

TITLE OF TENDER

RFP UJ 89/2022: TEACHING AND LAB EQUIPMENT FOR ELECTRICAL AND ELECTRONIC ENGINEERING SCIENCE

Background: The department of Electrical and Electronic Engineering Science has experienced an increased number of students in the laboratory, where number of students is more than 450 during experiments. However, the number of equipment is not enough to cater for a large group of students. In order for the department to comply with ECSA, we need new equipment that will be installed in B2lab117 to handle a large group of students. DEEES laboratories cater in first year and second year students from Electrical, Mechanical, Civil and Science departments. The new equipment's will help with the load that DEEES staff are experiencing. We need equipment's that will meet up with current technology needs during experiments and will be able to handle all practical's requirements.

SPECIFICATIONS:FUNCTION GENERATOR

General: Equipment must be usable, simple but with good performance. The below are its:

Standard features		Comply / do not Comply	Comments
Waveform	25 MHz arbitrary waveform	comply	
Resolution	0.1Hz to 5/12/25 MHz	comply	
Function	TTL and CMOS	comply	
Signal	Sine, Square, Triangular, Noise and Arbitrary Waveform	comply	
Sampling Rate	20MSa/s Sampling Rate, 10 bit Vertical Resolution and 4k Point Memory for Arbitrary Waveform	comply	
Duty cycle	1% ~ 99% adjustable duty cycle for Square Waveform	comply	
Calibration	Both internal & External	Mandatory requirement	
Waveform Parameter Setting	Numeric Keypad Entry & Knob Selection	comply	
3.5" LCD Screen	Amplitude, DC Offset and Other Key Setting	comply	
Counter Functions	AM/FM/FSK Modulation, Sweep, and Frequency	comply	
USB Device Interface	Remote Control and Waveform Editing	comply	
PC Arbitrary Waveform	Editing Software	comply	
	Warranty and Services	Mandatory requirement	
Warranty	5 years	comply	
On site technicians to be available if there are problems experienced with the instrument		Labour is included in the 5 year warranty	
Price per Analytical Balance			
Sub Total - 45 Analytical Balances			
VAT			
Final Total			

Evaluation Criteria			
A minimum scoring of 70 points must be achieved to be evaluated further for financial and B-BBEE.			
	Criteria	Scoring	Scoring
1	Provide a minimum of three reference letters from clients where the instrument was used during the past 5 years. 3 letters = 30 2 letters = 20 1 letter = 10	30	30
2	5 year Warranty	25	25 – 5-year standard warranty (Parts and labour)
3	On site technicians to be available if there are problems experienced with the instrument	15	15- Have Qualified and trained technicians.
4	Turnaround time to resolve issues on site 10 hours – 30 24 hours – 20 48 hours – 10	30	20
	Total	100	90

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SPECIFICATIONS: OSCILLOSCOPE

General: Equipment must be usable, simple but with good performance. The below are its:

Standard features		Comply / do not Comply	Comments
Bandwidth	50 MHZ	comply	
Channels	2	comply	
Sample rate on all channels	1 GS/s	comply	
Record Length	20k point	comply	
Triggers	Advanced with Pulse	comply	
Triggers	Line selectable video triggers	comply	
Calibration	Both internal & External	Mandatory requirement	
Display	7 inch WVGA (800X480) Active TFT Color Display	comply	
Measurements	34 automated measurements	comply	
Display	LCD with Backlight	comply	
Built in feature	Integrated information/instruction feature	comply	
	Autoset and signal auto-ranging	Comply	
Connectivity	USB 2.0 or above host & device	Comply	
	Zoom function	Comply	
	Dual channel frequency counter	Comply	
Time and frequency monitor	Dual window FFT	Comply	
	Warranty and Services	Mandatory requirement	
Warranty	5 years	comply	
On site technicians to be available if there are problems experienced with the instrument		Labour is included in the 5 years warranty	

	Price per Analytical Balance		
	Sub Total - 45 Analytical Balances		
	VAT		
	Final Total		
Evaluation Criteria			
A minimum scoring of 70 points must be achieved to be evaluated further for financial and B-BBEE.			
	Criteria	Scoring	Scoring
1	Provide a minimum of three reference letters from clients where the instrument was used during the past 5 years. 3 letters = 30 2 letters = 20 1 letter = 10	30	30
2	5 year Warranty	25	15 – 5-year standard warranty (Parts and labour) and 1-year extended warranty on parts.
3	On site technicians to be available if there are problems experienced with the instrument	15	15- Have Qualified and trained technicians.
4	Turnaround time to resolve issues on site 10 hours – 30 24 hours – 20 48 hours – 10	30	20
	Total	100	90

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SPECIFICATIONS: POWER SUPPLY

General: Equipment must be usable, simple but with good performance. The below are its:

Standard features		Comply / do not Comply	Comments
P/Supply Output Type	Adjustable	comply	
No of Variable (0-32V 3A)	2 outputs	comply	
Output Voltage	Min 0V	comply	
Output Voltage	Max 32V	comply	
Output Current	Min 0A	comply	
Output Current	Max 3A	comply	
Calibration	Both internal & External	Mandatory requirement	
Setting & Read Back Resolution	10mV/1mA (user programmable)	comply	
No of Fix (5V)	Output 1	comply	
Fixed output current	5A	comply	
Power Rating	217W	comply	
Output function	Output On/Off function	comply	
key lock function	prevent DUTs from unnecessary damages caused by mis-operation	comply	
Supply Voltage Min	100VAC	comply	
Supply Voltage Max	240VAC	comply	
	Warranty and Services	Mandatory requirement	
Warranty	3 years	comply	
On site technicians to be available if there are problems experienced with the instrument		Labour is included in the 3 warranty	
2-year service plan		Comply	

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	Sub Total - 45 Analytical Balances		
	VAT		
	Final Total		
Evaluation Criteria			
A minimum scoring of 70 points must be achieved to be evaluated further for financial and B-BBEE.			
	Criteria	Scoring	Scoring
1	Provide a minimum of three reference letters from clients where the instrument was used during the past 5 years. 3 letters = 30 2 letters = 20 1 letter = 10	30	30
2	3 Warranty	25	25 – 3-year standard warranty (Parts and labour)
3	On site technicians to be available if there are problems experienced with the instrument	15	15- Have Qualified and trained technicians.
4	Turnaround time to resolve issues on site 10 hours – 30 24 hours – 20 48 hours – 10	30	20
	Total	100	90