



**No.A2/353/2012/MPTC**

**07/06/2013**

From

The Principal

To

The Advertising Manager  
The Hindu  
Ernakulam..

Sir,

Sub: Model polytechnic college Mattakkara- Advertisement of tender notice- Reg.

Please see the tender notice bearing No.A2/353/2012/MPTC dated 07/06/2013 forwarded herewith. The same may kindly be published in your daily using minimum space in kerala edition. The bill along with the voucher copy of the advertisement may be forwarded to this office for release of payment. This may kindly be treated as most urgent.

Yours faithfully,

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Encl: As stated

**MODEL POLYTECHNIC COLLEGE,  
MATTAKKARA**

**Detailed Item Specification - Proposal No. 11**

SI.No	Name of Items/ Specification	Qty Rqd
1	<p>Power Supply</p> <p>Specifications:</p> <p>Linear Power Supply 0-32V/0-2A DC Dual Output PowerSupply Constant Voltage Mode Regulation: - Line: + 0.01% + 2mV for + 10% change in line output. Load: + 0.01% + 2mV for load change from zero to full load. Ripple and Noise : 1mV rms max.20Hz-20MHz. Constant Current Mode Regulation: -Line: + 0.1% + 250<math>\mu</math>A for + 10% line change . Load: + 0.1% + 250<math>\mu</math>A for change in output voltage from 0 Volts to maximum output voltage Ripple and Noise : 0.04 rms. Output Polarity: Floating w.r.t. ground. Over load protection : Automatic overload and short circuit protection</p>	20

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**MODEL POLYTECHNIC COLLEGE, MATTAKKARA**  
**Detailed Item Specification - Proposal No. 21**

<b>Slno</b>	<b>Item</b>	<b>Qty</b>
1	<p><b>Mobile Phone Servicing Tool</b></p> <p>Specifications:</p> <p>Mobile Phone Servicing Tools and Equipments Kit including Screwdrivers,Powered Screwdrivers, Microscopes,Magnifying Lamp, Soldering,Infra-Red Re-Work Stations, Cleaning,PC Cables,Power Solutions, Openers,Cutters,Power Cutters</p>	6
2	<p><b>Telephone Demonstration kit</b></p> <p>Specifications:</p> <p>Telephone Demonstration kit</p>	8
3	<p><b>Telephone set</b></p> <p>Specifications:</p> <p>Telephone set</p>	20
4	<p><b>EPABX, Demonstration</b></p> <p>Specifications:</p> <p>EPABX, demonstration board</p>	2
5	<p><b>FAX Machine Demonstration</b></p> <p>Specifications:</p> <p>FAX Machine G2 level (demo model)</p>	4
6	<p><b>Mobile Phone</b></p> <p>Specifications:</p> <p>Mobile Phone</p>	10
7	<p><b>Soldering Iron</b></p> <p>Specifications:Soldering iron 25w with stand</p>	10
8	<p><b>Radio</b></p> <p>Specifications:</p> <p>Radio Receiver Trainer</p>	4
9	<p><b>TV demonstration kit</b></p> <p>Specifications: TV demonstration kit (36cm) TV Receiver in open form with all components &amp;controls placed on single PCB.</p>	2

**MODEL POLYTECHNIC COLLEGE,  
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**Detailed Item Specification - Proposal No. 22**

Slno	Item	Qty
1	<b>Lead free soldering station</b> Specifications: Lead free soldering station	8
2	<b>Solder Pot</b> Specifications: Solder Pot	8
3	<b>De-soldering gun</b> Specifications: De-soldering gun	8
4	<b>Digital Torque Meter</b> Specifications: Digital Torque Meter	2
5	<b>USB Microscope</b> Specifications: USB Microscope	2
6	<b>Smart-tweezers</b> Specifications: Smart-tweezers	10
7	<b>Air Dispenser</b> Specifications: Air Dispenser	2
8	<b>Servo Controller</b> Specifications: 1 $\Phi$ Servo Stabilizer with over/under voltage cut off and time delay. I/P : 170 – 270V , O/P : 230V + 1% .	10
9	<b>Motor Driver</b> Specifications: Motor Driver	10
10	<b>Stepper Motor</b> Specifications: Stepper Motor	20
11	<b>High Torque DC Motor</b> Specifications: High Torque DC Motor	5

12	<b>Ultrasonic Range Sensors</b> Specifications: Ultrasonic Range Sensors	10
13	<b>Optical Range Sensors</b> Specifications: Optical Range Sensors	10
14	<b>Gyroscope and Accelerometers</b> Specifications: Gyroscope and Accelerometers	5
15	<b>Pressure, Force, Tilt Sensors</b> Specifications: Pressure, Force, Tilt Sensors	10
16	<b>Wireless Comm. Modules</b> Specifications: Wireless Comm. Modules	10
17	<b>Quadrotor Kit</b> Specifications: Quadrotor Kit	2
18	<b>Robot Arm Kit</b> Specifications: Robot Arm Kit	5
19	<b>Robot Chassis and Wheels</b> Specifications: Robot Chassis and Wheels	8
20	<b>Tablet PC</b> Specifications: Tablet PC	3
21	<b>CCD camera</b> Specifications: CCD camera	4
22	<b>Wireless webcam</b> Specifications: Wireless webcam	2
23	<b>Temperature Sensors, Humidity Sensors, Flow Sensors, Conductivity Sensors</b> Specifications: Immersion Probe Type	100
24	<b>PIR Sensor</b>	10

	Specifications: PIR Sensor	
25	<b>LCD Display (16 x 2 )</b> Specifications:LCD Display (16 x 2 )	10
26	<b>7 – Segment Display</b> Specifications: 7 – Segment Display	10
27	<b>Active RFID Reader</b> Specifications: Active RFID Reader	4
28	<b>Bluetooth (Dongle)</b> Specifications: Bluetooth (Dongle)	5
29	<b>FM Receiver</b> Specifications: FM Receiver	4
30	<b>FM Transmitter</b> Specifications: FM Transmitter	4
31	<b>ZIGBEE Transceiver</b> Specifications: ZIGBEE Transceiver	6

## MODEL POLYTECHNIC COLLEGE, MATTAKKARA

### Detailed Item Specification - Proposal No. 23

Slno	Item	Qty
1	<p><b>Anti-static soldering station</b></p> <p>Specifications: Accurate and advance temperature control with micro – controller technology. Temperature control Accuracy +/-1 °C. Temperature setting resolution +/-10 °C. Power Consumption – 60W. Input Voltage -190 to 270V. Temperature range -180 - 480°C</p>	8
2	<p><b>PIC AXE Kit</b></p> <p>Specifications:</p> <p>Supports for all 8/14/18/20/2840 pin PICAXE chips.,Computer download circuit pre-configured on PCB.,Large breadboard area.,Regulated power supply or battery powered, with LED power indicator,3 LED indicator outputs.,3 Digital switch inputs.,LDR and preset resistor analogue inputs.,DS18B20 digital temperature sensor,Infra red sensor and LED output,Keyboard connector,Serial (inverted and true (MAX202 buffered)) RS232 connectors,Sockets for I2C and SPI memory chips (not supplied),Socket and battery connector position for DS1307 Real Time Cloc,9V Power Supply,DS1307 Real Time Clock IC,3V CR2032 Lithium Cell,Lithium Cell Holder,25LCxx SPI EEPROM,Radio Control Servo, PS2 style Computer Keyboard, 9 way Serial Cable.</p>	10
3	<p><b>PIC 16F kit with dev. board</b></p> <p>Specifications:</p> <p>40pin-SIF Socket,8 No's. of Point LEDs (Logic Output),8 No's. of Digital Input (DIP Switch),4x4 Matrix Keypad,2X16 Character LCD (Background Light),4 No's. of 7-Segment Display,2 No's of Analog Input (Potentiometer),Temperature Sensor (LM35),Stepper Motor Interface,2 No's of SPST Relay,DS1307 RTC with Batter-Backup,USART(RS232),USB 2.0 Enabled Programmer,Interrupts Study, Reset Button,SPI - EEPROM 25C040,I2C EEPROM 24C04,Digital Temperature Sensor(DS18S20),4x10-Pin Expansion Connector,Piezo Electric Buzzer,Supports Embedded C, ASM,ISP Programming   SPI   I2C Communications,8K-32K FLASH - Program,10MHz crystal, Max = 80 MHz with User Guide HW/SW and CD.</p>	10
4	<p><b>Embedded Assembly Programming Kit</b></p> <p>Specifications:</p> <p>Board supporting 8/14/20-pin mid range PIC microcontrollers, 20-pin PIC16F690 Midrange microcontroller,Lessons on assembly programming that cover I/O, A/D converters, timers, interrupts, and data tables (All source code files are provided), Getting Started in PICBASIC PRO tutorial on developing and debugging in BASIC with a FREE microEngineering Labs PICBASIC PRO™ Demo Compiler (with CD),HI-TECH PICC™ LITE C Compiler with MPLAB IDE.</p>	4



5	<p><b>ARM 9 Trainer Kit</b> Specifications: LPC3250 ARM926EJ-S processor with integrated Memory Management Unit (MMU), 208 MHz core frequency, Microsoft Windows WinCE 5.0 and Linux OS, Vector Floating Point (VFP) co-processor, TFT/STN LCD Controller, 10/100 Mbps Ethernet supporting HP Auto-MDIX, USB OTG Full Speed, 2 x SPI / 2 x SSP, 2 x I<sup>2</sup>C / 2 x I<sup>2</sup>S, 4 x Standard UARTs (1 @ RS-232), 3 x Highspeed UARTs (1 @ RS-232), SDRAM: 64 MB (Optional 16, 32, 128 MB), NOR Flash: 2 MB (Optional 1, 4, 8 MB), NAND Flash: 64 MB (Optional 16, 32, 128 MB), SPI EEPROM: 256 KB (Optional 128 or 256 KB), SD/MMC support (1 slot on Carrier Board), SDIO controller supporting SD, SDIO and CE-ATA devices, Real Time Clock - I<sup>2</sup>C (on-board), Real Time Clock (on-chip), JTAG interface, Single supply 3.15V</p>	4
6	<p><b>Web server Kit</b></p> <p>Specifications:</p> <p>Xport Embedded Device Server, Full TCP/IP stack</p>	1
7	<p><b>Universal Programmer for PIC, ARM, AVR &amp; 8051</b></p> <p>Specifications:</p> <p>Support PIC, ARM, AVR, 8051, Lock of program feature, USB support</p>	1
8	<p><b>SMD Workstation</b></p> <p>Specifications:</p> <p>SMD Work Station Rework System (Soldering, Desoldering &amp; SMD hot air) Safety feature the system is provided with safety feature when the unit is switched "OFF" the pump will release maximum air 24L/min</p>	6
9	<p><b>Soldering Work station</b></p> <p>Specifications:</p> <p>Soldering Work station Soldering Station Digital calibration will be done through micro controller to avoid analog components tolerances</p>	10

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**MODEL POLYTECHNIC COLLEGE, MATTAKKARA**  
**Detailed Item Specification - Proposal No. 24**

<b>Slno</b>	<b>Item</b>	<b>Qty</b>
1	<b>Universal Trainer Kit</b>  Specifications:  Universal Trainer Kit Supports 89c61, PIC 16F877A, ARM LPC 2148, ATMEL ATmega32 Onboard LED display (16nos.), Onboard switch (16 nos.), onboard 16x2 LCD alphanumeric , 4x4 matrix keyboard, buzzer, 12V SPDT relay, 64Kb EEPROM, onboard temperature sensor, onboard 24 I/O line, onboard power supply With ARM Module, PIC Module(16F877A), AVR Module, 89CXX module	10

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## MODEL POLYTECHNIC COLLEGE, MATTAKKARA

### Detailed Item Specification - Proposal No. 25

Slno	Item	Qty
1	<p><b>PIC Embedded Kit PIC 16F877A/18F452</b>                      PIC 16F877A/18F452 Operating at 4MHz ISP Prog. Facility using USB, 8 LEDs Digital output, 8 switches input 16x2 alphanumeric LCD 4 seven segment display 64Kb EEPROM 8bit ADC/DAC Temperature sensor interface, 24 I/O lines on FRC channel</p>	30
2	<p><b>Add on Board</b>                      Specifications:                        Traffic light Controller add on board</p>	5
3	<p><b>PAL Trainer Kit</b>                      Specifications:                        CPU: PLD IC using PALCE16V8 OR PALCE22V10                      Indicators- 16 Toggle Input Switch with LED indication to indicate logic low and logic high - 16 LED for output indication.                      Onboard Interfaces - 2 Digit Seven Segment Displays - 2 Nos. of 28 pin ZIF socket for Experiments                      Mono Pulsar - Logic Pulsar provides single pole double throw bounce less pulses of Low to High and High to Low transition                      Bread Board Area - Two Distribution Strip of 100 tie points each totaling 200 tie points - One Terminal Strip of 630 tie points Clock generator                      - On-board 5MHz, 1MHz, 500KHz , 100KHz, 50KHz,10KHz .                      Programmer to program PLD IC's                      Interconnections- All inputs &amp; outputs are connected through 8 pin burg Cable                      In-Built Power Supply of +5V/1.5A, ±12V/250mA</p>	20
4	<p><b>FPGA Trainer Kit</b>                      Specifications:                        FPGA Trainer Kit                      XILINX SPARTAN XC3S50 FPGA                      Indicators                      - 10/16 Toggle Input Switch with LED indication to indicate logic low and logic high - 10/16 LED for output indication.                      Onboard Interfaces - 4 Digit Seven Segment Displays - On board PS/2 interface                      - On board VGA interface - On board RS-232 interface                      - On-board ISP Programmer for Piggy Bag Modules                      External Interfaces - LCD interface                      Clock generator - On-board 10MHz, 5MHz, 1MHz, 100 KHz &amp; 100 Hz.                      Power selection - On-board of 5V, 3.3V, 2.5V, 1.5V &amp; 1.2V.                      I/O expansions through FRC Connector In-Built Power Supply</p>	10

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**Detailed Item Specification - Proposal No. 28**

<b>Sl.No</b>	<b>Item</b>	<b>Qty</b>
1	Oscilloscope Specifications:  OSCILLOSCOPE 25MHz 2 CHANNEL 4 TRACE WITH COMPONENT TESTER 1mV/div Sensitivity on Both Channels CH1 & CH2 Independent Channels CH1 Signal Output Algebraic Addition and Subtraction X-Y Operation, Sweep speed-0.1µsec/div to 0.2sec/div 20ns/div to 0.2s/div Time Base, ALT MAG. Trace - Max. 4 Traces Scale Illumination, 1:10 High Impedance Probe Trigger Lock Internal: 2.0 div - 50Hz to 20MHz	24

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<b>MODEL POLYTECHNIC COLLEGE, MATTAKKARA</b>		
<b>Detailed Item Specification - Proposal No. 30</b>		
<b>Sl.No</b>	<b>Item</b>	<b>Qty</b>
1	<b>Telescope</b> Specifications: Telescope TS-302 Eye pieces 20x,40x&60x/25mm/16" Body	5
2	<b>Prism</b> Specifications: Prism	20
3	<b>Sodium Vapour Lamp with box</b> Specifications: Sodium Vapour Lamp with box	5
4	<b>Mercury Vapour Lamp with box</b> Specifications: Mercury Vapour Lamp with box	5
5	<b>Optically plane glass plate</b> Specifications: Optically plane glass plate	10
6	<b>Convex lens 50cm</b> Specifications: Convex lens 50cm	20
7	<b>Convex lens 10cm</b> Specifications: Convex lens 10cm	20
8	<b>Convex lens 15cm</b> Specifications: Convex lens 15cm	20
9	<b>Sonometer</b> Specifications: Sonometer	20

	<b>Resonance column</b>	
10	Specifications: Resonance Tube Setup Experiments:- To determine speed of sound with the help of tuning fork. To determine speed of sound with the help of audio transceiver	10
	<b>Spring Balance 0 to 200gms</b>	
11	Specifications: Physical balance capacity 200gms.Accuracy 1mg.In wooden box with glass HSCH	2
	<b>Spring, Stand</b>	
12	Specifications: Spring, Stand	20
	<b>Stopwatch</b>	
13	Specifications: Stopwatch	2
	<b>Stop clock</b> Specifications:Analog	
14		20
	<b>Hard Glass test tube</b>	
15	Specifications: Hard Glass test tube	10
	<b>Thermometer 0 to 100</b>	
16	Specifications: Thermometer 0 to 100	10
	<b>Thermometer 10 to 110</b>	
17	Specifications: Thermometer 10 to 110	5
	<b>Common balance</b>	
18	Specifications: Common balance	10
	<b>Bunsen Burner</b>	
19	Specifications: Bunsen Burner with gas connection	10
	<b>Fume Hood set</b>	
20	Specifications: Fume Hood set	1
	<b>Electric Heater</b>	
21	Specifications: Electric Heater	1

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