

Ramgarh Engineering College, Ramgarh (Jharkhand)

(Estd. by Govt. of Jharkhand & Run by Techno India under PPP)

Quotations are invited for the following equipment related to the project under CRS scheme.

Faculty id: 1-4265665060

CRS application id: 5729020403

Sr. No.	Items/Equipments	Quantity
1.	A Computerized universal data acquisition system for human parameters (ECG, Heart Sound, BP, EEG etc.) measuring and recording system alongwith analysis software.	01
2.	Hospital Bed (Fully Motorized)	01
3.	BP Measuring device (Electronic)	01
4.	Stethoscope	01
5.	Computer system with UPS	01
6.	Inverter with Two batteries	01+02
7.	Tread mill	01
8.	Computer Table	01
9.	Chair for Computer system operator	01
10.	Revolving Office Chair (Executive)	01
11.	Office Table (Executive)	01
12.	Table for equipments	02
13.	Metal Almirah	01
14.	Air Conditioner (Required for patient/human data acquisition system room)	01

Note: The required components/Setup with detailed specification is described in the **Annexure 1**.

Those who are interested. can send their Sealed quotation to be submitted/ delivered at the address mentioned below, **Ramgarh Engineering College, Vill-Murubanda P.O- Barkipona P.S-Rajrappa project Dist- Ramgarh Jharkhand Pin-825101.**

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Annexure-1

Sr. No.	Items/Equipments	Specifications	Quantity
1.	A Computerized universal data acquisition system for human parameters (ECG, Heart Sound, BP, EEG etc.) measuring and recording system alongwith analysis software.	<p>The system should contain the following features:</p> <ol style="list-style-type: none"> 1- It should have minimum four channels with high speed USB based data acquisition system. 2- Range should be +/- 20mV to 10 V and sampling rate of 400 kHz. 3- ADC resolution should be 24 bits on all gain ranges and variable sampling speed on each channel. 4- There should be in-build Constant Current & Constant Voltage Isolated stimulator unit with Current range 0-20mA, compliance voltage 100V, Integrated and synchronized with software. 5- Dual channel Bio-potential amplifiers for recording ECG, EMG, EEG, EOG etc. 6- ECG recording with multi - leads phonocardiogram to record heart sounds and correlate the sound with the electrical events of the cardiac cycle. Real time Cardiac & Vector Axis analysis facility. 7- The software should have step by step instructions, protocol and experimental design for performing various experiments in physiology teaching and research applications. Also, should have sample data for human experiments for demonstrating to the students. 8- The system should be ready to use with multifunctional transducers for ECG, PCG, EEG, EMG, EOG, Heart Rate, HRV, BP and pulmonary function test 9- It should provide number of different display modes including chart view, scope view and X/Y view, Zoom view, Spectrum, Averaging view. 10- Analysis functions should include RMS, FFT, Histogram, and Digital Filters, Template Analysis, Integral, Derivatives, Smoothing, Power spectral density, detect & classify heart beats, Peak detection, curve fitting, cross correlation, event marking etc. 11- The System should have Facility to perform complete heart rate variability analysis (Time & Frequency domains) online and offline, ECG interpretation, PQRST amplitudes and ST elevation, cardiac axis analysis during exercise. 12- The software should have Export formats like Binary, Axon, IGOR, MATLAB, LabView, QuickTime, Wav, Excel, Text, etc. 13- The software should have a facility for online and offline analysis with MATLAB. 14- Real time data streaming with Excel, Matlab and other common formats. 15- Transducers:- Pulse, Blood Pressure, Heart sound, Respiration, ECG, EEG, EMG, EOG, Hand Dynamometer and other accessories for the measurement of the above said parameters. 16- The DAQ units should have a facility to be stacked and record simultaneously into a single file. 17- The software should provide an easy file sharing option to a distant user without involving any cost with a minimum of 5 years of free updates and upgrades. 18- It should have automatic, user adjustable, programmable digital and analog filtering. 19- Total unit should contain the following things like Four Channel USB powered Hardware Unit, Software, Laboratory manual, Four electrodes lead sets for the measurement of ECG, Heart sound, EEG, EOG,BP; disposable electrodes (200 pcs), electrode abrading pack (20 pcs),Blood 	01

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		<p>Pressure Cuff Transducer and Electronic Stethoscope transducer and airflow transducer with nose clip and bacteria filter.</p> <p>20- System can be up-gradable to other physiological parameters only with add on accessories for the desired parameters.</p> <p>21- Training and Demonstration to be provided at the institute.</p> <p>22- CE, ISO and other safety certificate for human use must be provided.</p>		
2.	Hospital Bed (Fully Motorized)	<p>Fully electric, ICU bed type, mattress included ,</p> <ul style="list-style-type: none"> • Bed Platform: 4 Section Bed platform fitted with base trolley • Head & Foot Panel: 2 ABS PANEL • Leg stand: Two legs stand • Wheels: 4 wheels fitted in leg stand • Railing: 4 ABS panels (2 left + 2 right side) • Type of Product: ICU Bed • Sub Type: Electric • Bed Dimension: (LxWxH) 210(L) x 90(W) x 50-70(H) cm • Material: Mild Steel 18 gauge • Material Finish: Epoxy Powder Coated • Features: Back Rest, Knee Rest, TB/RTB and Hi-Lo Positions obtained by hand remote system by 4 motor system 	01	
3.	BP Measuring device (Electronic)	<p>Battery operated, with LCD display</p> <p>Display</p> <p>Date and Time</p> <p>Battery Type</p> <p>Sales Package</p>	<p>LARGE LCD WITH BACKLIGHT</p> <p>Yes</p> <p>ALKALINE</p> <p>BP Monitor, Cuff, Digital thermometer, Instruction Manual , Adapter.</p>	01
4.	Stethoscope	<p>Pediatrics use type:</p> <p>Type: Acoustic</p> <p>Color: Orange</p> <p>Dual-sided Chest Piece</p> <p>For General Practitioner</p> <p>Double Lumen Tube Lumen Tube</p> <p>Stethoscope is specially designed for use on infant patients and delivers high acoustic sensitivity, through its dual-side chestpiece, for both high and low frequency sounds. A specially engineered 1 inch floating diaphragm and 3/4 inch bell are designed for capturing high and low frequencies respectively. With specially sized diaphragms, these stethoscope are used by students and medical professionals alike to identify, listen to, and study heart, lung, and other body sounds for physical assessment and diagnosis in infant patients. Resilient tubing folds tightly for pocket portability and retains its shape while patented Snap Tight Soft-Sealing Eartips help form an effective acoustic seal. The anatomically correct headset is angled to channel sound and enhance listening comfort while the nonchill rim and diaphragm provide patient comfort.. Stethoscopes are diagnostic instruments that amplify sounds made by the body from the heart, lungs, abdomen and intestinal tract, or other body sites. A stethoscope is used to detect and study internal systems, such as fetal development, blood flow or blood pressure (BP), and respiration, and sounds, such as cardiac, venous, arterial, pulmonary, and uterine. This is an ideal and versatile stethoscope cardiology to invest in.</p>	01	

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5.	Computer system with UPS	<p>LCD display, 4 Gb Ram, 1Tb Hard Disk, I7 processor, Connectivity with 802.11wifi and blue tooth 4.0, USB 3.0, 3 in 1 card reader, headphone and mic combo, integrated graphics, window10, HDMI port. UPS included. Two years warranty.</p> <p>System Features:</p> <p>Cache Memory 1.2</p> <p>Processor Name Core i3 (7th Gen)</p> <p>Chipset INTEL</p> <p>Processor Brand Intel</p> <p>Processor Frequency 2.2</p> <p>Operating System Windows10 installed (included)</p> <p>Processor Model CORE I3 7TH GEN</p> <p>Memory</p> <p>Memory Speed 4 GB</p> <p>Expandable Memory 16 GB</p> <p>Memory Slots 2</p> <p>System Memory 4 GB DDR4</p> <p>Memory Detail DDR4</p> <p>Display:</p> <p>Touchscreen Support No</p> <p>Display Size 21.5 inch</p> <p>Full HD Yes</p> <p>3D Support No</p> <p>Display Resolution 1280X</p> <p>Display Type FHD BORDERLESS</p> <p>Graphics:</p> <p>Dedicated Graphic Memory YES</p> <p>Dedicated Graphic Processor INTIGRATED HD GRAPHICS</p> <p>Dedicated Graphic Memory 512 MB</p> <p>Type</p> <p>Integrated Graphic Processor INTEL GRAPHICS HD</p> <p>Webcam:</p> <p>Sensor resolution 1.3</p> <p>Video Size 1280X1024</p> <p>Built-in Webcam Yes</p> <p>Storage:</p> <p>Storage Interface SATA</p> <p>Reading speed 7200</p> <p>Hard Drive 1 TB</p> <p>Audio:</p> <p>Built-in Microphone YES</p> <p>Sound Card REALTECH HIGH DEFINATION</p> <p>TV Tuner Details NO</p> <p>Other Audio features YES</p> <p>Remote control No</p> <p>Speaker Output YES</p>	01
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		<p>Optical Drive: Maximum Read speed 24X Maximum Write speed 24X Drive Type CD/DVD Writer</p> <p>Power: Power input 100V-240V Power Adapter VGP Power Consumption 65</p> <p>Connectivity: Memory Stick Slot YES VGA No USB 4 Bluetooth YES Headphone Jack YES Video In and Out YES PCI Slot NO HDMI YES Memory Card Reader 3 IN 1 Microphone Jack Yes Other Ports HDMI OUT</p> <p>Network: Wireless YES Ethernet YES</p> <p>Dimensions: Weight 3.5</p> <p>Additional Included Software: Security Yes Office Yes Multimedia Yes Utility Windows10 Other Features BOARDERLESS FHD LED</p>	
6.	Inverter with Two batteries	<ul style="list-style-type: none"> • 01 inverter (Capable of handling two 200Ah Battery very efficiently) • 02 batteries of 200AH. • 4 years replacement warranty (For both, inverter and batteries), • free installation. • Trolley for two battery included. 	1+2
7.	Tread mill	<p>Motorized, 120kg weight support, with 3 year warranty, LCD display, speed: 0.8-18 km/hr</p> <p>Type: Motorized Ideal For: Women, Senior Citizens, Men, Boys, Girls Speed: 0.8 to 18 km/h Continuous Motor Power: 3 hp Peak Motor Power: 5 hp</p>	01

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		<p>Incline Type: Auto Manual Incline: 0 Electric Incline: 18 Maximum Weight Support: 120 kg Running Surface: 48.0*17.7 Number of Preset Programs: 12 Number of Quick Keys: 4 Heart Rate: Handheld contact grip Heart Rate</p> <p>Display Features: Display Size 5 inch Display Type LCD Color Display Yes Display Feedback Speed, Calories, Heart rate, Time, Distance, Incline</p> <p>Convenience Features: Foldable Yes Folding Type Vertical Wheels Yes Entertainment PERSONALIZED TRAINING PROGRAMS, MUSIC PLAYER, USB PORT, BLUETOOTH APP CONNECTIVITY Cooling Fan Yes Other Convenience Features TRANSPORTATION WHEELS, AUTO INCLINATION, MASSAGER, FOLDABLE AIRLIFT, AUTO LUBRICATION, FREE INSTALLATION</p> <p>Additional Features: Motorized Advanced Multifunctional Treadmill with Free installation</p>	
8.	Computer Table	<ul style="list-style-type: none"> • Contemporary & Modern Style Computer Desk • Straight Set-up for Study & Home Office with Storage Space • W x H x D: 120 cm x 75 cm x 60 cm (3 ft 11 in x 2 ft 5 in x 1 ft 11 in) • With CPU Compartment • Built-in Keyboard Tray • Knock Down - Delivered in non-assembled pieces, installation by service partner <p>General Type Computer Desk Finish Type Matte Style Contemporary & Modern Configuration Straight Delivery Condition Knock Down Care Instructions Gently Clean with soft sponge or lint free cloth</p> <p>Wheels Included No Bush Included No Storage Included Yes Suitable For Study & Home Office Upholstery Included No CPU Compartment Yes</p>	01

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		<p>Keyboard Tray Number of Shelves Number of Drawers Mount Type</p> <p>Material & Color: Primary Material Primary Material Subtype Secondary Material Frame Material Subtype Primary Color Finish Color</p> <p>Dimensions: Width Height Depth Weight</p> <p>Warranty: Service Type: Covered in Warranty:</p>	<p>Yes 2 1 Free Standing</p> <p>Engineered Wood Particle Board Engineered Wood Particle Board Brown Wenge</p> <p>120 cm 75 cm 60 cm 55.4 kg</p> <p>02 Years Manufacturing Warranty Part replacement and spare part. Manufacturing Defects in product ,termite & fungus colour fading & product failure</p>	
9.	Chair for Computer system operator	<p>Model Name Style Suitable For Frame Material Subtype Upholstery Material Upholstery Included Upholstery Type Chair Features</p> <p>Finish Type Care Instructions</p> <p>Bend Direction Ergonomic Origin of Manufacture Other Features</p> <p>Warranty</p>	<p>803 Cushioned Low Back Revolving Chair with push back mechanism in Black Contemporary & Modern Study & Home Office PVC (Polyvinyl Chloride) Fabric Yes Cushion Wheels, Seat Lock, Swivel, Armrest, Adjustable Seat Height Matte Gently clean using a damp sponge or soft, lint-free cloth on a regular basis. Use a vacuum cleaner service tool to clean the seams. Keep away metal parts from water. Outward Yes India High Quality, Comfortable, Neat Finish, Long Lasting, Black Fabric Chair</p> <p>6 Months manufacturing warranty</p>	01
10.	Revolving Office			01

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	<p>Chair (Executive)</p>	<ul style="list-style-type: none"> • Head Support, Wheels, Seat Lock, Locking Mechanism, Swivel, Armrest, Adjustable Seat Height • W x H: 21 cm x 45 cm (8 in x 1 ft 5 in) • Frame Material: Metal • Upholstery Type: Cushion <p>General Sales Package 1 Chair Model Number 132213_3 Model Name High Back Revolving Chair with Joint Headrest and Height Adjustable Hydraulic Ideal for, Institutions and Homes</p> <p>Style Contemporary & Modern Suitable For Study & Home Office Frame Material Subtype Cast Iron Upholstery Material Leatherette Upholstery Included Yes Upholstery Type Cushion Chair Features Head Support, Wheels, Seat Lock, Locking Mechanism, Swivel, Armrest, Adjustable Seat Height</p> <p>Finish Type Glossy Finish Care Instructions Gently Clean Using a Damp Sponge or Soft, Lint-free Cloth on a Regular Basis. Use a Vacuum Cleaner Service Tool to Clean the Seams</p> <p>Bush Included Yes Bend Direction Outward Ergonomic Yes Accessories Included NA</p> <p>Dimensions: Weight 8 kg Seat Width 21 cm Seat Height 19.5 cm Seat Depth 21 cm Other Dimensions Back Height From Ground Level: 1190Mm, Seat Height From Ground Level: 480Mm, Space Between Handle To Handle: 600Mm, Seat: Width: 520Mm, Depth: 520Mm, Back Width:500Mm, Height: 730Mm.</p> <p>Warranty: We offer 5 (Five) years warranty from the date of supply and installation against all manufacturing defects.</p>	
11.	Office Table (Executive)	<ul style="list-style-type: none"> • Material: Particle Board 	01

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		<ul style="list-style-type: none"> • Height x Width: 75 cm x 150 cm (2 ft 5 in x 4 ft 11 in) • Storage Included <p>Finish Type: Matte</p> <p>Configuration: Straight</p> <p>Suitable For: Study & Home Office</p> <p>Type: Office Table</p> <p>Style: Contemporary & Modern</p> <p>Storage Included: Yes</p> <p>Storage Type: Closed</p> <p>Mount Type: Free Standing</p> <p>Model Series Name: Executive</p> <p>Lighting Included: No</p> <p>Keyboard Tray: Yes</p> <p>Built-in Wire Outlet: Yes</p> <p>Built-in Surge Protector: No</p> <p>Wheels Included: No</p> <p>Bush Included: Yes</p> <p>Number of Drawers: 6</p> <p>Adjustable Height: No</p> <p>Material & Color</p> <p>Primary Material: Engineered Wood</p> <p>Primary Material Subtype: Particle Board</p> <p>Secondary Material: Engineered Wood</p> <p>Primary Color: Brown</p> <p>Finish Color: Walnut</p> <p>Dimensions</p> <p>Width: 150 cm</p> <p>Height: 75 cm</p> <p>Depth: 75 cm</p> <p>Weight: 59 kg</p> <p>Warranty</p> <p>Warranty Summary: 02 year Manufacturing Warranty</p> <p>Service Type: Part replacement</p> <p>Covered in Warranty: Warranty covers all kind of manufacturing defects.</p>	
12.	Table for equipments	<p>Finish Type: PVC edge banding finish</p> <p>Configuration: Straight</p> <p>Delivery Condition: Knock Down</p> <p>Suitable For: Study & Home Office</p> <p>Type: Study Table</p> <p>Care Instructions: Avoid placing hot objects directly on any furniture surface. Always use a coaster or plate.</p> <p>Style: Contemporary & Modern</p> <p>Storage Included: Yes</p> <p>Storage Type: Combination</p>	02

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		<p>Mount Type Model Series Name</p> <p>Lighting Included Keyboard Tray Wheels Included Used For</p> <p>Number of Shelves Number of Drawers Adjustable Height Primary Material Primary Material Subtype Secondary Material Secondary Material Subtype Primary Color Finish Color Other Features</p> <p>Dimensions: Width Height Depth</p> <p>Warranty: Service Type</p> <p>Installation & Demo Details</p>	<p>Free Standing Modern & Contemporary PVC Edge Band Finish Computer Laptop Table with Side Drawer and Shelf</p> <p>No No No</p> <p>book Shelf, office, Study, laptop table</p> <p>1 1 No Engineered Wood Particle Board Engineered Wood Particle Board Brown Dark Wenge</p> <p>Brand Promise - BIFMA Certified, 3 Stage QC Check, Feature: Color (Dark Wenge), Style (Modern & Contemporary), one side drawer and one side shelf</p> <p>60 cm 75 cm 90 cm</p> <p>5 Years Manufacture Warranty</p> <p>The installation and demo for this product are done free of cost as part of this purchase.</p>	
13.	Metal Almirah	<ul style="list-style-type: none"> • 2 Door With Locker Metal Almirah (Finish Color - Royal Ivory) • W x H x D: 900 mm x 1950 mm x 507 mm (2 ft 11 in x 6 ft 4 in x 1 ft 7 in) <p>Style Lighting Present Door Type Finish Type Type Suitable For Number of Shelves Mirror Included Upholstery Included Delivery Condition Lockable Storage</p> <p>Material & Color:</p>	<p>Contemporary & Modern</p> <p>No Hinged Door Glossy Almirah Office/Home</p> <p>6 No No Knock Down Yes</p>	01

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		Primary Material Primary Material Subtype Primary Color Finish Color Dimensions: Width Height Depth Weight Warranty:	Metal Carbon Steel White Royal Ivory 900 mm 1950 mm 507 mm 65.12 kg 02 Year Warranty	
14.	Air Conditioner (Required for patient/human data acquisition system room)	1.5 Ton split AC, with free installation and Type: Capacity in Tons Star Rating BEE Rating Year Color Cooling and Heating Cooling Capacity Compressor Dehumidification Remote Control Refrigerant Condenser Coil Dimensions: Indoor W x H x D Indoor Unit Weight Outdoor W x H x D Outdoor Unit Weight Performance Features: Indoor Noise Level Panel Display Indoor Temperature Indicator Turbo Mode Body And Design Features: Evaporator Fin Type Condenser Fin Type Stepped Louvers Air Flow & Filter Features: Auto Air Swing Anti-bacteria Filter Dust Filter Other Filter Features Convenience Features: Auto Restart Timer	2 year maintenance warranty. Split 1.5 Ton 3 Star BEE Rating 2019 White No 5275 W Rotary Yes Yes R32 Copper 965 mm x 324 mm x 228 mm 12.2 kg 900 mm x 690 mm x 320 mm 42.5 kg High - 44 dB, Low - 38 dB Hidden Display No Yes Hydrophilic Aluminium Fin Aluminium Slit Fin Yes Yes No Yes PM 2.5 Filter and Air Cleaner Yes Yes	01

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		Child Lock	Yes	
		Quiet Mode	No	
		Sleep Mode	Yes	
		Memory Feature	Yes	
		Self Diagnosis	Yes	
		Emergency Operational Button	Yes	
		Other Convenience Features	Refrigerant Leak Detector , Filter Clean Indicator, Double Drain (Easy Installation)	
		Power Features:		
		Power Requirement	AC 230 V, 50 Hz	
		Power Consumption	1458 W	
		Operating Current	7 A	
		Remote Control Features:		
		LED Backlit Buttons	Yes	
		Night Glow Buttons on Remote	Yes	
		Battery Type	2 AAA Batteries	
		Warranty :	1 Year on Complete Unit and 5 Year Compressor	