



**CAVITE STATE UNIVERSITY**  
**Don Severino de las Alas Campus**

Indang, Cavite, Philippines

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www.cvsu.edu.ph

**INVITATION TO SUBMIT QUOTATION**  
**Supply and Delivery of Various Tools, Accessories and Equipment**  
**for Mechatronics Laboratory of CEIT**

1. The Cavite State University (CvSU) invites interested firms/suppliers to submit quotation for the project **“Supply and Delivery of Various Equipment for Mechatronics Laboratory of CEIT”** with an Approved Budget for the Contract (ABC) of **Nine Hundred Fifty Thousand Pesos Only (PhP 950,000.00)**. Quotation received in excess of the ABC shall be automatically rejected at the opening.

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
1.	2	pcs	3/2-Way Panel Mounted Valve with Push Button <ul style="list-style-type: none"> <li>• Medium compressed air, filtered (lubricated or unlubricated) (or vacuum; port1)</li> <li>• Design: Poppet valve</li> <li>• Directly actuated on one side</li> <li>• With return spring</li> <li>• Pressure Range: -90 – 800 kPa (-0.90 – 8 bar)</li> <li>• Standard Nominal Flow Rate 1...2: 60l/min</li> <li>• Actuating Force at 600kPa (6 bar): 6N</li> <li>• Connection: QSM-4 fittings for plastic tubing PUN 4 x 0.75)</li> </ul>	9,450.00	18,900.00
2.	2	pcs	3/2-Way Panel Mounted Valve with Push Button <ul style="list-style-type: none"> <li>• Medium compressed air, filtered (lubricated or unlubricated) (or vacuum; port1)</li> <li>• Design: Poppet valve</li> <li>• Directly actuated on one side</li> <li>• With return spring</li> <li>• Pressure Range: -90 – 800 kPa (-0.90 – 8 bar)</li> <li>• Standard Nominal Flow Rate 1...2: 60l/min</li> <li>• Actuating Force at 600kPa (6 bar): 6N</li> <li>• Connection: QSM-4 fittings for plastic tubing PUN 4 x 0.75)</li> </ul>	9,750.00	19,500.00
3.	2	pcs	5/2-Way Panel Mounted Valve with Selector Switch <ul style="list-style-type: none"> <li>• Medium compressed air, filtered (lubricated or unlubricated) (or vacuum; port1)</li> </ul>	16,050.00	32,100.00

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
			<ul style="list-style-type: none"> <li>• Design: Poppet valve</li> <li>• Directly actuated on one side</li> <li>• With return spring</li> <li>• With actuation selector switch</li> <li>• Pressure Range: -90 – 800 kPa (-0.90 – 8 bar)</li> <li>• Standard Nominal Flow Rate 1...2: 60l/min</li> <li>• Actuating Force at 600kPa (6 bar): 6N</li> <li>• Connection: QSM-4 fittings for plastic tubing PUN 4 x 0.75)</li> </ul>		
4.	2	pcs	3/2-Way Panel Mounted <ul style="list-style-type: none"> <li>• Design: Poppet valve</li> <li>• Directly actuated on one side</li> <li>• With return spring</li> <li>• With actuation selector switch</li> <li>• Pressure Range: -90 – 800 kPa (-0.90 – 8 bar)</li> <li>• Standard Nominal Flow Rate 1...2: 60l/min</li> <li>• Actuating Force at 600kPa (6 bar): 6N</li> </ul>	11,250.00	22,500.00
5.	2	pcs	3/2-Way Roller Lever Valve, normally closed <ul style="list-style-type: none"> <li>• Design: Poppet valve</li> <li>• Directly actuated on one side</li> <li>• With return spring</li> <li>• Pressure Range: 350 – 800 kPa (3.5 – 8 bar)</li> <li>• Standard Nominal Flow Rate 1...2: 60l/min</li> <li>• Actuating Force at 600kPa (6 bar): 1.8N</li> </ul>	10,350.00	10,350.00
6.	2	pcs	Proximity Sensor, pneumatic, with cylinder attachment <ul style="list-style-type: none"> <li>• Compressed air, filtered (unlubricated) 40µm, free of contamination</li> <li>• Temperature Range: -15 - +60°C to DIN 40040</li> <li>• Pressure Range: 200 – 800 kPa (2 – 8 bar)</li> <li>• Standard Nominal Flow Rate: 60l/min</li> <li>• Switching Value: ±0.1mm</li> <li>• Response Time: On – 22ms/ Off – 20ms</li> </ul>	10,200.00	20,400.00
7.	1	pc	Time Delay Valve, normally closed <ul style="list-style-type: none"> <li>• Design: Poppet valve with return spring</li> <li>• Pressure Range: 200 – 600 kPa (2 – 6 bar)</li> </ul>	33,900.00	33,900.00

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
			<ul style="list-style-type: none"> <li>Switch-On Pressure: &gt;160kPa (1.6 bar)</li> <li>Standard Nominal Flow Rate 1...2: 50l/min</li> <li>Delay Time: 0.2 to 3s (adjustable)</li> <li>Setting Accuracy: ±0.3ms</li> <li>Time Delay to Reset: &gt;200ms</li> </ul>		
8.	1	pc	Pressure Sequence Valve <ul style="list-style-type: none"> <li>Operating Pressure Range: 180 – 800 kPa (1.8 – 8 bar)</li> <li>Pilot Pressure Range: 100 – 800 kPa (1 – 8 bar)</li> <li>Standard Nominal Flow Rate 1...2: 100 l/min</li> </ul>	34,800.00	34,800.00
9.	1	pc	OR Gate (shuttle valve), precision <ul style="list-style-type: none"> <li>Pressure Range: 100 – 1000 kPa (10 – 10 bar)</li> <li>Standard Nominal Flow Rate 1, 1/3...2: 500 l/min</li> </ul>	7,455.00	7,455.00
10.	1	pc	Logical AND operation, AND gate <ul style="list-style-type: none"> <li>Pressure Range: 100 – 1000 kPa (10 – 10 bar)</li> <li>Standard Nominal Flow Rate 1, 1/3...2: 550 l/min</li> </ul>	7,455.00	7,455.00
11.	1	pc	Quick-Exhaust Valve <ul style="list-style-type: none"> <li>Design: Poppet valve</li> <li>Pressure Range: 50 – 1000 kPa (0.5 – 10 bar)</li> <li>Standard Nominal Flow Rate 1...2: 300 l/min; 2...3: 550l/min</li> </ul>	4,215.00	8,430.00
12.	1	pc	One-Way Flow Control Valve <ul style="list-style-type: none"> <li>Pressure Range: 20 – 1000 kPa (0.2 – 10 bar)</li> <li>Standard Nominal Flow Rate in Throttled Direction: 0 – 85 l/min</li> <li>Free Flow Direction: 100 – 110 l/min</li> </ul>	2,773.50	2,773.50
13.	2	pcs	Pressure Regulator with Pressure Range <ul style="list-style-type: none"> <li>Design: Diaphragm Regulator</li> <li>Std Nominal Flow Rate: 300 l/min</li> <li>Supply Pressure: 1 – 10 bar (100 – 1000 kPa)</li> <li>Pressure Regulation Range: 0.5 – 7 bar (50 – 700 kPa)</li> <li>With pneumatic connection for plastic tubing with 4mm O.D.</li> <li>Primary Pressure: 10 bar (1000 kPa)</li> <li>Operating Pressure: 6 bar (600 kPa)</li> <li>Differential Pressure: 1 bar (100kPa)</li> </ul>	13,500.00	27,000.00

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
14.	1	pc	<p>Spring-Tube Manometer, precision quick</p> <ul style="list-style-type: none"> <li>• Scale Margin (bar): 0 ... 2.5 bar</li> <li>• Correspond to the Standard: EN 837-1</li> <li>• Nominal Magnitude Pressure Range: 50</li> <li>• Construction: Tubular spring gauge</li> <li>• Fixing Type: Mounting the Fluid</li> <li>• Duct: Inert Gasses; Neutral Liquids</li> <li>• Operating Pressure: 0 ... 2.5 bar</li> <li>• Alternating Stress Factor: 0.66</li> <li>• Measuring Accuracy Class: 2.5</li> <li>• Protection Type: IP43</li> <li>• Medium Temperature: -20 ... 60°C</li> <li>• Ambient Temperature: -20 ... 30°C</li> <li>• Indication on material</li> </ul>	7,620.00	7,620.00
15.	1	pc	<p>Quick-and Precision Plug-in Coupling</p> <ul style="list-style-type: none"> <li>• Quick coupling sockets/plugs KD/KS, shut-off on one side, polymer material</li> <li>• Nominal Size: 7.2mm</li> <li>• Operating Pressure (bar): -0.95 ... +12</li> <li>• Ambient Temperature (°C): -10 ... +60</li> <li>• Maximum Standard Nominal Flow Rate (l/min): 1,350</li> </ul>	16,350.00	16,350.00
16.	1	pc	<p>Signal Input Plate, electrical, voltage 24V DC</p> <ul style="list-style-type: none"> <li>• Contact assembly: 1 normally-open contact, 1 normally-closed contact</li> <li>• Maximum Contact Rating: 2A</li> <li>• Power Consumption (Miniature Lamp): 0.48W</li> <li>• Connections for 4mm safety connector plug</li> </ul>	39,300.00	39,300.00
17.	1	pc	<p>Relay, 3-off</p> <ul style="list-style-type: none"> <li>• Voltage: 24V DC</li> <li>• Contact Assembly: 4 change-over contacts</li> <li>• Maximum Contact Rating: 5A</li> <li>• Maximum Contact Interrupt Rating: 90W</li> <li>• Pick-up Time: 10ms</li> <li>• Drop-Off Time: 8ms</li> </ul>	39,300.00	39,300.00
18.	1	pc	<p>Limit Switch, electrical, left actuated</p> <ul style="list-style-type: none"> <li>• Voltage: 24V DC</li> </ul>	8,100.00	8,100.00

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
			<ul style="list-style-type: none"> <li>• Maximum Contact Rating: 5A</li> <li>• Maximum Switching Frequency: 200Hz</li> <li>• Reproducible Switching Accuracy: 0.2mm</li> <li>• Switch Travel: 2.7mm</li> <li>• Actuation Force: 5N</li> <li>• Connection for 4mm safety connector plug</li> </ul>		
19.	1	pc	Limit Switch, electrical, right actuated <ul style="list-style-type: none"> <li>• Voltage: 24V DC</li> <li>• Maximum Contact Rating: 5A</li> <li>• Maximum Switching Frequency: 200Hz</li> <li>• Reproducible Switching Accuracy: 0.2mm</li> <li>• Switch Travel: 2.7mm</li> <li>• Actuation Force: 5N</li> <li>• Connection for 4mm safety connector plug</li> </ul>	8,100.00	8,100.00
20	1	pc	Proximity Sensor, optical, M12 (diffuse sensor) <ul style="list-style-type: none"> <li>• Type of Light: Red</li> <li>• Working Range: 70 – 300mm</li> <li>• Setting Option: Potentiometer</li> <li>• Swivel Range: 210 degrees</li> <li>• Operating Voltage: 10 – 30V DC</li> <li>• Residual Ripple: ≤10%</li> <li>• Idle Current: ≤30 mA</li> </ul>	23,550	23,550.00
21.	2	pcs	5/2-Way Double Solenoid Valve with LED <ul style="list-style-type: none"> <li>• Design Structure: Piston slide, piloted, manual override, detenting/pushing</li> <li>• Pressure Range: 150 – 800 kPa (1.5 – 8 bar)</li> <li>• Switching Time at 600kPa (6 bar Reversal): 7ms</li> <li>• Standard Nominal Flow Rate: 200 l/min</li> <li>• Medium Temperature: -5 - +60°C</li> <li>• Pneumatic connection for plastic tubing with 4mm O.D.</li> <li>• Operating Voltage: 24V DC</li> <li>• Residual Ripple: ≤10%</li> <li>• Duty Cycle: 100%</li> <li>• Ambient Temperature: -5 - +60°C</li> <li>• Protection Class: IP 40</li> </ul>	31,500.00	63,000.00
22.	2	pcs	Pressure Sensor with Display, 0 – 10 bar (0 – 1,000 kPa) <ul style="list-style-type: none"> <li>• With switching output, analog output and display</li> </ul>	38,100.00	76,200.00

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
			<ul style="list-style-type: none"> <li>Operating Voltage: 15 – 30V DC</li> <li>Maximum Residual Ripple: 10%</li> <li>Analog Output: 0 – 10V</li> <li>Switching Output: PNP</li> <li>Output Function: N/O or N/C contact, switchable</li> <li>Maximum Switching Current: 150Ma</li> <li>Protection Class: IP 65</li> </ul>		
23.	1	pc	<p>One-Way Flow Control Valve</p> <ul style="list-style-type: none"> <li>Pressure Range: 20 – 1000 kPa (0.2 – 10 bar)</li> <li>Standard Nominal Flow Rate in Throttled Direction: 0 – 85 l/min</li> <li>Free Flow Direction: 100 – 110 l/min</li> <li>Connection: QS-4 plastic tubing PUN 4 x 0.75</li> </ul>	2,773.00	2,773.00
24.	1	pc	<p>Double-acting Cylinder, Pneumatic</p> <ul style="list-style-type: none"> <li>Medium compressed air, filtered (lubricated or unlubricated)</li> <li>Design: Piston Cylinder</li> <li>Maximum Operating Pressure: 1000 kPa (10 bar)</li> <li>Piston Diameter: 8mm</li> <li>Maximum Stroke Length: 100mm</li> <li>Thrust at 600kPa (6 bar): 189N</li> <li>Return Force at 600kPa (6 bar): 158N</li> <li>Connection: QS-G1/8-4 fittings for plastic tubing PUN 4 x 0.75</li> </ul>	15,900.00	15,900.00
25.	1	pc	<p>Proximity Sensor, inductive</p> <ul style="list-style-type: none"> <li>Size: M12</li> <li>Sensing Range: 0 – 4mm</li> <li>Standard Calibrating Plate: 12mm x 12mm x 1mm</li> <li>Repetition Accuracy: 0.2mm</li> <li>Type of Mounting: Non-flush</li> <li>Setting Option: Potentiometer</li> <li>Swivel Range: 210 degrees</li> <li>Operating Voltage: 10 – 30V DC</li> <li>Permissible Residual Ripple: ≤10%</li> <li>Idle Current: ≤30Ma</li> </ul>	13,200.00	13,200.00
26.	1	pc	<p>Proximity Sensor, capacitive</p> <ul style="list-style-type: none"> <li>Size: M12</li> <li>Sensing Range: 0 – 4mm</li> <li>Standard Calibrating Plate: 12mm x 12mm x 1mm</li> <li>Type of Mounting: Non-flush</li> <li>Setting Option: Potentiometer</li> <li>Swivel Range: 210 degrees</li> </ul>	24,450.00	24,450.00

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
			<ul style="list-style-type: none"> <li>Operating Voltage: 10 – 36V DC</li> <li>Permissible Residual Ripple: ≤10%</li> <li>Idle Current: ≤30Ma</li> </ul>		
27.	1	set	48mm Safety Laboratory Cable Set <ul style="list-style-type: none"> <li>98pcs per set (10 x 50mm red, 10 x 50mm blue, 26 x 300mm red, 11 x 300mm blue, 21 x 500mm red, 12 x 500mm blue, 3 x 1000mm red, 3 x 1000mm blue, 1 x 1500mm red, 1 x 1500mm blue)</li> </ul>	64,950.00	64,950.00
28.	1	pc	Fluid Sim <ul style="list-style-type: none"> <li>Brief instruction guide</li> <li>CD/manual instruction guide to activate pneumatic and hydraulic components in training packages with CD-ROM</li> </ul>	2,335.00	2,335.00
29.	1	pc	EasyPort UB Interface <ul style="list-style-type: none"> <li>Connection of software/simulation for actual training equipment/all PLCs 7-segment display, alarm systems, level crossings, elevators, garage doors, multi-level parking garages, sluice gates, sorting systems, hot water tanks, washing machines, wind generators</li> </ul>	62,250.00	62,250.00
30.	1	pc	Quick-Fix Screw Adapter, slotted profile plate, attachment for slotted profile plate	4,035.00	4,035.00
31.	1	pc	Universal Terminal Unit, digital <ul style="list-style-type: none"> <li>Input: 3 safety sockets, 8 three wire sensors</li> <li>Output: 2 safety socket for 8 actuators</li> <li>Connection: 4mm safety sockets for 24V DC</li> <li>I/O Status Display: LED</li> </ul>	46,950.00	46,950.00
32.	1	pc	Sys-link-cable, 2.5m length, I/O data cable for connecting SysLink Interface	11,550.00	11,550.00
33.	1	unit	Compressor <ul style="list-style-type: none"> <li>Oil lubricated, very quiet 45dB (A) compressor</li> <li>Ideal for classroom use</li> <li>With pressure reducer and water separator</li> <li>Maximum Pressure: 800kPa (8 bar)</li> <li>Suction Capacity: 50 l/min</li> <li>Tank Volume: 24L</li> <li>Compressed Air Outlet: ¼" or KD4</li> <li>Noise Level: 45dB (A)/1m</li> <li>Maximum Duty Cycle: 50%</li> </ul>	160,350.00	160,350.00

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
			<ul style="list-style-type: none"> <li>pressure regulator with gauge</li> <li>Version: 230V/50Hz</li> </ul>		
34.	1	lot	Compressor Accessories <ul style="list-style-type: none"> <li>Coupling Socket KD3 CK-4, KD ¼-A, Coupling Plug (KS4 – CK-4, Tubing (6 x 1 silver 2.5m) set</li> </ul>	5,623.50	5,623.50
<b>TOTAL AMOUNT</b>					<b>950,000.00</b>


2. The quotation must be submitted to the Supply Office through mail, fax or email at the contact details listed below **on or before 5:00 PM of October 12, 2020**.

Address : Supply Office, Administration Building  
 Cavite State University  
 Indang, Cavite

E-mail : supplyoffice@cvsu.edu.ph

Telefax : (046) 862-0852

3. The CvSU reserves the right to reject any or all quotations and/or proposals and waive any formalities/informalities therein and to accept such bids it may consider as most advantageous to the agency and to the government. CvSU neither assumes any obligation for whatsoever losses that may be incurred in the preparation of bids, nor does it guarantee that an award will be made.

  
**PRECIOSA G. ERAÑA**  
 BAC Secretary, Goods and Services