



BIDS AND AWARDS COMMITTEE FOR GOODS, SUPPLIES, AND SERVICES

August 25, 2022

Bid Bulletin No. 2 Modifications in the Bid Data Sheet, Technical Specifications and Bidding Forms

This Bid Bulletin no. 2 is issued to modify or amend items in the Bidding Documents for project:
“Infrastructure and Smart Campus Development, Operationalization of Face-to-Face Classes and Upgrading/Procurement of Equipment (16 - Station Mechatronics Laboratory) (G-2022-18)” This shall form an integral part of the said Bidding Documents.

I. Section III. Bid Data Sheet

ITB Clause	FROM	TO
5.3	For this purpose, contracts similar to the Project shall be: a. Refers to Supply and Delivery of Mechatronics 16 Station Trainer b. Completed within the last three (3) years prior to the deadline for the submission and receipt of bids.	For this purpose, contracts similar to the Project shall be: a. <u>Various Engineering Equipment related to the project at hand.</u> b. Completed within the last three (3) years prior to the deadline for the submission and receipt of bids.

II. Section VII. Technical Specifications

Item	FROM	TO
Station 5 Storage Warehousing System 1 Unit		
	Memory 10000 (Program Memory) Steps, 32000 (Data Memory)	Memory 10000 (Program Memory) Steps, 32000 (Data Memory) <u>Words</u>
	Output Current 2:00:00 am	<u>Output Current 2A</u>
Station 6 Dismantling System 1 Unit		
	Acrylic Glass	Acrylic Glass
	Screw Conveyor System	Screw Conveyor System
	DC Motor	DC Motor
	Outlet	Outlet
	Isolated Switch	Isolated Switch

	Emergency Stop	Emergency Stop
	Acrylic Glass	<u>(delete- double entry)</u>
	Screw Conveyor System	<u>(delete- double entry)</u>
	DC Motor	<u>(delete- double entry)</u>
	Outlet	<u>(delete- double entry)</u>
	Isolated Switch	<u>(delete- double entry)</u>
	Emergency Stop	<u>(delete- double entry)</u>
Station 13 Master Controller System 1 Unit		
	Memory 10000 (Program Memory) Steps, 32000 (Data Memory)	Memory 10000 (Program Memory) Steps, 32000 (Data Memory) <u>Words</u>
	Output Current 2:00:00 am	<u>Output Current 2A</u>
Station 14 P&ID Factory Automation Process System 1 Unit		
	Programmable Logic Controller Practice with Digital and Analog	Programmable Logic Controller Practice with Digital and Analog <u>input/output</u>
	Pressure Transducer Controller 140psi loop connection controller	Pressure Transducer Controller 140psi loop connection controller <u>20 TPS</u>
Station 15 Synchronization Machine Generator 1 Unit		
	Generator (Mechanical) Magnet Generator 3 Phase Alternator	Generator (Mechanical) Magnet Generator 3 Phase Alternator <u>Synchronous Generator</u>
COMPLIANCE		
1	Preferably with a Brochure/Catalogue of the item being	Preferably with a Brochure/Catalogue of the item being <u>offered</u>
4	With Training for Faculty: 10 days	With Training for Faculty: <u>2 weeks</u>

III. Bidding Forms

FROM	TO
	Statement of Compliance Comply/ Not Comply (SAMPLE)
	Please see attached <u>Annex "A"</u>

Note:

- 1. Item, description, quantity and unit not mentioned above are without modifications and will remain as it is in the bidding documents**
- 2. Modified/additional entries are underlined, bold and italicized.**

This Supplemental/ Bid Bulletin no. 2 is issued this 25th day of August, 2022 for guidance and information of all concerned.


Dr. DOLLY P. MAROMA
 Chairperson, BAC for Goods, Supplies & Services

Section VII. Technical Specifications

Item	Description	Qty./ unit	Statement of Compliance
1	Station 1 Upward Feeder System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Elevator Feeder, Distributing in one at the time upward orientation.		COMPLY
	>Upside down Transferring using Gripper, Rotary Cylinder and Rod less for product 1 transferring system.		COMPLY
	Specs:		COMPLY
	Twin Guide Cylinder		COMPLY
	Angular Gripper		COMPLY
	Rotary Cylinder		COMPLY
	Rodless Cylinder		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	5/3 way Double Solenoid		COMPLY
	Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC1 (brand A)		COMPLY
	Number of Inputs and Type		COMPLY
	16 - Digital, Option Cards Available		COMPLY
	Number of Outputs and Type		COMPLY
	14 - Relay, Option Cards Available		COMPLY
	Expandable		COMPLY
	100 ~ 240VAC		COMPLY
	Communications USB,		COMPLY
	Memory Size		COMPLY
	32K Words		COMPLY
	Mounting Type		COMPLY
	Chassis Mount, DIN Rail		COMPLY
	Magnetic Reed Switch		COMPLY
	Proximity Sensor 24VDC		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY

	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY
2	Station 2 Drilling System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Transfer the product 1 to drill the inner top		COMPLY
	>spraying compress air to clean the inside body		COMPLY
	Specs: Twin Guide Cylinder		COMPLY
	Compact Cylinder		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC2 (brand B)		COMPLY
	Number of Inputs and Type		COMPLY
	24 - Digital, Option Cards Available		COMPLY
	Number of Outputs and Type		COMPLY
	16 - Relay, Option Cards Available		COMPLY
	Expandable		COMPLY
	24VDC Power Input		COMPLY
	Communications USB,		COMPLY
	Mounting Type		COMPLY
	Chassis Mount, DIN Rail		COMPLY

	Magnetic Reed Switch		COMPLY
	Proximity Sensor		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	DC Motor 24VDC		COMPLY
	Conveyor system		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY
3	Station 3 Assembly System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Insert Product 2 to the top side of product 1. pick up by vacuum		COMPLY
	>Then transferring the 2 products using the base cache mounted in rod less cylinder		COMPLY
	Specs:		COMPLY
	Twin Guide Cylinder		COMPLY
	Vacuum Suction with Generator		COMPLY
	Rodless Cylinder		COMPLY
	Compact Cylinder		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	5/3 way Double Solenoid		COMPLY
	Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY

	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC3 (brand C)		COMPLY
	Number of Inputs and Type		COMPLY
	20 – Standard Digital Input		COMPLY
	4-Fast Digital Input		COMPLY
	Number of Outputs and Type		COMPLY
	16 - Relay, Option Cards Available		COMPLY
	Expandable		COMPLY
	110-220VAC Power Input		COMPLY
	Communications USB,		COMPLY
	Mounting Type		COMPLY
	Chassis Mount, DIN Rail		COMPLY
	Magnetic Reed Switch		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Product 2 Silo		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY
4	Station 4 Aerial Picker Puncher System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Picking the product assembled to base 2 then connect the product 3		COMPLY

	>Then transferring the Assembled product to the last warehouse storage station		COMPLY
	Specs:		COMPLY
	Rodless Cylinder		COMPLY
	Twin Guide Cylinder		COMPLY
	Rotary Cylinder		COMPLY
	Double rod Cylinder		COMPLY
	Angular Gripper		COMPLY
	Vacuum Suction with Generator		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	5/3 way Double Solenoid Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC4 (brand D)		COMPLY
	MPU points: (22DI + 16DO)		COMPLY
	Program capacity: 8k steps		COMPLY
	COM port: Built-in RS-232 & RS-485 ports, compatible with Modbus ASCII/RTU protocol. Can be master or slave.		COMPLY
	High-Speed Pulse Output : Supports 4 points (Y0 ~ Y3) of independent high-speed (max. 10kHz) pulse output		COMPLY
	Supports PID Auto-tuning : DVP-SS2 saves parameters automatically after the PID auto temperature tuning is completed.		COMPLY
	Built-in High-Speed Counters		COMPLY
	Magnetic Reed Switch		COMPLY
	Fiber Optic Sensor		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Cable Rack		COMPLY
	Aluminum Profile Base and Working area		COMPLY

	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY
5	Station 5 Storage Warehousing System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Picking the product assembled to base 2 then connect the product 3		COMPLY
	>Then transferring the Assembled product to the warehouse storage station		COMPLY
	Specs:		COMPLY
	Rotary Cylinder		COMPLY
	Double Rod Cylinder		COMPLY
	Angular Gripper		COMPLY
	Twin Guide Cylinder		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC5 (brand E)		COMPLY
	Number of Inputs 24 (DC)		COMPLY
	Output Type Relay		COMPLY
	Voltage Category 20.4 → 26.4 V dc		COMPLY
	Input Type DC		COMPLY
	Number of Outputs 16 (Relay)		COMPLY
	Network Type USB		COMPLY
	Communication Port Type USB 1.1		COMPLY
	Program Capacity 10000 Steps		COMPLY
	Programming Language Used Ladder Logic		COMPLY
	Programming Interface Computer		COMPLY
	Mounting Type DIN Rail		COMPLY
	Battery Backup Yes		COMPLY
	Number of Communication Ports 1		COMPLY

	Maximum Operating Temperature+55°C		COMPLY
	Memory 10000 (Program Memory) Steps, 32000 (Data Memory) Words		COMPLY
	Output Current 2A		COMPLY
	Magnetic Reed Switch		COMPLY
	Fiber Optic Sensor		COMPLY
	Proximity Sensor		COMPLY
	Micro Switch		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Screw Conveyor System		COMPLY
	DC Motor		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY
6	Station 6 Dismantling System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Dismantling Stage 1, 3 arms working simultaneous		COMPLY
	>Then transferring the dismantled product to the next station		COMPLY
	Specs:		COMPLY
	Twin Guide Cylinder		COMPLY
	Rotary Cylinder		COMPLY
	Double Rod Cylinder		COMPLY
	Twin Guide Cylinder		COMPLY
	Angular Gripper		COMPLY
	Parallel Gripper		COMPLY
	Vaccum Suction with Generator		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY

	Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC6 (brand F)		COMPLY
	MPU points: (22DI + 16DO)		COMPLY
	Program capacity: 8k steps		COMPLY
	COM port: Built-in RS-232 & RS-485 ports, compatible with Modbus ASCII/RTU protocol. Can be master or slave.		COMPLY
	High-Speed Pulse Output : Supports 4 points (Y0 ~ Y3) of independent high-speed (max. 10kHz) pulse output		COMPLY
	Supports PID Auto-tuning : DVP-SS2 saves parameters automatically after the PID auto temperature tuning is completed.		COMPLY
	Built-in High-Speed Counters		COMPLY
	Magnetic Reed Switch		COMPLY
	Proximity Sensor		COMPLY
	Micro Switch		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Screw Conveyor System		COMPLY
	DC Motor		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY

Item	Description	Qty./ unit	Statement of Compliance
7	Station 7 Conveyor Positioning System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Conveyor and Trasporting product piece		COMPLY
	>All motors are control		COMPLY
	Specs:		COMPLY
	Compact Cylinder		COMPLY
	Rotary Cylinder		COMPLY
	Twin Guide Cylinder		COMPLY
	Vacuum Suction with Generator		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC7 (brand G)		COMPLY
	Number of Inputs 24 (Digital Input, 2 switch as Analogue Input)		COMPLY
	Output Type Digital, Transistor		COMPLY
	Voltage Category 24 V dc		COMPLY
	Input Type Analogue, Digital		COMPLY
	Number of Outputs 22 (Digital Output, Transistor Output)		COMPLY
	Network Type Ethernet		COMPLY
	Communication Port Type Ethernet, Profinet, UDP		COMPLY
	Program Capacity 50 Kb		COMPLY
	Programming Interface Profinet		COMPLY
	Programming Language Used FBD, LAD, SCL		COMPLY
	Mounting Type DIN Rail, Wall Mount		COMPLY
	Output Current 500 mA		COMPLY
	Maximum Operating Temperature+60°C		COMPLY
	Width90mm		COMPLY
	Number of Communication Ports1		COMPLY
	Magnetic Reed Switch		COMPLY
	Photo Cell Sensor		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY

	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Belt Conveyor System		COMPLY
	Gear Motor		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY
8	Station 8 Storing Spare Parts System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Segregation Operation points		COMPLY
	>Storing all parts and Arranging		COMPLY
	Specs:		COMPLY
	Rodless Cylinder		COMPLY
	Double Rod Cylinder		COMPLY
	Angular Gripper		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC8 (brand H)		COMPLY
	Max. number input/output: 32		COMPLY
	No. of inputs: 16		COMPLY
	No. of outputs: 16		COMPLY
	Type of output: Relay		COMPLY
	Power supply: 100-240V AC		COMPLY
	Power consumption: 40va		COMPLY
	Output Current 500 Ma		COMPLY
	Maximum Operating Temperature +60°C		COMPLY
	Width 90mm		COMPLY
	Number of Communication Ports 1		COMPLY

	Magnetic Reed Switch		COMPLY
	Proximity Sensor		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Gravity Conveyor		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY
9	Station 9 Transfer Arm System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Transferring parts of all product 2		COMPLY
	>Formation of Product 2 ready to Deliver		COMPLY
	Specs:		COMPLY
	Rotary Cylinder		COMPLY
	Twin Guide Cylinder		COMPLY
	Parallel Gripper		COMPLY
	Compact Cylinder		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC9 (brand I)		COMPLY
	Number of Inputs24 (Digital Input, 2 switch as Analogue Input)		COMPLY
	Output Type Digital, Transistor		COMPLY
	Voltage Category 24 V dc		COMPLY
	Input Type Analogue, Digital		COMPLY
	Number of Outputs 22 (Digital Output, Transistor Output)		COMPLY

	Network Type Ethernet		COMPLY
	Communication Port Type Ethernet, Profinet, UDP		COMPLY
	Program Capacity 50 Kb		COMPLY
	Programming Interface Profinet		COMPLY
	Programming Language Used FBD, LAD, SCL		COMPLY
	Mounting Type DIN Rail, Wall Mount		COMPLY
	Output Current 500 mA		COMPLY
	Maximum Operating Temperature +60°C		COMPLY
	Width 90mm		COMPLY
	Number of Communication Ports 1		COMPLY
	Magnetic Reed Switch		COMPLY
	Proximity Sensor		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Belt Conveyor		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY
10	Station 10 Delivery Arm System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Gripper picker will transfer the product 1 to drill the inner top.		COMPLY
	>spraying compress air to clean the inside body		COMPLY
	Specs:		COMPLY
	Twin Guide Cylinder		COMPLY
	Angular Gripper		COMPLY
	Double Rod Cylinder		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	Filter, Regulator & Lubricator		COMPLY

	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC10 (brand J)		COMPLY
	Number of Inputs 24 (Digital Input, 2 switch as Analogue Input)		COMPLY
	Output Type Digital, Transistor		COMPLY
	Voltage Category 24 V dc		COMPLY
	Input Type Analogue, Digital		COMPLY
	Number of Outputs 22 (Digital Output, Transistor Output)		COMPLY
	Network Type Ethernet		COMPLY
	Communication Port Type Ethernet, Profinet, UDP		COMPLY
	Program Capacity 50 Kb		COMPLY
	Programming Interface Profinet		COMPLY
	Programming Language Used FBD, LAD, SCL		COMPLY
	Mounting Type DIN Rail, Wall Mount		COMPLY
	Output Current 500 mA		COMPLY
	Maximum Operating Temperature +60°C		COMPLY
	Width 90mm		COMPLY
	Number of Communication Ports 1		COMPLY
	Magnetic Reed Switch		COMPLY
	Proximity Sensor		COMPLY
	Through Beam Sensor		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Air Blower System		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Belt Conveyor		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY

11	Station 11 Catching Arm System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Insert Product 2 to the top side of product 1. pick up by vacuum		COMPLY
	>Then transferring the 2 products using the base cache mounted in rod less cylinder		COMPLY
	Specs:		COMPLY
	Rodless Cylinder		COMPLY
	Twin Guide Cylinder		COMPLY
	Angular Gripper		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	5/3 way Double Solenoid		COMPLY
	Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Vacuum Suction with Generator		COMPLY
	Air Compressor (Silent Type)		COMPLY
	Station 11		COMPLY
	PLC11 (brand K)		COMPLY
	Number of Inputs 24 (Digital Input, 2 switch as Analogue Input)		COMPLY
	Output Type Digital, Transistor		COMPLY
	Voltage Category 24 V dc		COMPLY
	Input Type Analogue, Digital		COMPLY
	Number of Outputs 22 (Digital Output, Transistor Output)		COMPLY
	Network Type Ethernet		COMPLY
	Communication Port Type Ethernet, Profinet, UDP		COMPLY
	Program Capacity 50 Kb		COMPLY
	Programming Interface Profinet		COMPLY
	Programming Language Used FBD, LAD, SCL		COMPLY
	Mounting Type DIN Rail, Wall Mount		COMPLY
	Output Current 500 mA		COMPLY
	Maximum Operating Temperature +60°C		COMPLY
	Width 90mm		COMPLY
	Number of Communication Ports 1		COMPLY
	Magnetic Reed Switch		COMPLY
	Proximity Sensor		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY

	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY

Item	Description	Qty./ unit	Statement of Compliance
12	Station 12 Final Storage System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Picking the product assembled to base 2 then connect the product 3		COMPLY
	>Then transferring the Assembled product to the last warehouse storage station		COMPLY
	Specs:		COMPLY
	Rodless Cylinder		COMPLY
	Rotary Cylinder		COMPLY
	Twin Guide Cylinder		COMPLY
	Double Rod Cylinder		COMPLY
	Gripper Angular		COMPLY
	Vaccum Suction with Generator		COMPLY
	Multi Connector Valve System		COMPLY
	5/2 way Single Solenoid		COMPLY
	5/3 way Double Solenoid		COMPLY
	Filter, Regulator & Lubricator		COMPLY
	Hand Slide Valve		COMPLY
	Flow Control Valve		COMPLY
	Air Compressor (Silent Type)		COMPLY
	PLC12 (brand L)		COMPLY
	Number of Inputs 24 (Digital Input, 2 switch as Analogue Input)		COMPLY
	Output Type Digital, Transistor		COMPLY
	Voltage Category 24 V dc		COMPLY
	Input Type Analogue, Digital		COMPLY
	Number of Outputs 22 (Digital Output, Transistor Output)		COMPLY
	Network Type Ethernet		COMPLY
	Communication Port Type Ethernet, Profinet, UDP		COMPLY
	Program Capacity 50 Kb		COMPLY
	Programming Interface Profinet		COMPLY
	Programming Language Used FBD, LAD, SCL		COMPLY
	Mounting Type DIN Rail, Wall Mount		COMPLY
	Output Current 500 mA		COMPLY
	Maximum Operating Temperature +60°C		COMPLY
	Width 90mm		COMPLY
	Number of Communication Ports 1		COMPLY
	Magnetic Reed Switch		COMPLY

	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Selector Switch 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
	Pneumatic Accessories		COMPLY
	Caster Wheel		COMPLY
	Acrylic Glass		COMPLY
	Gravity Conveyor System		COMPLY
	Outlet		COMPLY
	Isolated Switch		COMPLY
	Emergency Stop		COMPLY
13	Station 13 Master Controller System	1 UNIT	COMPLY
	Default Operation:		COMPLY
	>Wireless Power-up per station		COMPLY
	>Then transferring the Assembled product to the last warehouse storage station		COMPLY
	>5 PLC's in 1 cum trainer		COMPLY
	>Multi brand PLC Practice Experiment Features >Touch Screen and Computer based controlled		COMPLY
	Specs:		COMPLY
	PLC13 (brand M)		COMPLY
	Master Controller		COMPLY
	5 Cum PLC		COMPLY
	SCADA SYSTEM		COMPLY
	Servo Driver and Servo MOTOR		COMPLY
	PLC13-1(brand N)		COMPLY
	Max. number input/output: 6		COMPLY
	No. of inputs:		COMPLY
	No. of outputs: 4		COMPLY
	Type of output: Relay		COMPLY
	Power supply: 100-240V AC		COMPLY
	Power consumption: 40va		COMPLY
	Output Current 500 Ma		COMPLY
	Maximum Operating Temperature +60°C		COMPLY
	Width 90mm		COMPLY

	Number of Communication Ports1		COMPLY
	PLC13-2 (brand O)		COMPLY
	Number of Inputs and Type		COMPLY
	6 – Standard Digital Input		COMPLY
	Number of Outputs and Type		COMPLY
	4 - Relay, Option Cards Available		COMPLY
	Expandable		COMPLY
	110-220VAC Power Input		COMPLY
	Communications USB,		COMPLY
	Mounting Type		COMPLY
	Chassis Mount, DIN Rail		COMPLY
	PLC13-3 (brand P)		COMPLY
	Number of Inputs 6 (DC)		COMPLY
	Output Type Relay		COMPLY
	Voltage Category 20.4 → 26.4 V dc		COMPLY
	Input Type DC		COMPLY
	Number of Outputs 4 (Relay)		COMPLY
	Network Type USB		COMPLY
	Communication Port Type USB 1.1		COMPLY
	Programming Language Used Ladder Logic		COMPLY
	Programming Interface Computer		COMPLY
	Mounting Type DIN Rail		COMPLY
	Battery Backup Yes		COMPLY
	Number of Communication Ports 1		COMPLY
	Maximum Operating Temperature +55°C		COMPLY
	Memory 10000 (Program Memory) Steps, 32000 (Data Memory) Words		COMPLY
	Output Current 2A		COMPLY
	PLC13-4 (brand Q)		COMPLY
	MPU points: (8DI + 6DO)		COMPLY
	Program capacity: 8k steps		COMPLY
	COM port: Built-in RS-232 & RS-485 ports, compatible with Modbus ASCII/RTU protocol. Can be master or slave.		COMPLY
	High-Speed Pulse Output : Supports 4 points (Y0 ~ Y3) of independent high-speed (max. 10kHz) pulse output		COMPLY
	Supports PID Auto-tuning : DVP-SS2 saves parameters automatically after the PID auto temperature tuning is completed.		COMPLY
	Built-in High-Speed Counters		COMPLY
	PLC13-5 (brand R)		COMPLY

	Number of Inputs and Type		COMPLY
	6 - Digital, Option Cards Available		COMPLY
	Number of Outputs and Type		COMPLY
	4 - Relay, Option Cards Available		COMPLY
	Expandable		COMPLY
	100 ~ 240VAC		COMPLY
	Communications USB,		COMPLY
	Memory Size		COMPLY
	32K Words		COMPLY
	Mounting Type		COMPLY
	Chassis Mount, DIN Rail		COMPLY
	Delta Human Machine Interface		COMPLY
	Power Supply 24VDC 6 Amp.		COMPLY
	Circuit Breaker 2pole		COMPLY
	Control Relay LY4 with base		COMPLY
	Pilot Light LED		COMPLY
	Pushbutton 22MM		COMPLY
	Aluminum Profile Base and Working area		COMPLY
	Electrical Accessories		COMPLY
14	Station 14 P&ID Factory Automation Process System	1 UNIT	COMPLY
	Subject Area:		COMPLY
	> Temperature Process Control Measurement		COMPLY
	> Flow Process Control Measurement		COMPLY
	> Level Process Control Measurement		COMPLY
	> Pressure Process Control Measurement		COMPLY
	> Heater System (Heat Exchanger type)		COMPLY
	>HMI Operation /Computer (PC) online operated		COMPLY
	> PID Tuning Practice		COMPLY
	> Real Time Indication		COMPLY
	> Calibration		COMPLY
	> 4-20mA Current Loops		COMPLY
	> 4-20mA Programmable Display		COMPLY
	Features:		COMPLY
	> Learn the basic ideas of process control to Students, Professors, technicians, process operators and control engineers.		COMPLY
	> Actual Training of closed and open-loop continuous control		COMPLY
	> Can be use PID Tuning		COMPLY
	> Water Medium Circulation with Heater System Process		COMPLY

	> Programmable Logic Controller Practice with Digital and Analog input/output		COMPLY
	> Three Phase Pump Motor Controlled by Variable Frequency Drive to Pump the Hot Water to Tank		COMPLY
	Specs:		COMPLY
	Push Button 22mm dia 1 green 1 red Illuminated		COMPLY
	Pilot Light 22mm dia 1 green 1 red 24vdc		COMPLY
	Control Panel 500x700x250		COMPLY
	Circuit Breaker 10Amps 2 pole ans 2amps 2pole		COMPLY
	Magnetic Contactor 1HP 230VAC 3 phase		COMPLY
	Overload Relay 1HP design range		COMPLY
	Motor Circuit Breaker 2 pole 10amps 20kaic		COMPLY
	Power Supply 6amps 230vac/24VDC		COMPLY
	Control Relay Relay 2no 2nc		COMPLY
	Variable Frequency Drive Delta type MS Series 230VAC		COMPLY
	Wires and Cable TF wire #22 and thhn wire #14		COMPLY
	Emergency Stop Standard		COMPLY
	Induction Pump Motor 1/2 hp 230vac 3 phase		COMPLY
	Electrical accessories (wire duct, dinrail, spiral wrapping, cable gland, terminal lug, terminal block, cable tie, wire marker, tie mount, etc.		COMPLY
	Square tube SUS304		COMPLY
	Caster Wheel swivel type Twisted Wheel / Lock		COMPLY
	SUS plate Support wheel		COMPLY
	Bolt and nut Based on actual Construction		COMPLY
	Bracket Profile Bracket		COMPLY
	Open Tank Fabrication SUS materials 450x500		COMPLY
	Heat Exchanger Fabrication Jacketed type Fabrication		COMPLY
	Sight Glass, Pipes and Fittings 1/2 pipe size illuminated type		COMPLY
	Bolt and Nut Based on actual Construction		COMPLY
	Stand fabrication see dimension figure		COMPLY
	Base Fabrication		COMPLY
	Ball Valve 3/4npt		COMPLY
	Gate Valve 3/4 npt		COMPLY
	Relief Valve 1/2 npt 30psi		COMPLY
	Check Valve 1/2 npt		COMPLY
	SUS Plate 304 Fabrication see dimension figure		COMPLY
	Temperature Indicator Controller DTC Series Temp. controller 1001R		COMPLY
	Water Level Sensor Ultrasonic Sensor Switch 24VDC		COMPLY

	Gauge Dial type 30psi 1/4 NPT		COMPLY
	Pressure Transducer Controller 140psi loop connection controller 20 TPS		COMPLY
	Solid State Relay PID Controlled Temp Controller		COMPLY
	Flow Transmitter Analog Output Transducer		COMPLY
	Solenoid valve 1" 24VDC npt1.1		COMPLY
	Immersion Heater 1 1/4 NPT 6"x230VAC 1000 Watts		COMPLY
	Control Valve Modulation 2-way Motorized Valve 1/2" Model: R213AC + TR24-SR		COMPLY
	Level Transducer Ultrasonic Transmitter with analog output		COMPLY
	Thermocouple RTD Type Sensor		COMPLY
	PLC14 (brand S)		COMPLY
	Number of Inputs and Type		COMPLY
	12 - Digital (8), Analog (4)		COMPLY
	Number of Outputs and Type		COMPLY
	8 - Analog (2), Relay (6)		COMPLY
	Expandable		COMPLY
	Expandable		COMPLY
	Voltage - Supply		COMPLY
	24VDC		COMPLY
	Display Type		COMPLY
	No Display		COMPLY
	Number of Characters Per Row		COMPLY
	Communications		COMPLY
	RS-232, RS-485, USB		COMPLY
	Memory Size		COMPLY
	10K Words		COMPLY
	Mounting Type		COMPLY
	Chassis Mount, DIN Rail		COMPLY
	Human Machine Interface (HMI)		COMPLY
	DTC temp Controller DTC Series Temp. controller 1001R		COMPLY
	Devices Communication Cable		COMPLY
	Machine Male/female trainer Plug		COMPLY
	Panel Meter Voltage and Ampere Dial Type		COMPLY
	Ultrasonic with analog output		COMPLY
15	Station 15 Synchronization Machine Generator	1 UNIT	COMPLY
	Mechatronics Charger System		COMPLY
	Enclosure Panel Enclosure IP65 Ingress Protection		COMPLY

	Push Button 22mm dia 1 green 1 red Illuminated		COMPLY
	Pilot Light 22mm dia 1 green 1 red 24vdc		COMPLY
	Volt Meter 0-300VAC Panel Meter		COMPLY
	Ampere Meter 0-5Amp 220V Panel Meter		COMPLY
	Frequency Meter 45-65Hz 220V Panel Meter		COMPLY
	Power Factor Cos Panel Meter		COMPLY
	Watt Meter 0-400 W Panel Meter		COMPLY
	Circuit Breaker with Shunt Trip 10amps 2 pole and 2amps 2pole		COMPLY
	Control Relay relay 2no 2nc		COMPLY
	Wires and Cable tf wire #22 and thhn wire #14		COMPLY
	Synchroscope Analog Synchronising Panel Meter		COMPLY
	Emergency Stop 22mm Latch lock Push button		COMPLY
	Electrical accessories (wire duct, din rail, spiral wrapping, cable gland, terminal lug, terminal block, cable tie, wire marker, tie mount, etc.		COMPLY
	Square tube		COMPLY
	Caster Wheel swivel type Twisted Wheel / Lock		COMPLY
	SUS plate Support wheel		COMPLY
	Bracket Profile Bracket		COMPLY
	Fabrication and Machining		COMPLY
	Generator (Mechanical) Magnet Generator 3 Phase Alternator Synchronous Generator		COMPLY
	Rated Power: 200W		COMPLY
	Rated Voltage: 12V		COMPLY
	Rated Speed: 1100rpm		COMPLY
	Step Up Transformer 12 V to 220 VAC		COMPLY
	HMI		COMPLY
	1. Human Machine Interface:		COMPLY
	HMI Operation /Computer (PC) online operated		COMPLY
	DOP B100 Delta HMI		COMPLY
	7"(800*480) 65,536 Colors TFT		COMPLY
	Cortex-A8 800MHz CPU		COMPLY
	256 MB RAM		COMPLY
	256 MB ROM		COMPLY
	2 sets of COM ports / 1 extension COM port		COMPLY
16	Station 16 Cooling Tunnel HVAC Robotic System	1 UNIT	COMPLY
	Specs		COMPLY
	1. Human Machine Interface:		COMPLY
	HMI Operation /Computer (PC) online operated		COMPLY

	DOP B100 Delta HMI		COMPLY
	7"(800*480) 65,536 Colors TFT		COMPLY
	Cortex-A8 800MHz CPU		COMPLY
	256 MB RAM		COMPLY
	256 MB ROM		COMPLY
	2 sets of COM ports / 1 extension COM port		COMPLY
	2. Programmable Logic Controller		COMPLY
	PLC 15 (brand T)		COMPLY
	MPU points: 14 (8DI + 6DO)		COMPLY
	Max. I/O points: 494 (14 + 480)		COMPLY
	Program capacity: 8k steps		COMPLY
	COM port: Built-in RS-232 & RS-485 ports, compatible with		COMPLY
	Modbus ASCII/RTU protocol.		COMPLY
	High-Speed Pulse Output : Supports 4 points of independent		COMPLY
	high-speed pulse output		COMPLY
	Built-in High-Speed Counters		COMPLY
	3. Mimic Board		COMPLY
	Mimic Simulator of Refrigeration Trainer, P&ID configuration simulation with pilot light		COMPLY
	Acrylic Board and with Schematic Drawing Print out		COMPLY
	Additional tools and accessories: Screwdriver Set, Tape Measure, Toolbox, Hammer, Duct Tape, Set of Pliers, Utility Knife and Wrench		COMPLY
	Compliance:		COMPLY
	1. Preferably with a Brochure/catalogue of the item being offered		COMPLY
	2. Preferably with Manufacturer's Authorization Form or Certificate as Authorized Distributor/Reseller or Certificate of Registration as Manufacturer/Fabricator		COMPLY
	3. Preferably with a Warranty Certificate from Manufacturer and/or Supplier/Authorized Reseller		COMPLY
	4. With Training for Faculty: 2 weeks		COMPLY
	5. Three (3) years warranty on parts and services with lifetime support		COMPLY
	Contract Implementation: The supplier must advise the Supply Office of the delivery schedule at least three (3) calendar days before the actual delivery.		COMPLY

I understand and swear to comply and deliver all the above requirements.

CONFORME:

Company Name : _____
Address : _____
Complete Name of
Authorized Representative: _____
Signature : _____
Date : _____