



**TENDER FOR "UPGRADATION OF ELECTRICAL AND
ELECTRONICS LABORATORY"
AT INDIAN MARITIME UNIVERSITY, MUMBAI PORT CAMPUS
TENDER No: IMU-MPC/PUR/2020-21/Upgrade E&E Lab./14**

Issue Date: 02nd April, 2021

CORRIGENDUM – I

Following corrigendum is issued with respect to the "Upgradation of Electrical and Electronics Laboratory tender:

| Page No. and Para No. | Existing Clause | Clarification/ New Clause | | | | |
|---|---|--|------------|---|---------------------------------|------------|
| Page No. 3, Para No.2 (2.1) | a) The bidder should have satisfactorily completed three similar works during the last two years each costing not less than 40% of the present estimated cost i.e. Rs. 3,60,000/- in Central Government/ State Govt. / PSUs / Private Organizations/ Marine Training Institute; OR | a) The bidder should have satisfactorily completed three similar works during the last two years each costing not less than 40% of the present estimated cost i.e. Rs. 5,60,000/- in Central Government/ State Govt. / PSUs / Private Organizations/ Marine Training Institute; OR | | | | |
| | b) Two similar works during last two years each costing not less than 50% of the present estimated cost i.e. Rs. 4,50,000/- in Central Government/ State Govt. / PSUs / Private Organizations/ Marine Training Institute; OR | b) Two similar works during last two years each costing not less than 50% of the present estimated cost i.e. Rs. 7,50,000/- in Central Government/ State Govt. / PSUs / Private Organizations/ Marine Training Institute; OR | | | | |
| | c) One similar work during last two years each costing not less than 80% of the present estimated cost i.e. Rs. 7,20,000/- in Central Government/ State Govt. / PSUs / Private Organizations/ Marine Training Institute. | c) One similar work during last two years each costing not less than 80% of the present estimated cost i.e. Rs.11,20,000/- in Central Government/ State Govt. / PSUs / Private Organizations/ Marine Training Institute. | | | | |
| Page No. 7, Para No.12, "Section A" (12.1) - | Sr. No. | Name of Equipment | Qty | Sr. No. | Name of Equipment | Qty |
| | 1 | Digital Oscilloscope | 01 | 1 | Digital Oscilloscope | 01 |
| | 2 | Digital Multimeter | 03 | 2 | Digital Multimeter | 03 |
| | 3 | 8085 Microprocessor trainer kit | 04 | 3 | 8085 Microprocessor trainer kit | 04 |
| | 4 | 8051 Microcontroller kit | 04 | 4 | 8051 Microcontroller kit | 04 |
| | 5 | Air Circuit Breaker Trainer with Power Supply & Controls | 01 | 5 | Oil Mist Detector | 01 |
| | 6 | | | Air Circuit Breaker Trainer with Power Supply & Controls | 01 | |
| 7 | Function Generator (Digital) | | | 01 | | |
| Page No. 13, Annexure –I Section A | Revised Technical Specification and Compliance Matrix Of "Section A" enclosed with this Corrigendum. | | | | | |
| Page No. 27 | Revised Price Bid of "Section A" enclosed with this Corrigendum. | | | | | |

Revised Technical Specification and Compliance Matrix**"SECTION A"**

| Sl. No. | Name of the Equipment | Qty | Specifications | Compliance to Specification YES/NO |
|----------------------------|-----------------------|-----------------------------|--|---------------------------------------|
| 1 | Digital Oscilloscope | 01 No. | • Brand New | |
| | | | • Bandwidth: 100 MHz | |
| | | | • No. of Channels : 2 | |
| | | | • Sampling Rate : 1 Gsa/Sec | |
| | | | • Vertical Resolution : 8 bits | |
| | | | • Memory Depth :2 Mpts | |
| | | | • Acquisition Mode: Normal/Average/Peak detect | |
| | | | • Max Input Voltage : 400 V | |
| | | | • Input Impedance: 1 MΩ | |
| | | | • Accessories: 2 probes, Power cord | |
| | | | • User Manual | |
| | | | • Minimum 3years warranty | |
| | | • Additional 2 years of AMC | | |
| 2 | Digital Multimeter | 03 Nos. | • Brand New | |
| | | | • DC voltage :upto 600V | |
| | | | • AC voltage :upto 600V | |
| | | | • DC current: upto 10A | |
| | | | • AC current: upto 10A | |
| | | | • Resistance :upto 10MΩ | |
| | | | • Resolution : 3 ½ digits (2000 steps) | |
| | | | • DC V Accuracy : +/-0.5% | |
| | | | • Range selection: Multi range | |
| | | | • Diode test, continuity test features | |
| | | | • Data hold, Auto Power Off | |
| | | | • Accessories :Probes | |
| | | | • User manual | |
| • Minimum 3 years warranty | | | | |

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|--|---------------------------------------|------------|---|--|
| 3 | 8085 Microprocessor trainer kit | 04 Nos. | • Brand New | |
| | | | • ROM: 8K | |
| | | | • RAM: 8K | |
| | | | • Peripherals :8255 port, 8253 timer | |
| | | | • Onboard DAC, ADC | |
| | | | • Battery backup for RAM, | |
| | | | • 20x2 LCD display | |
| | | | • Accessories : Power cord | |
| | | | • User manual | |
| | | | • Minimum 3 years Warranty | |
| | | | • Additional 2 years AMC | |
| 4 | 8051 Microcontroller kit | 04 Nos. | • Brand New | |
| | | | • Built-in power supply | |
| | | | • Programmer support | |
| | | | • PC interface | |
| | | | • On board key pad | |
| | | | • LCD display | |
| | | | • Accessories : Power cord, interconnection cables | |
| | | | • User manual | |
| | | | • Minimum 3 years Warranty | |
| | | | • Additional 2 years AMC | |
| 5 | Oil Mist Detector | 01 No. | • Brand New | |
| | | | • Marine type instrument suitable for Diesel engines | |
| | | | • For training purpose | |
| | | | • Should be a current model commonly used in ships from reputed manufacturers - Schaller VN115/87, Graviner Mark 6 , Daihatsu MD-9M or equivalent | |
| | | | • Using latest technology | |
| | | | • Should be complete with 1 Sensor unit to demonstrate the working by simulating oil mist externally | |
| | | | • Should include User manuals, cables/tubings | |
| | | | • Minimum 3 years warranty | |
| • Additional 2 years AMC | | | | |
| • Should include Installation in the lab | | | | |

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|---|--|--------|--|--|
| 6 | Air Circuit Breaker Trainer with Power Supply & Controls | 01 No. | <ul style="list-style-type: none"> • Brand New | |
| | | | <ul style="list-style-type: none"> • Marine type ACB Trainer | |
| | | | <ul style="list-style-type: none"> • ACB to EDO, with electronic trip protection, UV, remote ON/OFF facilities | |
| | | | <ul style="list-style-type: none"> • Standalone panel with necessary metering & signal generation for creating alarms and trips | |
| | | | <ul style="list-style-type: none"> • Metering and indications are required by Marine Class to be provided | |
| | | | <ul style="list-style-type: none"> • Marine type approved components to be used | |
| | | | <ul style="list-style-type: none"> • Interface for monitoring parameters / status on remote PC to be provided | |
| | | | <ul style="list-style-type: none"> • Should include User manuals, cables/tubings | |
| | | | <ul style="list-style-type: none"> • Minimum 3 years warranty | |
| | | | <ul style="list-style-type: none"> • Additional 2 years AMC | |
| 7 | Function Generator (Digital) | 01 No. | <ul style="list-style-type: none"> • Brand New | |
| | | | <ul style="list-style-type: none"> • Bandwidth upto 3 MHz | |
| | | | <ul style="list-style-type: none"> • Sine, square and triangular waveforms | |
| | | | <ul style="list-style-type: none"> • 20 V peak to peak | |
| | | | <ul style="list-style-type: none"> • Should include User manuals, cables | |
| | | | <ul style="list-style-type: none"> • Minimum 3 years warranty | |
| | | | <ul style="list-style-type: none"> • Additional 2 years AMC | |

REVISED PRICE BID

UPGRADATION OF ELECTRICAL AND ELECTRONICS LABORATORY

[On the Letter head of the Bidder and to be put in sealed cover]

"SECTION A"

SUPPLY, INSTALLATION AND AMC OF ELECTRICAL AND ELECTRONICS LABORATORY EQUIPMENT

(Amount in Rs.)

| Sl. No. | Name of the Equipment | Make & Model | Qty. in Nos. | Price of the equipment | AMC Charges for 1 st year after Warrantee | AMC Charges for 2 nd year after Warrantee | Total |
|---------|---|--------------|--------------|------------------------|--|--|-------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 = (3+4+5) |
| 1 | Digital Oscilloscope | | 01 | | | | |
| 2 | Digital Multimeter | | 03 | | | | |
| 3 | 8085 Microprocessor trainer kit | | 04 | | | | |
| 4 | 8051 Microcontroller kit | | 04 | | | | |
| 5 | Oil Mist Detector | | 01 | | | | |
| 6 | Air Circuit Breaker Trainer with Power Supply & Controls | | 01 | | | | |
| 7 | Function Generator (Digital) | | 01 | | | | |
| | Total: | | | | | | |
| | (Total in _____ WORD) | | | | | | |
| | The rates quoted above should be only the unit price (i.e. inclusive of basic price, transportation and any other charges) and exclusive of GST and any cess on GST. | | | | | | |

Date:
Place:

Stamp & Signature of Bidder