
	1	Turbulent Flow Heat Exchanger
iii)	1	Heat Conduction Unit, computer controlled
iv)	1	Free and Forced Convection Heat Transfer Unit, computer controlled
v)	1	Fluidisation and Fluid Bed Heat Transfer Unit, computer
vi)	1	Refrigeration Cycle Demonstration Unit, computer controlled

iv. MUTIPOST SCADA-NET SYSTEM

1 Scada-Net system for use with above systems.

v. POLYMER PROCESSING LABORATORY EQUIPMENT

S/NO.	DESCRIPTION	SPECIFICATION
1	Two roll mill	6 x 10 inches variable roll speed 220V/60 Hz, electrically heated. Protection of roll is necessary
2	Rubber Abrasion Machine	230V, 50Hz, 1 hp
3	Flex fatigue testing machine	De-Mattia flex tester with electronic counters, Complete set of accessories for sample preparation.
4	Blow moulding machine	Semi automatic 500/600 bottles per hour, Stainless mould 0.5 litre and 0.75l.
5	Laboratory Autoclave	3- res capacity, automatic digital

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vi. METALLURGY LABORATORY & FOUNDRY EQUIPMENT

METALLURGY LAB

- Universal Pendulum Impact Tester
- Rockwell Harness Tester

- Universal Testing machine (Tensile, Compression and Shear)
- Micro indenter
- Specimen Mounting Machine

FOUNDRY

- **SAND TESTING**
 - Universal Sand Testing Machine
 - Permeability testing machine + Stop watch
 - Complete set of ASTM Standard sieves for size analysis and vibratory sieve shaker.
 - Standard sand test specimen maker equipment.
- **SAFETY WEARS**
 - Helmet & Visor
 - Fire Resistance Foundry Suit
 - Foundry Aprons
 - Foundry Boots
- **FURNACES**
 - EMA (Electromagnetic Induction Furnace)

vii. **WORKSHOP EQUIPMENT**

S/NO.	QTY	DESCRIPTION	SPECIFICATION
1	2	STUDENT LATHE MACHINE (MYFORDS)	120X750mm
		Complete with standard and special Accessories	
2	1	Universal 3 Jaws Chuck-TOS: SN-40C	ø200MM (SELF CENTRING)
3	1	RADIAL ARM DRILLING MACHINE: UNIVERSAL	SPINDLE OVERHANG- 100MM, MT4 drill capacity 35mm
4	2	MACHINE VICE	100/125 MM JAW SIZE
5		PKD DRILLING MACHINE CONTACTOR	V16D/220V V40D, 220-(1)K16E 220V.
6	1	VERTICAL MILLING MACHINE	Size 3, complete with standard and special Accessories
			Vertical indexing attachment
7a	1	HORIZONTAL MILLING MACHINE	Size 3, complete with standard and special Accessories
			Horizontal indexing attachment
7b		Tools for both vertical and Horizontal: insert type carbide face milling cutter	ISO 40, ø ISO, ISO 40 SHANK, ø 200 ISO 40 SHANK
		insert type carbide tipped end milling cutter	ISO 40
		Vee Blocks pair with brackets	100x100mm
		Vee Blocks pair with brackets	150x150mm
		Parallel Blocks and inserts	

		Set of gear cutters standard and clamping bolts	
8	1	HEAVY DUTY POWER-SAW	bulldog, 24" Blade size.
9	50	WELDING WORK BENCH	850x650MMx760MM
10	50	TABLE VICE	SIZE 5
11		CONSTRUCTION OF WELDING STATION	10 cubicles-each cubicles is 15001500mm
12	4	FIRE EXTINGUISHERS	(i) A B C Powder: Dry Powder
			34A: 144B-50kg
	6		(ii) 34a: 144B-9kg
13	12	SAND BUCKETS	10 litres
		IRON BUCKETS	
14		SAFETY POSTERS AND SIGN POSTS	Various Type

viii. DRAWING STUDIO EQUIPMENT

S/N	QTY	DESCRIPTION	SPECIFICATION
1	8	Air-Conditioner	2.5hp
2	1	Industrial Printer (Plotter)	
3	1	Demonstration Board	White
4	10	Desktop Computers for CAD	3.0GHz Duo Core Inter centre 2GB RAM 250GHDD/VDRIN/ VISTA/BUSINESS DESKTOP 17" LCD MONITOR 650V
5	10	APC UPS	650V
6	10	COMPUTER DESK/CHAIR	
7	1	THOOPS NP DESIGN	
8	50	Drawing Tables/Stools	
9	150	Standard Drawing Boards	
10	50	Stool Top – Boards	

ix. REFURBISHMENT OF THE OLD LIBRARY BUILDING (CONVERSION TO NEW LABS)

- Floor Tiling
- Ceiling & Roofing
- Doors and Windows
- Painting & Decoration
- Electricals and Air-conditioning

REFURBISHMENT OF POLYMER LAB

- Floor reinforcement - RC

3.0 PRE-QUALIFICATION REQUIREMENTS:

- (i) Certificate of Company's incorporation, with the Corporate Affairs Commission.

- (ii) Evidence of Registration as Contractor/Supplier, (Certificate of Incorporation), with relevant Government Ministries.
- (iii) Current Tax Clearance Certificate for the last three (3) years.
- (iv) Evidence of Company's financial standing.
- (v) Evidence of Execution AND completion, of similar jobs, in the last three (3) years.
- (vi) Company's Organizational Structure, including names AND resumes of key personnel, to be involved in the construction. .../5
- (vii) Evidence of availability of, verifiable plants/equipments for use, in the construction.
- (viii) Evidence of Registration as Contractor, with Lagos State University, in the appropriate category.

4.0 GENERAL INFORMATION:

All enquiries regarding this advertisement should be directed to the **Dean, Faculty of Engineering**, Lagos State University between **10:00 a.m. AND 4:00 p.m. Mondays to Fridays**. All interested contractors are requested, to be present on the due date, for the opening of the submissions.

5.0 PRE-QUALIFICATION FEE:

The payment of the stipulated non-refundable pre-qualification fee, of **Ten Thousand Naira (₦10,000.00) ONLY**, made payable to Lagos State University, Ojo, via:

**ZENITH BANK PLC
LASU REVENUE ACCOUNT
Account Number: 6014013807**

6.0 SUBMISSION:

All submissions should be addressed to:

**THE REGISTRAR AND SECRETARY,
LAGOS STATE UNIVERSITY,
P.M.B. 0001, LASU POST OFFICE, OJO,
LAGOS/BADAGRY EXPRESSWAY, OJO,
LAGOS STATE,**

enclosed in sealed envelope AND marked, "PRE-QUALIFICATION FOR SUPPLY OF ENGINEERING LABORATORY EQUIPMENT". Submission should be delivered either by hand OR courier services, to reach the address stated below, NOT LATER THAN 12 NOON, SIX [6] WEEKS FROM THE DATE OF THIS ADVERTISEMENT.

ALL Submissions should be delivered to:

**THE COUNCIL MATTERS DIVISION,
ROOM 004, ADMINISTRATIVE BLOCK II,
LAGOS STATE UNIVERSITY,
BADAGRY EXPRESSWAY, OJO.**

Further submission after the specified time, will NOT be accepted. ONLY pre-qualified bidders will be invited, to tender for the project. Notwithstanding the submissions made by the bidder, the Lagos State University, Ojo is **NEITHER** committed **NOR** under any obligation, to include any contractor, on the Tender list **OR** award any form of contract, to any contract to any manufacturer.

UNIVERSITY MANAGEMENT