Tender Document **LUMS**

TENDER NO. LUMS/208/2023 DATED: 09.06.2023 for "IT and Lab Equipment for E-Mobility Project"

Last Date for submission of bids 26/06/2023 till 11:00am

Opening of bids 26/06/2023 at 11:30am

Lahore University of Management Sciences (hereinafter called LUMS) invites sealed bids for the supplies as per attached BOQ on Single stage two envelope basis.

If you have doubt as to the meaning of any portion of the specification or other terms and conditions, you may seek clarification of the same in writing from us.

You are required to submit your bid, which will bear words "CONFIDENTIAL" and

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LUMS does not take any responsibility for collecting the bids from any agency. The requests for an extension of closing date and time shall not be entertained.

Specifications

	Equipment and Supplies	S pecifications	Units Number/Person	Company Name	Company Name	Company N
E-I		E-Mobility Lab		1	1	
2	Li-Ion Battery Laser Welding	1. Power: 1-8kW	T			
		2. Voltage: 1-Phase/3-Phase (220V - 380V), 50/60 Hz				
	Machine	3. Welding Thinkness: 0.1-0.4 MM	1	US/EU/Pakistan	-	Med
		4. Laser Spot: 0.01-0.2 MM				
		4. Laser spot. 0.01-0.2 IVIIVI				
4	Battery Testing System	1. Power Requirement: 500-1,000 W				
	"""	2. Supply Voltage: Single/three-phase supply, 220/380 V				
		3. Current Level: 1-120 Amps				
		4. Short Circuit Protection: 0-1msec	1	US/Pakistan	Arbin or oquivalent	ui.
			'	US/Pakistali	Arbin or equivalent	Hig
		5. Overcharge/overdischarge Voltage & time: 0-10 Volt & 0-30 sec				
		6. Overcharge & Overdischarge Protection Current: 0-100 V & 0-150 V				
6	HPC Workstation	1. Core i9, at least 11th Generation OR better				
		3. XPG Spectrix D50 32GB DDR4 3600MHz OR better				
		3. CoolerMaster Master Liquid ML360L V2 OR Xpg levante 240mm OR better				
		4. XPG/CORSAIR Core Reactor 750 Watt OR Cougar gex 750 OR better	1	Pakistan	HP/DELL/custom built	Hig
		5. Palit/MSI GeForce RTX™ 3070 8GB OR better				
		6. SSD 980 NVMe M.2 2TB OR more				
		0. 335 300 NVINC W.2 216 ON More				
		4.5	+			
7	Impedance Analyzer	1. Frequency Range: 20 Hz to 10 MHz	1			
		2. Voltage Signal: 5 mVrms - 1Vrms (or more)	1			
		3. Current Signal Level: 200 uArms to 20 mArms (or more)	1 .			
		4. Output Impedence: 10-60 Ohms (nominal)	'	US/Pakistan	Princeton or equivalent	Med
		5. Rated Voltage: 100-240 VAC	1			
		6. Power Consumption: 100-500 W	1			
		·				
9	Battery system auxiliaries	1. Copper wires (14 AWG-1AWG)	2	Dakiston		Med
		2. Connectors for batteries and more		Pakistan	_	Ivied
10	Motor Test Bench (up to	1. Power Capability: up to 15 kW	T			
0	1	2. Torque range: 100 - 4000 Nm	1			
	I5kW 4-Quadrant)	3. Speed Range: 100 - 4000 rpm			1	
		' = - : · · · · · · · · · · · · · · · · · ·	į.	US/EU/Pakistan	ectromechanica or equivale	r Hig
		4. Voltage: 1-200 Vdc	1			
		5. Type: 4-Quadrant	1			
11	Makaus (IF)	1 Power Canability: FOOW to 45 MM	+			
11	Motors (15 motors with	1. Power Capability: 500W to 15 kW	1	1		
	capacity ranging from 500W -	2. Torque range: 100 - 4000 Nm	I	US/EU/Pakistan	-	Hig
	15 kW)	3. Speed Range: 1000 - 8000 rpm	1			
12	Motor Base and Coupling	Standardized iron bases	1 .			
			I	Pakistan	-	Hig
13	Motor Control Units	1. Power Requirement: 500W to 15kW				
		2. Supply Current: 1 to 10 Amps	1	US/EU/Pakistan	ABB/Schneider/Equivalent	Hig
		·	1	00, 20, 1 akistail		1118
		4 T 709C + 4009C / 040E + 5	+			
14	Vibration, temperature,	1. Temperature Range: -70°C to +190°C (-94°F to +375°F)				
	acoustic, and humidity test	2. Humidity Range: (10% to 95%)				
	1	3. Vibration Exciting Force: 300N to 5000 N	1	US/Pakistan	Apple/HP/DELL/Equivalent	Hig
	chamber for motors		1			
3	Laptops	1. CPU: M1/M2 Chip OR Core i5 or more (minimum 11th Generation)				
-		2. RAM: 8 GB or more	4	US/Pakistan	Apple/HP/DELL/Equivalent	Litte
		3. Storage: 256 GB or more (SSD recommended)	7	OS/FANSIAII	Sphiel III. I DEFF/Ednisquent	Hig
		5. Storage: 250 GB of more (55B recommended)			1	
		3. Storage: 250 GB of more (350 recommended)				
4	Computer Monitors/ Screens	1. Size: 32 inch	4	US/Pakistan	HP/Canon/Epson/Equivalent	His
	Computer Monitors/ Screens	1. Size: 32 inch	4	US/Pakistan	HP/Canon/Epson/Equivalent	: Hig
4 5	Computer Monitors/ Screens Printer	Size: 32 inch Perform Printing, Scaning and Copying			HP/Canon/Epson/Equivalent	
		Size: 32 inch Perform Printing, Scaning and Copying Print Speed: up to 20 page per min	4	US/Pakistan US/EU/Pakistan	HP/Canon/Epson/Equivalent	
5		Size: 32 inch Perform Printing, Scaning and Copying Print Speed: up to 20 page per min Duty Cycle: up to 8,000 pages or more per month			HP/Canon/Epson/Equivalent	
5 E-2	Printer	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project			HP/Canon/Epson/Equivalent	
5		1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah	ı	US/EU/Pakistan	-	Hig
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5 E-2	Printer Li-Ion Batteries (for 20 Electric	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ≃ 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide	ı	US/EU/Pakistan	-	Hig
5 E-2	Printer Li-Ion Batteries (for 20 Electric Three Wheelers)	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg	ı	US/EU/Pakistan	-	Hig
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5 E-2 1 2	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ≃ 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection	112	US/EU/Pakistan US/EU/Pakistan	- NeuBolt/Equivalent	Hig
5 E-2 1	Printer Li-Ion Batteries (for 20 Electric Three Wheelers)	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C	112	US/EU/Pakistan US/EU/Pakistan	- NeuBolt/Equivalent	Hig
5 E-2 1 2	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection	112	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	- NeuBolt/Equivalent NeuBolt/Equivalent	Hig Hig Hig
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5 E-2 1 2	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking)	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ≈ 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more	112	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	- NeuBolt/Equivalent NeuBolt/Equivalent	Hi _i
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5 E-2 1 2 6 6 7	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking) Vehicle Tracking Device	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more 1. Rated Voltage: 12 Volts 2. Rated Current: 1 Amps 3. Rated Temperature: 50-80 'C 4. Frequency: 10-14 MHz 5. Wifi, CAN, RTC, SD Card Enable	1 112 2 30	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	- NeuBolt/Equivalent NeuBolt/Equivalent Apple/HP/DELL/Equivalent	Hig Hig Hig
5 E-2 1 2	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking)	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ≈ 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more 1. Rated Voltage: 12 Volts 2. Rated Current: 1 Amps 3. Rated Temperature: 50-80 'C 4. Frequency: 10-14 MHz 5. Wifi, CAN, RTC, SD Card Enable 1. Power (Prime): 30 kVA	1 112 2 30 20	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	NeuBolt/Equivalent NeuBolt/Equivalent Apple/HP/DELL/Equivalent Apple/HP/DELL/Equivalent	Hig Hig Hig
5 E-2 1 2 6 6 7	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking) Vehicle Tracking Device Generator (30 kVA generator for	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more 1. Rated Voltage: 12 Volts 2. Rated Current: 1 Amps 3. Rated Temperature: 50-80 'C 4. Frequency: 10-14 MHz 5. Wifi, CAN, RTC, SD Card Enable	1 112 2 30	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	- NeuBolt/Equivalent NeuBolt/Equivalent Apple/HP/DELL/Equivalent	Hig Hig Hig
5 E-2 1 2 6 6 7	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking) Vehicle Tracking Device	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ≈ 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more 1. Rated Voltage: 12 Volts 2. Rated Current: 1 Amps 3. Rated Temperature: 50-80 'C 4. Frequency: 10-14 MHz 5. Wifi, CAN, RTC, SD Card Enable 1. Power (Prime): 30 kVA	1 112 2 30 20	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	NeuBolt/Equivalent NeuBolt/Equivalent Apple/HP/DELL/Equivalent Apple/HP/DELL/Equivalent	Hig Hig Hig
5 E-2 1 2 6 6 7	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking) Vehicle Tracking Device Generator (30 kVA generator for emergency backup)	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more 1. Rated Voltage: 12 Volts 2. Rated Current: 1 Amps 3. Rated Temperature: 50-80 'C 4. Frequency: 10-14 MHz 5. Wifi, CAN, RTC, SD Card Enable 1. Power (Prime): 30 kVA 2. Frequency: 50Hz 3. Fuel Capacity: more than 100 liters	1 112 2 30 20	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	NeuBolt/Equivalent NeuBolt/Equivalent Apple/HP/DELL/Equivalent Apple/HP/DELL/Equivalent	Hig Hig Hig
5 E-2 1 2 2 6 6 8	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking) Vehicle Tracking Device Generator (30 kVA generator for	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more 1. Rated Voltage: 12 Volts 2. Rated Current: 1 Amps 3. Rated Temperature: 50-80 'C 4. Frequency: 10-14 MHz 5. Wifi, CAN, RTC, 5D Card Enable 1. Power (Prime): 30 kVA 2. Frequency: 50-81 Fore (Institute of the programment of the p	1 112 2 30 20 2	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	NeuBolt/Equivalent NeuBolt/Equivalent Apple/HP/DELL/Equivalent Apple/HP/DELL/Equivalent Epson/Canon/Equivalent	Hig Hig Hig Hig
5 E-2 1 2 2 6 6 8	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking) Vehicle Tracking Device Generator (30 kVA generator for emergency backup)	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more 1. Rated Voltage: 12 Volts 2. Rated Current: 1 Amps 3. Rated Temperature: 50-80 'C 4. Frequency: 10-14 MHz 5. Wifi, CAN, RTC, SD Card Enable 1. Power (Prime): 30 kVA 2. Frequency: 50Hz 3. Fuel Capacity: more than 100 liters 1. CPU: M1/M2 Chip OR Core i5 or more (minimum 11th Generation) 2. RAM: 8 GB or more	1 112 2 30 20	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	NeuBolt/Equivalent NeuBolt/Equivalent Apple/HP/DELL/Equivalent Apple/HP/DELL/Equivalent	Hig Hig Hig Hig
5 E-2 1 2 2 6 6 8	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking) Vehicle Tracking Device Generator (30 kVA generator for emergency backup)	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more 1. Rated Voltage: 12 Volts 2. Rated Current: 1 Amps 3. Rated Temperature: 50-80 'C 4. Frequency: 10-14 MHz 5. Wifi, CAN, RTC, SD Card Enable 1. Power (Prime): 30 kVA 2. Frequency: 50Hz 3. Fuel Capacity: more than 100 liters 1. CPU: M1/M2 Chip OR Core i5 or more (minimum 11th Generation) 2. RAM: 8 GB or more 3. Storage: 256 GB or more (SSD recommended)	1 112 2 30 20 2	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	NeuBolt/Equivalent NeuBolt/Equivalent Apple/HP/DELL/Equivalent Apple/HP/DELL/Equivalent Epson/Canon/Equivalent	Hig Hig Hig Hig
5 E-2 1 2 2 6 6 8	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking) Vehicle Tracking Device Generator (30 kVA generator for emergency backup) Laptops	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more 1. Rated Voltage: 12 Volts 2. Rated Current: 1 Amps 3. Rated Temperature: 50-80 'C 4. Frequency: 10-14 MHz 5. Wifi, CAN, RTC, SD Card Enable 1. Power (Prime): 30 kVA 2. Frequency: 50Hz 3. Fuel Capacity: more than 100 liters 1. CPU: M1/M2 Chip OR Core i5 or more (minimum 11th Generation) 2. RAM: 8 GB or more	1 112 2 30 20 2 4	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	NeuBolt/Equivalent NeuBolt/Equivalent Apple/HP/DELL/Equivalent Apple/HP/DELL/Equivalent Epson/Canon/Equivalent Apple/Samsung	Hig Hig Hig Hig
5	Printer Li-Ion Batteries (for 20 Electric Three Wheelers) Battery Vending Machine Mobile Phone (for the rickshaw drivers and operators for tracking) Vehicle Tracking Device Generator (30 kVA generator for emergency backup) Laptops Computer Monitors/ Screens	1. Size: 32 inch 1. Perform Printing, Scaning and Copying 2. Print Speed: up to 20 page per min 3. Duty Cycle: up to 8,000 pages or more per month Pilot Project 1. Capacity: 72V/19.2 Ah 2. Weight ~= 9 kg 3. Composition: Lithium-Nickel-Manganese-Cobalt-Oxide 1. Input Power: 22 kW 3 Phase AC 2. Charger output: 1.5 kW, 84V/19.2 Ah 3. Battery Storage Capacity: 16 batteries 4. Charge Time for each battery: 1.5 hour/ 0.5C 5. Must be IP65 Protection 1. RAM: 4GB or more 2. Storage Capacity: 64 GB or more 3. Battery Capacity: 2500 mAh or more 1. Rated Voltage: 12 Volts 2. Rated Current: 1 Amps 3. Rated Temperature: 50-80 'C 4. Frequency: 10-14 MHz 5. Wifi, CAN, RTC, 5D Card Enable 1. Power (Prime): 30 kVA 2. Frequency: 50H2 3. Fuel Capacity: more than 100 liters 1. CPU: MI/M2 Chip OR Core i5 or more (minimum 11th Generation) 2. RAM: 8 GB or more 3. Storage: 256 GB or more (SSD recommended) 1. Size: 32 inch	1 112 2 30 20 2	US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan US/EU/Pakistan	NeuBolt/Equivalent NeuBolt/Equivalent Apple/HP/DELL/Equivalent Apple/HP/DELL/Equivalent Epson/Canon/Equivalent	Hig Hig Hig
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TERMS AND CONDITIONS

1. Instruction to Bidders:

- a) **General:** Bids are invited through <u>Sealed Envelope</u> for the purchase of supplies and other related items from the authorized distributors and manufacturers on delivery Ex-LUMS.
- b) **Bill of quantities:** The bidder may quote for one or more items showing description and specification of offered items.

2. Date & Time of Submission of Tenders:

The interested bidders may submit their bids on the prescribed form, available on written request on the firm / company letter pad from the Procurement office located, Lahore University of Management Sciences, at Opposite Sector U, DHA Lahore along with a postal order/pay order/bank draft / amounting to Rs. 1,500/- (Non-refundable) drawn in favor of Lahore University Of Management Sciences.

All bids must be delivered in procurement office on or before the prescribed deadline of 11:00 am on the date already mentioned above.

Any Bid received by LUMS after the prescribed deadline for submission of bids will be returned unopened to the Bidder.

3. Sealing and Marking of Bids:

The bids shall comprise in a Single package containing two separate envelopes each envelope shall contain separately, duly sealed, the "<u>Financial Proposals</u>" and "<u>Technical Proposals</u>". The envelopes shall be marked as "<u>Financial Proposals</u>" and "<u>Technical Proposals</u>" in bold and legible letters to avoid any confusion.

The envelop will be addressed to; Manager Procurement Lahore University of Management Sciences, Opposite Sector U, DHA, Lahore

TEL: (042)35608251

The envelopes shall also bear the word "CONFIDENTIAL" and following identifications: - If the envelope is not marked, as instructed above, LUMS will assume no responsibility for the misplacement or premature opening of the bid.

4. Bid Opening:

LUMS will open the bids, in the presence of Bidder's representatives who choose to attend at 11:00 am on the date already mentioned above, in the Procurement office.

5. Evaluation:

a) After opening of bids, LUMS will examine the bids for technical evaluation and completeness of the bids as per tender document.

- b) The bids shall be evaluated on the basis of "<u>Technical proposals</u>" and "<u>Financial</u> Proposals" as under:
 - (i) The envelope for "<u>Technical Proposals</u>" will be opened initially in the presence of the bidders.
 - (ii) The envelope for "Financial Proposals" will be retained unopened.
 - (iii) The "<u>Financial Proposals</u>" envelope of technical responsive bidders will be opened in front of technically qualified bidders after the technical evaluation. The "<u>Financial Proposals</u>" envelope of technically non-qualified bidders will be returned unopened to the bidder.
- c) Bidder(s) who do (es) not qualify cannot challenge the findings of the evaluation or ask for reasons of disqualification.

6. Earnest Money:

The bidder must enclose 2% of the total quoted amount as earnest money in shape of pay order/bank draft in favor of Lahore University of Management Sciences. The tenders without earnest money or containing less earnest money will not be accepted. Earnest money of the successful bidder will be refunded after the delivery of the goods.

7. Change in Quantities:

LUMS reserves the right to increase/decrease quantities and it will be the responsibility of the supplier/contractor to deliver the item on time and change defective items.

8. Mode of Payment:

- a) Payment terms will be credit basis.
- b) In case of advance payment first class bank guarantee or mutually accepted collateral will be provided by the bidder.

9. NTN/GST Certificate:

Bidder must mention their National Tax Number (NTN) and General Sales Tax (GST) number (if sales tax registered) and furnish a copy of NTN and GST certificate along with tender.

10. Tax Deduction:

Income Tax as per government tax rules will be deducted from the total amount unless an exemption certificate is provided from the income tax department.

11. Specification Criteria:

All bids must be submitted according to specification given in the BOQ.

12. Delivery Time:

- a) Validity period of the tender will be mutually decided from the date of placement of order. During this period successful bidders will be bound to supply the items on the rates they quoted.
- b) In case the supplier fails to supply the agreed material in time, LUMS reserves the right to reject its offer and confiscate the earnest money deposited.
- c) Delivery will be on Ex-LUMS
- d) Pre-shipment inspection will be done by LUMS if required.

13. Inspection and Testing

- a) LUMS representative shall have the right to inspect and / or test the Goods to confirm their conformity to the Purchase order(s) Specifications.
- b) Should any inspected or tested goods fail to conform to the specifications, LUMS may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet specification of LUMS. All costs incurred on such replacements / alterations shall be entirely borne by the supplier, failing to do so, the purchase order(s) will be cancelled and all retained values will be forfeited in favor of LUMS.

14. Quality of items:

All item(s) supplied by successful bidder should be wholesome and include all the basic accessories. The additional accessories may be included separately. The offered items(s) should not be of substandard nature.

15. Warranty:

As mentioned against each item or for the given period starting from the date of supply.

16. Penalty:

<u>For failure to comply with delivery schedule of Purchase Order(s) penalty will be imposed</u> on defaulting bidder as under:

- a) 1% of the cost of entire order or of such items/job as remains un-supplied/notcompleted for every day up to maximum of 5% for 10 days exceeding the delivery period unless mutually agreed in writing.
- b) If the material is not supplied even after payment of penalty for 10 consecutive days LUMS reserves the right to cancel the purchase order and to obtain the required items/get the job done from elsewhere at risk and cost of the defaulting contractor. In this scenario the Earnest money will be confiscated.

17. Grievance Committee

Supplier can contact the grievance committee of LUMS if required.

18. Rejection of Bids:

LUMS reserves the right to reject any or all bids or proposals without assigning any reason.

19. Other Instructions:

- a) Bid Prices shall be quoted on Annexure-"A" and also on letter Head duly filled in, stamped and signed by the authorized representative of Bidder.
- b) Bidding Form Annexure-"B" must also be duly filled in, stamped and signed by authorized representative of Bidder.
- c) Quoted price shall be valid for three months from the opening date of the Tender, for placing order however, any subsequent change in taxes and duties as notified by government will be given due consideration.

I/We hereby agree to abide	by and fulfill all the terms and c	onditions of the contract.
The sum of Rs	is herewith forwarded in the s	hape ofas
2% earnest money.		
Name and Address of the	Firm	Company's Stamp
		
Name and Signature of co	mpany's Representative	
		
CNIC		

ANNEXURE "A" FINANCIAL PROPOSALS

S. No.*	Name of Item	Qty	Ex-LUMS	Total Price	Remarks
		_			

^{*} S.NO as mentioned on BOQ

Authorized Signature of	Bidder with seal
stamp	
Full name of firm	<u> </u>
N.I.C. No	
Phone no.	Mobile No.

ANNEXURE-"B"

TECHNICAL PROPOSALS

S. No.*	Name of Item(s)	Specifications / Brand	Qty
NO as mention	oned on BOQ		

Authorized Signature of bidder with seal stamp
Full name of firm
N.I.C. No
Phone no Mobile No
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Note: Attach technical brochure producing detailed specifications for all the offered items(s).

BIDDING FORM

Date:				
Lahore Lahore	e University of Management Sciences.			
Gentle	eman			
1.	Having examined the conditions to Tender and Specifications of Tender No LUMS/208/2023 DATED: 09.06.2023, the receipt of which is hereby acknowledged. We the undersigned, offer to supply and deliver in conformity with specifications mentioned in BOQ and conditions of Tender for the sum of Rs. (Rupees) or such other sums as may be ascertained in accordance with the said Conditions.			
2.	If our Bid is accepted, we shall deliver the required supplies mentioned in the tender documents within days from the date of receipt of your firm Purchase Order.			
3.	We agree to abide by the terms and conditions of the Tender for the period of from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.			
4.	Until a formal Purchase order(s) is placed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.			
5.	We understand that you are not bound to accept the lowest or any proposal you may receive or to inform us of the rejection of our bid or to give any reasons thereof.			
Dated	this day of 2023.			
	ure in the capacity of duly ized to sign Tender for and on behalf of			
(NAM	IE OF FIRM IN BLOCK CAPITALS)			
Comp	lete Address:			
Fax N	oTelephone No			
•	JATURE) ss :-1 2			