



**RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA 2.0)**  
**KAKATIYA UNIVERSITY**  
**WARANGAL – 506009**

**Prof. R. Mallikarjuna Reddy**  
Nodal Officer

**NOTICE INVITING QUOTATIONS FOR**  
**THE PROCUREMENT OF SCIENTIFIC**  
**EQUIPMENT.**

**SUPPLIERS CAN SUBMIT**  
**QUOTATIONS TO THE**  
**E-mail: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)**  
**ON OR BEFORE**  
**15 DECEMBER 2025**



**RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA 2.0)**  
**KAKATIYA UNIVERSITY, WARANGAL – 506009**

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**NOTICE INVITING QUOTATIONS**

No: **53/PH-MICRO/RUSA/R&I/KU/2025**

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

S.NO	NAME OF EQUIPMENT
1	BIOCONTAINMENT IVC SYSTEM
2	Advanced Laboratory Incinerator – Technical Datasheet
3	Advanced Laboratory Eye Wash Station – Technical Datasheet
4	AUTOCLAVE
5	Rotary Evaporator with Automatic Lifting and Touch Screen
6	Recirculating water chiller
7	Vaccum pump
8	Incubator 80L
9	Forced Air Drying Oven
10	UV VIS spectrophotometer
11	Biolog ID station
12	UV Transilluminator
13	Analytical Balance
14	FPLC start (FPLC)
15	PCi-Ultrasonic bath (Sonicator)
16	Vertical Laminar Air Flow
17	FTIR
18	Binocular Biological Microscope
19	6 PLUS Magnetic Stirrer with Heating (Reaction Station)

SL. No.	Equipment with Specification	Qty
1	<p><b>BIOCONTAINMENT IVC SYSTEM:</b>  The biological safety mouse or rat IVC cage is developed for raising infected animals in the laboratory. It prevents release of contamination from cage to the environment and prevent cross-infection between different cages. It works with the pressure difference control from -20pa in the relative laboratory.</p> <p><b>Features</b>  The biocontainment IVC system is mainly composed of three parts: biocontainment ventilator, biocontainment cage and rack.</p> <ol style="list-style-type: none"> <li>1. The number of ventilations in the cage: <math>\geq 50</math> times/h;</li> <li>2. Air velocity in the animal living area in the cage not more than 0.2m/s;</li> <li>3. The pressure difference inside and outside the cage: the negative pressure type is not more than -20Pa;</li> <li>4. Noise: less than 60dB;</li> </ol> <p><b>IVC Biocontainment Ventilator:</b>  Ventilator is fitted with 7" touch screen with reliable quality, and can easily set the target value of pressure difference, target value of ventilation times/ACH, upper and lower limits of temperature and humidity alarms and other parameters, and can conveniently observe equipment information such as alarms.  Ventilator is fitted with prefilter and HEPA filters which can be disassembled and replaced;  Ventilator unit is fitted with temperature and RH sensor which show the Temperature and RH of exhaust air.  Ventilator unit is fitted with micro-pressure differential sensor to detect the pressure difference between cage and ambient condition.  Ventilator is fitted with low noise, high efficiency EC fans.  Easy selection of cage model, number of cages, ACH, negative pressure mode.  Run Hour Counter with time based change filter notice  Alarm on clogging of HEPA filter  Multiple ventilator connectivity and control from computer through Ethernet port. (Pre-req.: LAN connection, internet connection, Wi-Fi &amp; modem in buyers' scope)  Data logs download on the computer through Ethernet port.  Power supply : 220 V, Single Ph., 50 Hz, AC supply  Noise Level &lt; 50 Db(A)  Castor wheels: 4 nos. 3" caster wheels made of polyurethane with nylon polyamide wheel center with ball bearing, 2 wheels with pad lock  Ventilator unit is supplied with battery backup system for backup of 3-4 hrs in case of power failure.</p> <p><b>Biocontainment Cage:</b>  The cage is made of high-quality PSU/polyetherimide raw materials with good impact resistance, wear resistance, high strength, non-toxic, corrosion resistance, easy cleaning, easy disinfection, high temperature resistance, high temperature sterilization, and high temperature sterilization at 134 °C. Cage lid is fitted with silicon gasket which makes cage tray and lid contact airtight and cage is strictly isolated. It can be used under negative pressure, and the decay time from -50pa to 0pa can be guaranteed to be greater than</p>	1

5min.

The cage has high transparency and good visibility, the water bottle and stainless steel frame are small in size, and the animal has a large space for movement;

Each cage is equipped with a card slot, which is convenient for the identification and management of different mouse or rat experiments;

The built-in water bottle is made of high-quality PSU/Polyetherimide raw materials. The bottle cap and drinking bottle mouth are made of 316L stainless steel.

The bottom of the cage has a large arc transition, and there is no dead angle for air circulation.

Cage lid is fitted with Self-closing air supply and exhaust valves, when the cage is removed from the cage, the airtightness of the cage is always maintained.

Cage lid is fitted with prefilter and HEPA filter so that all the air exhausted from the cage is HEPA filtered before releasing to the ambient conditions.

#### **Cage Rack:**

The cage rack is made of 304 stainless steel structure.

Soft connection structure design, the main air supply and exhaust pipes can be easily disassembled and installed, which is convenient for cleaning and disinfection of the cage.

Air supply and exhaust valve made of high quality autoclavable technopolymer and silicon material.

Common rails for mounting the cage in the rack are made of high quality autoclavable polymer material and are fitted with docking indicators.

Duct couplers and end caps in special grade rubber construction.

Main Inlet air and outlet air header made of S.S. 304 material and holders made from aluminium/derlin material.

5" caster wheels made of polyurethane with nylon wheel centre with ball bearing. 2 nos. free moving & 2 nos. lockable.

Flexible air hose for supply air & exhaust air connections

Standard hose pipes supplied with each complete system are:

Ventilator to Rack silicone hose pipe: 0.5 meter/rack

Rack to AHU silicone hose pipe: 0.5 meter/rack

Ventilator PU exhaust hose pipe: 1.5 meter/Ventilator

#### **Rat Biocontainment Cage Technical Parameters:**

Cage name	Biosafe Rat IVC Cage
Cage material	PSU/ Polyetherimide
Floor Space	900 cm sq
Free Height	190 mm
S.S. Grill	Full mesh metal frame, made of 304 stainless steel, over electropolished treatment, round steel diameter of frame 3mm, other round steel diameter $\geq$ 2mm, minimum clear frame $\leq$ 7mm
Water bottle	Built-in drinking bottle, volume 400ml
Inlet/exhaust port construction	Non-intrusive construction, automatic closing of the air inlet and outlet when the cage is removed from the cage rack

	<div>Mice Biocontainment Cage Technical Parameters:</div> <table><tr><td>Cage name</td><td>Biosafe Mice IVC Cage</td></tr><tr><td>Cage material</td><td>PSU/ Polyetherimide</td></tr><tr><td>Floor Space</td><td>500 cm sq</td></tr><tr><td>Free Height</td><td>130 mm</td></tr><tr><td>S.S. Grill</td><td>Full mesh metal frame, made of 304 stainless steel, over electropolished treatment, round steel diameter of frame 3mm, other round steel diameter ≥ 2mm, minimum clear frame ≤ 7mm</td></tr><tr><td>Water bottle</td><td>Built-in drinking bottle, volume 300ml</td></tr><tr><td>Inlet/exhaust port construction</td><td>Non-intrusive construction, automatic closing of the air inlet and outlet when the cage is removed from the cage rack</td></tr></table> <div>IVC Biocontainment Ventilator Technical Parameters:</div> <table><tr><td>Fan Type</td><td>EC Centrifugal EBM</td></tr><tr><td>Speed control method</td><td>Blower with its own speed control</td></tr><tr><td>UPS</td><td>3-4 hours of operation without power</td></tr><tr><td>Communication interface</td><td>Ethernet interface</td></tr><tr><td>Host dimensions</td><td>(W x D x H) mm: 450mm x 500mm x 2235mm (Height includes flanges)</td></tr><tr><td>Type of outer cover</td><td>Stainless steel</td></tr></table> <div>Biocontainment Cage Rack Technical Parameters:</div> <table><tr><td>Arrangement</td><td>Animal</td><td>Number of cages</td><td>Cage Rack Type</td><td>Dimensions (LxWxH) in mm (± 10 mm)</td></tr><tr><td>6 levels x 5 columns</td><td>Mice</td><td>30</td><td>Single-sided</td><td>1215x480x1580</td></tr><tr><td>5 levels x 5 columns</td><td>Rat</td><td>25</td><td>Single-sided</td><td>1612x510x1790</td></tr></table>	Cage name	Biosafe Mice IVC Cage	Cage material	PSU/ Polyetherimide	Floor Space	500 cm sq	Free Height	130 mm	S.S. Grill	Full mesh metal frame, made of 304 stainless steel, over electropolished treatment, round steel diameter of frame 3mm, other round steel diameter ≥ 2mm, minimum clear frame ≤ 7mm	Water bottle	Built-in drinking bottle, volume 300ml	Inlet/exhaust port construction	Non-intrusive construction, automatic closing of the air inlet and outlet when the cage is removed from the cage rack	Fan Type	EC Centrifugal EBM	Speed control method	Blower with its own speed control	UPS	3-4 hours of operation without power	Communication interface	Ethernet interface	Host dimensions	(W x D x H) mm: 450mm x 500mm x 2235mm (Height includes flanges)	Type of outer cover	Stainless steel	Arrangement	Animal	Number of cages	Cage Rack Type	Dimensions (LxWxH) in mm (± 10 mm)	6 levels x 5 columns	Mice	30	Single-sided	1215x480x1580	5 levels x 5 columns	Rat	25	Single-sided	1612x510x1790	
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2	<div>Advanced Laboratory Incinerator – Technical Datasheet Description</div> <div>An advanced laboratory incinerator is a high-temperature thermal treatment unit designed to sterilize and destroy laboratory waste in a controlled, safe, and environmentally responsible manner. It features automation, efficient combustion, and modern emissions control systems suitable for research</div>																																										

	<p>and industrial laboratories.</p> <p><b>Key Features</b></p> <ul style="list-style-type: none"> <li>• Dual-chamber combustion (primary + secondary afterburner)</li> <li>• High-temperature operation (900–1300 °C) with precise PID/PLC control</li> <li>• Automatic startup, shutdown, and safety interlocks</li> <li>• Digital HMI display for temperature and system status</li> <li>• Advanced emissions control: afterburner, scrubber, and filter system</li> <li>• Stainless steel outer shell and refractory-lined interior</li> <li>• Manual or semi-automatic loading system with safety locks</li> </ul> <p><b>Technical Specifications</b>  Advanced Lab Incinerator  Capacity: 5–10 kg/hr continuous; up to 50 kg/day batch  Primary Chamber Temperature: 900 °C  Secondary Chamber Temperature: 1300 °C  Combustion Efficiency: &gt; 99.9%  Residue (Ash): &lt; 5% of original waste mass  Fuel Type: Diesel / LPG / Natural Gas / Electric  Exhaust Gas Residence Time: ≥ 2 seconds at 1100 °C  Control System: PLC + HMI touchscreen interface  Emission Control: Cyclone separator → Wet scrubber → Stack  Power Supply: 3-Phase, 380–415 V, 50/60 Hz  Construction Material: Carbon steel shell, ceramic refractory lining (rated to 1400 °C)  Safety Systems: Door interlocks, over-temp shutdown, flame failure cut-off, emergency stop</p> <p><b>Acceptable Waste Types</b></p> <ul style="list-style-type: none"> <li>• Biological and infectious waste</li> <li>• Plastic lab disposables (non-halogenated)</li> <li>• Animal tissues and carcasses</li> <li>• Paper, cardboard, and cloth materials</li> </ul> <p>Not Suitable For</p> <ul style="list-style-type: none"> <li>• Halogenated solvents or chlorinated plastics</li> <li>• Mercury or heavy metal wastes</li> <li>• Pressurized containers or explosives</li> <li>• Radioactive materials</li> </ul> <p><b>Safety and Environmental Compliance</b></p> <ul style="list-style-type: none"> <li>• Destruction efficiency ≥ 99.99%</li> <li>• Meets WHO and EU emission standards (CO, NOx, particulate, dioxins/furans)</li> <li>• Refractory rated to ≥ 1400 °C</li> <li>• Continuous temperature monitoring with data logging</li> <li>• Stack sampling port for emission testing</li> <li>• CE / ISO 14001 / EPA compliance depending on region</li> </ul> <p><b>Maintenance Schedule</b>  Daily: Ash removal and chamber inspection  Weekly: Burner cleaning and door seal check  Monthly: Stack and temperature sensor inspection  Annually: Full service, calibration, and refractory check</p>	1
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	<p><b>Installation Requirements</b></p> <ul style="list-style-type: none"> <li>• Concrete or metal base foundation with level surface</li> <li>• Adequate ventilation and dedicated exhaust stack (<math>\geq 6</math> m height)</li> <li>• Power and fuel connections installed per local code</li> <li>• Minimum 1-meter clearance on all sides for maintenance</li> </ul> <p><b>Optional Upgrades</b></p> <ul style="list-style-type: none"> <li>• Automatic ash removal system</li> <li>• Continuous emission monitoring (CEMS)</li> <li>• Heat recovery unit (air or water)</li> <li>• Remote monitoring and data logging</li> </ul> <p><b>Typical Applications</b></p> <ul style="list-style-type: none"> <li>• Biomedical and clinical laboratories</li> <li>• University and hospital research facilities</li> <li>• Pharmaceutical and QA/QC laboratories</li> <li>• Veterinary and pathology labs</li> </ul> <p>Environmental testing centers</p>	
3	<p><b>Advanced Laboratory Eye Wash Station – Technical Datasheet</b></p> <p><b>1. Description</b> An advanced laboratory eye wash station is a critical safety device designed to provide immediate, gentle flushing of the eyes in the event of chemical splashes, dust exposure, or other contaminants. Modern systems feature hands-free activation, temperature control, self-draining nozzles, and optional alarm systems for maximum user protection and hygiene in advanced laboratory environments.</p> <p><b>2. Key Features</b> Hands-free or automatic activation (push plate, foot pedal, or IR sensor) Twin aerated nozzles delivering 1.5–2.0 L/min each Tempered water system (15–37 °C) with thermostatic control Self-draining design to prevent bacterial growth Corrosion-resistant stainless steel or ABS components Optional audible/visual alarm system when activated Compliance with ANSI Z358.1 / EN 15154 safety standards</p> <p><b>3. Technical Specifications</b> Model: AEW-2025 (Advanced Eye Wash Station) Operation: Manual push plate + automatic sensor (dual mode) Water Pressure: 0.2–0.6 MPa (30–90 psi) Flow Rate: 12–15 L/min total (as per ANSI Z358.1) Nozzle Type: Twin soft-flow heads with protective dust caps Bowl Material: 304 Stainless steel (Ø 250–300 mm) Pipe Material: Galvanized steel with anti-corrosion epoxy coating Valve Type: Stay-open ball valve (¼ turn, full flow) Temperature Control: Thermostatic mixing valve (20–35 °C) Activation Time: &lt; 1 second Drainage: Self-draining design to eliminate stagnant water Mounting Options: Wall, pedestal, or countertop models available Certifications: ANSI Z358.1 / EN 15154-2 compliant Optional Accessories: Heater, flow regulator, inline filter, LED alarm indicator</p>	1

	<p><b>4. Maintenance and Safety</b>  Weekly activation to flush water lines and verify operation.  Monthly inspection of nozzles, covers, and valves.  Annual testing of temperature control, flow rate, and alarms.  Ensure unobstructed access and clear signage.</p> <p><b>5. Installation Requirements</b>  Supply water pressure: 0.3–0.5 MPa (recommended)  Water temperature: 15–37 °C (tempered supply)  Drain connection: Floor drain or catch basin required  Bowl rim height from floor: ~850 mm (ANSI standard)  Nozzle spacing: 100 ± 20 mm center-to-center</p> <p><b>6. Applications</b>  Research and analytical laboratories  Chemical and pharmaceutical facilities  Medical, clinical, and veterinary labs  University and teaching laboratories  Cleanrooms and biosafety environments</p> <p><b>7. Optional Add-ons and Upgrades</b>  Combination eye wash and emergency shower units  Freeze-protected or heated models for cold climates  Audible/visual alarm system (connectable to building alarms)  Infrared touch-free activation system  Antimicrobial or stainless-steel finish for sterile areas</p>	
4	<p><b>AUTOCLAVE</b>  - Vertical - Digital 95Ltrs TECHNICAL SPECIFICATIONS : Maximum Pressure: 15 psi Pressure Indicator: Bourdon tube pressure gauge  Controller: Digital temperature indicator cum timer with audio alarm (For Digital Models Only)  Valves: Safety Valve, Steam Release Valve Drain: Drain tap provided at the bottom  Lid lifting: Foot lifting mechanism  Inner chamber: SS 304, 1.6 mm  Outer Chamber: SS 304, 1.2 mm  Gasket: Silicone Gasket  Basket: Perforated Stainless Steel  Supply: 220-230 volts AC Optional: Low Water Level Cut Off System for Digital Models Chamber Dimensions Dia x Depth, mm: 450 x 600 Volume Ltrs: 95 Watts: 4000 HSN: 87083100</p>	1
5.	<p><b>Rotary Evaporator with Automatic Lifting and Touch Screen</b></p> <ul style="list-style-type: none"> <li>• Salient Features</li> <li>• Evaporation Capacity - Max. 25ml / min. (Water Evaporation)</li> <li>• 1L Rotating bottle (evaporation area.)</li> <li>• Efficient solvent evaporation via heating and vacuum.</li> <li>• Material - Aluminum Alloy Bracket,</li> <li>• Stainless steel Pot liner Automatic lifting bath. Stable,</li> <li>• Low-noise Adjustable double-layer condenser.</li> <li>• Anti-backflow condenser design.</li> </ul>	1



	<ul style="list-style-type: none"><li>• Durable, corrosion-resistant PTFE sealing system.</li><li>• Automatic switching valve for continuous collection.</li><li>• Corrosion-resistant Teflon discharge valve.</li></ul> <p><b>STANDARD ACCESSORIES :</b> Main Instrument, Waterbath, 1ltr. Dislloon Flask, 1ltr. Collecon Bole, Condenser, &amp; Fing Accessories, Power Cord, Instrucon Manual, Test Cerficate</p> <p><b>SPECIFICATIONS</b> Evaporation Capacity (Water) Max. 25ml/Min. Rotation Speed 20 ~ 300RPM Rotating bottle 1ltr. Φ131mm/29 Collect bottles 1ltr. Φ131mm/35 Lifting method Automatic Lifting Display LCD Display Control mode Knob &amp; Keypad control Bracket Material Aluminium Alloy Sealing Method Teflon+fluorine rubber bidirectional seal Rotating Power 40W Heating Power 1.5KW Temperature Display Digital Display Enclosed heating Size 230 x 135mm Auto Stop Yes, if Set Temperature exceeds 5°C Temperature control range of Water Bath RT+5°C ~ 180°C Control Accuracy ±1°C Lift stroke 120mm Condensation area 0.15m<sup>2</sup> Condenser vertical Condenser 80 x 420mm Feeding Valve PTFE valve Power Supply AC 220V,50/60Hz Packing Dimensions (LXWxH) 775 x 610 x 750 mm Net Weight 18kg Gross Weight 36kg</p>																			
6.	<p><b>Recalculating water chillier</b></p> <table><tr><th>Specification</th><th>Detail</th></tr><tr><td>Usage</td><td>Industrial Use, External Circulating Application</td></tr><tr><td>Material</td><td>Stainless Steel (tank)</td></tr><tr><td>Temperature Range</td><td>-20°C to 100°C</td></tr><tr><td>Tank Size/Capacity</td><td>170 x 180 x 130 mm, 3.5 L</td></tr><tr><td>Circulation Pump Flow Rate</td><td>8 L/Min</td></tr><tr><td>Water Filling Port</td><td>Ø 35 mm</td></tr><tr><td>Display</td><td>Touchscreen Display</td></tr><tr><td>Additional Features</td><td>Timing function, LCD display, overheat protection, PID temperature control, water level alarm function, low noise/vibration, stable and reliable performance</td></tr></table>	Specification	Detail	Usage	Industrial Use, External Circulating Application	Material	Stainless Steel (tank)	Temperature Range	-20°C to 100°C	Tank Size/Capacity	170 x 180 x 130 mm, 3.5 L	Circulation Pump Flow Rate	8 L/Min	Water Filling Port	Ø 35 mm	Display	Touchscreen Display	Additional Features	Timing function, LCD display, overheat protection, PID temperature control, water level alarm function, low noise/vibration, stable and reliable performance	1
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7.	Vaccum pump		1
	Pump Head Type	Two-stage, gas-based diaphragm	
	Flow Rate	20 L/min	
	Ultimate Vacuum	20 mbar abs.	
	Power	120 W	
	Rotation Speed	1450 RPM	
	Pump Head/Diaphragm Material	PTFE coated	
	Valves Material	FKM or FFPM	
	Noise Level	Can be maintained at 70 dB	
	Dimensions (LxWxH)	approx. 465 x 325 x 270 mm	
	Weight	approx. 11-11.2 kg	
	Power Supply	AC 220V / 50Hz	
	Special Features	Oil-free, high corrosion resistance, overheat protection, low vibration, pollution-free	
8.	Incubator 80L		2
	<p>The <b>80L Incubator</b> has an 80L capacity, internal dimensions of 400×400×500400 cross 400 cross 500 400×400×500 mm, and a temperature range of room temperature + 5°C5 raised to the composed with power cap C 5°C to 65°C65 raised to the composed with power cap C 65°C. It features microcomputer control, an LCD display, two adjustable shelves, a stainless steel interior, and an over-temperature alarm. The external dimensions are 580×570×890580 cross 570 cross 890 580×570×890 mm, and the gross weight is 57 kg.</p>		
	Feature	Specification	
	Capacity	80 Liters	
	Internal Dimensions	400×400×500400 cross 400 cross 500 400×400×500mm	
	External Dimensions	580×570×890580 cross 570 cross 890 580×570×890mm	
	Gross Weight	57 kg	
	Temperature Range	RT + 5°C5 raised to the composed with power 65°C65 raised to the composed with power cap	
	Temperature Fluctuation	±0.3°Cplus or minus 0.3 raised to the compose C ±0.3°C	
	Controller	Microcomputer PID controller	
	Display	LCD display	
	Shelves	2 adjustable shelves	
	Timer	1-9999 minutes	
	Alarm	Over-temperature alarm (audible and visual)	
	Power Supply	AC110/220V ±10%plus or minus 10 % ±10%, 50/60Hz	
	Inner Chamber	304 stainless steel with round corner structure	

9.	<div><div>Forced Air Drying Oven</div><div>Capacity of <b>88 liters</b>, a temperature range of <b>RT+10°C to 300°C</b>, and uses <b>forced convection</b> for excellent temperature uniformity. It features an LCD display and a stainless steel inner chamber.</div><table><tr><th>Feature</th><th>Specification</th></tr><tr><td>Capacity</td><td>88 L</td></tr><tr><td>Temperature Range</td><td>RT (room temperature) +10°C to 300°C</td></tr><tr><td>Temperature Precision</td><td>0.1°C</td></tr><tr><td>Temperature Uniformity</td><td>≤ Max Temp. ±2.5%</td></tr><tr><td>Circulation Mode</td><td>Back heating, forced convection</td></tr><tr><td>Display</td><td>LCD</td></tr><tr><td>Timing Range</td><td>0~9999 min/h or continuous</td></tr><tr><td>Shelves (pcs)</td><td>3</td></tr><tr><td>Internal Size (WDH)</td><td>500 x 490 x 360 mm (approx) / 500 x 360 x 4</td></tr><tr><td>External Size (WDH)</td><td>730 x 660 x 640 mm (approx) / 730 x 640 x 6</td></tr><tr><td>Power Supply</td><td>100~245V, 50/60Hz (standard 220V±10%, 50</td></tr><tr><td>Gross Weight</td><td>63 kg (approx) / 50.5 kg</td></tr></table><div><div>Features</div><div><p><b>Circulation:</b> A fan creates forced convection and a unique air duct design ensures temperature uniformity and stability.</p><p><b>Safety:</b> The oven includes an over-temperature alarm and automatic fault detection function.</p><p><b>Material:</b> The inner chamber is made of high-quality SUS 304 stainless steel.</p><p><b>Design:</b> It features a double-layer high-temperature resistant glass observation window and an independent fan switch.</p><p><b>Control:</b> The LCD display has a built-in temperature deviation calibration function and parameter memory function with automatic recovery.</p></div></div></div>	Feature	Specification	Capacity	88 L	Temperature Range	RT (room temperature) +10°C to 300°C	Temperature Precision	0.1°C	Temperature Uniformity	≤ Max Temp. ±2.5%	Circulation Mode	Back heating, forced convection	Display	LCD	Timing Range	0~9999 min/h or continuous	Shelves (pcs)	3	Internal Size (WDH)	500 x 490 x 360 mm (approx) / 500 x 360 x 4	External Size (WDH)	730 x 660 x 640 mm (approx) / 730 x 640 x 6	Power Supply	100~245V, 50/60Hz (standard 220V±10%, 50	Gross Weight	63 kg (approx) / 50.5 kg	2
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10.	<div><div>UV/Vis spectrophotometer</div><div>The spectrophotometer is a single-beam, visible-range instrument with a wavelength range of <b>325-1000 nm</b>. Its key specifications include a large LCD screen, a photometric range of 0-200%T or -0.301-3.0A, and automatic functions for wavelength calibration and source switching. It uses a silicon photodiode detector and can be controlled via a membrane keypad or an optional PC software for more advanced functions.</div><div><div>General specifications</div><div><ul style="list-style-type: none"><li><b>Type:</b> Single Beam UV/Vis Spectrophotometer</li><li><b>Wavelength Range:</b> 325-1000 nm</li><li><b>Display:</b> Large LCD (128x64 Dots)</li><li><b>Input:</b> Membrane Keypad</li><li><b>Detector:</b> Silicon Photodiode</li><li><b>Light Sources:</b> Deuterium and Tungsten lamps (socket-type)</li></ul></div></div><div><div>Performance</div><div><ul style="list-style-type: none"><li><b>Wavelength Accuracy:</b> ±1.8plus or minus 1.8±1.8nm</li><li><b>Wavelength Repeatability:</b> ±0.5plus or minus 0.5±0.5nm</li><li><b>Photometric Range:</b> 0-200%T, -0.301-3.0A</li><li><b>Photometric Accuracy:</b> ±0.001Aplus or minus 0.001 cap</li></ul></div></div></div>	2																										

	<div>A±0.001A</div> <ul style="list-style-type: none"><li>• <b>Noise:</b> ±0.001Aplus or minus 0.001 cap A±0.001A</li><li>• <b>Stability:</b> ±0.001Aplus or minus 0.001 cap A±0.001A/H @ 500nm</li><li>• <b>Spectral Bandwidth:</b> 4.0 nm Features</li><li>• <b>Automatic Functions:</b> Wavelength calibration, wavelength setting, light source change, and dark current calibration</li><li>• <b>Data Output:</b> RS232, USB-B, and optional printer</li><li>• <b>Storage:</b> Stores up to 57,600 sets of data</li><li>• <b>Optical System:</b> Features a high-class grating with a hermetic light path for low stray light and SiO2 coated optical mirrors</li><li>• <b>Lamp Monitoring:</b> Real-time monitoring of lamp lifetime</li><li>• </li></ul> <div>Customization: Optional PC software for expanded applications</div>																											
11.	<div>Biolog ID station</div> <table><tr><th>Features</th><th>ID Station</th></tr><tr><td>Detection mode</td><td>Optical density (OD) at 3 wavelengths: 490 nm, 590 nm, and 740 nm</td></tr><tr><td>Dimensions</td><td>12.5"D x 12"W x 7.7"H</td></tr><tr><td>Plate Capacity</td><td>1 microplate</td></tr><tr><td>Temperature Incubation</td><td>None</td></tr><tr><td>Read Mode</td><td>Endpoint</td></tr><tr><td colspan="2">Compatible with all Biolog ID plates</td></tr><tr><td>Identifies aerobic bacteria, yeast and filamentous fungi</td><td>All 4 databases included</td></tr><tr><td>Results are exportable</td><td>in csv or pdf file formats</td></tr><tr><td>Databases are regularly updated</td><td></td></tr><tr><td>Software</td><td>Compatible</td></tr><tr><td>Enables 21CFR11 compliance</td><td></td></tr><tr><td>User can create custom database</td><td>Coming soon</td></tr></table>	Features	ID Station	Detection mode	Optical density (OD) at 3 wavelengths: 490 nm, 590 nm, and 740 nm	Dimensions	12.5"D x 12"W x 7.7"H	Plate Capacity	1 microplate	Temperature Incubation	None	Read Mode	Endpoint	Compatible with all Biolog ID plates		Identifies aerobic bacteria, yeast and filamentous fungi	All 4 databases included	Results are exportable	in csv or pdf file formats	Databases are regularly updated		Software	Compatible	Enables 21CFR11 compliance		User can create custom database	Coming soon	1
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User can create custom database	Coming soon																											
12.	<div>UV Transilluminator with dual 302nm/365nm wavelength. 120V</div> <div>The UV Transilluminator with dual 302nm/365nm wavelength was designed for durability &amp; rugged use. This new imaging product is a compact size, with a 21 x 26 cm viewing area, and a UV shield to fully protect its user from the UV light. The heavy duty hinge allows it to be held at any angle for gel cutting, and the black glass provides more of a uniform background for gel imaging, it also helps minimize the striping effect found on many UV transilluminators.</div> <table><tr><td>Outer Dimensions (cm)</td><td>253 (D) x 340 (W) x 80 (H) mm</td></tr></table>	Outer Dimensions (cm)	253 (D) x 340 (W) x 80 (H) mm	1																								
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	Viewing Dimension (cm)	210 (D) x 260 (W) mm	
	Wavelength	302 nm / 365 nm	
	UV Tubes - 302 nm	8W x 5	
	UV Tubes - 365 nm	8W x 6	
	Power	100V - 240V 50-60 Hz	
	Weight	5 kg	
	Power Cords	US or EU, UK	
<b>13.</b>	<b>Analytical Balance</b>		<b>1</b>
	Accuracy	0.00001	
	Usage/Application	For Laboratory	
	Weighing Capacity	200 Gm	
	Calibration	Fully Automatic	
	Type Of Weighing Scale	Table Top Scale	
	Power Supply	Electricity	
	Pan Size	90 mm	
	Automation Grade	Automatic	
	Capacity	220 g	
	mol Conversion Function	Included	
	Display	OEL display (dot matrix)	
	Weight	Approx. 7.0 kg	
	Body Dimensions	Approx. 212(W) x 367(D) x 345(H) mm	
	Pan Size	ø91 mm	
	Sensitivity Stability Against Temperature Range	±2 ppm/°C (10 to 30°C)	
	Operating Temperature/Humidity Range	5 to 40°C 20 to 85% *5	
	Ionizer	Optional	
	Clock-CAL	Included	
	Inspection Support Function	Included	
	Sample (Concentration) Preparation	Not Included	
	HPLC Buffer Solution Preparation	Not Included	
	Minimum display	0.1 mg	
	Recipe Compounding	Not Included	
	USB Device (Type B)	Included	
	USB Host (Type A)	Not Included	
	Response Time *4	2 sec.	
	Response Time for race Measurements *3	2 sec.	
	Linearity *2	±0.2 mg	
	Minimum Weight *2	200 mg	
	Repeatability (Standard deviation)	0.1 mg	
	External Calibration Weight Range for Span Calibration	95 to 220.009 g (200 g)	
	Calibration Weight	Built-in	
	Input/Output Terminal	RS-232C (D-sub9P plug) USB device (Type B) Ionizer	

14.	<p><b>FPLC start (FPLC)</b></p> <p>is a preparative chromatography system for laboratory scale protein purification is designed as a stand-alone system, with intuitive design, simple flow path, and user-friendly interface. With it is easy to purify a wide variety of proteins using built-in quick start methods or predefined templates, or by creating your own methods.</p> <p>Can be combined with the Frac30 fraction collector, the user-friendly start control software, and application-focused prepacked columns for an automated solution.</p> <table><tr><th>Parameter</th><th>Specification</th></tr><tr><td>System Type</td><td>Bench-top, stand-alone system</td></tr><tr><td>Flow Rate</td><td>Operating range: 0.5 to 5 mL/min; Wash flow: 1</td></tr><tr><td>Max Operating Pressure</td><td>5 bar (0.5 MPa, 72.5 psi)</td></tr><tr><td>Detection</td><td>Single wavelength UV monitor (LED-based) at 2</td></tr><tr><td>Conductivity Range</td><td>0 to 300 mS/cm</td></tr><tr><td>Dimensions (W x H x D)</td><td>340 mm x 360 mm x 280 mm</td></tr><tr><td>Weight</td><td>8 kg (excluding packaging)</td></tr><tr><td>Operating Temperature</td><td>+4°C to +35°C (suitable for cold rooms)</td></tr></table> <p><b>Features and Capabilities</b></p> <p><b>Control Interface:</b> The system can be operated using an intuitive <b>touchscreen display</b> for stand-alone use or connected to a computer with optional UNICORN start control software for enhanced control and evaluation.</p> <p><b>Applications:</b> It supports common purification techniques including affinity chromatography (AC), ion exchange chromatography (IEX), desalting (DS), and gel filtration (GF).</p> <p><b>Pre-packed Columns:</b> The system is optimized for use with a wide range of Cytiva's pre-packed columns.</p> <p><b>Fraction Collection:</b> The optional <b>fraction collector</b> can collect up to 30 fractions in various tube sizes (1.5 mL to 15 mL).</p> <p><b>Automation:</b> Built-in "quick start" methods and editable templates simplify the transition from manual to automated protein purification.</p> <p><b>Flow Path:</b> Features a visible, front-facing flow path, making it easy to monitor the process and connect columns.</p>	Parameter	Specification	System Type	Bench-top, stand-alone system	Flow Rate	Operating range: 0.5 to 5 mL/min; Wash flow: 1	Max Operating Pressure	5 bar (0.5 MPa, 72.5 psi)	Detection	Single wavelength UV monitor (LED-based) at 2	Conductivity Range	0 to 300 mS/cm	Dimensions (W x H x D)	340 mm x 360 mm x 280 mm	Weight	8 kg (excluding packaging)	Operating Temperature	+4°C to +35°C (suitable for cold rooms)	1
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15.	<p><b>PCi-Ultrasonic bath (Sonicator)</b></p> <p><b>Technical Specifications</b></p> <ul style="list-style-type: none"><li>Operating frequency 33 ±3 KHz, for all general purpose cleaning is highly recommended. Frequency of 40 KHz is also available.</li><li>Input voltage range of 200V AC - 230V AC, 50 Hz, single phase.</li><li>Micro controller based timer range 0 to 15 minutes upto 3.5 ltrs.30/99 min. timer are also available.</li><li>Thermostatic heating</li><li>Digital temperature controller, degassing, PSP (optional) if required.</li><li>Higher capacity other than mentioned are also available as per customer requirements.</li><li>Different shape baskets available.</li><li>Weight rings of differences sizes available for Different measuring cylinders.</li></ul>	1																		

	<ul style="list-style-type: none"> <li>• Available with Heater, DTC, PSP, Degassing as optional.</li> <li>• Capacity: 9 Lit</li> <li>• Tank Size: (LxHxB) mm: 300x200x150</li> <li>• Overall Dim (LxBxH) mm: 400x300x375</li> <li>• Wattage: 250W</li> </ul>	
16	<p><b>Vertical Laminar Air Flow</b></p> <p><b>General specifications</b></p> <ul style="list-style-type: none"> <li>• <b>Materials:</b> stainless steel for the work zone is common, but PP (polypropylene) is available for high resistance to acids and alkalis. Side panels are often made of tempered glass.</li> <li>• <b>Air filtration:</b> Incorporates both a pre-filter to capture large particles and a HEPA filter with a filtration efficiency of 99.995% for 0.3µm particles.</li> <li>• <b>Air speed:</b> Adjustable air speed is available, with some models offering 8 levels. The standard air flow velocity is typically between 0.3 and 0.5m/s.</li> <li>• <b>Air return:</b> Some models have an air return design to reduce the operator's feeling of being blown and to extend filter life.</li> </ul> <p><b>Control and safety</b></p> <ul style="list-style-type: none"> <li>• <b>Display:</b> Options include an LCD or a 7-inch color touch screen that can display real-time status such as air velocity, pressure, and timer settings.</li> <li>• <b>Alarms:</b> Built-in alarms can signal issues like ultra-high filter pressure, filter failure, front window opening issues, and low wind speed.</li> <li>• <b>Interlocking functions:</b> The system includes interlocks to enhance safety, such as: <ul style="list-style-type: none"> <li>◦ UV lamp and blower/LED lamp</li> <li>◦ Fan and front window</li> </ul> </li> <li>• <b>UV lamp:</b> Includes a UV lamp with a timer and a 5-second delay for operator safety.</li> <li>• <b>Memory function:</b> Some models retain settings in case of a power failure.</li> </ul>	1
17	<p><b>FTIR</b></p> <p>1. Fourier Transform- Infra Red Spectrophotometer,</p> <ul style="list-style-type: none"> <li>• Advanced PC based system FTIR system</li> <li>• Full mid-IR range from 7,800cm<sup>-1</sup> to 350 cm<sup>-1</sup></li> <li>• 30 deg incident angle Michelson's interferometer with completely sealed and desiccated optics</li> <li>• Spectral resolution of 0.9, 2, 4, 8, 16 cm<sup>-1</sup></li> <li>• High energy ceramic</li> <li>• Data Sampling Semiconductor laser with temperature control</li> <li>• Sample Compartment is equipped with automatic accessory recognition Mechanism</li> <li>• Window plate (Humidity-Resistance type) KRS-5</li> <li>• Accessory kit English</li> <li>• Power cable for 240V 2.4m</li> </ul>	1

18.	<p><b>Binocular Biological Microscope</b></p> <ul style="list-style-type: none"> <li>• Binocular Biological Microscope</li> <li>• Focus Type - Coarse, Fine Adjustment</li> <li>• Total Magnification : 40x, 100x, 400x, 1000x</li> <li>• Camera Resolution 4k</li> <li>• Magnification - 4x, 10x, 40x, 100x</li> <li>• Numerical Aperture : 1.25</li> <li>• Condenser Abbe</li> <li>• Field of View : 20 mm</li> <li>• Correction Achromatic</li> <li>• Objective Numerical Aperture : 1.25</li> <li>• Objective Type - Plan Achromat</li> <li>• Immersion Oil</li> <li>• Illumination Type - LED, Transmitted</li> <li>• Light Source - LED</li> <li>• Head Type - Binocular</li> <li>• Eyepiece Count - 2</li> <li>• Ergonomic Design</li> <li>• Viewing Angle 30 degrees</li> <li>• Eyepiece Magnification 10x</li> <li>• Eyepiece Type Widefield</li> <li>• Field Number 20</li> <li>• High-Eyepoint</li> <li>• Widefield</li> <li>• Mechanical Stage</li> <li>• Specimen Holder</li> <li>• Slide Holder</li> <li>• Stage Movement XY</li> <li>• Darkfield Polarizing</li> <li>• Camera, Darkfield condenser, Filters, Phase contrast kit, Software, Stages</li> <li>• Body Material - Metal</li> <li>• Body Design - Upright</li> <li>• Body Size - 400 cm * 400 cm * 200 cm</li> <li>• Body Weight - 5.9 kg</li> </ul>	1
19	<p><b>6 PLUS Magnetic Stirrer with Heating (Reaction station)</b></p> <p>6 Plus Reaction Station (1)  Easy-On PTFE Cap(6pcs/set) (1)  Silicone Septa for PTFE Caps (100pcs/set) (1)  250 ml Reaction Flask+Reflux Tube+Connecting Set (6 pcs/set) (1)  Sealing Cap with PTFE Face(10pcs/set) 1  Elliptical Stirring Bar 25 mm RE(10pcs/set)  Stirrer with Heating Hei-PLATE Mix'n'Heat Core+ Ø 135, Temperature sensor Pt1000 (V4A) (1)</p>	1



All the Quotations must be addressed to:

**Prof. Neerati Prasad,**  
**Director,**  
**Centre for Drug Research (RUSA 2.0),**  
Professor of Pharmacy,  
Kakatiya University,  
Warangal-506009 Telangana State

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

The last date for receipt of quotations is 12<sup>th</sup> December 2025. Quotations received after the deadline will not be accepted.

The University reserves the right to accept or reject any quotation in full or in part without assigning any reason.

Yours truly



**DIRECTOR**



**RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA 2.0)**  
**KAKATIYA UNIVERSITY, WARANGAL – 506009**

Name of the Director: Dr. P. Srinivas

Designation: Director

Centre: Centre for Ethnomedicinal Plants (CEMP)

**NOTICE INVITING QUOTATIONS**

No:99/RUSA/CEMP/UC/KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

S.No	Name of the Equipment/Item	Quantity Pack
1	<b>Fluidics &amp; Sample Handling Module for flow cytometer</b> <b>Specification:</b> <ul style="list-style-type: none"><li>Acoustic-assisted hydrodynamic focusing.</li><li>Positive-displacement syringe pump for volumetric analysis</li><li>Flow rate range: minimum to maximum</li><li>Sample recovery feature for difficult samples</li><li>Reservoirs and fluid storage system</li><li>Resistance to clogging with larger flow cell design</li><li>Enables bead-free absolute cell counts</li></ul>	1
2	<b>Optical &amp; Detection Unit for Flow cytometer</b> <b>Specification:</b> <ul style="list-style-type: none"><li>Blue laser and Red Laser for 4 Colors &amp; 6 parameters. (Blue 488nm - FITC, PE, and PerCP-Cy 5.5; Red 633 nm -APC) OR</li><li>3 Lasers: 405 nm (Violet), 488 nm (Blue), 638 nm (Red) and 13 fluorescence channels. Up to 16 detection channels (FSC, SSC + fluorescence) OR</li><li>4 Lasers with 488, 405, 561 and 637 nms</li><li>Laser should be upgradable</li></ul>	1
3	<b>Autosampler module for flow cytometer</b> <b>Specification:</b> <ul style="list-style-type: none"><li>Autosampler compatible with 96-well, 384-well, and deep-well plates</li><li>One-click transition between tubes and plates</li><li>Acquisition time: &lt;42 min (96-well), &lt;180 min (384-well)Flow Cytometer Starter Kit, and other all accessories.</li><li>Antibodies kit should be include</li><li>Computer for data management: (6th Gen Intel Core i7; 16 GB RAM, 1 TB Hard SSD; 19 Inch Flat Panel Monitor; Compatible with Windows latest version. Flow Software)</li><li>Suitable Laser color printer and 3KVA ups</li></ul>	1

4	<b>Microwave Green Extraction Unit for Natural Products</b> <ul style="list-style-type: none"> <li>• Microwave cavity: 18/8 stainless steel housing; largest microwave cavity: 43 x 40 x 41 (H) cm (70,5 litres); Microwave emission with dual magnetron system with rotating diffuser for homogeneous microwave distribution in the cavity; two 950 Watt rated magnetrons, for a total of 1900 Watt; and PID-controlled microwave emission at all power levels</li> </ul>	1
5	<b>Microwave – extraction of environmental application</b> <ul style="list-style-type: none"> <li>• Magnetic stirrer for double magnets.</li> <li>• Easy TEMP direct contact-less temperature control in all vessels.</li> <li>• SR-15 rotor with 8 vessels for extraction.</li> </ul>	1
6	<b>Microwave Green Extraction Glass reactor</b> <ul style="list-style-type: none"> <li>• 2L with glass cover, holder and sealing rings.</li> <li>• Stainless steel fragrances extraction kit.</li> <li>• Recirculating water chiller.</li> </ul>	1
7	<b>Prep Column C18, 5um, 4.6x250 mm</b>	4
8	<b>Analytical Digital Balance</b> Maximum Capacity: 220 g <ul style="list-style-type: none"> <li>• Minimum Weight (U=1%, k=2, typical): 16 mg Minimum Weight (USP, 0.1%, typical): 160 mg Settling Time: 2 s Adjustment: Internal (FACT automatic)</li> <li>• Display: Hybrid LCD touchscreen Interfaces: RS232, USB-A, Bluetooth (optional) Weighing Pan Diameter: 90 mm</li> <li>• Dimensions (H × W × D): 354 × 209 × 354 mm Features: Passcode protection, overload protection, compact design</li> </ul>	3

Quotations must be addressed to:

Dr. P. Srinivas,  
Director  
Centre for Ethnomedicinal Plants (CEMP)  
Department of Biotechnology  
Kakatiya University, Warangal-506009  
Registrar / Head (Concerned Department)

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

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Sd/-  
**(Dr. P. SRINIVAS)**  
Director, Centre for Ethno-Medicinal Plants,  
RUSA 2.0 Research Project,  
Kakatiya University, Warangal-506009 TG

## KAKATIYA UNIVERSITY - RUSA 2.0

1. Name of the Director of the Centre/Principal Investigator: Dr. N. Ramana
  2. Department / Centre Name: **Centre on Cyber Physical Systems**
  3. Title of the Research Project: **TEST RIG OR TESTBED FACILITY TO STUDY OF IIOT AND OTHER PRODUCTS/SYSTEMS FOR CPS**
- 

### NOTICE INVITING QUOTATIONS

No: RUSA/CCPS//KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

<b>Sub Centre 1: The Next Generation Wireless Communication</b>	
<b>S.No.</b>	<b>Name of the Equipment</b>
1	USRP X300 (KINTEX7-325T FPGA, 2 Chan, 10GIGE & PCIe Bus) (Quantity-2)
2	UBX-160 USRP Daughterboard (10 MHz - 6 GHz, 160 MHz BW) (Quantity-2)
3	Power Cord, 250V, 10A, India (Quantity-2)
4	Vert2450 Vertical Antenna (2.4-2.5 and 4.9-5.9 GHz) Dual band (Quantity-4)

<b>Sub Centre 2: Autonomous Person Follower Robot in 3D Environment</b>	
<b>S.No.</b>	<b>Name of the Equipment</b>
1	Dingo D v 1.5
2	Dingo v1.5 Compute Module-Mini ITX Performance
3	Dingo Power Module v1.5 Lithium Battery Package
4	Dingov1.5 Lithium Battery Charger
5	Camera Depth Intel Realsense D435
6	Hokuyo UST-10X LIDAR
7	Delivery Charges
8	Price of Integration of Selected Components

<b>Sub Centre 3: VLSI</b>	
<b>S.No.</b>	<b>Name of the Equipment</b>
1	ARTIX7 FPGA DEVELOPMENT BOARD WITH CABLES ZYNQ 7000 FPGA DEVELOPMENT BOARD PYNQ DEVELOPMENT BOARD

<b>Sub Centre 4: Speech Processing</b>	
<b>S.No.</b>	<b>Name of the Equipment</b>
1	Focusrite Scarlett 2i2 Studio 4th Gen USB Audio Interface Bundle) (Quantity-1)
2	Yamaha (HS8), ADAM Audio (Monitor Speakers Pair) (Quantity-1)
3	Zoom H6 Essentials (Quantity-1)
4	Zoom APH6 Acc Pack (Quantity-1)
5	Audio-Technica ATH-M50 Studio Monitoring Head Phones (Quantity-1)

6	Audio-Technica ATH-M50 Studio Condenser Microphone(Quantity-1)
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Sub Centre 5: AI Healthcare- Equipment	
S.No.	Name of the Equipment
1	EEG WearableHead Mask(Quantity-1)
2	Body Composition Analyser(Quantity-1)
3	Digital Spirometer with Color LCD Display with 1 Year Warranty(Quantity-1)
4	Spandan Pro Ultra (Quantity-1)
5	Mindray Umec Patient Monitor (Quantity-1)

Quotations must be addressed to:

Dr. N. Ramana  
 Canter on Cyber Physical Systems  
 RUSA 2.0 Research Project  
 KU College of Engineering and Technology,  
 Kakatiya University, Warangal-506009

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

The last date for receipt of quotations is 12<sup>th</sup> December 2025. Quotations received after the deadline will not be accepted.

The University reserves the right to accept or reject any quotation in full or in part without assigning any reason.

Sd/-

**Dr. N. RAMANA**  
**DIRECTOR**  
 CENTRE ON CYBER PHYSICAL SYSTEMS (RUSA 2.0)



**RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA 2.0)**  
**KAKATIYA UNIVERSITY, WARANGAL – 506009**

**Prof. NEERATI PRASAD**  
**PRINCIPAL INVESTIGATOR, Pharmacy Individual project**  
**Department of Pharmacy**

**NOTICE INVITING QUOTATIONS**

No: 12A/PH /RUSA/R&I/KU/2025

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

SL. No.	Equipment with Specification	Qty
1	<p><b>REFRACTIVE INDEX DETECTOR</b></p> <p>A refractive index (RI) detector is a type of universal detector used in chromatography, especially high-performance liquid chromatography (HPLC), that monitors the difference in refractive index between the eluent containing the sample and a reference cell containing only the mobile phase.</p> <p><b>Key Features</b></p> <ul style="list-style-type: none"><li>• High sensitivity and low baseline noise and drift for reliable detection of low-concentration analytes.</li><li>• Thermostatted flow cell with precise temperature control (<math>\pm 0.01^\circ\text{C}</math>) to minimize baseline drift and allow stable measurements.</li><li>• Wide dynamic range and fast response time, suitable for both analytical and semi-preparative flows.</li><li>• Compatibility with aqueous and organic mobile phases; corrosion resistant flow cell materials.</li><li>• Digital signal processing and advanced baseline correction algorithms.</li><li>• User-friendly touchscreen HMI and remote control via Ethernet/USB.</li><li>• Full data output compatibility with major chromatography data systems (CDS) – provide list of supported CDS and drivers.</li></ul> <p><b>Technical Specifications (minimum required)</b></p> <ul style="list-style-type: none"><li>• Refractive index range: 1 to 1.75 RIU</li><li>• Noise level: <math>2.5 \times 10^{-9}</math> RIU max.</li><li>• Drift: <math>1 \times 10^{-7}</math> RIU/h max.</li><li>• Range: A mode: <math>0.01 \times 10^{-6}</math> to <math>500 \times 10^{-6}</math> RIU, P and L modes: <math>1 \times 10^{-6}</math> to <math>5,000 \times 10^{-6}</math> RIU</li><li>• Response: 0.05 to 10 sec, 10 steps</li><li>• Polarity switching: Supported</li><li>• Zero adjustment: Auto zero, optical zero, fine zero</li><li>• Maximum operating flow rate: 20 mL/min</li><li>• Temperature control of cell unit: 30 to <math>60^\circ\text{C}</math></li><li>• Cell volume: 9 <math>\mu\text{L}</math></li></ul>	1

	<ul style="list-style-type: none"> <li>Operating temperature range: 4 to 35°C</li> </ul> <p><b>Signal Output:</b></p> <ul style="list-style-type: none"> <li>Analog: 0–1 V, 0–10 V (selectable) or as specified by vendor.</li> <li>Digital: USB, Ethernet (TCP/IP) interfaces; LAN connectivity for remote control and data transfer.</li> <li>Chromatography Data System compatibility: e.g., Empower, Chromeleon, OpenLab, LabSolutions and required drivers.</li> <li>Display &amp; Controls: Integrated touchscreen HMI for parameter entry, status display and diagnostics. LED indicators for power/status.</li> <li>Auto-Zero &amp; Baseline Correction: Built-in auto-zero, baseline drift compensation and automatic calibration routines.</li> </ul> <p><b>Materials:</b> Flow cell made of corrosion-resistant materials (e.g., PEEK, titanium, glass, tantalum option) with frits compatible with common solvents.</p> <p><b>Maintenance &amp; Serviceability:</b> Easy access flow cell for cleaning and replacement; spare parts availability and service support in India.</p> <p><b>Data Logging:</b> Internal event log and temperature/pressure logging with downloadable CSV files.</p> <p><b>Safety &amp; Compliance:</b> CE marked; electrical safety as per IEC; provide calibration certificate and conformity documents.</p> <p><b>Accessories</b></p> <ul style="list-style-type: none"> <li>Degasser unit (in-line or vacuum degasser) – compatible with HPLC system</li> <li>Injection valve/Guard column/Low-volume flow cell (optional) • Spare thermostatted flow cell(s)</li> <li>Set of replacement seals and filters</li> <li>Interface cables (USB, Ethernet) and software drivers</li> <li>Installation, commissioning and on-site training at Department of Pharmacy, Kakatiya University</li> <li>Two (2) years comprehensive warranty and three (3) years optional annual maintenance contract (AMC) with cost per year.</li> </ul> <p>Installation Requirements • 220–230 V, Single Phase, 50 Hz AC supply (specify power consumption)</p>	
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All the Quotations must be addressed to:

**Prof. Neerati Prasad**, Principal Investigator,  
RUSA 2.0 Research Project,  
Professor of Pharmacy,  
Kakatiya University, Warangal-506009 Telangana State

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

The last date for receipt of quotations is 12<sup>th</sup> December 2025. Quotations received after the deadline will not be accepted.

The University reserves the right to accept or reject any quotation in full or in part without assigning any reason.

**Prof. NEERATI PRASAD**  
Principal Investigator, RUSA 2.0

## KAKATIYA UNIVERSITY - RUSA 2.0

1. Name of the Principal Investigator:
2. Department :

Dr. K. PUNNAM CHANDAR  
University College of  
Engineering, KU, Kothagudem

---

### NOTICE INVITING QUOTATIONS

No: RUSA//KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

#### 1. PEEL 3 HANDHELD 3D PORTABLE SCANNER

Specification	Details
Software	Peel.OS, Peel.CAD (1), Peel.CAD Pro (2)
Recommended object size	0.1–3.0 m (0.3–10 ft)
Accuracy	up to 0.050 mm (0.0020 in)
Volumetric accuracy	0.050 mm + 0.100 mm/m (0.0020 in + 0.0012 in/ft)
Measurement capabilities – Pin	1.5 mm (0.059 in)
Measurement capabilities – Hole	3.0 mm (0.118 in)
Measurement capabilities – Step	0.1 mm (0.0039 in)
Measurement capabilities – Wall	1.0 mm (0.039 in)
Mesh resolution	0.250 mm (0.01 in)
Scanning area	340 × 475 mm (13.39 × 18.7 in)
Scan speed	80 sec/m <sup>2</sup> (7.4 sec/ft <sup>2</sup> )
Usage distance	250–550 mm (9.8–21.7 in)
Depth of field	300 mm (11.8 in)
Projector light source	IR VCSEL
Scanner controls	Touchscreen
Color resolution	50–200 DPI
Positioning methods	Geometry and/or targets and/or texture
Measurement rate	1,250,000 measurements/s
Dimensions	304 × 150 × 79 mm (12 × 5.9 × 3.2 in)
Weight	950 g (2.1 lb)



<b>Specification</b>	<b>Details</b>
<b>Connectivity</b>	USB 3.0
<b>Output formats (Peel 3)</b>	.dae, .fbx, .ma, .obj, .ply, .stl, .txt, .wrl, .x3d, .x3dz, .zpr, .dxf, .3mf, .iges (1)(2), .step (1)(2)

---

Quotations must be addressed to:

Dr. K. PUNNAM CHANDAR  
Principal Investigator  
RUSA 2.0 Research Project  
University College of Engineering, KU,  
Kothagudem

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

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Sd-

Dr. K. PUNNAM CHANDAR  
Principal Investigator  
RUSA 2.0 Research Project  
University College of Engineering, KU,  
Kothagudem

## KAKATIYA UNIVERSITY -RUSA 2.0

1. Name of the Principal Investigator: **Dr. K. SUJATHA**
2. Department: **Sericulture**
3. Title of the Research Project: **“Isolation of Bioactive Compound from *Annona muricata* and Its Effect on Rearing Performance and Antibacterial Activity in Mulberry Silkworm”**

### NOTICE INVITING QUOTATIONS

No: RUSA/SERI-ZOO/KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

S.No.	Name of the Equipment	Specifications
1	Analytical balance	0.1Mg
2	Rotary evaporator	Height adjustment: 155mm • Condenser: Vertical • Rotation speed RPM: 20-320 • One (single) piece Vapour Tube • Integrated Combi-Clip (Clamp) for Evaporation Flask • Suitable for 50 ml to 3000 ml Evaporation Flask • Rotation speed setting : LED display • Rotation speed drive: Induction motor with electronic speed control • Motor Power: 60 W • Heating capacity :1300 W • Total Power: 1360 W • Temperature range heating bath: 20-210°C • Temperature accuracy bath : 1°C • Over protection bath : cut off at 5°C over set temperature via separate Pt100 • Bath temperature setting: Digital LED display • Heating bath temperature control: electronic /digital display • Secondary over temperature cut off : 250°C • Material heating bath : Ceramic Coated • Volume heating bath (L): 4.5L Dia 255mm • Sealing Ring: PTFE • PTFE Charging pipe connected with Stop-Cock. • Power supply: 230V AC, 50Hz
3	Diaphragm Vacuum Pump	Ultimate vacuum 9 mbar Power Input 180 watts [0.25 HP] Max back pressure 1 bar Max pumping speed 2.0 m <sup>3</sup> /h [33 LPM] Inlet Connection 10 mm Outlet Connection 10 mm Noise level 45 dba Supply voltage / Amp 230 VAC, 50 HZ. / 1.0 A

4	Recirculation Chiller	<p>Working temperature range -15°C to Ambient,</p> <ul style="list-style-type: none"> <li>• Temperature Stability <math>\pm 1.0^{\circ}\text{C}</math>,</li> <li>• Cooling capacity: 500w @ 0°C</li> <li>• Pump pressure max 0.7 bar, Pump flow max 18 L/min.</li> <li>• Bath Volume: 4.5 L</li> <li>• Bath : Outer: Galvanised Iron Powder Coated</li> <li>• Inner: Stainless Steel</li> <li>• Size: 260mm x 490mm x 430mm (H)</li> </ul> <p>Supply voltage: 230 VAC, 50 HZ.</p>
5	Magnetic stirrer	2 ltr with hot plate

Quotations must be addressed to:

**Dr. K. SUJATHA**  
Principal Investigator  
RUSA 2.0 Research Project  
Sericulture  
Kakatiya University, Warangal-506009

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

The last date for receipt of quotations is 12<sup>th</sup> December 2025. Quotations received after the deadline will not be accepted.

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Sd/-

**Dr. K. SUJATHA**

PI, RUSA 2.0 Research Project

**Name of the Principal Investigator:** Dr. Srinivas Munjam  
**Research Project :** RUSA 2.0  
**Title:** Purification and characterization of bioactive molecules from microbes for the synthesis of industrially important products  
**Department:** Department of Microbiology

### **NOTICE INVITING QUOTATIONS**

No: RUSA/MicroBiology//KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

#### **1. BACTERIOLOGICAL INCUBATORS**

**Qty-2**

##### ***Specifications***

- Construction: Double-walled, with the inner chamber made of high-grade stainless steel (SS 304, often mirror polished) and the outer body made of mild steel (MS) sheets finished with a durable powder coating.
- Insulation: The gap between the inner and outer walls is filled with high-density glass wool or mineral wool (typically 65mm to 75mm thick) to minimize heat loss.
- Inner Door: A full-length inner glass or acrylic door is provided for observation of samples without disturbing the internal environment.
- Outer Door: An insulated outer door made of the same material as the exterior, fitted with a synthetic rubber gasket and a heavy-duty latch/clamp mechanism for a tight seal.
- Shelves: Supplied with 2 or 3 removable, adjustable, perforated stainless steel or chromated wire mesh shelves.
- Air Circulation: Equipped with a motorized blower or fan for forced air circulation to ensure uniform temperature distribution throughout the chamber.
- Ventilation: Adjustable air ventilators are typically provided at the top of the unit.
- Technical Specifications
- Internal Dimensions: Approximately 18" W x 8" D x 22" H (or similar, corresponding to roughly 450mm x 200mm x 560mm). Note: Common standard sizes are often cubic (e.g., 18"x18"x18"); the dimensions provided may be a custom or non-standard size.
- Capacity: The volume for this size would be roughly 40 to 45 liters (approx. 1.5 cubic feet).
- Temperature Range: Typically ranges from ambient +5°C to 60°C or up to 80°C.
- Temperature Control: Controlled by a microprocessor-based PID (Proportional, Integral, Derivative) digital temperature controller cum indicator for accurate temperature management.
- Temperature Accuracy: Generally around  $\pm 0.5^{\circ}\text{C}$  or  $\pm 1^{\circ}\text{C}$  at 37°C.
- Temperature Uniformity: Typically around  $\pm 1^{\circ}\text{C}$  to  $\pm 2^{\circ}\text{C}$ .
- Sensor: Uses a PT100 RTD sensor.

- **Heating:** Provided by high-grade nichrome wire or U-shaped tubular air heating elements placed on three sides (bottom and two sides) for uniform heating.
  - **Power Supply:** Operates on 220/230 Volts AC, 50/60 Hz, single phase supply (standard Indian power).
  - **Safety Features:** Includes safety devices like an over-temperature alarm and automatic power cut-off.
- 

## 2. HOT AIR OVENS

Qty : 2

### Specification:

#### Construction and insulation

- **Exterior:** Mild steel with powder coating, or stainless steel.
- **Interior:** Stainless steel (often SS304).
- **Insulation:** Glass wool or rockwool between the inner and outer walls.

#### Heating and temperature control

- **Heater:** Nichrome or tubular heating elements.
- **Temperature Range:** Typically up to 250°C, sometimes starting from slightly above room temperature or 50°C.
- **Temperature Accuracy:** Often within  $\pm 1^\circ\text{C}$  plus or minus 1 raised to the composed with power cap  $C \pm 1^\circ\text{C}$  or  $\pm 2^\circ\text{C}$  plus or minus 2 raised to the composed with power cap  $C \pm 2^\circ\text{C}$
- **Controller:** Microprocessor PID controller with dual display is common for precise control.
- **Safety:** High-temperature cut-off thermostats are often included. Air circulation
- **Type:** Forced air circulation with a motor-driven blower is common for even temperature distribution.
- **Gravity Convection:** Some models may use natural convection for gentler heating.

#### Additional features

- **Racks/Trays:** Stainless steel mesh trays or shelves are provided for holding samples.
  - **Power:** Operates on standard Indian power supply, such as 220/230V, single phase, 50 Hz.
- 

## 3. VISIBLE SPECTROPHOTOMETERS

Qty: 2

### Specification Details

- **Optical System** Single Beam
- **Wavelength Range** 325-1100 nm (or 325-1000 nm)
- **Spectral Bandwidth** 4 nm
- **Wavelength Accuracy**  $\pm 0.5$  plus or minus 0.5  $\pm 0.5$  nm to  $\pm 1$  plus or minus 1  $\pm 1$  nm

- Wavelength Repeatability 0.5 nm
  - Photometric Accuracy  $\pm 0.5\%$  plus or minus 0.5 %  $\pm 0.5\%$  Photometric Range-0.3-3A, 0-200%T
  - Photometric Repeatability  $\pm 0.3\%$  plus or minus 0.3 %  $\pm 0.3\%$  T
  - Stability  $\pm 0.002$  plus or minus 0.002  $\pm 0.002$  A/h
  - Detector Silicon Photodiode
  - Light Source Tungsten Lamp
  - Display LCD
  - Dimensions (L x W x H) 420x280x180 mm
  - Weight 10 kg
  - Power Supply AC 220V, 50Hz
  - Standard Accessories 1 pc software, 4 pcs 10mm glass cuvettes, power cord, manual, dust cover
- 

#### 4. DIGITAL LABORATORY WATER BATH

Liters for Accurate Temperature Control

##### *Specifications:*

- Easy to read LED display
  - Adjustable temperature range: RT+5°C to 99.9°C
  - Precise temperature control: 0.1°C
  - User-friendly glass panel touch interface
  - Dry-start protection feature for improved safety
  - Over-temperature cut-off and alarm to protect sample from over heating
  - Programmable modes can store up to 3 programs
  - Durable stainless-steel chamber
  - Timed operation capable
  - Easy to switch temperature unit between Fahrenheit (°F) and Celcius (°C)
- 

#### 5. 5-STAR INVERTER SPLIT AC

- For culture room (Justification enclosed)
  - For microbial culture room)
  - Fast Cooling | Quiet Operation | Aerodynamics Technology |
  - Capacity: 1.5 ton Split AC with 5Star rating
  - Copper coil, Inverter Model
  - With outdoor Stand and 4KV Suitable stabilizer and Installation
- 

#### 6. UV TRANSILLUMINATOR

- UV Transilluminator with dual 302nm/365nm wavelength. 120V
- The UV Transilluminator with dual 302nm/365nm wavelength was designed for durability & rugged use. This new imaging product is a compact size, with a 21 x 26 cm

viewing area, and a UV shield to fully protect its user from the UV light. The heavy duty hinge allows it to be held at any angle for gel cutting, and the black glass provides more of a uniform background for gel imaging, it also helps minimize the striping effect found on many UV transilluminators

- UV Transilluminator with dual 302nm/365nm wavelength. 120V Specifications
  - Outer Dimensions (cm) 253 (D) x 340 (W) x 80 (H) mm
  - Viewing Dimension (cm) 210 (D) x 260 (W) mm
  - Wavelength 302 nm / 365 nm
  - UV Tubes - 302 nm 8W x 5
  - UV Tubes - 365 nm 8W x 6
  - Power 100V - 240V 50-60 Hz
  - Weight 5 kg
  - Power Cords US or EU, UK
- 

Quotations must be addressed to:

Dr. Srinivas Munjam  
Principal Investigator, RUSA 2.0  
Department of Microbiology,  
Kakatiya University, Warangal-506009

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

The University reserves the right to accept or reject any quotation in full or in part without assigning any reason.



**(Dr. Srinivas Munjam)**  
Principal Investigator, RUSA 2.0

Dr. P. Venkataiah (Co-PI)  
Dr. E. Sujatha (Co-PI)

# RASHTRIYAUCHCHATARSHIKSHAABHIYAN-RUSA2.0

## KAKATIYA UNIVERSITY, WARANGAL- COMPONENT 10 RESEARCH



**Dr. T. SHASTHREE**

*Principal Investigator*

RUSA2.0, Component 10

Department of Biotechnology



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KakatiyaUniversity,Warangal-506009.TelanganaState,India

---

### NOTICE INVITING QUOTATIONS

No: RUSA/BIOTECH//KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

#### **1. PLANT GROWTH CHAMBER**

- Inside made of Stainless steel sheet
- Outside mild steel sheet with finished in white stoving enamel/powder coated paint with mat finished colour Combinations. Fitted with cooling, heating and lighting arrangements.
- Temperature range 5°C to 50°C  $\pm$  1°C. Temperature can be obtained from 15°C to 50°C $\pm$ 1°C when all lights from two sides and top are 'ON'.
- Temperature is controlled by DUAL temperature electronic Digital temperature Controller-
- Cum-Indicator to set two temperatures for day and night.
- The Above Growth chamber is complete with Humidity control from 55% to 95% RH.
- Light intensity can be adjusted controller according to requirement and Humidity shall be controlled by Humidistate.
- Complete with 0-24 hrs. Timer. To work on 220/230 volts 50 cycles A.C.only.
- Size 45x40x60cm. Cap. 10 Cuft.

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Quotations must be addressed to:

**Dr. T. SHASTHREE** Principal Investigator  
RUSA 2.0 Research Project  
Department of Biotechnology,  
Kakatiya University, Warangal-506009

- The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)
- The last date for receipt of quotations is 12<sup>th</sup> December 2025. Quotations received after the deadline will not be accepted.
- The University reserves the right to accept or reject any quotation in full or in part without assigning any reason.

**Sd-**  
**Dr. T. SHASTHREE**





Name of the Center:	CENTRE FOR NANO DRUG DELIVERY SYSTEM
Name of the Director/ PI	Prof. J. Krishnaveni
	RUSA 2.0 Research Project
Department	Department of Pharmacy

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### **NOTICE INVITING QUOTATIONS**

No: RUSA/UCPS-CNDR//KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

#### **1) COOLING CENTRIFUGE**

##### **Specifications**

Capacity:	4 × 145 mL (TX-150), 6 × 50 mL
Maximum Speed:	4,500 rpm (TX-150 rotor), 17,850 rpm (24 × 2 rotor)
Maximum RCF	
(Relative Centrifugal Force):	3,260 × g (TX-150 rotor), 30,279 × g (24 × 2 rotor)
Refrigeration:	Yes
Noise Level:	< 52 dB(A) with 24 × 2 rotor, < 56 dB(A) with all rotors
Wattage:	750 W
Electrical Requirements:	230 V, 50/60 Hz
Controller Type:	Microprocessor
Drive System:	Direct Brushless Induction
Run Time:	Up to 99 hr 59 min (continuous operation)
Temperature Range:	-10°C to +40°C
Acceleration/Braking Profiles:	2 (standard and soft)
Frequency:	50/60 Hz
Voltage:	230 V
Included Rotor:	24 × 2 Fixed Angle Rotor

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#### **2) WATER PURIFICATION SYSTEM**

##### **Specifications**

Bacterial Retention:	0.99
Conductivity:	Type I: 0.055 µS/cm, Type II: 0.067 to 0.1 µS/cm
Bacterial Content:	Less than 0.01 CFU/mL
Feedwater Connector:	3/4 in. NPT and 1/2 in. NPT
Feed Water Monitoring:	No
Feedwater Source:	Tap

Flow Rate:	Up to 1 L/min
Water Type:	Type 1 and Type 2
TOC (Total Organic Carbon):	1 to 5 ppb
TOC Monitor with UV Intensity	Monitoring: No
Feedwater Pressure:	1 to 6 bar
System Includes:	RO (Reverse Osmosis) / pretreatment cartridge Ultrapure polisher cartridge, Sterile 0.1 µm filter UV lamp, UF filter, 60 L tank, CO <sub>2</sub> vent filter, Sterile overflow, Wall bracket
Operating Pressure:	1 to 6 bar
Particles (>0.2 µm/mL):	Less than 1
Permeate Performance:	16 L/hr at 10°C
Power Consumption:	0.12 kW
RO Flow Rate:	16 L/hr
Electrical Requirements:	100/240 V, 50/60 Hz
Voltage:	100/240 V
Frequency:	50/60 Hz
Additional Item:	Prefiltration Unit

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### 3) UV-VIS SPECTROPHOTOMETER

#### Specifications:

Baseline Flatness:	±0.002A
Detector Type:	Dual Silicon Photodiodes
Display:	7-inch color touchscreen (tiltable, high-definition)
Resolution:	800 × 1280 pixels
Drift (at 500 nm after 1-hour warm up):	0.0005A/hr
Electrical Requirements:	External AC to DC converter
Voltage and Frequency:	Automatically selected, 100–240 V, 50–60 Hz
Lamp:	Xenon Flash Lamp
Noise (RMS at 500 nm for 60 consecutive measurements):	≤0.00020A at 0A (260 & 500 nm) ≤0.00030A at 1A (260 & 500 nm) ≤0.00040A at 2A (260 & 500 nm)
Optical Design:	Double Beam
Photometric Accuracy (Instrument):	±0.002A at 0.5A, ±0.004A at 1.0A, ±0.008A at 2.0A
Photometric Display Range:	-3A to +5A
Photometric Range:	-2A to +3.5A
Photometric Repeatability:	±0.001A at 1A (measured at 546 nm)
Printer:	Snap-on printer
Stray Light:	1.0%T at 198 nm 0.05%T at 220 nm , 0.03%T at 340 nm
Wavelength Accuracy:	±0.5 nm
Wavelength Data Interval:	0.1 nm, 0.2 nm, 0.5 nm, 1 nm, 2 nm, 5 nm

Wavelength Range:	190 nm – 1100 nm
Wavelength Repeatability:	±0.2 nm

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#### **4) SHAKING HEATING BATH**

##### **Specifications:**

Bath volume:	55L
Working temperature range:	Ambient +5 <sup>0</sup> C to 100 <sup>0</sup> C
Temperature stability at 50 <sup>0</sup> C:	± 0.1 <sup>0</sup> C
Motion type:	Reciprocal
Frequency(RPM):	30-200rpm
Stroke Length:	30mm
Electrical requirements:	220V/60Hz,A

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#### **5) ANALYTICAL BALANCE**

##### **Specifications**

Maximum Capacity:	220 g
Readability:	0.1 mg
Repeatability (typical):	0.08 mg
Linearity (typical):	±0.2 mg
Setting Time:	2 seconds
Adjustment:	Internal (FACT automatic)
Display :	Hybrid LCD touchscreen
Interfaces:	RS232, USB-A, Bluetooth (optional)

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#### **6) FREEZE DRYER - BENCHTOP**

##### **Specifications:**

Electrical:	230 V, 60 Hz, 7 A
Collector Temperature:	–50 °C (–58 °F)
Ice Holding Capacity:	4.5 L
Vacuum Pump Displacement Required:	98 L/min

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## 7) DEEP FREEZER

### Specifications:

Capacity:	100 L
Temperature Range:	-20 °C
Number of Doors:	1
Defrost Type:	Auto-Defrost
Temperature Accuracy:	±3 °C
Power Supply:	230 V AC

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## 8) AUTO DESICCATOR

### Specifications:

Setting Range:	10–60% RH (1% scale)
Actual Set-Up Humidity:	20–40% RH
Volume:	120 L (4.24 cu ft)
Number of Doors:	1
Shelves (standard/max):	2 / 4
Electrical:	230V, 50/60Hz, 1P, 2A

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## 9) HIGH PRESSURE HOMOGENIZER

### Specifications:

Sample Volume: System should handle minimum sample volume of 50 mL.  
Pressure range: Adjustable Up to 29000psi/2000 bar with clear display  
Flow : Should have Flow rate in the range of 50-150 mL / min.  
Should have stainless steel heat exchanger to control inlet and outlet temperatures  
Should provide a compatible branded/reputed chillier to control temperature or to maintain the temperature of heat exchanger.  
Should have electric gear motor driven, single-acting, high-pressure pump  
Should have Pressure transducer with digital display for precision pressure measurement  
General specifications:  
Suitability: Should suitable for cell disruption of Bacteria such as E-coli, Plant cells, Mammalian cells etc.,  
Type: Should be easy in operation cleaning, sterilization & maintenance and also should be CIP and SIP sterilizable.  
Safety: System should have over pressure protection during operation for safety  
Should include 2 sets of all wear and tear parts such as homogenizer valve/camber, O-rings, cascades, springs, etc.

System should be complete in all respects and fully functional during delivery and no additional parts are required. Should include all Spares/Consumables required for installation & demonstration

Please enclose supporting documents along with technical specifications and List of users with the quotation.

The detailed Service manual should be supplied along with the system.

Technical presentation and Demonstration of quoted unit should be arranged if required

Warranty should be 1 years.

The instrument should be installed & demonstrated free of cost after delivery of the unit

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## **10) VACCUM OVEN WITH VACCUM PUMP**

### **Specifications:**

Temperature range:	+10 <sup>0</sup> C to 200 <sup>0</sup> C
Vacuum degree:	133Pa
Chamber material:	Stainless steel
Power consumption:	1450WA
Ambient operating temperature:	+5-40 <sup>0</sup> C

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## **11) P<sup>H</sup> METER**

### **Specifications:**

pH Channel:	Single-channel
Sensor Included:	LE410 (Generalist chemical-resistant glass)
pH Measuring Range:	-2 to 16
pH Resolution:	0.01 / 0.1
pH Accuracy:	(±) 0.01
mV Measuring Range:	-2000.00 to 2000.00
mV Resolution:	1
mV Accuracy:	(±) 1
Temperature Range:	-5 °C to 105 °C
Temperature Resolution:	0.1 °C
Temperature Accuracy:	(±) 0.3 °C
Display Type:	4.3" segmented LCD

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## **12) MAGNETIC STIRRER WITH FOUR STATION**

### **Specifications:**

Number of stirring positions:	4
Stirring position distance:	135 mm

Stirring quantity min. per stirring position (H<sub>2</sub>O):0.005 L  
 Stirring quantity max. per stirring position (H<sub>2</sub>O):5 L  
 Motor rating output: 5 W  
 Speed range: 100 – 3000 rpm  
 Setting accuracy speed: 100 rpm  
 Stirring bar length: 10 – 30 mm  
 Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h)  
 Set-up plate material: glass  
 Set-up plate dimensions: 124 x 124 mm  
 Automatic reverse rotation: yes  
 Intermittent mode: 6 sec – 30 min  
 Speed deviation (no load, nominal voltage, at 1500 rpm + 25 °C):±2 %  
 Modular expandable stirring system (2–30 units):yes  
 Frequency: 50/60 Hz  
 Power input: 10 W

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### 13) COMBINED FLUORECENCE AND ABSORBANCE SPECTRPHOTOMETER:

- 2-in-1 Simultaneous Fluorescence and Absorbance Spectrometer
- UV-Vis-NIR Fluorescence Detection Wavelength Range from 250 to 1,100 nm
- Full3-D Fluorescence EEM Acquisition in Less Than One Second
- Fluorescence Sensitivity Specification of 6,000:1RMS
- Automatic Correction for Primary and Secondary Inner Filter Effects(IFE)
- High Fidelity Molecular Finger printing with Unique(Absorbance-Transmittance Excitation Emission Matrix)Technology

Millisecond CCD Detection of Entire Fluorescence Spectrum

Fluorescence and Absorbance in one Spectrometer

Widest Range of Spectroscopic Acquisition Modes:

- Fluorescence emission spectra
- Fluorescence excitation spectra
- Capture fluorescence value
- Fluorescence EEM
- Fluorescence kinetics(or single point intensities)

Absorbance and %Transmittance (spectra or kinetics)

Appropriate Sample tray/holder for solid samples- both powder and film must be supplied with the instrument.

<b>Acquisition Modes</b>	Absorbance and Fluorescence Spectrometer
<b>Flourescence Sensitivity</b>	Water Raman SNR >6,000:1 RMS, 350 nm excitation, 5 nm slits
<b>Spectral Acquisition Rate</b>	510,000nm/min
<b>EEM Acquisition Rate</b>	As fast as 1second(sample and wavelength dependent)
<b>A-TEEM Acquisition Rate</b>	As fast as 30seconds(sample and wavelength dependent)
<b>Fluorescence Detector</b>	CCD/ Spectrograph

<b>Fluorescence Detector Range</b>	250to1,100nm
<b>Fluorescence Bandwidth</b>	1,2,3,5,10,20nm(excitation and emission)
<b>Light Source</b>	75W Xenon arc lamp. Dedicated cartridge for snap-in replacement
<b>Excitation/Absorbance Wavelength Range</b>	250 to 1,000nm
<b>Absorbance Detector</b>	Silicon Photodiode
<b>Absorbance Detector Range</b>	250 to 1,000nm
<b>Absorbance Bandwidth</b>	1,2, 3, 5,10,20 nm
<b>Absorbance Range</b>	0 to 2 A
<b>Absorbance Accuracy</b>	+/-0.02A
<b>Wavelength Accuracy</b>	+/-1nm
<b>Software</b>	Yes
<b>Polarizers</b>	Yes(280 to 750nm)

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#### 14) OPTICS CARRIER SYSTEM (12 ITEMS)

##### Specifications:

Optics carrier with zoom magnification changer 8:1 - Magnification range: 7.5x -60x (1x objective, 10x eyepieces) 10 - Optics parfocal - 8 click stop zoom settings - Modular system - Suitable for achromatic, plan or planapo objectives - Objective thread – ESD

**1.Inclined binocular tube 45°** , Inclined binocular tube 45°, [Interpupillary distance 52-76 mm](#)

**2. Eyepiece10x/23B, eyeglasses** Eyepiece 10x/23B, adjustable diopters, for S-Series, for eyeglasses wearers and non- eyeglass wearers, field number 23, incl. symmetrical eye cup, built in reticle holders From Eye to Insight

**3.Objective achromat 0.63x, WD = 148 mm**

Objective Achromat 0.63x, M-Serie-Routine,  
Working Distance 148 mm, Connection thread, Diameter 58 mm

**4.Ergo Wedge 5°-25° M-series**

Ergo Wedge 5°-25° - Intermediate piece which enables the viewing angle of the binocular tube used to be changed continuously within the range 5°-25° - The eyepieces are displaced towards the observer by up to 65mm - Improved viewing conditions with various binocular tubes - Manufactured from antistatic material

**5.Flex-arm stand with table clamp**

Flex-arm stand with table clamp, Counterbalance adj. weight range: 1.5 to 7 kg, Load range: Factory set at 2.6 kg max. table thickness: 100 mm, max. extension: 995 mm (360° arc)

**6. Horizontal surface mount**



Horizontal surface mount, for flex arm stand 6' x 6', hole spacing 5' x 5', mounting bolts not included. screws recommended

**7.Mountable focus arm:** Mountable focus arm, for routine focus range: 94 mm

**8.LED3000 RL,58mm :** LED3000 RL,58mm ring light, for bright and uniform illumination, for 58 mm objectives, ca. 5600 K colour temperature, recommended working distance: 60-150 mm, with switchable segments, with integrated control panel and CAN bus, indicator LEDs for active segments

**9.High Perf. Diffusor for LED3000 RL**

**10.Power Supply for LED3000/LED5000**

Power Supply for LED3000 and LED5000 illumination series, for stand alone, Input: 100 - 240 Volts Output: 33V, 0.9A, 30W max excl. Power cord From Eye to Insight

**11.Dust Cover (80 x 50 x 50 cm) Antistatic**

**12.India Power Cord**

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## **15) FILTRATION SET WITH FLASK, VACCUM PUMP**

### **Specifications:**

Material:	High grade Stainless steel
Funnel Capacity:	500ml
Flask capacity:	1000ml
Filter size:	47mm diameter membrane filters
Mesh size:	100µm
Filtration Area :	11.3cm <sup>2</sup>
Valve and Vacuum connections:	PTFE valves with vacuum tubing (8-12mm)
Clamp and stopper:	Silicon stoppers
Operating Temperature:	180 <sup>0</sup> C-200 <sup>0</sup> C
System Types:	3 branches
Vacuum pump:	Oil free diaphragm pump
Vacuum capacity:	60-70kPa
Flow rate:	15-22L/min

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## **16) HPLC COLUMN**

### **Specifications:**

C18 5µm 250x4.6mm  
Particle size 5µm, flow rate 1ml/min  
Reverse phase HPLC column

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Quotations must be addressed to:

Prof. J. Krishnaveni  
Principal Investigator  
RUSA 2.0 Research Project  
Department of Pharmacy  
University College of Pharmaceutical Sciences,  
Kakatiya University, Warangal-506009 TG

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

The University reserves the right to accept or reject any quotation in full or in part without assigning any reason.

Sd/-  
**(Prof. J. KRISHNAVENI)**  
Director  
RUSA 2.0 Research Project  
University College of Pharmaceutical Sciences,  
Kakatiya University  
Warangal-506009 TG

# RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN – RUSA 2.0



**Prof. Estari Mamidala**  
Principal Investigator  
RUSA 2.0 - Research, Innovation &  
Quality Management

Department of Zoology  
Kakatiya University,  
Warangal-506 009. T.G  
Email: drestari@kakatiya.ac.in



## NOTICE INVITING QUOTATIONS

No. ZOO/UC/KU/WGL

Date: 28/11/2025

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

S. No	Name of the Equipment	Specifications
1	<b>ANALYTICAL DIGITAL BALANCE</b>	<b>Technical Specifications</b> <ul style="list-style-type: none"><li>• Maximum Capacity: 220 g</li><li>• Readability: 0.1 mg Repeatability (typical): 0.08 mg Linearity: <math>\pm 0.2</math> mg (typical)</li><li>• Minimum Weight (U=1%, k=2, typical): 16 mg Minimum Weight (USP, 0.1%, typical): 160 mg Settling Time: 2 s Adjustment: Internal (FACT automatic)</li><li>• Display: Hybrid LCD touchscreen, USB-A, Bluetooth (optional) Weighing Pan Diameter: 90 mm</li><li>• Dimensions (H <math>\times</math> W <math>\times</math> D): 354 <math>\times</math> 209 <math>\times</math> 354 mm Features: Passcode protection, overload protection, compact design</li></ul>

Quotations must be addressed to:

Prof. ESTARI MAMIDALA  
Principal Investigator  
RUSA 2.0 Research Project  
Department of Zoology,  
Kakatiya University, Warangal-506009

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

The last date for receipt of quotations is 12<sup>th</sup> December 2025. Quotations received after the deadline will not be accepted.

The University reserves the right to accept or reject any quotation in full or in part without assigning any reason.

Sd/-

**Prof. ESTARI MAMIDALA**  
Principal Investigator  
RUSA 2.0 Research Project  
Department of Zoology,  
Kakatiya University, Warangal-506009

## KAKATIYA UNIVERSITY -RUSA 2.0

1. Name of the Principal Investigator:
2. Department / Centre Name:
3. Title of the Research Project:

Prof. G. SHAMITHA  
Department of Zoology  
Studies on DNA and RNA  
Components of nuclear matrix in  
Antheraea mylitta

### **NOTICE INVITING QUOTATIONS**

No: RUSA/ZOOLOGY//KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

S.No	Name of the Equipment	Specifications
01	Horizontal electrophoresis	Horizontal electrophoresis system, 15 x 10 cm tray, with gel caster includes 15-and 20-well combs, 15 x 10 cm (WxL) UV – transparent tray, Mini-gel caster
02	Vertical electrophoresis	Tetra cell for 1.0mm Gels,4-gel vertical electrophoresis system,1.0 mm gel thickness, Includes companion module,2 casting stands,4 casting frames,10-well combs,5 short plates and 5 spacer plates
03	Power Supply	Basic Power Supply 100-120/220-240 V, Power Supply for basic applications such as submerged horizontal gel electrophoresis, includes Power cord
04	Blotting Unit	Transfer system Blotting instrument, includes base, 2 cassettes to hold 1-2 mini or upto 4 mini blotting sandwiches, blot roller
05	Thermal Cycler	Thermal Cycler system, includes 96-well thermal Cycler, power cord, tube support ring
06	Laboratory Freeze dryer/Lyophilizer	Laboratory Freeze dryer/Lyophilizer-80 degrees which includes: Vaccum pump
07	pH Meter	Digital pH meter with Electrode (LED display)

08	Refrigerator	Capacity – 236 L; Energy inverter motor 20 years warranty (2 years product and 18 years motor) without stand model.
09	Stabilizer	working range 130 VAC – 290 VAC

Quotations must be addressed to:

Prof. G. Shamitha  
Principal Investigator  
RUSA 2.0 Research Project  
Department of Zoology,  
Kakatiya University, Warangal-506009

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

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Sd-

**Prof. G. SHAMITHA**  
Principal Investigator  
RUSA 2.0 Research Project  
Department of Zoology,  
Kakatiya University, Warangal-506009

Name of the Department: Department of Pharmacy, UCPSc, KU  
Name of the PI Prof. J. Krishnaveni  
RUSA 2.0 Research Project

---

### **NOTICE INVITING QUOTATIONS**

No: RUSA/UCPS//KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

#### **1. pH METER SPECIFICATIONS:**

**Specifications:**

Parameters: ORP, pH

Channel: Single channel

Sensor Included: LE410 (Generalist chemical-resistant glass)

pH Measuring Range: -2 to 16

pH Resolution: 0.01 / 0.1

pH Accuracy ( $\pm$ ): 0.01

mV Measuring Range: -2000.000 to 2000.000

mV Resolution: 1

mV Accuracy ( $\pm$ ): 1

Temperature Range: -5 °C to 105 °C

Temperature Resolution: 0.1 °C

Temperature Accuracy ( $\pm$ ): 0.3 °C

Display Type: 4.3" segmented LCD

#### **2. MAGNETIC STIRRER WITH 4 STATION**

**Specifications:**

Stirring Speed Range: 100–1,400 rpm

Max Stirring Capacity: 20 L (HO)

Heating Range: 20–300 °C Heating Power: 800 W Power Input: 825 W

Accuracy:  $\pm 1$  K (with Pt1000 sensor)

Display: LCD

Ambient Conditions: 5–31 °C up to 80% RH / 32–40 °C up to 50% RH

Protection Class: IP42 / IEC 60529, IEC 61140 Class I

Acoustic Noise: <50Db(A)

Max operating altitude: 2000m

### 3. ANALYTICAL BALANCE

#### Specifications

Maximum capacity:220g

Readability:0.1mg

Repeatability (typical):0.08mg

Linearity: +/- 0.2mg(typical)

Display hybrid lcd touch screen

Weighing pan diameter:90mm

### 4. CIRCULATING BATH (HEATING & COOLING)

#### Specifications:

Temperature Range: -10<sup>0</sup>C to 100<sup>0</sup>C

Precision: ±0.2

Chamber Volume: 4.5L

Electrical Requirements: 220V 50Hz

Pump(Flux): 8L/min

Power Consumption: 2300W

---

Quotations must be addressed to:

Prof. J. Krishnaveni  
Principal Investigator  
RUSA 2.0 Research Project  
Department of Pharmacy  
University College of Pharmaceutical Sciences,  
Kakatiya University, Warangal-506009 TG

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Sd/-  
**(Prof. J. KRISHNAVENI)**  
Principal Investigator  
RUSA 2.0 Research Project  
University College of Pharmaceutical Sciences,  
Kakatiya University  
Warangal-506009 TG



**RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA 2.0)**  
**DEPARTMENT OF CHEMISTRY**  
**KAKATIYA UNIVERSITY**  
**WARANGAL – 506009**

**Prof. S. JYOTHI**  
Principal Investigator

Mail: jyothisri97@yahoo.co.in  
Cell: 9866043700

**NOTICE INVITING QUOTATIONS**

No. CHEM/UC/KU/WGL

Date: 28/11/2025

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

S. No	Name of the Equipment	Specifications
1	<b>MAGNETIC STIRRER 2-LITER CAPACITY WITH HOT PLATE AND DIGITAL SPEED</b>	<ul style="list-style-type: none"><li>Magnetic stirrer 2 ltr (2mlh) with hot plate, and digital speed indicator -2mlh</li></ul>
2	<b>SONICATOR</b>	<ul style="list-style-type: none"><li>Ultrasonic Sonicator Bath Capacity 1.5L / 2.5L - Ultrasonic Baths use sound waves and liquid to clean small objects. Borosil Labquest digital series of Ultrasonic cleaners come in four different sizes.</li><li>These stainless steel cleaners feature a bright LED display for time and temperature and easy push-button control along with degs functions.</li></ul>
3	<b>AIR OVEN DIGITAL 18"X18"X24"</b>	<ul style="list-style-type: none"><li>OVEN DIGITAL WITH FAN (18X18X24") STAINLESS STEEL CHAMBER (HOT AIR OVEN)</li><li>With Test Certificate And Warranty Card -</li><li>These Ovens are MEMMERT TYPE elements on three sides temperature is controll through a DIGITAL TEMPERATURE INDICATOR-cum-Controller from ambient to 250DegC with an accuracy of +/-1DegC. All digitally controlled ovens are fitted with AIR CIRCULATION FAN as a standard accessory.</li></ul>
4	<b>VORTEX MIXER</b>	<ul style="list-style-type: none"><li>VORTEX MIXER Speed 500 to 2800 rpm</li></ul>
5	<b>UV CHAMBER METAL BODY WITH FLUORESCENT LIGHT</b>	<ul style="list-style-type: none"><li>UV Cabinet unit is fitted with long wave,short wave and fluorescent tubes, With Test Certificate And Warranty Card</li></ul>



6	<b>AUTOCLAVE REACTOR WITH TEFLON LINING 100 ML</b>	<ul style="list-style-type: none"> <li>Stainless Steel 316 Hydrothermal Autoclave Reactor with Teflon Lining inside. 100ML THREADED TYPE</li> </ul>
7	<b>AUTOCLAVE REACTOR WITH TEFLON LINING 300 ML</b>	<ul style="list-style-type: none"> <li>Stainless Steel 316 Hydrothermal Autoclave Reactor with Teflon Lining inside. 300ML, NUT BOLT TYPE</li> </ul>
8	<b>MUFFEL FURNACE</b>	<ul style="list-style-type: none"> <li>Furnace finds application in Industries &amp; Laboratories for Ashing, Heat treatment, Ignition test, Gravimetric analysis,</li> <li>Determination of volatile and suspended solids &amp; Cement testing. Heavy gauge Mild Steel construction for durability having powder coating finish. Unexposed long lasting KANTHAL A-1 heating elements. Light Weight, Ceramic Fiber Wool insulation of High quality to give maximum thermal efficiency.</li> <li>Temperature controlled by Dual Display Microprocessor based PID Temp. Controller. Temperature Sensor.</li> <li>“K” Type (Cr/Al) Thermocouple sensor. Working Temperature Range: 400°C to 1150°C.</li> <li>Temperature Control Accuracy: + 3°C or Better. Operates on 230 Volts AC Single phase 50 Hz.</li> <li><b>SAFETY FEATURES :</b></li> <li>Thermal Safety fuse provided to avoid overheating.</li> <li>Size : 6”X6”X12”</li> </ul>
9	<b>HOT AIR OVEN PID</b>	<ul style="list-style-type: none"> <li>Inner Body Made Up Of S.S 304 Outer Body Made Up Of M.S Duly Powder Coated With Suitable Racks, with Safety Thermostat and Power saving Switch and Inbuilt Circulation Fan and Dual Display (Both Set Value and Present Value) PID Controller.</li> <li>Temperature Range: 5 Deg.C above ambient to 250 Deg.C Size: 45 x 45 x 60 cms (18” x 18” x 24”) with motor (125 Liters)</li> </ul>
10	<b>ANALYTICAL DIGITAL BALANCE</b>	<p><b>Analytical Balance</b> <b>Technical Specifications</b></p> <ul style="list-style-type: none"> <li>Maximum Capacity: 220 g</li> <li>Readability: 0.1 mg Repeatability (typical): 0.08 mg Linearity: ±0.2 mg (typical)</li> <li>Minimum Weight (U=1%, k=2, typical): 16 mg Minimum Weight (USP, 0.1%, typical): 160 mg</li> </ul>

		<p>Settling Time: 2 s Adjustment: Internal (FACT automatic)</p> <ul style="list-style-type: none"> <li>• Display: Hybrid LCD touchscreen Interfaces: RS232, USB-A, Bluetooth (optional) Weighing Pan Diameter: 90 mm</li> <li>• Dimensions (H × W × D): 354 × 209 × 354 mm Features: Passcode protection, overload protection, compact design</li> </ul>
11	<b>ROTARY EVAPORATOR WITH HAND LIFT</b>	<p><b>Specifications:</b></p> <ul style="list-style-type: none"> <li>• Lift Type: Hand Lift (manual adjustment) Height Adjustment: 155 mm</li> <li>• Rotation Speed: 20–280 rpm, scale setting Drive: DC Motor with electronic speed control</li> <li>• Heating Capacity: 1300 W Heating Bath Temp. Range: 20–210°C Temperature Accuracy: ±1 K Overheat Cut-off: 5°C above setpoint (via separate Pt100)</li> <li>• Secondary Overtemp. Cut-off: 250°C Bath Display: Digital electronic control</li> <li>• Heating Bath Material: Stainless steel V4A (1.4404) Bath Volume: 4.5 L, Diameter 255 mm Cooling Surface Area</li> <li>• 1400 cm<sup>2</sup> Supply Power: 1400 W Size (L × W × H): 395 × 490 × 430 mm Weight: 16 kg Protection Class: IP20 Operating Conditions: 0–40°C, max. 80% relative humidity</li> </ul>
12	<b>VALVE CONTROL</b>	<p><b>Specifications:</b></p> <ul style="list-style-type: none"> <li>• Power Input: 180 W Ultimate Vacuum: 7 mbar Suction Capacity: 2.0 m<sup>3</sup>/h Dimensions (L × W × H): 195 × 245 × 310 mm Weight: 12.8 kg</li> </ul>
13	<b>RECIRCULATING CHILLER 12L</b>	<ul style="list-style-type: none"> <li>• Recirculating chiller 12L capacity SS304 BODY (For 2 Nos of Rotary Evaporators)</li> <li>• Temperature range -10°C to +25°C, Stability</li> <li>• - 0.1, Cooling capacity 900W, Pump pressure - 18 LPM, 1080 LPH, Pump Flow Max limit - 18 Ltr, Bath</li> <li>• Capacity: 12 Ltr, Power 230 VAC, 50 Hz.</li> <li>• Height: 19, Width: 10, Diameter: 20,</li> <li>• Operating: 3 On/Off Switches and Digital display temperature controller, providing 4 mtr silicone and foaming tubes, brass tee 2 nos</li> </ul>

14	<b>REFRIGERATOR</b>	LABORATORY REFRIGERATOR
15	<b>STABILIZER</b>	Stabilizer 7.5 KVA
16	<b>UPS INVERTOR</b>	Invertor 1550VA/12V
17	<b>EXHAUSTER FANS</b>	Exhauster fans

Quotations must be addressed to:

Prof. S. JYOTHI  
Principal Investigator  
RUSA 2.0 Research Project  
Department of Chemistry,  
Kakatiya University, Warangal-506009

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

The last date for receipt of quotations is 12<sup>th</sup> December 2025. Quotations received after the deadline will not be accepted.

The University reserves the right to accept or reject any quotation in full or in part without assigning any reason.

Sd/-

Prof. S. JYOTHI  
Principal Investigator  
RUSA 2.0 Research Project  
Department of Chemistry,  
Kakatiya University, Warangal-506009

## KAKATIYA UNIVERSITY - RUSA 2.0

Name	Dr. M. Sadanandam
Designation	Principal Investigator
Project	RUSA 2.0 Research Project
Institution	University College of Engineering, Kakatiya University, Kothagudem

### NOTICE INVITING QUOTATIONS

No: RUSA//KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

1. **Focusrite Scarlett 2i2 4th Gen Studio Bundle**
2. **Yamaha HS8 Studio Monitor Speakers (Pair)**
3. **Zoom H6 Essentials Recorder**
4. **Zoom APH-6 Accessory Pack**
5. **Audio Technica ATH-M50X Headphones**
6. **Audio Technica AT2020 Condenser Microphone**

---

Quotations must be addressed to:

Prof. M. SADANANDAM  
Principal Investigator  
RUSA 2.0 Research Project  
University College of Engineering, KU,  
Kothagudem

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

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Sd-

Prof. M. SADANANDAM  
Principal Investigator  
RUSA 2.0 Research Project  
University College of Engineering, KU,  
Kothagudem

## KAKATIYA UNIVERSITY -RUSA 2.0

- |  |   |
|--|---|
| 1. Name of the Principal Investigator: | Prof. G. Sammaiah   |
| 2. Department / Centre Name:           | Department of Pharmacy                                    |
| 3. Title of the Research Project:      | Development of New Indole Derivatives as Anti-Depressants |

### NOTICE INVITING QUOTATIONS

No: RUSA/UCPS//KU/2025.

Date: 28.11.2025.

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

S.No.	Name of the Equipment	Specification
1	Microwave synthesizer with volatile oil &herbal extractor	Cavity-39 liters Power- output- 1000W(2450MHZ) Stages-100 watt to 1000 watt Magnetron-magnetron protected from reflected microwave energy panel – set all operational parameters through one panel Temperature- flexible probe from R, T to 400°C Exhaust- powerful exhaust system for open reaction Stirrer- ONE magnetic stirrer with controller Timer- 90minutes timer MOC- MS Powder Coating Body &S S 304 Trolley Power level- Adjustable power levels during operations. Choke- unique microwave leakage proof outlet to insert glass of size B24&B10 Door- heat resistant door with steal mesh Indicator- CLOSE indication for additional safety. Tray- Silicon rubber or toughened glass. Operating voltage- 220/240V
2	Analytical Balance	Intuitive to operate with robust construction. 220 g capacity; 0.1 mg readability; large, bright display; internal adjustment; easy leveling; chemical resistance; USB and RS232 connection; passcode protection.
3	Digital melting point apparatus	Designed for accurate determination of melting point and solid samples, apparatus comprises of cylindrical silicon oil bath, building magnetic stirrer with speed controller, electronic heat controller, digital temperature display with PT 100 sensor, glare free background light with adjustable light intensity, provision for holding the melting point display. Temp range: 2°, above RT- 250°C, accuracy ±0.1°C, 4.1/2 digit LED display
4	Vacuum Pump with Filtration unit	Conical Flask Set-up) Glass Funnel 300mm, Glass Receiver Flask Capacity 2000 ml, Filter Support Base with Sintered Glass Filter 47mm, Aluminum Clamp- 47mm Vacuum Pump (Oil-free): Max. Vacuum (Absolute &

		Guage) 100 mbar / -670 mm Hg
5	Multi Position Magnetic Stirrer with hot plate	stirring capacity of up to 5 liters, with a speed range of 100–1500 rpm and fine resolution displayed to 1 rpm accuracy. Users can choose between stainless steel hot plates, which heat up to 340 °C, or ceramic hot plates which reach up to 550 °C. Temperature control is highly accurate thanks to dual sensors and an external PT-1000 probe that monitors fluid temperature directly, maintaining control within $\pm 1$ °C. The stainless steel hot plate models deliver around 500 W of heating power, while a large backlit LCD display shows both set and actual parameters, with last parameter recall for repetitive processes. Safety is prioritized with residual temperature warnings when the unit is switched off above 50 °C, a settable safe temperature limit to prevent overheating, and IP42 protection. Built with a durable porcelain enamel top plate for stainless steel models and a compact design, this stirrer is well-suited for laboratory benches and ensures reliable performance across a wide range of experiments.
6	Laboratory Refrigerator	Double door, 3 star 3 star capacity: 300L

Quotations must be addressed to:

Prof. G. Sammaiah  
Principal Investigator  
RUSA 2.0 Research Project  
University College of Pharmaceutical College,  
Kakatiya University, Warangal-506009

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

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Sd-

**Prof. G. SAMMAIAH**  
Principal Investigator  
RUSA 2.0 Research Project  
University College of Pharmaceutical College,  
Kakatiya University, Warangal-506009



**RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA 2.0)**  
**DEPARTMENT OF CHEMISTRY**  
**KAKATIYA UNIVERSITY**  
**WARANGAL – 506009**

**Prof. T. SAVITHA JYOSTNA**  
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**NOTICE INVITING QUOTATIONS**

No. CHEM/UC/KU/WGL

Date: 28/11/2025

Sealed quotations are invited from eligible suppliers/manufacturers/authorized distributors for the supply, installation, testing and commissioning of laboratory equipments as per the details given below:

S. No	Name of the Equipment	Specifications
1	<b>MAGNETIC STIRRER 2-LITER CAPACITY WITH HOT PLATE AND DIGITAL SPEED</b>	Magnetic stirrer 2 ltr (2mlh) with hot plate, and digital speed indicator -2mlh
2	<b>KINEMATIC VISCOMETER BATH</b>	<p>KINEMATIC VISCOMETER BATH With very heavy quality Heater - DIGITAL - This viscometer bath is used to maintain the correct const and Temperature for estimating Kinematic Viscosity of Oils &amp; Petroleum products. In this type of bath various viscometers may be fixed as an internal part OS bath.</p> <p>The bath is rectangular in shape. Inside tank made of Stainless Steel. On two sides toughened glass window is provided for full visibility of objects. The bath is controlled by an Digital Temperature</p> <p>Controller with SSR. Temperature range 5°C above room temperature to 100°C Accuray <math>\pm 0.1^\circ\text{C}</math>. Stirring is done by a F.H.P. Elect. Motor stirrer. It is provided with viscometer Tube holders &amp; stainless Steel cover.</p>
3	<b>AIR OVEN DIGITAL 18"x18"x24"</b>	<p>OVEN DIGITAL WITH FAN (18X18X24") STAINLESS STEEL CHAMBER (HOT AIR OVEN)</p> <ul style="list-style-type: none"><li>• With Test Certificate And Warranty Card –</li><li>• These Ovens are MEMMERT TYPE elements on three sides temperature is controll through a DIGITAL TEMPERATURE INDICATOR-cum-Controller from ambient to 250DegC with an accuracy of <math>\pm 1^\circ\text{C}</math>.</li></ul>

		<ul style="list-style-type: none"> <li>All digitally controlled ovens are fitted with AIR CIRCULATION FAN as a standard accessory.</li> </ul>
4	<b>DIGITAL PH METER</b>	<ul style="list-style-type: none"> <li>PH METER - DIGITAL - Digital pH Meter with combined electrode, buffer tablets, stand and instruction manual.</li> </ul>
5	<b>DIGITAL CONDUCTIVITY METER WITH CELL</b>	<ul style="list-style-type: none"> <li>DIGITAL CONDUCTIVITY METER READABILITY:0.05% OF RANG ACCURACY:+1% OF Range,</li> <li>operating Frequency, :1000Hz, Temp Coefficient:: 2% conductivity cell type CC-15 cell constant 0.1 conductivity cell type CC-11 cell constant 0.5 conductivity cell type CC-13 cell constant 1.0</li> </ul>
6	<b>HYDROTHERMAL AUTOCLAVE REACTORS-2 , 25ML</b>	<ul style="list-style-type: none"> <li>Stainless Steel Hydrothermal Autoclave Reactor with Teflon Lining inside. 25ML , 220 °C, THREDED TYPE</li> </ul>
7	<b>HYDROTHERMAL AUTOCLAVE REACTORS-3, 10ML</b>	<ul style="list-style-type: none"> <li>Stainless Steel Hydrothermal Autoclave Reactor with Teflon Lining inside. 10ML, 220 °C , NUT BOLT TYPE</li> </ul>
8	<b>MUFFLE FURNACE</b>	<ul style="list-style-type: none"> <li>Furnace finds application in Industries &amp; Laboratories for Ashing, Heat treatment, Ignition test, Gravimetric analysis,</li> <li>Determination of volatile and suspended solids &amp; Cement testing. Heavy gauge Mild Steel construction for durability having powder coating finish. Unexposed long lasting. Light Weight, Ceramic Fiber Wool insulation of High quality to give maximum thermal efficiency.</li> <li>Temperature controlled by Dual Display Microprocessor based PID Temp. Controller. Temperature Sensor.</li> <li>“K” Type (Cr/Al) Thermocouple sensor. Working Temperature Range: 400°C to 1150°C.</li> <li>Temperature Control Accuracy: + 3°C or Better. Operates on 230 Volts AC Single phase 50 Hz.</li> <li><b>SAFETY FEATURES :</b></li> <li>Thermal Safety fuse provided to avoid overheating.</li> <li>Size : 6”X6”X12”</li> </ul>
9	<b>ANALYTICAL DIGITAL BALANCE</b>	<p><b>Technical Specifications</b></p> <ul style="list-style-type: none"> <li>Maximum Capacity: 220 g</li> <li>Readability: 0.1 mg Repeatability (typical): 0.08 mg Linearity: ±0.2 mg (typical)</li> <li>Minimum Weight (U=1%, k=2, typical): 16 mg Minimum Weight (USP, 0.1%, typical): 160 mg Settling Time: 2 s Adjustment: Internal (FACT automatic)</li> </ul>



		<ul style="list-style-type: none"> <li>• Display: Hybrid LCD touchscreen, USB-A, Bluetooth (optional) Weighing Pan Diameter: 90 mm</li> <li>• Dimensions (H × W × D): 354 × 209 × 354 mm</li> </ul> Features: Passcode protection, overload protection, compact design
10	<b>REFRIGERATOR</b>	LABORATORY REFRIGERATOR
11	<b>STABILIZER</b>	Stabilizer 7.5 KVA
12	<b>UPS INVERTOR</b>	Invertor 1550VA/12V
13	<b>EXHAUSTER FANS</b>	Exhauster fans

Quotations must be addressed to:

Prof. T. SAVITHA JYOSTNA  
Principal Investigator  
RUSA 2.0 Research Project  
Department of Chemistry,  
Kakatiya University, Warangal-506009

The soft copy of the same should be sent to email: [rusakuc@gmail.com](mailto:rusakuc@gmail.com)

The last date for receipt of quotations is 12<sup>th</sup> December 2025. Quotations received after the deadline will not be accepted.

The University reserves the right to accept or reject any quotation in full or in part without assigning any reason.

Sd/-

**Prof. T. SAVITHA JYOSTNA**  
Principal Investigator  
RUSA 2.0 Research Project  
Department of Chemistry,  
Kakatiya University, Warangal-506009



**RUSA 2.0**  
**CENTRE FOR MOLECULES AND MATERIALS PHYSICS**  
**(R-CMMP)**

(Department of Physics, Kakatiya University, Warangal)



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**Lr. No. 94/RUSA-Phy/KU/2025**

**Date: 24/11/2025**

To  
The Nodal Officer  
RUSA 2.0  
Kakatiya University  
Warangal – 506009

Sub: Centre for Molecules and Materials Physics – Indent for procuring the equipment - Reg.

Sir/Madam,

With reference to the subject cited under reference, the Research Centre needs the following equipment. Hence, you are requested to arrange to procure the same at the earliest.

S. No.	Name of the Equipment	Quantity
1	Magnetic Stirrer with Hot plate & Digital Speed Meter (2 L)	08
2	Oil-free Vacuum Pump 1/4 <sup>th</sup> HP, 1440 RPM, 630 mm of Hg, 45 LPM capacity fitted with Silencer, 8 mm Nipple, 1 m PU tubing	01
3	Motor & Pestle	01
4	Pelletizer with dye	01
5	Digital Multimeter DC (50 mv – 1000V), True RMS AC (500 mV – 750 V; 20 Hz – 1 KHz), DC (500 Micro_A – 10 A), True RMS AC (500 Micro-A – 10 A) , Resistance (500 Ohm – 50 M-Ohm), Capacitance (50 nF – 50 mF), Frequency (10 Hz – 60 MHz), Temperature (K-type, PT100), Accuracy: <0.5%	01
6	Digital Thickness Gauge 1 -12 mm	01
7	Conductivity Meter	01
8	Agate motor (10 mL)	01

Thanking you,

Yours faithfully,

**DIRECTOR**

Date: 24-11-2025

To  
The RUSA Coordinating Officer  
Kakatiya University

Subject: Request for Procurement of Ultrasonic Testing equipment for project on FDM  
3D Printed polymer composites: AI/ML-optimized sustainable manufacturing-reg

Respected Sir,

I request the committee to consider procurement of an Ultrasonic Testing (UT) system to support my ongoing research project on the characterization of 3D printed polymer composite materials. Accurate detection and evaluation of porosity and internal defects are critical for ensuring the quality and performance of the printed sample.

The required specifications of Ultrasonic Testing equipment are as follows:

- **Frequency Range:** 5 MHz to 15 MHz  
(Higher frequencies improve resolution for thin polymer layers and small defects in composites.)
- **Pulse-Echo Mode:** Adjustable pulse width for optimizing signal-to-noise ratio on polymers.
- **Transducers:** Contact transducers with focused beams around 10 MHz Optional immersion transducers for laboratory testing for better acoustic coupling on complex shapes
- **Resolution:** Ability to detect pores or voids as small as 50 microns or larger.
- **Software Features:**
  - Real-time A-scan and C-scan imaging
  - Quantitative porosity analysis
  - Data export for post-processing and correlation with other tests (e.g., density, mechanical properties)
- **Portability:** Lightweight handheld unit preferred for flexible sample testing.
- **Calibration:** Polymer-specific calibration blocks for accurate defect sizing.
- **Couplant :** Polymer-compatible gel or liquids minimizing surface damage.

I request the procurement of equipment under the project budget.

Thanking you

Yours faithfully

Dr. Ch.Radhika,  
Principal Investigator,  
Department of Mechanical Engineering,  
KUCET, KU Campus.

## **Technical Specifications for VLSI/FPGA Lab:**

### **AV-Z1: Zynq 7000 FPGA Development Board (Qty-10)**

ZYNQ SoC FPGA Development Board is a feature rich and high-performance Single Board Computer built around the Xilinx Zynq-7000 (XC7Z010). It features integrated dual-core ARM Cortex-A9 processor with Xilinx 7-series FPGA.

ZYNQ SoC FPGA Development Board is designed to create best learning experience of both processing system (PS) and programming logic(PL). It features Xilinx Zynq SoC, 512MB DDR3 SDRAM and 16MB QSPI Flash USB-to-UART, USB OTG, 10/100/1000Mbps

Ethernet, HDMI, USB JTAG, Temperature sensor, Micro SD, WiFi, Bluetooth, ADC, LCD, 7 Segment, camera, TFT, Buzzer, Switches, buttons and LEDs.

Advantage of FPGA kit is easy to implement plenty of applications ranging from single board computer, Wireless control, Image/video Processing, Internet of Things without additional interfaces.

- Xilinx Zynq XC7Z010 FPGA
- 512MB DDR3
- 16MB QSPI Flash
- On-Board USB JTAG Programmer
- USB to UART Interface
- 10/100/1000M Ethernet
- USB OTG
- Micro SD
- WiFi 802.11 b/g/n
- Bluetooth 4.2 and BLE
- 12 bit VGA Interface
- HDMI Tx/Rx
- ADC 2 channel
- Temperature Sensor
- LDR Interface
- Stereo Audio Jack
- 2x16 LCD Display
- 4 Digit Seven Segment Display
- 50 MHz and 33 MHz Clock
- 4 Slide switches
- 2 PL and 1 PS Push Button
- 5v Buzzer
- 4 PL and 1 PS LED
- 31 PL and 4 PS I/O

### **Package Includes:**

- ZYNQ SoC FPGA Development Board
- USB Cable /LCD Display 2x16
- Heat Sink to FPGA IC
- Acrylic protection bottom Side /CMOS VGA Camera and SPI TFT Display
- Protection Box / CMOS camera / TFT

### **AV-A7: Artix7 FPGA Development Board ( Qty-10)**

Artix 7 FPGA Development board is upgraded version of Spartan 6 board. It is exclusively designed for the latest vivado Design Suite. The Artix 7 board is build around Xilinx Artix 7 XC7A35T FPGA IC.

This FPGA kit is ready to use Laboratory kit for ECE Curriculum. It can be useful for developing basic to advanced level digital circuits.

Advantage of this FPGA kit is easy to implement plenty of applications ranging from Wirelesscontrol, Image/video Processing, Internet of Things without additional interfaces.

- Xilinx XC7A35T Artix 7 FPGA IC
- 256Mb SDRAM
- 8MB SPI FLASH Memory
- On-Board USB JTAG Programmer
- USB to UART Interface
- 4 Digit Seven Segment Display
- WiFi 802.11 b/g/n
- Bluetooth 4.0 BLE
- 12 bit VGA Interface
- HDMI Out
- 50 MHz Clock
- ADC 4 channel
- Temperature Sensor
- LDR Interface
- SPI DAC
- 2x16 LCD Display
- Micro SD
- 16 Slide switches
- 5 Push Button
- 5v Buzzer
- 16 LEDs
- 31 External I/O's

### **Package Includes:**

- 1 x AV-Artix 7 FPGA Development Board
- 1 x USB Cable
- Acylic cover for Top/Bottom
- Cmos Camera, TFT,LCD
- Protection Box

**Technical Specs:**

PYNQ-Z2 is a low-cost Zynq 7000 development board suitable for beginner and more advanced projects. It has many features and interfaces that are useful for trying out the capabilities of the PYNQ framework. (10 Qty)

Vision AI Starter Kit is comprised of a non-production version of the K26 system-on-module (SOM), carrier card, and thermal solution. The SOM is very compact and only includes key components such as a Zynq® UltraScale+™ MPSoC based silicon device, memory, boot, and security module. The carrier card allows various interfacing options and includes a power solution and network connectors for camera, display, and microSD card. The thermal solution has a heat sink, heat sink cover, and fan. (5 Qty)