

KARNATAKA REDDYJANA SANGHA

#1, Mahayogi Vemana Road, 3rd Block, Koramangala, Bangalore – 34

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Sealed Tenders are invited from reputed firms to supply Computers / Electronic equipments & Electrical wiring / Mechanical Equipments / CIVIL Lab Equipments/ Software's / Furniture's to Vemana Institute of Technology, Koramangala, Bangalore – 34 and also CIVIL Engineering works like construction of buildings, compound walls, Stone flooring etc., The estimated cost for CIVIL Engineering works is Rs. 25 Lakh's.

1. Key Dates

- | | |
|---------------------------------------|----------------------------|
| - Issue of Tender documents | - 18-02-2010 |
| - Last Date for submission of tenders | - 01-03-2010 up to 3.00 PM |
| - Date of opening of tenders | - 02-03-2010 at 11.00 AM |

2. Completion of work / Equipment Delivery within one month from the date of issue of work order / purchase order.

3. The Tender document may be collected by paying Rs. 250/- and the copy of the receipt should be enclosed along with the quotation, else the quotation will not be accepted.

Submission of Tender Documents at KRJS Head office, No.1, Mahayogi Vemana Road, 3rd Block, Koramangala, Bangalore – 34.

(N. Ramaswamy Reddy)

General Secretary

COMPUTERS / SERVERS / NETWORK – TENDER DOCUMENT

HP Desktop Computers Specification: HP-3090 MODEL - 80 No's	
Processor	: Intel Core2Duo E7500 2.93 Ghz
Cache Memory	: 3MB L2 cache
Motherboard	: Intel Original G43 chipset
FSB	: 1066 MHz
RAM	: 4GB DDR-3 Expandable up to 8GB
Hard Disk	: 320GB SATA
Drive	: DVD R/W Drive
Monitor	: 18.5" Wide screen
Network	: 10/100/1000 Gigabit Ethernet Wireless Network Card
Ports	: 2 Front USB & 6 Rear USB Ports 1 Serial, 1 Parallel, 1 RJ-45 Connectors
Keyboard	: Standard Keyboard - USB
Mouse	: Optical Scroll Mouse – USB
Bays	: 2 External 5.2" & 2 Internal 3.5"
Warranty	: 3/3/3 year's comprehensive warranty.

HP DL 380 SERIES SERVERS	
1 No. Server	HP ProLiant DL380G6 Base Model /(2) Quad-Core Intel Xeon E 5530 Processor (2.4 GHz,) / 8MB (1 x 8MB) Level 3 Cache / 8GB (4 x 2 GB) PC3-10600R (DDR3-1333) Registered DIMMs / HP 4 * 146GB 3G SAS 10K SFF SP HDD / HP Slim SATA DVDRW / Two HP NC382i Dual Port Multifunction Gigabit Server Adapters / HP Smart Array P410i/256MB / (2) 460W Hot Plug Power Supply / RF Std / MS WINDOWS 2008 STD SERVER KIT,
1 No. Storage Server	HP X1400 STORAGE SERVER, 2TB SATA, 1-YEAR 24x7 WARRANTY, MS WINDOWS STORAGE SERVER OPERATING SYSTEM,
6 No's	HP PROCURVE WIRELESS ACCESS POINT J9141A 54 Mbps
200 User license	McAfee Active VirusScan Enterprise Edition (The 2 nd & 3 rd year support (Upgrades and Updates) quote also should be mentioned separately)
25 No's	DDR 400 MHz RAM Transcend Make – 1GB

UPS / ELECTRICAL WIRING

1. UPS FACILITY:

1. 40 KVA APC BRANDED 3PHASE I/P & SINGLE PHASE O/P	:	1 No
EXIDE INDUSTRIAL GRADE TUBULAR BATTERIES 80AH	:	32 NO'S
BATTERY STAND SUITABLE FOR 32 BATTERIES	:	1 NO.

2. ELECTRICAL WIRING FOR 110 COMPUTERS : 110 POINTS

EACH POINT WITH:

- 1 SWITCH
- 1 INDICATOR
- 3 SOCKETS

WITH MATERIAL & LABOUR

FURNITURE / ACCESSORIES

1. FURNITURE:

1. COMPUTER TABLES 3ft X 2ft WITH KEYBOARD TRAY : 80 NO'S

2. COMPUTER CHAIRS WITH WHEELS WITHOUT ARMS : 80 NO'S

(Note: Bottom movable base wheels are to be fixed to 20mm X 10mm, 12 gauge square pipe)

3. TABLES FOR ADE LAB (8ft x 2ft x 2 ½ ft) : 15 NO'S

2. OTHER REQUIREMENTS

1. WHITE BOARDS : 3 NO'S

2. SHOE RACK 6ft : 6 NO'S

3. BOOK RACK : 3 NO'S

4. ALMIRAH : 3 NO'S

VEMANA INSTITUTE OF TECHNOLOGY

DEPARTMENT OF COMPUTER / INFORMATION SCIENCE & ENGG

Equipment Requirement - Tender Document

ADE LAB

Sl no	Equipment	Specification	Quantity
1	Oscilloscope (30 MHZ)	30MHZ specification accoring to the Aplab model No. 3803 30 Mhz, 2 channel, 4 Trace	06
2	Function Generator	Frequency range: 0.1HZ to 20MHZ Max Output V= 20 Vp-p Waves: Sine square, Traingle, Pulse Impedance: 150 W Attenuation: -10db, -20db, -40db DC offset: 0V to +/- 10V variable Operating Tenys: 0° to15°c Symmetry Optim, Coarse and fine tunes knob Digital display :5 digit	06
3	Dual Power Supply	Output Voltage : 0V-30V Output current : 0A-2A Power: 230VAC +/- 10% 50HZ Indicator : Overload & Fuse blow	06
4	Fixed Power Supply	Indicator : Overload & Fuse blow + 5V / 1A, ±12V / 1A	06
5	Digital IC Trainer Kits	2mm /4mm sockets as well as BT 1 -15 Terminal 20 pin Zif socket - 5No seven segment Display - 3 Nos	6
6	IC Tester with components testing facility	(16 character back lit alphanumeric lcd,24 keys key board,20 pin ZIP socket to test DIP ICS:74/54 series digital ic's,Component holder to test components,230v AC operated table-top Equipment	1
7	Decade Resistance Box	1KΩ to 1MΩ SIMS Make	10
8	Digital Multimeter	(Display-3 3/4 digits:17mm large lcd maximum reading 3999,resistance 200 to 200 kΩ,power:9v battery,DC/AC volts-400mv to 1000mv with resolution of 100μv to 1v,DC/Ac current -40mA to 20 mA with resolution, 10 μAmps to 10 m Amps	10
9	Digital voltmeter	(0-50V)DC/AC 4-Digit display.	4
10	Digital ammeter	(0-50mA)DC/AC 4-Digit display.	4

**VEMANA INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING**

Requirements of Lab Equipments/software

Sl. No	Particulars	Specifications	Quantity
1	Hyper works FEA Software	Capable of Analyzing CFD, CRASH, Meshing, Modeling, Composites, Forging, Rolling, Heat Transfer, Dynamic Non-Linear	3 license
2	CAM Software	Capable of Generation of NC codes and Simulation	20 license
3	High- End Configurations Desktops with printers	HDD-320GB, RAM-4GB.LCD 19".Processor – Quad Core	03
4	Induction Furnace for Melting of Light Metals	Volume 5kg material, with 10KW. Medium Frequency	01
5	Drop Weight Impact Testing Machine with accessories	Height-6 to 8 m. Drop Mass = 50kg. with standard accessories for dynamic data acquisition	01
6	Computerized Diesel Engine Test Rig.	10 HP, capable of Characterizing alternate fuels	01
7	Wear Testing Machine (Pin-on- Disc) Digital.	Load Cell of 500N, Motor Speed 3000rpm. Data acquisition,	01
8	Piezo-Electric Load Cell for Impact Applications	400KN, with compatible charge amplifiers for Impact Applications with Charge Amplifiers and Mounting Plates in total	02
9	Piezo-Electric Accelerometer for Impact Applications	Range +/- 500g. Frequency 10 to 20.000Hz. with all accessories	02
10	Lathe Tool Dynamometer	Force 0 to 5KN with Piezo-Electric Load sensors	01

Note: The detailed specifications can be had from the office of the Principal Vemana I.T

VEMANA INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Equipment list-Tender document

Sl. No.	Equipment	Description	Quantity
1	a) PCI Cards(48 lines digital I/O)	8086 Micro processor Lab on Windows-XP	20
	b) Software to support PCI Cards for Windows-XP	8086 Micro processor Lab on Windows-XP	1
2	PCM Kit	Communication using CODEC Model With Power supply	2
3	Spectrum Analyzer	S-band, 3 GHz	1

VEMANA INSTITUTE OF TECHNOLOGY
TELECOMMUNICATION DEPARTMENT
Equipment Requirement
TENDER DOCUMENT

AC & LIC / AE / LD LAB

Sl no	Equipment	Specification	Quantity
1	Digital Storage Oscilloscope (100MHZ)	Specification Enclosed	02
2	Lab station for TE Dept. which includes (DSO, FG, Power supply, DMM, General purpose test kit, Free softwares)	Specification Enclosed	01 set
3	Function Generator	Frequency range: 0.1HZ to 20MHZ Max Output V= 20 Vp-p Waves: Sine square, Traingle, Pulse Impendance: 150 Ω Attenuation: -10db, -20db, -40db DC offset: 0V to +/- 10V variable Operating Tenys: 0° to 15°c Symmetry Optim, Coarse and fine tunes knob Digital display : 5 digit	05
4	Digital IC Trainer Kit	2mm /4mm sockets as well as BT 1 -15 Terminal 20 pin Zif socket - 5No seven segment Display - 3 Nos	06

RJS POLYTECHNIC – Dept. of Civil Engineering**LAB EQUIPMENTS REQUIRED****1. MATERIAL TESTING LAB**

SL. No.	Equipment	Specification	Quantity
1	Compaction Factor apparatus	2 rigid conical hoppers and a cylinder mounted on rigid metal. Circular metal plate to cover the top. One plasterer's trowel and a tamping rod 16mm dia X600mm long, one end rounded	1
2	Cube moulds	Cast iron, 150X150X150 mm	4
3	Impact testing machine	Circular base with two vertical guides, 380+/- 0.5mm, hammer of weight 13.75+/-0.25kg, metal measures 75mm diaX50mm ht & tamping rod 230mm longX10 mm dia	1
4	Sieve	2 mm	1
5	Sieve	1 mm	1
6	Sieve	1.18 mm	1
7	Sieve	425 Micron	1
8	Sieve	75 Micron	1
9	Stop watch	Digital, water resistant	1

2. CONSTRUCTION WORK SHOP

SL. No.	Equipment	Specification	Quantity
1	Crow Bar	Medium size	1
2	Iron Pan	Medium size	1
3	Shovel	Medium size	1
4	Sprit level	Mounted on stand with wooden box	1
5	Mason square	Medium size	1
6	Claw hammer	Medium size	1
7	Brick mould	Medium size	1
8	Float		1
9	Straight Edge	Light weight	1

3. SURVEY LAB

SL. No.	Equipment	Specification	Quantity
1	Electronic dumpy Level	Sprinter 250M, 1.00mm standard deviation	1
2	Electronic Theodolite	5" accuracy	1
3	Prismatic Compass	With Telescopic aluminium stand	5
4	Dumpy Level	9" accuracy, aluminium tripod and fibre box	2
5	Theodolite	20" accuracy, aluminium tripod, wooden box, 300mtrs range and erect image	2

CIVIL ENGINEERING WORKS

1. Construction of additional floor Building at RJS School at Roopena Agrahara. Estimated Cost of Rs 22 lakh's.
2. Construction Compound wall for balance portion at Kasavanahalli. Estimated Cost of Rs 27 lakh's.
3. Providing & laying Granite flooring of RJS College block. Estimated Cost of Rs 15 lakh's.

**For details of CIVIL Engineering works please contact Mr. Ramesh, CIVIL Engineer
Mobile No. 09449995110**

ENCLOSED SPECIFICATIONS FOR TELECOMMUNICATION DEPARTMENT

Performance characteristics

Digital Storage Oscilloscope

Bandwidth (-3dB) ¹	DSO1002A, DSO1004A : DC to 60 MHz DSO1012A, DSO1014A : DC to 100 MHz DSO1022A, DSO1024A : DC to 200 MHz
Real-time sample rate	2 GSa/sec half channel ³ , 1 GSa/sec each channel
Memory depth	20 kpts half channel ³ , 10 kpts each channel
Channels	DSO1002A, DSO1012A, DSO1022A : 2 channels DSO1004A, DSO1014A, DSO1024A : 4 channels
Vertical resolution	8 bits
Vertical range	2 mV/div to 5 V/div
DC gain accuracy ¹	2 mV/div to 5 mV/div: ± 4.0% full scale 10 mV/div to 5 V/div: ± 3.0% full scale
Vertical zoom	Vertical expand
Maximum input voltage	CAT I 300 Vrms, 400 Vpk; transient overvoltage 1.6kVpk
Dynamic range	±6 div
Time-base range	DSO102xA: 1 nsec/div to 50 sec/div DSO101xA : 2 nsec/div to 50 sec/div DSO100xA : 5 nsec/div to 50 sec/div
Selectable BW limit	20 MHz
Horizontal modes	Main (Y-T), XY, delayed zoom and roll
Input coupling	DC, AC and ground
Input impedance	1 MΩ ±1% in parallel with 18 pF ± 3 pF
Time scale accuracy ¹	± 50 ppm from 0 °C to 30 °C, ± 50 ppm + 2 ppm per °C from 30 °C to 45 °C + 5 ppm × (years since manufacture)

¹ Denotes warranted specifications, all others are typical. Specifications are valid after a 30-minute warm-up period and ±10°C from firmware calibration temperature.

² 20 MHz (when vertical scale is set to < 5 mV)

³ Half channel is when only one channel of channel pair 1-2 or 3-4 is turned on.







Performance characteristics

Digital Storage Oscilloscope

Acquisition modes:	
Normal	Displays sampled data directly to the screen in real time
Averaging	Selectable from 2, 4, 8, 16, 32, 64, 128 or 256
Sequence	Selectable 1 to 1,000 acquisition frames can be recorded, played back and stored in the scope memory or external USB memory
Peak detect	Captures high-frequency glitches as narrow as 10 nsec when viewing signals at slow sweep speeds (slower than 5 μ sec/div)
Roll	Waveform display rolls from left to right. Minimum horizontal scale setting is 50 msec/div.
Interpolation	Sinx/x
Trigger coupling	AC, DC, LF reject
Trigger modes	
Force	Triggers immediately when front panel button is pressed
Edge	Triggers on the positive or negative slope on any channel
Video	Triggers on NTSC, PAL or SECAM video signals
Pulse width	Triggers on pulse width greater than, equal to or less than a specific time limit, ranging from 20 nsec to 10 sec
Alternate	Triggers on two non-synchronized active channels
Trigger source	2-channel models: Ch 1, 2, Ext, Ext/5, AC Line (edge only) 4-channel models: Ch 1, 2, 3, 4, Ext, Ext/5, AC Line (edge only)
Trigger sensitivity ¹	≥ 5 mV/div: 1 div from DC to 10 MHz, 1.5 div from 10 MHz to full bandwidth < 5 mV/div: 1 div from DC to 10 MHz, 1.5 div from 10 MHz to 20 MHz
Cursor measurement	Manual, track waveform or automatic measurement selections. Manual and track waveform selections provide readout of Horizontal (X, ΔX , 1/ ΔY) and Vertical (Y, ΔY)
Auto measurement	
Voltage	Maximum, minimum, peak-to-peak, top, base, amplitude, average, RMS, overshoot, preshoot
Time	Period, frequency, rise time, fall time, + width, - width, +duty cycle, -duty cycle, delay A->B (rising edge), delay A->B (falling edge), phase A->B (rising edge) and phase A->B (falling edge)
Counter	Integrated 6-digit frequency counter on any channel. Counts up to the scope's bandwidth (200 MHz max)
Display all measurements	Mode to display all single-channel automatic measurements simultaneously on the display
Math functions	A+B, A-B, AxB, FFT Source channel selection for A and B can be any combination of oscilloscope channels 1 and 2 (or 3 and 4 on DS01xx4A).
AutoScale	Finds and displays all active channels, sets edge trigger modes on highest numbered channels, sets vertical sensitivity on channels, time base to display ~ 2 periods. Requires minimum voltage > 20 mVpp, 1% duty cycle and minimum frequency > 50 Hz
Display	5.7 inch diagonal color QVGA TFT LCD display with 300 cd/m ² backlight intensity
Display persistence	OFF, Infinite
Display types	Dots, Vectors
Waveform update rate	400 waveforms/sec
Save/Recall internal	10 setups and 10 waveforms can be saved and recalled using internal non-volatile memory locations. 1 reference waveform can be saved and recalled using an internal volatile memory location for visual comparisons.
Save/Recall external	Setups: STP saved and recalled Waveforms: WFM saved and recalled, CSV saved Reference waveforms: REF saved and recalled for visual comparisons Images: 8-bit BMP, 24-bit BMP, PNG saved

¹ Denotes warranted specifications, all others are typical. Specifications are valid after a 30-minute warm-up period and $\pm 10^\circ\text{C}$ from firmware calibration temperature.

Multipurpose Lab Station

					
<p>3000/6000 Series Oscilloscope</p>	<p>33220A Function Generator</p>	<p>34405A Digital Multimeter</p>	<p>E3630A/1A Triple Output Power Supply</p>	<p>82357B GPIB/USB adapter</p>	<p>Electronic Instruments Trainer Kit</p>
<p>Understand design challenges and how to overcome them using Agilent revolutionary digital or mixed-signal oscilloscopes.</p> <ul style="list-style-type: none"> • 2 or 4 analog channels and 16 digital channels for complete insight into mixed-signal designs. • High sampling rate of 2-GSa/sec for the best signal integrity. • Fast waveform update of up to 100,000 per second, to capture the most elusive of signals and ensure a thorough, hands-on debugging. 	<p>The 33220A Function Generator offers uncompromising performance for function and waveform generation.</p> <ul style="list-style-type: none"> • Generate signals of your choice, up to 20 MHz, with the flexibility to change all signal parameters. • Built-in modulation capability makes it a good source for generating common modulated signals such as AM, FM and PM. • Generation of a custom, application-specific signal is made possible by the Function Generator's Direct Digital Synthesis platform. Custom values for different instances of the waveform can be stored in the internal memory and then accurately generated. 	<p>This feature-rich, affordable measurement tool is the latest member in the Agilent DMM family.</p> <ul style="list-style-type: none"> • Diode test and continuity well-suited to perform industry-standard measurements with five % digit accuracy. • Temperature from -80 degree Celsius to 150 degree Celsius. • Capacitance from 1000 pF to 1000 uF. 	<p>A stable and accurate power supply like the E3630A/1A is at the heart of every instrumentation system.</p> <ul style="list-style-type: none"> • Resolution of 0.5 mV and 0.1 mA. • Low noise and excellent regulation. • 3 programmable outputs 0 V to 6 V/0 A to 5 A, 0 V to -25 V/0 A to 1 A (E3631A). 	<p>Gain the ultimate speed and efficiency by connecting your PC or laptop to your test and measurement instruments.</p> <ul style="list-style-type: none"> • The Agilent 82357B USB/GPIB interface provides instant connections, enabling a direct connection from the USB port on your PC to GPIB instruments. • There are no switches to set and no PC cards to install. 	<p>The Trainer Kit provides a learning and teaching solution for electronic instrumentation. It offers:</p> <ul style="list-style-type: none"> • Eight modes of operation. • Pre-written labs, procedures and other teaching materials • Multi-language content.

Ordering Information

Multipurpose Lab Station

The XXXXXX Multipurpose Lab Station consists of the following standard equipment and software:

Advanced Lab

The solution for your circuit, digital and communication classes.

Scope Options	MS06012A	2+16-channel, 100-MHz mixed signal oscilloscope
	MS06014A	4+16-channel, 100-MHz mixed signal oscilloscope
	DS06012A	2-channel, 100-MHz oscilloscope
	DS06014A	4-channel, 100-MHz oscilloscope
Power Supply	E3631A	DC power supply, triple output: 0 to 25 V, 0 to 1 A; 0 to -25 V, 0 to 1 A; 0 to 6 V, 0 to 5 A, 80 W
Multimeter	34405A	Digital multimeter, 5.5 digit
Function Generator	33220A	20-MHz Function/Arbitrary Waveform Generator
Interface Module	82357B	USB/GPIB interface
Training Kit	U3000A	EI Training Kit
Software	W1141B	VEE Pro 8.5
	89600SPC-HE1	VSA software

Basic Lab

The lowest priced lab setup for your most popular classes.

Scope Options	DSO3062A	2-channel, 60 MHz, 1-GSa/s oscilloscope
	DSO3102A	2-channel, 100 MHz, 1-GSa/s oscilloscope
Power Supply	E3630A	Laboratory DC power supply, triple-output
Multimeter	34405A	Digital multimeter, 5.5 digit
Function Generator	33220A	20-MHz Function/arbitrary waveform generator
Training Kit	U3000A	EI training kit