



Govt. of Bihar
**MUZAFFARPUR INSTITUTE OF
TECHNOLOGY MUZAFFARPUR - 842003**
(Under the Department of Science & Technology Govt. of Bihar, Patna)

Notice. No.: 112

Dated: 22/09/2018

Rebidding for Electronics & Communication Engineering

M.IT. Muzaffarpur is in the process of procuring the instruments for strengthening the laboratories of Electronics & Communication Engineering Department under TEQIP-III scheme. Details of the instruments and their specifications are provided below. The instruments are to be procured for the following laboratories.

Package Name:

- a. BE (Basic Electronics) Lab
- b. DE (Digital Electronics) Lab
- c. DS (Digital Signal Processing) Lab
- d. MI (Instrumentation) Lab
- e. Microprocessor Lab
- f. Material Lab
- g. AE (Analog Electronics) Lab
- h. ECOM (Communication) Lab

Package wise procurement will be done, Interested supplier/bidders are required to give the following information/documents on principal@mitmuzaffarpur.org latest by 30.09.2018 so that invitation for bidding process can be initiated through PMSS.

1. Supplier Name :
2. Address(With Pin Code):
3. Contact Person Name :
4. E Mail-ID:
5. Mobile No.:
6. TIN/GST No.

Principal
MIT Muzaffarpur

M. H. J.
24/9/18

22-9-18



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MIT Muzaffarpur

Package Name: MITM/ECE/BE/LAB

Sl. No.	Item Name	Item Description/Specification	Quantity
1	Diode & Zener Diode Characteristic	Trainer Kit	5
2	Transistor Characteristic	Trainer Kit	5
3	FET Characteristic	Trainer Kit	5
4	MOSFET Characteristic	Trainer Kit	5
5	SCR, DIAC & TRIAC Characteristic	Trainer Kit	5
6	UJT Characteristic & UJT Relaxation Oscillator	Trainer Kit	5
7	Clipper & Clamper Trainer Kit	Trainer Kit	5
8	Half Wave & Full Wave rectifier Circuit	Trainer Kit	5
9	Inductor	Electrolytic Inductor Box of Different Value	5
10	capacitor	Electrolytic Capacitor Box of Different Value	5
11	Resistance box	Different Values of Resistances	5
12	OP-AMP Characteristic	Trainer Kit	5
13	Bread Board	Bread Board	50
14	OP-AMP	IC-741	100
15	Silicon Diode	IN-4001(IC)	500
16	Transformer	12-0-12 12V - 1A AC Power Transformer	20
17	Bread Board Wire	Single Coil Wire Which is to be Used on Breadboard	1
18	FET	BC-170	100
19	BJT	IC-BC 547	200
20	Voltage Regulator	IC-7812	20
21	Voltage Regulator 1	IC-7805	20

23	IC	IN 47288	50
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Package Name: MITM/ECE/DE-Lab			
Sl. No.	Item Name	Item Description/Specification	Quantity
1	IC	7404	100
2	IC1	7408	100
3	IC2	7432	100
4	IC3	7400	100
5	IC4	7402	100
6	IC5	7486	100
7	IC6	7476	100
8	IC7	7495	100
9	IC8	7410	100
10	IC9	CD4011	100
11	IC10	CD4001	100
12	IC11	LS7420	100
13	IC12	7483	30
14	IC13	74153	30
15	IC14	74139	30
16	IC15	7485	30
17	IC16	74148	30
18	IC17	7447	30
19	IC18	7490	30
20	IC19	74193	30
21	IC20	2114	30
22	IC21	555 TIMER	30
23	DISPLAY	7 SEGMENT	30
24	LED	GREEN,RED,YELLOW	200
25	TTL AND CMOS CHARACTERISTICS TRAINER	0- +5V, 0-12V VARAIBLE POWER SUPPLY	5

Package Name: MITM/ECE/MI-LAB			
Sl. No	Item Name	Item Description/Specification	Quantity
1	30 - 200 MHz Digital Oscilloscope	Dual analog channels and 16 channels logic analyzer, 100 MHz maximum bandwidth, 1GSa/s maximum real-time Sample rate and 25GSa/s maximum equivalent Sample rate	10
2	Function Generator	Up to 200 MSa/sec Sample Rate Harmonic waveform generation Up to 160 built-in waveforms	10
3	0 - 30V / 2A, 15V / 1A Tracking, 5V / 2A Multiple DC Power Supply	Three floating, independent DC supply voltages DC Outputs 0 -30 V/ 2 A, 5 V/ 2 A & 0 ± 15 V Dual Tracking /1 Amp. each Constant Voltage and Constant Current operation	10
4	Strain Measurement Trainer Kit	Kit Working voltage (220-240)VAC Input Frequency 50Hz Input : 230 V AC / 50 Hz Outputs : +5 V / 1 A, -5 V /500 mA, +12 V / 500 mA, -12 V / 500 mA	5
5	LVDT Measurement Trainer Kit	BTC - IT - 01	5
6	Multimeter	Fluke 17B Digital Multimeter operating temperatures of 18 °C to 28 °C, relative humidity at 0 % to 75 %. Accuracy specifications take the form of: ±(% of Reading + Number of Least Significant Digits).	25
7	Microwave Test Bench	NVIS 9000 SERIES OF MICROWAVE TEST BENCH	1
8	Gunn diode microwave test bench	Gunn diode microwave test bench	1

Package Name: MITM/ECE/MICROPROCESSOR LAB			
Sl. No.	Item Name	Item Description/Specification	Quantity
1	8085 Trainer Kit	8K Bytes of EPROM with 8K bytes of Battery Backup RAM 46 I/O Lines, Three Channel Timer/Counter, PC Serial Interface. Seven Segment Display with 28 Keys Hex Keypad. Power-full Command like Single Stepping,	5

		Break Point, Full Clock Execution, Examine Memory/ Register. Uploading & Downloading to and from PC in Windows98/XP/NT.In-Built Power Supply.	
2	8086 Trainer kit	16K Bytes of EPROM with 16K bytes of Battery Backup RAM 72 I/O Lines, Three Channel Timer/Counter, PC Serial Interface using USART, Interrupt Controller.20x2 LCD Display with 101 ASCII Keyboard. Power-full Command like Single Stepping, Break Point, Full Clock Execution, Examine Memory/Register.	5
3	8051 Trainer kit	Interfacing of ADC by connecting a variable voltage supply to the i/p of ADC and by reading the 8 bit output of ADC and display it on 8 LEDs Connected to port lines. Interface DAC to generate different waveforms (like sine, square, triangular and ramp).	5

Package Name: MITM/ ECE/ MATERIAL- LAB			
Sl. No.	Item Name	Item Description/Specification	Quantity
1	Hall Effect Trainer Kit	BTC - 6 Electromagnet: 0-7.5KGauss, Digital Gauss Meter with Probe, Hall Set Up Hall Probe GE Xtal.	3
2	Plank's Constant Using Photo Cell Experiment Kit	Variable dc power supply (0 – 5 V) whose output can be varied in steps of 1 mV. Digital dc Micro ammeter (0-999 μ A dc), Digital Voltmeter (0 – 9.99V dc).	3
3	Four point probe for resistivity and Band Gap Measurement	3½ digit, 7 segment LED with auto polarity and Decimal indication.	3
4	Dielectric Constant Measurement Trainer	T est Sample: Glass, Bakelite &Teflon , LCD Display.	3
5	Biot Savart Law Experiment Kit	Biot Savarts law SK 022, Digital Gauss meter, Optical Bench, Circular loop sets with holder,Flexible plug lead	3
6	Solar Cell	Solar Panel : Consists of 6 solar cells 1.5 VMaximum 150 mA Voltmeter : 0 -10 V Ammeter : 0 - 500 mA Potentiometer : 5 K2 AA Rechargeable NiCdBattery : 1.2 V	3

		Bulb : 1.2 V, 270 mA Fan : 1.5 V, 400 mA FM Band Radio : 12 V	
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Package Name: MITM/ECE/AE - LAB			
Sl. No.	Item Name	Item Description/Specification	Quantity
1	Function generator	Scientific- SM5076-1 3 MHz Function Generators- Counter with Power Supply. 0.3 Hz to 3 MHz Function Generator 15 MHz Frequency Counter Waveforms : Sine, Square, Triangle, DC DC- Offset Adjustment	4
2	Digital storage Oscilloscope	Scientific –SMO1002 100MHz 2 channel digital storage oscilloscope Signal Bandwidth : 100 MHz Real time sampling : Max 1 GSa/s Equivalent sampling rate: Max 50 GSa/s	4
3	Digital Multimeter	SM 7023 3¾ Auto Range Digital Multimeter	5
4	BEL-OPT : Op-Amp Trainer	Covers Op-Amp (741) & its various applications Allows study of timer using 555 IC Study of F/ V, V/ F using LM331 On-board Resistor, Capacitor, Diode and Potentiometer bank of different values.	6
5	BEL-TAT : Transistor Application Trainer	covers the basic applications of transistors such as BJT, FET, MOSFET, UJT etc. On-board resources such as Resistor, Capacitor, Inductor, Diode and Potentiometer banks of different values are provided. On-board regulated variable and isolated power supplies	8

Package Name: MITM/ECE/ECOM-Lab
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Sl. No.	Item Name	Item Description/Specification	Quantity
1	TDM Pulse amplitude modulation & Demodulation trainer kit	TDM trainer Kit ACT 03 On-board 250Hz, 500Hz, 1KHz, 2KHz Sine-wave generator	5
2	PCM modulation & demodulation trainer kit	"ST 8106 8 bit ADC & DAC Data Display on 8 LEDs. PCM Modulator Using 74163 & ADC 0800 PCM Demodulator Using 74165 & DAC0800"	5
3	DPCM trainer kit	ADCT 07 DPCM-ADPCM Modulation-Demodulation Trainer	5
4	Delta Modulation and demodulation trainer kit	Delta Modulation and demodulation trainer kit	5
5	Soldering Machine	Newacalox Adjustable Temperature Soldering Iron Kit 60W Eu Plug 220V	5
6	Printed Circuit Board	General Purpose Perforated PCB 3X2" or 2X3	100
7	Wire Cutter & Stripper	Generally used for stripping wire's PVC etc and also used as a cutter.	20
8	FSK modulation System	"KITEK BCT 11 Bare board Tested Glass Epoxy SMOBC PCB is used. In-Built Power Supply of $\pm 12V/250mA$ with Power ON indication."	5
9	fuse	1 amp	50
10	Sampling & Reconstruction	BJT 2N2222A	50
11	DSB FC generation	LM 1496	30
12	Potentiometer	50 k	30
13	Frequency Modulator	1 BH 62	50

Package Name: MITM/ECE/DS-Lab			
Sl. No.	Item Name	Item Description/Specification	Quantity
1	DSP Trainer Kit	TEXAS –TMS320C6745, 300 MHz (6.67-ns Cycle Time). Fixed/Floating Point Processor. Advanced Motor control. Commercial, Industrial or Automotive Temperature. Signal Processing Applications. Servo drives and motion control.	4