



Amrutvahini College of Engineering, Sangamner

Dist.- Ahmednagar, 422605 (M.S.) India

Approved by AICTE, New Delhi, "A" Grade by Govt. of Maharashtra

Permanently Affiliated to Savitribai Phule Pune University, Pune

Four Times Accredited by NBA, New Delhi

"A+" Grade by NAAC, An ISO 9001:2015 TUV-SUD Certified

Ref./AE/R&D /2025-26/10/

Date: 01/09/2025

Research Policy for Utilization of R&D Infrastructure

Amrutvahini College of Engineering (AVCOE) has decided to implement the following R&D policy for effective utilization of research infrastructure in an interdisciplinary mode for research activities.

Facilities and Laboratories: The institute is committed to providing state-of-the-art facilities and laboratories to support interdisciplinary research activities.

This includes:

a) **Well-equipped Laboratories:** Maintain specialized laboratories with the necessary infrastructure, equipment, and tools to facilitate research in various disciplines. Regularly upgrade and modernize the laboratories to ensure they meet the evolving needs of researchers.

b) **Research Centers:** Establish research centers focused on specific disciplines or interdisciplinary research areas. These centers shall provide dedicated spaces, resources, and collaborative environments for researchers working in those domains.

c) **Experimental Facilities:** Provide access to specialized experimental facilities, such as cleanrooms, fabrication facilities, testing facilities, as required by the research projects.

Equipment and Technology: Well aware of the importance of advanced equipment and technology in conducting high-quality research, the institute shall ensure the following:

a) **Procurement and Maintenance:** Regularly update and acquire state-of-the-art research equipment and technologies to support cutting-edge research.

b) **Access to Specialized Equipment:** Ensure researchers have access to specialized equipment and instrumentation necessary for their research projects. Establish guidelines and procedures for equipment usage, booking, and training.

c) **Technology Infrastructure:** Maintain a robust technology infrastructure, including high-speed internet connectivity, secure data networks, and advanced computing resources, to support data-intensive research, computational modeling, and simulations.

d) **Registration on I-STEM portal:** All equipment purchased shall be registered by the institution on the portal of Indian Science, Technology and Engineering Facilities

e) Interdisciplinary Utilization of Infrastructure

The R&D infrastructure and facilities available in various departments shall be shared and utilized across departments to encourage interdisciplinary and collaborative research activities among faculty members, researchers, and students.

f) Safety and Compliance

All users of R&D laboratories and facilities shall strictly adhere to safety norms, standard operating procedures, and institutional guidelines while utilizing research infrastructure.

Dr. M.A. Venkatesh

Principal

PRINCIPAL

Amrutvahini College of Eng

SANGAMNER-422608

Dist. Ahmednagar (MS)



Amrutvahini College of Engineering, Sangamner

Department of Automation & Robotics

List of available Research and Development equipment

Sr. #	Name of the Equipment with specifications
1	Friction Stir Welding machine- NC/CNC Make: RV Machine Tools, Coimbatore Model: FSWM30-300NC Specification: Spindle ISO 40 Freq. controlled AC asynchronous servomotor. <i>Spindle speed:</i> 3000 rpm (Max.) (Servo controlled + and -direction) <i>FSW Tool collet:</i> (a) Suitable tool holding mechanism with appropriate collet should be provided. (b) Suitable collet of size 5, 8, 12, 16, 20 and 25 mm should be provided. <i>Z axis travel:</i> 300 mm (Min. resolution: 10 micron or better) <i>Z axis load:</i> 15 kN or more <i>Feed motor:</i> 3 HP or more <i>Feed rate:</i> 500 mm/min or more (X-axis); 40 mm/min or more (Y-axis) <i>X axis travel:</i> 400 mm or more (Min. resolution:10 micron or better) <i>Y axis travel:</i> 50 mm or more (Min. resolution:10 micron or better) <i>Work table:</i> To Suit job of 300 mm x 200 mm or closest on higher side. <i>Tilt head:</i> $\pm 5^\circ$ or more <i>Control:</i> PC based force and position mode control (Force (X and Z direction), Torque (Z direction), Spindle rpm, welding speed, spindle motor power consumption, feed motor power consumption)
2	Computerized Vickers microhardness tester Make: Omnitech, Pune. Model: MVH – I C Specifications: Test Load- 10gf to 1000 gf, 10, 25, 50, 100, 200, 300, 500, 1000 gf dial switchable Dwell time - 5 - 99 Seconds. Loading Mechanism Automatic motorized loading and unloading. Indexing- Rotating turret for indenter and objective lens. Magnification- For scanning 100 x or measurement 400 x Max. Specimen dimn. - Height 65 mm, depth 85 mm. Test table dimensions - 100 x 100mm, max. Movement 25 mm in X-Y direction with micrometer head. Control Panel - dwell time, countdown, loading, unloading, and intensity variation. Computerized Vickers hardness measurement 1. Camera 5.0 MPixel 1/2.5" CMOS Camera, Made in Germany, Resolution 2592 x 1944, Mpixels 5.0, Max. frame rate [Hz] 5.8, Shutter type Rolling / Global Resel, Sensor size 1/2.5" 2. Dedicated image processing Software for Vickers Hardness number, 3. Effective case depth hardness graph <i>Standard Accessories supplied with machine</i> 1 Fixture for odd shaped components - 1 no. 4 Level indicator - 1 no. 5 Spare fuses - 2 nos.

	6 Hardness test blocks - 1 no (Range - High Hardness)
3	Sample sectioning machine or abrasive cutting Machine Make: Metnation Technologies, Pune Model: Metcutter-40F (Closed chamber laboratory table top machine) Cutting Capacity - 30 mm solid bar stock (50 mm dia. Component). Chop type cutting action. Cutting wheel directly mounted on the motor shaft. Motor - 3 H P, 3 Phase - 420 V, Pump - 0.1 HP, 3 Phase. With std. accessories.
4	Metallography Polishing Machine Make: Metnation Technologies, Pune Model: MetPolisher-I 1 HP Branded DC Motor Dynaflux Make. Single Phase. Made of Aluminum and dynamically balanced. Disc Diameter 200 mm., Power Transmission by V Belt and Pulley, Electrical Circuit Fully close Drive Circuit, wiring protected with sleeves. MCB for overload protection. Machine whole body is metallic and it make machine sturdy for long life. Speed 100 to 1400 RPM Variable. Digital Display for RPM Motor, electrical DC Drive and circuit fully close. Inlet and outlet connection, flexible water pipe arrangement with flow control for job polishing. Corrosion resistive FRP sink. Rubber Pad Anti-vibration rubber pad for foot. Input Supply: 230 V AC, 50 Hz. Standard accessories: 1. Paper holding ring- 1 No. 2. Cloth clamping ring – 1 No. 3. Polishing Paper- 20 Nos. 4. Lapping Cloth- 2 Nos 5. Alumina Suspension- 200 gms.
5	Hot mounting press machine Make: Metnation Technologies, Pune Model: MetMount-P Specifications: Pneumatically operated, Button press, mould diameter: 26 mm or 1” dia. Mould Cylinder, Band heater: 1000 W, 230V A.C. power supply, water cooled mould, thermocouple, control panel for buzzer indication, Auto cycle heating. Max. air pressure – 6 Bar. With its std. accessories.
6	Inverted optical metallurgical microscope Make: Olympus Corporation, Japan. Model: GX53 Specifications: microscope model GX53 suitable for bright field mode of observation GX53F Microscope frame for reflected light microscopy U-BI90 Wide field binocular tube BX3M-LEDR reflected LED lamp housing U-5RE-2 quintuple revolving nosepiece GX-SVR mechanical stage with right hand WHN10X Widefield eyepiece 10 X 2 GX-CP stage insert plate GX-TV0.5XC C-mount TV adapter 0.5X

	MPLN5X M PLAN achromat objective 5X MPLN10X M PLAN achromat objective 10X MPLN20X M PLAN achromat objective 20X MPLN50X M PLAN achromat objective 50X MPLN100X M PLAN achromat objective 100X UYCP-14 Power Cord Cover-022 Vinyl Cover <i>Adaptable Options</i> MICROSCOPE DIGITAL CAMERA Model DP-27 DP27-CU 5.05 MP non cooled color digital camera for microscope CCD size: 2/3-inch color CCD Image size: 2448 x 1920 pixel Pixel size: 3.45umx3.45um Sensitivity (ISO): Selected from ISO 100, 200 & 400 Exposure time: Auto :50 μs ~ 2 s (auto)、 50 μs ~ 8 s (manual) Exposure Adjustment: -2EV to +1EV (+ side:1/6EVstep, - side 1/3EV step) Frame rate @ image size: 15 fps (2448 x 1920) 30 fps (1224 x 960 (binning 2x2)) 30 fps (1224 x 960) 22 fps (1920 x 1080 (FHD)) USB 3.0 data transfer ST-BA-2.4 Olympus Stream Basic: Imaging Software for Microscopy
7	VMC JYOTI Make CNC Machine, Model: PX 30 nvu • Computer Numeric Control Unit : Siemens - 828 D Basic M • Spindle : BT 40 • Spindle Motor : 5.5/8.25kW, 8000rpm, 35/53Nm • Chip Removal System : Chip Tray -Rear • ATC : 20 Tools Table: Table Size 915 x 360 mm T-Slot Dimention 3 x 14 x 125 mm Distance from Floor to Table 1020 mm Max. Load on Table 500 kgf Capacity: X-Axis Travel 760 mm Y-Axis Travel 410 mm Z-Axis Travel 510 mm Dis. From Spindle Face to Table Top (Min.-Max.) 100-610 mm Feed: Rapid Traverse (X,Y & Z Axis) 25 m/min Cutting Feed 10 m/min Main Spindle: Spindle Speed Range (with 1:1.2 Pulley Ratio) 0-6000 rpm Spindle Motor Power -Fanuc 7.5/5.5 kW Spindle Motor Power -Siemens 8.25/5.5 kW Front Bearing Bore 70 mm Spindle Nose BT-40 Accuracy (As per VDI/DGQ 3441): Positioning Uncertainty (P) 0.01 mm

	Repeatability (Ps medium) 0.005 mm		
8	CNC-CMM SAPHIRE 464 MANUAL [CEMM – AP – 0464] Machine Specification: Measuring Volume X=400mm Y=600mm Z=400mm Maximum Job Volume X=520mm Y=720mm Z=520mm Scale Resolution 0.0005mm (Standard) / 0.0001mm (Optional) Maximum Table Load 350 Kgs Power Supply 240 VAC, 50-60 Hz, Single Phase. Air Supply 5 bar minimum Air Consumption 100l/min at 5 bar Volumetric Accuracy 3 +3.5 L / 1000 micron ISO 10360-2 		

	Max. Boaring Bar Diameter 32 mm Indexing Bi-Directional -- Indexing Time (Per Station) 0.9 sec TAILSTOCK Quill Dia./ Stroke 65/80 mm Quill Taper MT4 -- Tailstock Stroke 185 mm Thrust Force (At 35Kg/Cm ²) 515 Kg FEED SYSTEM Cross Travel (X Axis) 105 mm Longitudinal Travel (Z Axis) 302 mm Rapid Traverse, X, Z Axes 20,000,20,000 mm/min X, Z Axes Motor Torque 7.0 N/m X, Z-Axes Motor Power 1.2 Kwatt Ball Screw X-Axis (Dia. X Pitch) 25 X 10 Nm Ball Screw Z-Axis (Dia. X Pitch) 32 X 10 mm Feed Back Element Absolute encoder type GENERAL Machine Size (L X B X H) 2450x1640x1520mm Weight 2300 Kg Floor Space Required 5 Sq. M Lubrication For Slide Ways And Ball Screw auto Type Lubrication For Spindle Bearing Grease pcked type Coolant Tank Capacity 80 lit Coolant Pump Motor 0.25 Kw POWER SUPPLY- 415V, 50Hz, 15Kwatt ACCURACY Positioning of slides X axis and Z axis 0.015/0.025 mm Repeatability ±0.003 mm CNC System Fanuc Oi-Mate TC
10	ABB Robotic Arm IRB 1410: Robot Handling Capacity 5 kg, Reach of 5 th axis 1.44 m Supplementary load: on axis 3 - 18 kg on axis 1 - 19 kg Number of axes: Robot manipulator 6 External devices 6 Integrated signal supply 12 signals on upper arm Integrated air supply Max. 8 bar on upper arm IRC5 Controller variants S ingle cabinet, Compact Performance: Position repeatability 0.05 mm (average result from ISO test) Movements IRB 1410 Max. TCP velocity 2.1 m/s Continuous rotation of axis 6 Electrical Connections: Supply voltage 200-600 V, 50/60 Hz

	Rated power, Transformer rating 4 kVA/7.8 kVA with external axes Physical: Robot mounting Floor Dimensions Robot base 620 x 450 mm Weight: Robot 225 kg Environment: Ambient temperature Robot unit 5-45 °C Relative humidity Max. 95% Degree of protection Class D (dry) for welding, machining etc. Noise level Max. 70 dB (A) Emmission EMC/EMI-shielded Clean room Class 100 US Federal Standard 209e

AMRUTVAHINI COLLEGE OF ENGINEERING

Department of Artificial Intelligence and Data Science

Sr. No	R&D Equipment	Details of Research resources	Specialized facilities or laboratories
1.	Computer Desktop	Quantity- 42 HP makes Intel Core i7-12700, 2.10G25MB, 12cores, 65W/16GB HP 125BLK wired Keyboard Mouse FHD Monitor, NVIDIA Quadro K2000 2GB DL- 01 DVI(I)+DP+DP1st No cables included Graphics	Nil
2.	Computer Desktop	Quantity- 20 HP makes Intel Core i7-12700, 2.10G25MB, 13cores, 65W/16GB HP 125BLK wired Keyboard Mouse FHD Monitor, NVIDIA Quadro K2000 2GB DL- 01 DVI(I)+DP+DP1st No cables included Graphics	
3.	HP Monitor	Quantity- 62 For workstation size-21.5"	

Dr. A. R. Panhalkar
Head of Department
AI&DS

1) List of R&D Equipments available in Department of Civil Engineering

Sn	Name of Equipment	Make (Manufacturer)	Model	Equipment Description
1	Digital Universal Testing Machine	Lawrence & Mayo Make. Pune	CDR 2000	Cap. 1000 kN, used for material testing
2	Digital Compression Testing Machine	Lawrence & Mayo Make. Pune	Crystal ELMEC	Cap. 2000kN, used to test quality of material like concrete, bricks etc.
3	Silver Schmidh Hammer	Proceq Made in Switzerland	Type N-SH01-009-0176	Used for measuring strength of concrete
4	Concrete Ultrasonic Testing Equipment	Canopus Instruments, Kalyan	CUTE102A	for Non-Destructive Evaluation (NDE) of concrete quality by Ultrasonic Pulse Velocity (UPV)
5	Drilling Machine (Core Cutter)	AIMIL, Amravati	AIMIL 551-1	To Check the material quality in pavement.
6	Benkelam Beam	AIMIL, Amravati	AIMIL 566-3	To calculate pavement deflection
7	Plate Bearing Test	AIMIL, Amravati	HT 420	To calculate Bearing capacity of soil
8	Standard Penetration Test (SPT)	AIMIL, Amravati	NA	To calculate Bearing capacity of soil
9	Horizontal Shake Table with Models and Accesaries	Millenium Technology PVt Ltd Bangalore	NA	Maximum Pay L:oad 30 Kg, Sliding Table 400X400mm
10	Vertical Shake Table	Millenium Technology PVt Ltd Bangalore	NA	Maximum Pay L:oad 30 Kg, Sliding Table 400X400mm1
11	4 Channel Data Acquisition System	Advait Technology, Bangalore.	NA	Along with Suitable laptop and software

2. Details of research resources such as software, database and other tools.

Reply: Software (Auto CAD, QGIS, Heat Office. etc) are available in UG CAD Lab.

3. Any specialised facilities or laboratory available for research purpose

Reply: PG CAD lab and PG research lab are available in the department of civil engineering.

4) Research Laboratory or space for research at your department including PhD research facilities for PhD Centre

Reply: Nil

5) Availability of any central facility (For research) unit at your institute

Reply: Not available.

AMRUTVAHINI COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

Sr. No	R&D Equipment	Details of Research resources	Specialized facilities or laboratories	Research laboratory
1.	Computer Desktop	Quantity- 20 HP makes Intel Core i7-12700, 2.10G25MB, 12cores, 65W/16GB HP 125BLK wired Keyboard Mouse FHD Monitor	Nil	PhD Research Center
2.	Workstation	Quantity- 04 HP Z420 ,1TB 7200 RPM SATA,16X Super Multi DVDRW SATA 1st ODD=1No Hp Processor Air cooling kit-1Nos.Intel Xeon E5-1607V2 3.00GHZ 16GB DDR3 RAM		
3.	HP Monitor	Quantity- 04 For workstation size-21.5"		
4.	NVIDIA Graphics Card	Quantity- 01 NVIDIA Quadro K2000 2GB DL- 01 DVI(I)+DP+DP1st No cables included Graphics		
5.	GPU	Quantity- 01 P2083-800 SK010 Generic 64Mx32 DVI DVIH P/N-900-0010-000 3/N-03225/3035872 Quantity- 01 Genforce GTX480,P1022 GF-100-375 SKO#0.15P/N-900-11022-000-000 S/N-03218100 742870321810074058 Quantity- 01 Tesla C2075 P1030-A02 GE NO Generic 6GB		

AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER
Department of Electronics And Telecommunication Engineering

1.Research and Development Equipment's:

<i>Sr. No</i>	Dead stock No.	Receipt No. &Date	Order No. &Date	Name of the supplier	Description of the Material	Qty.	Rate for dozen or each	Tax Amount	Net amount including tax	Bill No.&Date
1	PG-7/2	349/19.03.14	PO 1345/24.01.14	M/s Synergy Measurement Technologies,A. P.India	2)Vector Network Analyzer (30KHz-14GHz), full two port with IIT Delhi MIC Kit, Agilent Make, Model No: N9916A	01 No	1262618	2524	13,92,529	702/17.04.2015
2	203	420/15.07.11	76/11.04.11	Silicon Automation System Pune 30	Cable & Antenna Analyser 25MHz To 4GHz,Single Channel With Accessories	01 No	375000	18750	3,93,750	57/14.07.11
3	18	388/11.09.02	541/17.07.02	Scientific Mestech PVT Indore	Spectrum Analyzer 1GHz,Hameo make	01 No.	188100	18810	20,6910	154/83/10.9.02
4	221	416/26.06.12	3009/15.03.12	Falcon Electronics PVT Ltd pune	Spectrum Analyzer 2GHz,with tracking generator,Model No GSP 830 TG	01 No	275000	13,750	2,88,750	141/19.06.12
5	PG-6	313/30.01.	PO	M/S Automate	EMI Probe Kit for RF	01 No	87000	9400	96,400	139/03.03.2

		14	1344/24.01.14	process Control ,Mumbai	near field testing					015
6	207	36/09.11.11	1880/21.03.11	Automatic Electric Ltd,Mumbai	Power Factor meter Model-AE 68302	01 No	3247	3247	4103	5729/28.09. 11

2. Software:

<i>Sr. No</i>	<i>Dead stock No.</i>	<i>Receipt No. &Date</i>	<i>Order No. &Date</i>	<i>Name of the supplier</i>	<i>Description of the Software</i>	<i>Qty.</i>	<i>Rate for dozen or each</i>	<i>Total amou nt</i>	<i>Net amount includi ng tax</i>	<i>Bill No.&Date</i>
1.	219	323/04.05. 12	3037/22.03.12	Trident Tech.PVT Ltd Delhi	Multisim Latest Version2012	1No	302250	302250	317363	04/20.04.12

3. Laboratory available for research purposes: Nil

4. Facilities for Ph.D. Centers: NA

5. Central Facility (for research) Unit: PCB Laboratory

AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER
Department of Electronics And Computer Engineering

Research and Development Equipment's:

1. List of research and development equipment available in our department, including make, model, and specifications-

RF Spectrum Analyzer (9Khz To 3Ghz Agilent Make) MODEL NO.N9320B
SENSITIVITY 130 dBm -148 dBm

2. Details of research resources, such as software, databases, and other tools.

Matlab and Toolboxes available at central level.

3. Any specialized facilities or laboratories available for research purposes. – Nil

4. Research laboratory or space for research at your department(s) including Ph.D. research facilities for Ph.D. Centres.- Nil

5. Availability of any central facility (for Research) Unit at your institute: Nil

AMRUTVAHINI COLLEGE OF ENGINEERING , SANGAMNER**DEPARTMENT OF ELECTRICAL ENGINEERING**

	Research and Development Equipment's:	
Sr.No.	Name of the Item	Qty.
1	1 ϕ phantom load to cal. Am/vm/watt,	1
2	High voltage tester,30 KV,30mA,make-high voltage india	1
3	Oil testing Kit,60 KV, make-high voltage india	1
4	Transformer with control panel,100 KV,100mA,Oil cooled,make-high voltage india	1
5	Sphere gap assembly,100mm,horizontal type,make-high voltage india	1
6	KVAR measuring Unit,make-high voltage india	1
7	Ageing equipment,0-30Kv,make-high voltage india	1
8	Cable testing unit,30 KV,make-high voltage india	1
9	DC power supply rectifier	1
10	Measurement of ABCD Parameters of Xmission line & long transmission	1
11	Study of the effect of VAR compensation using capacitors	1
12	Static measurement of sub transient reactance for silient pole machine	1
13	Measurement of sequence reactanses of synchronous machine	1
14	Harmonic analisis of 3phase VSI Inverter	1
15	MOTOR 5HP / 220V/1500RPM/ SHUNT WOUND DC MOTOR COUPELED 3KVA ALTERNATOR	1
16	MOTOR 5 HP /220V/ 1500RPM/ SHUNT WOUND DC MOTOR COUPLED SALIENT POLE ALTERNATOR	1
17	MOTOR 5HP /220V/ 1500RPM/ SHUNT WOUND DC MOTOR COUPLED SALIENT POLE ALTERNATOR	1
18	MOTOR 5HP/415V/ 1500RPM 50HZ/ STAR CONNECTED SYNCHRONOUS MOTOR / DAMPER WINDING WITH MWCHANICAL LOADING ARRANGEMENT	1
19	POWER QUALITY ANALYSER	1
20	TRACKING EQUIPMENT TO STUDY DEVELOPMENT OF TRACK & TREES ON POLMERIC METERIALS	1
21	VOLTAGE DOUBBLER 40KV (MULTI STAGE)WITHOUT CRO HIGH VOLT	1
22	A)STUDY OF SWITCH GEAR TESTING KIT	1
23	B)STUDY OF CHARACTRISTIC OF ACB	
24	A)STUDY OF FUSE& MCB & TESTING OF MCB	1
25	B)STUDY AND CHARACTERISTICS OF THREMAL OVERLOAD REALY	
26	STUDY AND TESTING OF CONTRACTORS	1
27	CHARACTERISTICS OF IDMT REALY	1
28	IMPEDANCE REALY SET WITH SOURCE	1
29	STUDY AND TESTING OF MCCB	1
30	MICROPROCESSOR BASE OVER CUEERNT REALY	1
31	PLC & SCADA TRAINER ALLEN BRADDEY MODEL NO-1766	1
32	STUDY OF VSI FED 3PHASE INDUCTION MOTOR SPEED CONTROL CHARACTERITIC	1
33	STUDY OF VST FED PMSM CONTROLCHARACTERISTICS	1
34	NOVATOUR (LRGRAND NUMERIC) TRUE ONLINE DOUBLE CONVERSION UPS 6KVA SINGLE PHASE	1

35	100 KWP SRTPV SYSTEM SOLAR PHOTO VOLTAIC MODULES 323 NOS. MAKE VIKRAM SOLAR	1 SET
36	300 KW SRTPV SYSTEM SOLAR PHOTO VOLTAIC MODULES, MAKE VIKRAM SOLAR 940 NOS	1 SET

AMRUTVAHINI COLLEGE OF ENGINEERING SANGAMNER

DEPARTMENT OF INFORMATION TECHNOLOGY

R and D list of equipments

Sr. No	R & D Equipment	Details of resources	Specialised facilities in laboratories	Research laboratory
1	Intelcorei7 (Quantity:20)	Intelcorei7:: Computer desktop HP make intel core i7-12700, 16GB RAM, 512GB SSD	Nil	Nil
2	N Computing Server (Quantity:1)	Server HP :: Server ML 110 G6 Intel Xeon Proc-X3430 RAM 8 GB HDD-250 GB \$ Nos SATA Non redundant power supply, monitor 15.6'	Nil	Nil
3	Intelcorei5 (Quantity:20)	Intelcorei5:: Computer Dell Make core i5 12400, 12 th generation 16 GB RAM,512 GB SSD, Multimedia USB keyboard & Mouse	Nil	Nil
4	Raspberry -pi (Quantity:08)	Raspberry Pi 5 Model 8GB, 2.4GHz quad-core Arm Cortex-A76 processor, which is clocked at 64 bits	Nil	Nil
5	GSM Board (Quantity-10)	SIM800L V2 5V Wireless GSM GPRS MODULE Quad-Band with Antenna	Nil	Nil

Dr. B.L. Gunjal
H.O.D. I.T.

AMRUTVAHINI COLLEGE OF ENGINEERING ,SANGAMNER

Department of Mechanical Engineering

**List of Research and Development Equipments available in Mechanical Engineering
Department**

Dead Stock No.	Receipt No. & Date	Order No. & Date	Name of the Supplier	Description of material	Quantity	Rate for D	Total Amount	Net Amount
245	181-182 20/05/2008	1524 22/2/2008	Ducom Instruments Pvt. Ltd. Bangalore	Wear & Friction monitor pin size- 3mm to 12mm , disc dia. 165mm max speed 10m/sec,	1	436500	436500 Add VAT 12.5%	491,062.50
245	181-182 20/05/2008	1524 22/2/2008	Ducom Instruments Pvt. Ltd. Bangalore	Journal Bearing Demonstration Apparatus , Journal Size 40mm, Model- TR-60, Fixed Bearing size ID-40 MM	1	337500	337500 Add VAT 12.5%	379,688.00
337	365 16/06/2015	6128 2/3/2015	Ducom Instruments Pvt. Ltd. Bangalore	Four Ball Tester with Data Acquisition & Microscope Model-TR-30L	1	550000	550000 vat 12	708,468.75
273	490 & 491 17/09/2010	217 31/5/2010	Aimil Limited Nimax House A-8, Mathura Road New Delhi	OR- 34 -4- Channel Integratd Portable mobile FFT Analyser Aimil Make	1	1227548	1,227,548.00	1,227,548.00
277	202 to 214 03/04/2010	1735 12/2/2009	Accurate Test Equipments & Engineers Kolhapur	Computer Engine Test RIG Set up for Single cylinder four stroke Variable Compression ratio Engine Spark/ Compression Ignition VCRE engine (Test Rig)	1	312800	312800 Add 12.5 % VAT	351,900.00
400	95 22/01/2019	PO 1062 03/12/2018	Jack Machinery Surat Gujrat	JM 1200 Single Extruder 3D Printer - JM 1200 3D Printer Printing Volume : 1100 x 550 x 700 mm The Biggest though user friendly and reliable 3D Printer for all time, longer and bigger automobile parts printing in one shot possible by JM 1200 3D Printer.	1	370500	370,500.00	370,500.00
394	211 16/04/2018	PO /18 27/03/2018	Contech Instruments Ltd. Mumbai	1.Contech Electric Balance Model No. can 803 2. Battery Backup	1 Each	40150	40150 Add 18% GST	47,927.00

395	282 25/05/2018	PO/20 27/03/2018	Global Instruments Corp. Mumbai	Magnetic Stirrer Capacity .50 ml - 220W 2000rpm Magnetic Stirrer with Hot Plate, LB-MS1 - the perfect addition to any laboratory. Specifically designed for experts in the field, the Laboratory Stirrer category is where the Labcare brand stands out. Boasting a stirring capacity of 600 ml, this versatile model LB-MS1 is a must-have tool for your scientific experiments	1	5500	5500 Add 18% GST	6,490.00
396	308 12/06/2018	PO/19 27/03/2018	E.C.Instruments Pvt. Ltd. Ahmedabad	1. Viscometer Redwood No.1 with Energy Regulator 2. Cleaveland flash point Apparatus with digital temperature indicator	1 Each	27000	27000 Add GST 18%	31,860.00
402	257 TO 261 17/06/2019	PO 93 20/02/2019	Global Instruments Corp. Mumbai	Magnetic Stirrer with hot plate - Cap.1000 ml 78-1 Magnetic Stirrer Hot Plate Magnetic Mixer 1000ml Lab Hot Plate with Magnetic Stirrer, 2400 RPM Magnetic Stir Plate with 4 Stir Bars and Support Stand	1	14107	14,107.00	14,107.00
402	257 TO 261 17/06/2019	PO 93 20/02/2019	Global Instruments Corp. Mumbai	Hot plate bath round Double walled	1	11875	11,875.00	77,875.00
402	257 TO 261 17/06/2019	PO 93 20/02/2019	Global Instruments Corp. Mumbai	Distillation Apparatus - The distillation apparatus consists basically of a distillation flask, usually fitted with a vertical fractionating column (which may be empty, or packed with suitable materials such as glass helices or stainless-steel wool) to which is attached a condenser leading to a receiving flask.	2	3325	6,650.00	6,650.00

402	257 TO 261 17/06/2019	PO 93 20/02/2019	Global Instruments Corp. Mumbai	Digital Hot Air Oven - Double walled construction inner chamber made of Stainless Steel 304Q Et exterior G.I. sheets powder coated. The gap between the two walls filled with glass wool insulation. Temperature controlled by Microprocessor based Auto tune PID digital temperature controller with PT 100 as sensor. Special Temperature Range: 50°C to 250°C Supplied with Stainless steel wire mesh shelves.	1	29925	29,925.00	29,925.00
411	109 17/06/2020	1032, 1033 06/01/2020	Chemo Equip. Corp. Sangamner	Oil Bath Round Thermostatic Temp. 50-250 Degree Centigrate	1	20250	20250 + 185 GST	23895
405	429 22/8/2019	PO 1063 4/12/2018	Caden Software Pvt. Ltd Pune	PTC CREO Software licence 5.0 University plus academic lab pack Code PKG 4109pf	50 Users	500000	500,000.00	500,000.00
451	398 / 25/07/24	1745/04/06/2024	Infinite E learning solutions	solid works - Education 2024 latest version available network package pre licence 3 experience products	30 users - 60 users	7,00,000 + GST 18 %	7,00,000 + 126000 = 826000/-	826000 -/-