











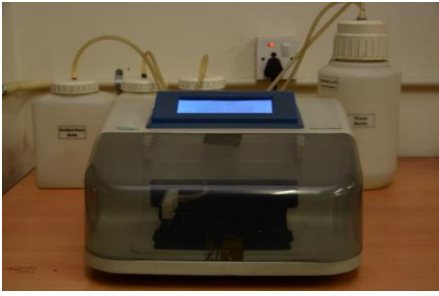
**Amity Institute of Pharmacy (AIP)**





S. No	Institute	Block Room No	Name of Lab	Name of Instrument	Make/ Model	Technical Specifications	Image
1	Amity Institute of Pharmacy	Block A, Room No.- G-02	Central Instrumentation Room	Semi Automatic Biochemistry Analyser	Elico/Semi Auto CL 380	<p>PHOTOMETRIC                      Range -0.5 to 2.5 Abs                      Readability 0.001 Abs                      Stability Drift not more than <math>\pm 0.005</math> Abs / hour after 1hr. of warm up time                      Linearity Better than 1%                      Noise 0.0008 Abs Pk-Pk                      5V, 5W,                      Light Source:-Miniature Halogen Lamp                      Detector:-Silicon Photodiode                      MEASUREMENT MODES:-Monochromatic and Bichromatic                      DISPLAY:-4X20 LCD dot matrix alphanumeric backlight display</p>	
2	Amity Institute of Pharmacy	Block A, Room No.- G-02	Central Instrumentation Room	HPLC	Shimadzu/SPD20A	<p>Solvent delivery method Parallel-type double plunger                      Flow-rate setting range 0.0001 to 10.0000 mL/min.                      low-rate accuracy No more than 1% or 0.5<math>\mu</math>L/min., whichever is greater (0.01 to 2 mL/min.)                      Light source Deuterium (D2) lamp                      Wavelength range 190 to 700 nm                      Wavelength accuracy 1 nm max.                      Wavelength precision 0.1 nm max                      Noise 0.5 X 10<sup>-5</sup> AU (under specified conditions)                      Drift 1 X 10<sup>-4</sup> AU/h (under specified conditions)                      Linearity 2.5 AU (ASTM standard)                      Functions Dual-wavelength detection in the range 190 to 370 nm and upwards of 371, ratio-chromatogram output, wavelength scanning                      Cell Optical wavelength: 10 mm, capacity: 12<math>\mu</math>L, withstand pressure: 12 MPa                      Power requirements 100 VAC, 160 VA, 50/60 Hz</p>	
3	Amity Institute of Pharmacy	Block A, Room No.- G-02	Central Instrumentation Room	UV Visible Spectrophotometer	Perkin Elmer/Lambda 25	<p>Range : 190 - 1100 nm                      Bandwidth : 1 nm (fixed)                      Modes Of Operation : scanning, wavelength program, time-drive, rate, quant, scanning quant                      All version require, but do not include, a PC</p>	

4	Amity Institute of Pharmacy	Block A, Room No.- G-02	Central Instrumentation Room	Automatic Biochemistry Analyzer	Erba/Chem 7	<p>Clinical Chemistry analyser, designed compactly. Suitable for small to medium sized laboratories so that the reporting is accurate and dependable.</p> <p>Open system having test programmable capacity of 200 and comes with 10 analytical modes, can be used for analyzing of hormones &amp; coagulation tests.</p> <p>Unique triple cuvette facility, for faster operation there are 56 direct access keys, consumes low reagent. It has optional dry block incubator &amp; battery pack for mobile use, QC monitoring is done and printer / keyboard are connected directly.</p>	
5	Amity Institute of Pharmacy	Block A, Room No.- G-03	Pharmaceutical Biotechnology Lab	Protein Sample Electrophoretic Visualization	Alphaimager EC	<p>Includes a wide range of fluorescent and colorimetric applications, but can also be expanded to chemiluminescence as laboratory needs change.</p> <p>Motorized Lens Allows direct control of aperture, zoom and focus through the software.</p> <p>Epi White Lights Assist when focusing and positioning samples.</p> <p>Dual-Wavelength Transilluminator Easily slides in and out of cabinet. High and low intensity settings provide additional illumination control.</p> <p>White Light Table For colorimetric applications such as Coomassie gels. Folds up when not in use.</p> <p>5-Position Filter Wheel Customizable for UV fluorescent imaging versatility. Motorized wheel makes switching between applications easy.</p>	
6	Amity Institute of Pharmacy	Block A, Room No.- G-03	Pharmaceutical Biotechnology Lab	Electrophoresis Unit	CROWN	<p>Temperature range: 5-80°C</p> <p>Linear gradient:45°C</p> <p>Themoblock dimensions:20 x 20 cm</p> <p>Glass plate dimensions:23,5 x 23,5 cm</p> <p>Gel dimensions: 20 x 21,7 cm</p> <p>Separation distance:(perpendicular / parallel) 16 cm / 19 cm</p> <p>Sample numbers (volume) :32 x (5µl)</p> <p>42 x (5µl), clean gels (846-024-240)</p>	



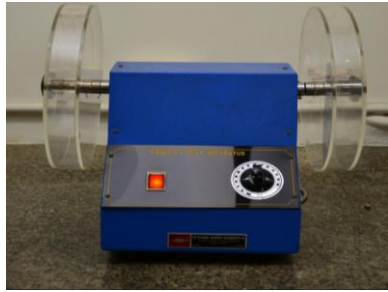

7	Amity Institute of Pharmacy	Block A, Room No.- G-03	Pharmaceutical Biotechnology Lab	Fermenter	Brio BT Series	BT Series : Bench-top execution, 2 to 10 Ltr. for laboratory research.	
8	Amity Institute of Pharmacy	Block A, Room No.- G-03	Pharmaceutical Biotechnology Lab	Cooling Centrifuge	Remi/C-24BL	<p>Max. Speed(rpm):20000  Max. RCF'g':37570  Max. Tube Size(ml):100  Max. Capacity(ml): 400  Lowest Temp.°C :-8</p>	
9	Amity Institute of Pharmacy	Block A, Room No.- G-03	Pharmaceutical Biotechnology Lab	Mastercycler Gradient	eppendorf	<p>Sample capacity: 96 x 0.2 ml PCR tubes  (unskirted, semi-skirted, skirted – according to SBS standard)  Temperature control range of the block: 4 °C to 99 °C  Temperature control mode: Block control, (simulated) tube control; both also available in gradient operation mode  Heating technology of the block: Peltier elements, Triple Circuit Technology  Gradient block: Over 12 rows  Gradient range: 1 °C to 20  Heating rate*:ca. 4 °C/s  Cooling rate*: ca. 3 °C/s  Interfaces: 1 x Centronics, 1 x RS 232, Control panel, one each of CAN in/CAN out</p>	

10	Amity Institute of Pharmacy	Block A, Room No.- G-03	In Vitro Anti Cancer Lab	Laminar Flow Bench		<p>Wooden/M.S Duley Power Coated /Stainless Steel Body.  Pre-Filter Blower (Motor Blower Assembly)  U.V. Light, Fluorescent Lamp  Operating Switch  Pressure Gauge (Manometer)  Stainless Steel Table Top  High quality HEPA filter provides protection for the product (filtration efficiency of more than 99.999% at 0.3 micron.  Ultra-quiet noise level of not more than 59 dBA.  Durable and easy to clean stainless steel worktop.  Cock for gas or vacuum line.  Work area properly illuminated by diffused glare free fluorescent light.</p>	
11	Amity Institute of Pharmacy	Block A, Room No.- G-03	In Vitro Anti Cancer Lab	CO2 Incubator	New Brunswick/ Galaxy 48S	<p>Volume 1.7 ft3 (48 L )  Shelves 3  Temperature control range: Ambient +4 to 50°C  Display readout Temperature and CO2 level  Stackable</p>	
12	Amity Institute of Pharmacy	Block A, Room No.- G-03	In Vitro Anti Cancer Lab	Inverted Microscope	Magnus	<p>Viewing Head: Trinocular Head Inclined at 30°~ Interpupillary 48 - 75mm  Eyepiece: High-point, Extra Wide Field Eyepiece EW10x/22  Objective: LWD Plan Infinity Objective- 4X/0.1 WD 18mm  40X/0.6 WD 2.6mm (Cover Glass 1.2mm)  LWD Plan Infinity Phase Objective - PH10X/0.25 WD 10mm  PH20X/0.4 WD 5.1mm  Nosepiece: Quintuple Nosepiece  Condenser: ELWD Condenser NA 0.3, LWD72mm, (without condenser 150mm)  Phase Annulus: 10X-20X Phase Annulus Plate  Stage: Plain Stage: 160 x 250mm  Glass Insert  Auxiliary Stage 70 x 180mm  Focusing:Coaxial Coarse and Fine Adjustment  Coaxial Stroke: 37.7mm per Rotation, Fine Stroke: 0.2mm per Rotation  Illumination: Halogen Lamp 6 V30 W  Filter: Blue, Green and Frosted Glass, 45mm dia</p>	

13	Amity Institute of Pharmacy	Block A, Room No.- G-08	Research Lab	Orbital Incubator Shaker		<p>Double walled, outer chamber made of M.S.  Front lid is made up of transparent see through plexi glass  Rotary shaker platform is provided at the base of incubator to shake Erlenmeyer flasks.  Motor of variable speed a  Temperature of Orbital Shaking Incubator is controlled by Electronic Digital Temperature Indicator cum Controller from ambient to <math>70^{\circ}\text{C} \pm 0.5^{\circ}\text{C}</math>. The unit is fitted with air circulation fan for temperature uniformity. It is supplied with Digital RPM meter. To work on 220/230 volts A.C. Supply.</p>	
14	Amity Institute of Pharmacy	Block A, Room No.- G-01	Research Lab	ELISA Reader	Erba/Lisa Scan II	<p>Onboard 3 speed linear shaking (plate mixing)  8 channel reading with mono &amp; bicromatic optics  42 assay protocols  Lamp saver function  Mono &amp; Bi chromatic optics  PC software available</p>	
15	Amity Institute of Pharmacy	Block A, Room No.- G-01	Research Lab	ELISA Reader	Erba/Lisa Scan EM	<p>100 test programs  Built-in shaker with 3 speed variable mixing  Compatible to various plate geometrics of 96 well microplates and in 8 or 12 well formats  Single, dual and multiple wavelength reading option  Minimum reading time 8 s for single wavelength  Range: 405 nm,450 nm,492 nm and 630 nm. Optional filters 578 nm and 700 nm  Self diagnostic capabilities  Can perform various applications for microbiology using TNW software</p>	
16	Amity Institute of Pharmacy	Block A, Room No.- G-01	Research Lab	ELISA Washer	Lisa Wash	<p>User Interface : Touch Screen LCD, 128x64 pixels with backlight  Wash head : 8 and 12 head manifold compatible  Wash mode : Row and plate  Wash rows : 1-12 rows Flat Bottom  Plate Type : 96 well plate ( U,V and  No. of plates : Up to 10 type  Wash programs : 64  Moving Cycle : 1-9 cycles  Dispensing Volume : 50 - 450 in 51l increments  Dispensing Precision : &lt; 5% at 300µl  Prime volume : 50-700µl  Aspiration pressure : Programmable 2 Types  Soak time : 1-255s</p>	

17	Amity Institute of Pharmacy	Block A, Room No.- G-01	Research Lab	Soxhlet Apparatus		Used for extracting soluble components or impurities from solids through repeated soaking/siphoning with solvent.	
18	Amity Institute of Pharmacy	Block A, Room No.- G-01	Research Lab	Lyophilizer	MRC Scientific Instruments	Freeze temperature: -50°C Vacuum degree: <15Pa Freeze-dry area: 0.12 m2 Tray load: 1.2L Water capture: 3kg/24h Sample tray: Φ200mm x4 Power supply: 220V 50Hz 800W Machine size(mm): L380xW500xH340	
19	Amity Institute of Pharmacy	Block A, Room No.- G-01	Research Lab	Electrophoresis Unit	Genetix/ GX300C	Horizontal Electrophoresis unit is a technique used for the separation of DNA, RNA, or protein molecules using an electric current applied to a gel matrix. It is usually performed for analytical purposes, and will be used as a preparative technique prior to use of other methods such as PCR, DNA sequencing etc.	
20	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Ball Mill		Used for any type of grinding, milling and pulverizing. A versatile and multi-functional design allows to handle fibrous, brittle, dry or wet materials. Fitted with geared motor, 1.0 kg of capacity and 80 rpm speed. The equipment imparts high level purity in finished material.	

21	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Bottle Cap Sealing Machine		<p>Portable, hand operated equipment with two extra cap holders of different sizes. Totally casted machine hand operated.  Hand operated.  -do- electrical operated (mounted on heavy stand.)</p>	
22	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Digital Bulk Density	Nisco	<p>Specially designed to meet the requirements of USP Standards. Apparatus can hold two cylinders, Capacity: 100 ml.</p> <p>The mechanism provides simultaneously rotating and tapping motion to the cylinders for packing the sample under test evenly and uniformly together.</p> <p>The user has to select the No. of stokes in the counter &amp; other selecting just press start &amp; it will start the stokes &amp; the digital display will show the number of strokes.</p>	
23	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Digital TAB Disintegration (USP)/ Dissolution Tester	Electrolab/TDT06L	<p>Range:- 25 - 200RPM  Accuracy:-± 1  Resolution:- 1  Temperature:30.0°C to 40.0°C  Stabilisation Time:Approx 27 min  Sensor:PT 100  Interval Range:1 min - 23 hrs 59 min  No. of Intervals: 12  Volume Range:1 - 25 ml</p>	



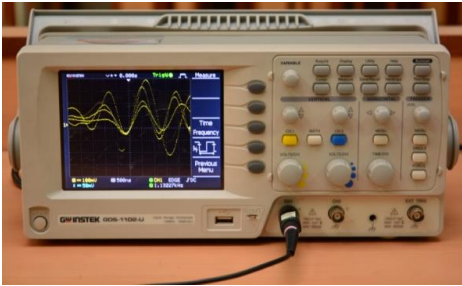
24	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Digital Tablet Disintegration Test Machine (BP)	Nisco	<p>Designed for accurate estimation of disintegration time of tablets/capsules. Our Disintegration Test Machine is assembled in painted sheet metal cabinet with chemical resistant epoxy coating, fitted with superior quality constant speed sturdy motor. The guide discs and strokes are conforming to pharmacopoeia standards. We are a reputed name when it comes to the foremost Disintegration Testing Machine Suppliers.</p> <p>Digital Timer with Time Hold Facility Water bath for maintaining temperature Digital Temperature Controller with Water bath</p>	
25	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Double Cone Blender		<p>Capacity:- 5kg</p> <p>Double Cone Blender Consists of two stainless steel cone welded with cylindrical shape and having charging and discharging at opposite ends mounted on angle iron stand capacity 5Kg single speed on reduction gear box.</p>	
26	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Friability Test Appartus	National Scientific Appratus	<p>Used for tablets to resolve the life since the time it has been manufactured.</p> <p>Transparent plastic drum Rotating plastic drum for rots Plastic blades Timer</p>	
27	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Sieve Shaker	Perfect	<p>Sieve shaker is designed to carry more than 5 sieves</p> <p>The shaker is driven by a Electric Motor</p>	



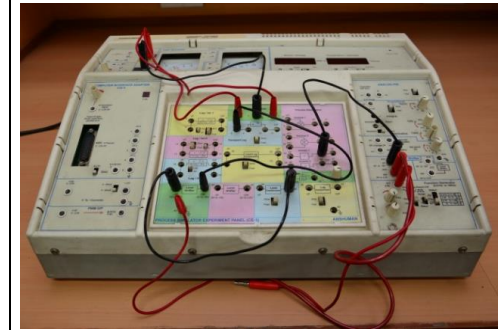
28	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Tab Punching Machine (Manual)		Version: Hand operated (manually) Tablet Punching Machine	
29	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Tab Punching Machine (GMP) (Automatic) Mini Press	Rimek	Version:GMP Rotary:Single Tooling:B No. of Station.:10 Max. Output (Tab/hr)*:18000 Max. Pressure:6 Ton Max. :Tab. Diameter:16 mm Max. Depth of Fill:17 mm Main Motor:ACVF	
30	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Coating Pan	Nisco	Model CP-24" Loading capacity 25 Drive Motor HP 3 PH 50 C S 415 V AC line 0.50 RPM of Pan (empty) 24 / 72 Hot air blower motor HP 3 PH 50 C/S 415 V AC line 0.25 Blower capacity Maximum CFM 100 Heater K.W 1.5 K.W	

31	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Tray Dryer			Racks are provided for trays inside the Dryer. Temperature Indicator, Fuse, Indicating lamp, Push button, Main isolator switch etc	
32	Amity Institute of Pharmacy	Block A, Room No.- LG-09	Machine Room	Auto Granulator (Horizontal Drive)	Rimek/Kalweka HD-410 AC		The purpose is to enable SCALE UP and invent/innovate a new drug by taking trials with small batch (minimum. 1 litres and maximum. 5 litres in volume) in R&D labs, Pharmaceutical colleges & Institutions, where limited physical space, sample size, price of trial, time and Ergonomic convenience are of utmost importance	
33	Amity Institute of Pharmacy	Block A, LG	Animal House Facility	Breeding Room			Animal House Facility	
34	Amity Institute of Pharmacy	Block A, Room No.- LG-08	Pharmaceutical Lab - II	Clarity Tester	NISCO		For Clarity testing	

**Amity Institute of Space Science & Technology (AISST)**



S.No	Institute	Block Room No	Name of Lab	Name of Instrument	Make/Model	Technical Specifications	Image
1	Amity Institute of Space Science & Technology	BLOCK -A, Room No.- 207	Aerospace Electronics Lab	9in 1 multi test station	Aplab/4049	9 in 1 Instrument - Ideal for Testing and Servicing 100MHz High Sensitivity Frequency Counter with 5 Digit Display 2MHz Function Generator 110MHz RF Generator Dual 0 - 18V / 2A Variable Voltage and Current Power Supply Triple Output Fixed Power Supplies 3½ Digit True RMS Multimeter with LED Display	
2	Amity Institute of Space Science & Technology	BLOCK -A, Room No.- 207	Aerospace Electronics Lab	Digital storage oscilloscope	Trinity/TDSO-5025	Display :8X12 divides Waveform Capture Rate : The highest capture rate exceed 1000 times/sec Input Max voltage :400V,Vpp Trigger Types : Edge, Pulse, Video, Slope, Alternative Trigger Modes : Auto, Normal, Single Trigger Source :CH1,CH2,Ext,Ext/5 AC Line Save/Recall :Provide two groups reference waveforms, twenty groups capture waveforms and twenty groups setups internal save/recall function and USB flash drive Save/Recall function Auto Measure Types :Vpp, Vmax, Vmin, Vamp, Vtop, Vbase, Cmean, Mean, Vrms, Crms, ROVShoot, FOVShoot, RPREShoot, FPREShoot, Freq, Period, Rise time, Fall Time, +Width, -Width, +Duty, - Duty, BWid, Phase, FRR, FRF, FFR, FFF, LRR, LRF, LRF, LFF Cursor measure :Manual, Track, Auto Sample Types : Real Time, Equivalent Time Averages :4,16,32,64,128,256 Math : +,-,*,Invert FFT Window: Hanning、Hanmming、Blackman、 Rectangular Sampling Points: 1024 points XY Mode :Phase Error: ±3 degrees Support the sampling rate : 5Ksa/s~1Gsa/s (in a 1-2-5 sequence) Display Model : Main, Window, Window Zoom, Roll, X-Y Menu Display : 2Sec, 5Sec, 10Sec, 20Sec, Infinite Display Language: Simplified Chinese, Traditional Chinese, English, Arabic, French, German, Russian, Spanish, Portuguese, Japanese, Korean, Italian a Power Source Voltage :100-240VAC、 47HZ-440HZ、 50VA Max Connection :USB Host: Support USB flash drive storage USB Device:	
3	Amity Institute of Space Science & Technology	BLOCK -A, Room No.- 207	Aerospace Electronics Lab	Digital storage oscilloscope	GW INSTEK/GDS-1102-U	Two-channel, portable digital oscilloscope for electronics applications such as product design, assembly lines, repair and servicing, and electrical engineering education Maximum real-time sample rate of 1GS/s and record length of 2 Mpts per channel for acquiring detailed waveforms Auto-set function automatically selects the optimum settings for displaying waveforms Add, subtract, multiply, and FFT math functions and 27 measurement parameters for analyzing waveforms 5.7" color TFT-LCD for simultaneously viewing up to two live and two stored waveforms	




4	Amity Institute of Space Science & Technology	BLOCK -A, Room No.- 207	Aerospace Electronics Lab	Function Signal Generator	Trinity/TFG - 4002	<p>Can be used as a receiver for remote monitoring of the transmitted signal quality</p> <p>Supports ATSC, CMMB, DTMB, DVB-T and DVB-T2 waveform measurements</p> <p>Covers VHF (170 to 230 MHz) and UHF (470 to 862 MHz) frequency bands (L-Band or S-Band available on request)</p> <p>Highly informative GUI with extensive transmitted signal quality measurements: Spectrum, MER/SNR, PAR, Constellation, Spectral Regrowth (Shoulders), Group Delay</p> <p>Web and SNMP interfaces provide local/remote monitoring and control</p>
5	Amity Institute of Space Science & Technology	BLOCK -A, Room No.- 203	Sensor & Instrument Lab / Measurements & Instrumentation Lab	Modular instrumentation trainer.	Anshuman/MI T	<p>Built in power supply</p> <p>DC supply +/- 12V,500mA, Variable 7V to 14V @ 3Amp.</p> <p>For torque measurement experiment.</p> <p>Built in function generator</p> <p>O/p waveform- sine, triangle &amp; square , TTL</p> <p>O/p freq.- 1Hz to 200KHz in ranges with amplitude &amp; freq. control pots, o/p voltage 10Vpp. On board measurement :</p> <p>DC volt -2V/20V Ino. &amp; LED BAR graph with 10 LED indicator to display 0-2.5V or 0-4V input.</p> <p>Computer interface (Optional)</p> <p>Interfacing through 25 pin parallel port (LPT port). Software for virtual instrumentation with parallel port driver supplied.</p> <p>4 ADC channels : 0 to 2.5V full scale</p> <p>1 DAC channel : O/P 2.5 V full scale</p> <p>V to I Function block : Input : 0-2.5Vdc</p> <p>Output : 0-20 or 4-20mA, upto max. 2Vdc gnd compliance</p> <p>•Operating voltage : 230V +/- 10%,50Hz</p>
6	Amity Institute of Space Science & Technology	BLOCK -A, Room No.- 108	RADAR & Satellite Communication Lab	Microwave Antenna training system.	Amitec Electronics Ltd/ATS12	<p>320X240 Pixel TFT Touch screen</p> <p>Source &amp; Receiver: 8.2 to 12.4 GHz with 1 mW level and 10ppm Accuracy</p> <p>Sensitivity: -80dBm</p> <p>Measurement: dBm and 22 other units with 0.1dB Resolution</p> <p>Display for angular Position and power level;</p> <p>Stepper controller: 0-359 degrees with 1, 5, 10, 45 degrees, Automatic rotation, with USB Datalogging facility</p> <p>Memory: 10,000 memories for storing positions and RF levels for quick recall</p> <p>Microstrip antennas: Monopole, Dipole, Patch, 1X2 Patch Array, 2X2 Patch Array, 4X4 Patch Array</p> <p>Aperture antennas: Slot WG narrow wall, Slot WG broad wall, Parabolic Dish, Conical Horn, Open waveguide, Pyramidal Horn, E Plane Sectoral Horn, H Plane Sectoral Horn</p> <p>Antenna: Helix LHCP &amp; RHCP, Dielectric Rod</p> <p>Multi-hole waveguide directional coupler: 30 dB directivity and 10 dB coupling</p> <p>Matched waveguide Termination, Waveguide Slotted line, Waveguide SS Tuner.</p> <p>Software with USB interface with polar plotting software with log, linear cartesian and polar plots, Multiple pattern overlay, Double cursor measurement, Zoom, Colour editing, 1000 location editor, Absolute/Relative,3dB/10dB beam-width measurement.</p>





7	Amity Institute of Space Science & Technology	BLOCK -A, Room No.- 108	RADAR & Satellite Communication Lab	SATELLITE COMMUNICATION LAB	Amitec Electronics Ltd/STC-10	<p>5.8 GHz  Display: 320X240 Pixel  TFT Touch screen, 7 channels in 5.8 Ghz band in uplink, 16X2 LCD,  RF level: +3 dBm, Tele-command &amp; telemetry, Sensitivity -85dBm, Path Loss 20dB, Down-converter: 400-500MHz output, USB port, RSSI Output, Noise addition Variable, Signal delay upto 0.6s, Dish, Fading 20dB Variable, Patch array 2X2, Test Outputs Audio 1, Audio2, Video, Digital Antennas: LPDA, Helices- LHCP &amp; Helix-RHCP, Circular &amp; Rectangular Patch Array, Parabolic Dishes, 320X240 Pixel TFT Touch screen Stepper controller: 0-359 degrees with 1, 5, 10, 45 degrees, Automatic rotation  4 Ghz Noise source, 500MHz Noise Signal analyzer for Noise Figure measurement sensitivity: -90dBm with 100KHz resolution, 6 Ghz Interference generator.</p>	
8	Amity Institute of Space Science & Technology	BLOCK -A, Room No.- 108	RADAR & Satellite Communication Lab	Spectrum analyzer.	Trinity/SA-5010	<p>Frequency range:0.15~1050MHz  Center frequency display accuracy : ±100kHz  Marker accuracy :0.1%span+100kHz  Resolution of frequency display :100kHz(4.5digit LED)  Frequency scanwidth accuracy:±10%  Frequency stability:better than 150kHz/hour  IF bandwidth(-3dB):400kHz and 20kHz  Video-filter(ON):4kHz  Sweep rate:43Hz  Amplitude range:-100dBm to +13dBm  Screen display range:80 dB(10dB/div.)  Reference level :-27dBm to +13dBm(in 10dB steps)  Reference level accuracy:±2dB  Average noise level:-90dBm(20kHz bandwidth)  Distortion:&lt;-55dBc of 2nd and 3rd harmonic  Third order intermod:-70dBc(two signal&gt;3MHz apart)  Sensitivity:&lt;5dB above average noise level  Log scale fidelity:±2dB(without attn.)500MHz  Input attenuator:0 to 40dB(4×10dB steps)  Input attenuator accuracy:±1dB/10dB  Max.input level:+10dBm,±25V DC(0dB attn.)+20dBm(40dB attn.)  Frequency scanwidth:100kHz/div.to 100MHz/div.,in 1-2-5 steps and 0Hz/div.(Zero Scan)</p>	
9	Amity Institute of Space Science & Technology	BLOCK -A, Room No.- 108	RADAR & Satellite Communication Lab	Direct Reading Frequency Meter	Microwave Technologies Inc	<p>Used for conducting studies on characteristics of reflex klystron &amp; Gunn Diode;frequency, guide wavelength &amp; free space wave length;Top measure SWR &amp; reflection coefficient. &amp; impedance of a load  Also finds application to measure polar pattern &amp; gain of antennas,dielectric constant of Liquid &amp; Solid cells;phase shift &amp; "Q" of a cavity  Used To study Magic Tee, E &amp; H Plane Tee, Directional Coupler. Isolators Circulators &amp; Return Loss Measurement.</p>	




### Amity Institute of Forensic Sciences (AIFS)

S.No	Institute	Block Room No	Name of Lab	Name of Instrument	Make/ Model	Technical Specifications	Image
1	Amity Institute of Forensic Sciences	BLOCK B/LG - 09	Research Lab	Zoom stereo microscope	Olympus/ SZ 51	<p>Comfort View features pupil aberration control and appropriate positioning at the eye point. The result is a field of view that is easy to find, comfortable to view, and easy to maintain.</p> <p>Magnification range: (using 10x eyepieces) SZ51 8.0x-40x; zoom ratio 5:1</p> <p>The 10° angle of convergence in the Greenough optical system secures excellent image flatness with a large depth of field. Either a 45° or 60° inclination tube.</p>	
2	Amity Institute of Forensic Sciences	BLOCK B/LG - 09	Research Lab	Thermal Cycler	Lark/LI25	<p>Block Capacity 25x0.2ml + 16x0.5ml Non Gradient Program Memory 100 Dimension (LxWxH) 267x220x253mm Net Weight 3.6kg</p>	
3	Amity Institute of Forensic Sciences	BLOCK B/LG - 07A	Forensic Biology & Serology	Photodeveloper	Morden/ 2-2B	Photo developing Machine from photo reel	
4	Amity Institute of Forensic Sciences	BLOCK B/LG - 04	Forensic Chemistry & Toxicology	Calorimeter	Elico/CL-157	<p>Stable, Direct Readout of Absorbance Compact &amp; Easy to operate Rugged, Sturdy &amp; Reliable Thumb Wheel Selection of Filters Pre-focussed Light Source Long Life Photo Diode Detector Only 1 ml of Sample need Usable for Disposable cells</p>	

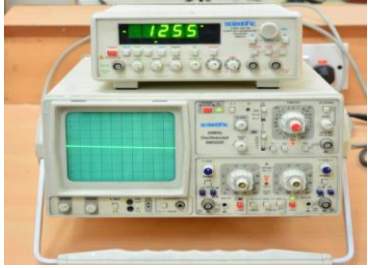


5	Amity Institute of Forensic Sciences	BLOCK B/LG - 04	Forensic Chemistry & Toxicology	Digital Photo Colorimeter	Galaxy	<p>Smooth operations, easy installations and simple operations. Demanded immensely in hospitals and medical institutions, these calorimeters are offered by us at economical prices.</p> <p>Efficient Longer working life Digital mete</p>	
6	Amity Institute of Forensic Sciences	BLOCK B/LG - 04	Forensic Chemistry & Toxicology	Densitometer	Systronics/205	<p>Used to quantify electrophoretically separated bands from electrophoreses as serum protein, in 5 bands by default value and Hemoglobin, Lipoprotein etc. in N-band mode.</p>	
7	Amity Institute of Forensic Sciences	BLOCK B/LG	Forensic Chemistry & Toxicology	Spectrophotometer	Elico - SL - 150	<p>Range 190 to 1100 nm Bandwidth 2 nm PHOTOMETRIC Range:0 to 1.999 Abs. Repeatability:± 0.002 Abs. at 1.0 Abs. Stray light:- &gt; 2.000 Abs at 200 nm with 1.2% KCl LIGHT SOURCE:-Duterium (D2) &amp; Tungsten (W) Halogen Lamps MONOCHROMATOR:-Czerny -Turner type with 1200 lines/mm Holographic grating DETECTOR:-Wide Range Photodiode</p>	

8	Amity Institute of Forensic Sciences	BLOCK B/LG - 07A	Forensic Biology & Serology	Cooling Centrifuge	Remi/C-24BL	<p>Max. Speed(rpm):20000  Max. RCF'g':37570  Max. Tube Size(ml):100  Max. Capacity(ml): 400  Lowest Temp.°C :-8</p>	
9	Amity Institute of Forensic Sciences	BLOCK B/LG - 09	Research Lab	Microscope	Olympus/BX 41	<p>UIS2 optical system  Focus Vertical stage movement: 25mm stage stroke with coarse adjustment limit stop  Torque adjustment for coarse adjustment knobs  Stage mounting position variable  High-sensitivity fine focusing knob(adjustment gradations: 1µm)  Illuminator Built-in Kohler illumination for transmitted light  6V30W halogen bulb (pre-centered)  Light preset switch  Revolving nosepiece:Interchangeable reversed sextuple/quintuple nosepiece  Observation tube:Widefield binocular, inclined 30°  Widefield tilting binocular, inclined 5° - 35°  Widefield trinocular, inclined 30°  Widefield ergo binocular, inclined 0°-25°  Super widefield trinocular, inclined 24°  Condenser Abbe (N.A. 1.1), 4x-100x  Swing out Achromat (N.A. 0.9), 1.25x-100x (swing out: 1.25x-4x)  Achromatic Aplanat (N.A. 1.4), 10x-100x  Phase-contrast, darkfield (N.A. 1.1), 4x-100x  Darkfield dry (N.A. 0.8-0.92), 10x-400x  Darkfield oil (N.A. 1.20-1.40) 10x-100x  Ultra low (N.A. 0.16), 1.25x-4x</p>	









10	Amity Institute of Forensic Sciences	BLOCK B/LG - 09	Research Lab	Microscope	Magnus /MS 24	<p>Superior Optics for enhanced image flatness and contrast  Ergonomic design for ease of operation  Long working distance of 105 mm  Parfocal objectives  Body:Objective 2X/4X. 105mm Working Distance. +/- (left side)  Diopter Adjustment  Eyepieces:High Eyepoint Super Widefield eyepiece SWH 10X with Field Number 23  Field of View:Objective 2x, 4x. Visual field(mm)11.5, 5.7  Light Source:Reflected 6V 10W lamp with adjustable brightness. Transmitted 5W fluorescent lamp</p>	
11	Amity Institute of Forensic Sciences	BLOCK B/LG - 07A	Forensic Biology & Serology	Opto Monocular Microscope	Magnus /MLX M	<p>With built-in 6V, 20W halogen illuminator, quadruple ball bearing nosepiece. Coaxial coarse &amp; fine focusing controls. Coaxial low drive mechanical stage, substage Abbe condenser (NA 1.25) with iris diaphragm with rack and pinion. High resolution long barrel achromatic objectives 4X, 10X, 40X &amp; 100X (spring, oil imm). Paired Widefield eyepiece WF10X. With a monocular observation head.</p>	
12	Amity Institute of Forensic Sciences	BLOCK B/LG - 09	Research Lab	UV Chamber	Gurunanak Inst.	<p>This user-safe, self-contained light exposure chamber is compact enough to fit onto a benchtop. The unit features a lighting system which emits a peak wavelength at 365nm for use in the speedy curing of UV activated materials. Optional lamps allow curing of a variety of light activatable formulas. The unit also features a programmable digital timer, power-down mode, and an exposure-completion audio indicator. The chamber comes standard with a rotating clear turntable and shelf, both made of a highly reflective material which facilitates even light distribution. The inner walls are specially coated to provide optimum light distribution and to eliminate shadows throughout. The result is full uniform exposure around 360°. Clear viewing window (open/close via hinged door) to facilitate defect inspection.</p>	





**Amity Institute of Telecom Engineering and Management (AITEM)**




S.No	Institute	Block Room No	Name of Lab	Name of Instrument	Make/ Model	Technical Specifications	Image
1	AITEM	BLOCK C, Room No.-G-06	Analog & Digital Communications Lab	Cathode Ray Oscilloscope(CRO)	Scientific/SM 203G	Vertical Deflection coefficients : 1 mV to 20 V/div. Time Base: 20 ns -0.2 s/ div; Variable Hold- Off; X10 Magnification Triggering: DC-60 MHz; Active TV Sync Sep.; Alternate triggering	
2	AITEM	BLOCK C, Room No.-G-06	Analog & Digital Communications Lab	DSB/SSB AM Receiver Trainer Kit	Scientech/ST 2202	Construction : Superhetrodyne Frequency Range : 980 KHz to 2060 KHz Intermediate Frequency : 455 KHz Input Circuits : 1) RF Amplifier 2) Mixer 3) Local Oscillator 4) Beat Frequency Oscillator 5) IF Amplifier 1 6) IF Amplifier 2 Tuning : With variable capacitor (ganged) Dial marking on board Receiving media : Telescopic antenna / Cable Detectors: 1) Diode detector (for DSB) 2) Product detector (for SSB) Audio Output : Amplifier with speaker Automatic Gain Control : Switchable Switched Faults : 8 nos. Interconnections : 2 mm Banana sockets Test points : 30 nos. Power Supply : 110-220 V AC $\pm$ 10%, 50/60Hz Power Consumption : 3 VA approximately Operating Conditions : 0-40 C, 80% RH	
3	AITEM	BLOCK C, Room No.-G-06	Analog & Digital Communications Lab	DSB/SSB AM Transmitter Trainer Kit	Scientech/ST 2201	Audio Oscillator : With adjustable Amplitude & Frequency (300 Hz - 3.4 KHz) Audio Output : Amplifier with speaker Modulators : Balanced Modulator with Band pass Filter (1 MHz) - 2 nos. Balanced Modulator : 1 No. (455 KHz) Ceramic Bandpass Filter : 1 No. (455 KHz) Carrier Frequency : 1 MHz (Oscillator controlled) Transmitter Amplifier Output: (Gain adjustable) DSB (1 MHz), SSB (1.445 MHz) connected to Antenna/cable Switched Faults : 8 nos. Interconnections : 2mm Banana socket Test Points : 27 nos Power Supply : 110-220 V AC $\pm$ 10%, 50/60Hz	


4	AITEM	BLOCK C, Room No.- G-06	Analog & Digital Communications Lab	Frequency Modulation&Demodulation Trainer	Scientech/ST 2203	<p>Audio Oscillator : With adjustable Amplitude &amp; Frequency (300 Hz - 3.4 KHz)          Audio Oscillator : With adjustable Amplitude &amp; Frequency (300 Hz - 3.4 KHz)          FM Modulator :1) Reactance Modulator (with carrier Frequency adjustment) 2)          Varactor Modulator (with carrier Frequency adjustment)          Mixer / Amplifier : (With Gain adjustment) Allows FM input signal to be amplitude          modulated by a noise input prior to demodulation.          Transmitter Output : 455 KHz Frequency          FM Demodulator :1) Detuned Resonant Detector 2) Quadrature Detector 3) Foster          -Seeley Detector 4) Ratio - Detector 5) Phase Locked Loop Detector          Low Pass Filter : 3.4 KHz Cut off Frequency Amplifier (with adjustable gain)          Interconnections : 4 mm banana sockets          Test points : 74 nos (Gold plated)          Power Supply : 230 V <math>\pm</math>10%, 50 / 60 Hz          Power Consumption: 3 VA approximately          Operating Conditions : 0-40 C, 80% RH</p>	
5	AITEM	BLOCK C, Room No.- G-06	Analog & Digital Communications Lab	TDM Pulse Amplitude Modulation/Demodulation Trainer	Scientech/ST 2154	<p>Input Channel : Time Division Multiplexed serial Input          Demodulation : Pulse Code Demodulation          Clock Regeneration : By Phase Locked loop          Operating Speeds : Fast - 320 KHz/Channel,          Slow 1.9 Hz / Channel          Error Detection (Single bit) : Off-Odd- Even parity &amp; Hamming code          Error Correction : Hamming code          Test Points : 50 nos.          Interconnections : 2 mm sockets          Power Supply : 110-220 V <math>\pm</math>10%, 50/60 Hz</p>	
6	AITEM	BLOCK C, Room No.- G-04	Industry Supported Telecom Lab	Mobile Net Unit	Ericsson/RBS 2202	<p>Construction : Superhetrodyne          Frequency Range : 980 KHz to 2060 KHz          Intermediate Frequency : 455 KHz          Input Circuits : 1) RF Amplifier          2) Mixer          3) Local Oscillator          4) Beat Frequency Oscillator          5) IF Amplifier 1          6) IF Amplifier 2          Tuning : With variable capacitor (ganged)          Dial marking on board          Receiving media : Telescopic antenna / Cable          Detectors: 1) Diode detector (for DSB)          2) Product detector (for SSB)          Audio Output : Amplifier with speaker          Automatic Gain Control : Switchable          Switched Faults : 8 nos.          Interconnections : 2 mm Banana sockets          Test points : 30 nos.          Power Supply : 110-220 V AC <math>\pm</math>10%, 50/60Hz          Power Consumption : 3 VA approximately          Operating Conditions : 0-40 C, 80% RH</p>	 

7	AITEM	BLOCK C, Room No.- G-04	Industry Supported Telecom Lab	Mobile Net Unit	Bharti Airtel, KIND COURTESY/ Delta Power Solutions (I) Pvt. Ltd , Radius Synergy International and Ericsson India	<p>Construction : Superhetrodyne  Frequency Range : 980 KHz to 2060 KHz  Intermediate Frequency : 455 KHz  Input Circuits : 1) RF Amplifier  2) Mixer  3) Local Oscillator  4) Beat Frequency Oscillator  5) IF Amplifier 1  6) IF Amplifier 2  Tuning : With variable capacitor (ganged)  Dial marking on board  Receiving media : Telescopic antenna / Cable  Detectors: 1) Diode detector (for DSB)  2) Product detector (for SSB)  Audio Output : Amplifier with speaker  Automatic Gain Control : Switchable  Switched Faults : 8 nos.  Interconnections : 2 mm Banana sockets  Test points : 30 nos.  Power Supply : 110-220 V AC <math>\pm</math>10%, 50/60Hz  Power Consumption : 3 VA approximately  Operating Conditions : 0-40 C, 80% RH</p>	
8	AITEM	BLOCK C, Room No.- G-02A	CDMA &GSM LAB	CDMA Kits	Sciencetech/ST 2131	<p>Direct sequence spread-spectrum (DS-SS) modulator  Programmable chip rates up to 10Mchip/s  Spreading codes :  Gold sequences (up to 223_1 chips)  b. Maximal length sequences, (max length 223-1 chips)  c. Barker codes (length 11, 13)  Code modulation :  BPSK/QPSK/OQPSK with output spectral shaping  Filter : raised cosine square root filter with 20%, 25%, or 40% rolloff  Internal generation of pseudo-random bit stream and unmodulated carrier for test purposes  Built-in channel impairments generation :  a. Additive white Gaussian noise  b. Frequency offset (Doppler)  Single 5V supply  Connectorized 3" x 3" module for ease of prototyping  Standard 40 pin 2 mm dual row connectors (left, right, bottom)  Interfaces with -5V and 3.3V logic</p>	

9	AITEM	BLOCK C, Room No.- G-02A	CDMA & GSM LAB	GSM Trainee Kit	Scientech/ST 2133	<p>GSM capability : GSM 900 / 1800/850/1900 E - GSM</p> <p>GSM data services : Asynchronous, Transparent &amp; Non Transparent modes. 14.4 kbits / s</p> <p>SIM Interface : 3 V</p> <p>RF characteristics :</p> <p>Receiver</p> <p>EGSM Sensitivity : &lt; -104 dBm</p> <p>DCS Sensitivity : &lt; -102 dBm</p> <p>Selectivity @ 200 KHz : &gt;+9 dBc</p> <p>Selectivity @ 400 KHz : &gt;+41 dBc</p> <p>Dynamic range : 63 dB</p> <p>Intermodulation : &gt;-43 dBm</p> <p>C-channel rejection : <sup>3</sup>9 dBc</p> <p>Transmitter</p> <p>Maximum output power : 33 dBm ± 2 dB (EGSM)</p> <p>Maximum output power : 30 dBm ± 2 dB (DCS)</p> <p>Minimum output power : 5 dBm ± 5 dB (EGSM)</p> <p>Minimum output power : 0 dBm ± 5 dB (DCS 1800)</p> <p>Noise in 925 - 935 MHz : &lt; -67 dBm</p> <p>Noise in 935 - 960 MHz : &lt; -79 dBm</p> <p>Noise in 1805 - 1880 MHz : &lt; -71 dBm</p> <p>Phase error at peak power : &lt; 5° RMS</p> <p>Frequency error : &lt; 0.1ppm max</p>	
10	AITEM	BLOCK C, Room No.- LG- 09	Engineering physics lab	Optical Bench		<p>Free Standing Optical Rail</p> <p>Light Weight Aluminium</p> <p>Positioning scale in millimeters</p> <p>Length upto 1/2, 1 &amp; 1½ mtrs.</p>	
11	AITEM	BLOCK C, Room No.- LG- 09	Engineering physics lab	Half Shade Polarimeter	NISCO/SP1	<p>Vernier reading 1/10. Supplied with 200mm Polarimeter tube, a hand magnifier for vernier reading, in a polished storing wooden cabinet.</p>	
12	AITEM	BLOCK C, Room No.- LG- 09	Engineering physics lab	Microwave Test Bench	Microwave Technologies Inc	<p>Used for conducting studies on characteristics of reflex klystron &amp; Gunn Diode;frequency, guide wavelength &amp; free space wave length;Top measure SWR &amp; reflection coefficient. &amp; impedance of a load</p> <p>Also finds application to measure polar pattern &amp; gain of antennas,dielectric constant of Liquid &amp; Solid cells;phase shift &amp; "Q" of a cavity</p> <p>Used To study Magic Tee, E &amp; H Plane Tee, Directional Coupler, Isolators Circulators &amp; Return Loss Measurement.</p>	




Amity Institute of Aerospace Engineering (AIAE)							
S.No	Institute	Block Room No	Name of Lab	Name of Instrument	Make/ Model	Technical Specifications	Image
1	Amity Institute of Aerospace Engineering (AIAE)	BLOCK- E-1, LG-10	Aerospace Lab	Smoke Tunnel	Inhouse design and fabrication with the help of IIT Delhi	Lab Model	
2	Amity Institute of Aerospace Engineering (AIAE)	BLOCK- E-1, LG-10	Aerospace Lab	Wind Tunnel	Inhouse design and fabrication with the help of IIT Delhi	Lab Model	 
3	Amity Institute of Aerospace Engineering (AIAE)	BLOCK- E-1, LG-10	Aerospace Lab	Reynolds Apparatus		The setup is self contained water re-circulating unit, provided with a sump tank and a centrifugal pump etc. Flow control valve and by pass valve are fitted in water line. Flow rate of water is measured with the help of measuring cylinder and stop watch. Visual observation of dye(Thread) will indicate the type of flow, which can be confirmed from the Reynold's number computed.	





4	Amity Institute of Aerospace Engineering (AIAE)	BLOCK- E-1, LG-10	Aerospace Lab	Flow Visualization Appratus		<p>This apparatus could be used to simulate any process satisfying the Laplace equation in two dimensions.</p> <p>The test channel is formed by placing the smooth flat faces of the top and bottom plates closely together. The rubber model is sandwiched between these plates. A rubber seal fixed to the bottom plate prevents leakage from the apparatus. The top glass plate, which is removable, contains a grid to aid analysis of the flow patterns. Water flows along the channel at a sufficiently low Reynolds number for the inertia forces to be negligible. The bottom plate contains four small holes which can each be connected to either a water pressure or suction point and thus act as a source or sink. The streamlines are produced by a regulated flow of dye solution.</p>	
5	Amity Institute of Aerospace Engineering (AIAE)	BLOCK- E-1, LG-10	Aircraft Propulsion Lab	Propeller		Lab Model	
6	Amity Institute of Aerospace Engineering (AIAE)	BLOCK- E-1, LG-10	Aircraft Propulsion Lab	Photo Elastic Bench	Technolab Associates	<p>2 plane polarisation filters as polariser and analyser</p> <p>2 quarter wave filters to generate circular polarised light</p> <p>All filters with 360° angle scale and marking of the main optical axis</p> <p>White light generated using a fluorescent tube and two incandescent lamps</p> <p>Monochromatic light generated using a sodium vapour lamp</p> <p>Filters roller bearing mounted and rotating</p> <p>Frame cross-arms with adjustable- height</p> <p>Generation of compression or tension forces by means of a threaded spindle</p> <p>Complete models in polycarbonate (PC)</p>	



7	Amity Institute of Aerospace Engineering (AIAE)	BLOCK- E-1, LG-10	Aircraft Propulsion Lab	12" Research Polariscope 100 kg cap.	Techno Lab Associates (Model SL-A)	Accessories for Polariscope – Oblique Incidence Attachment Telemicroscope Model Cutter Model Polisher	
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**Amity Institute of Applied Sciences (AIAS)**




S.No	Institute	Block Room No	Name of Lab	Name of Instrument	Make/ Model	Technical Specifications	Image
1	Amity Institute of Applied Sciences (AIAS)	BLOCK-E2, 3rd Floor, Room No.-E2-305	Research Lab	UV-VIS Spectrophotometer	Shimadzu (UV-1800)	<p>Wavelength range 190 to 1100nm                      Wavelength accuracy <math>\pm 0.1</math>nm at 656.1nm D2 <math>\pm 0.3</math>nm (190 to 1100nm)                      Photometric system: Double Beam                      Photometric range Absorbance: -4 to 4 Abs                      Transmittance: 0% to 400%                      Photometric accuracy :- <math>\pm 0.002</math> Abs (0.5Abs), <math>\pm 0.004</math> Abs (1.0Abs), <math>\pm 0.006</math> Abs (2.0Abs)</p>	
2	Amity Institute of Applied Sciences (AIAS)	BLOCK-E2, 3rd Floor, Room No.-E2-305	Research Lab	Ultrasonic Interferometer	Mittal Enterprises (F-05)	<p>An Ultrasonic Interferometer is a simple and NDT device to determine the ultrasonic velocity in liquids with a high degree of accuracy.                      HIGH FREQUENCY GENERATOR Single and Multi-frequency                      MEASURING CELL Max. displacement of the reflector : 20 mm Required Quantity of liquid: 10 c.c.                      Least Count of micrometer: 0.01mm/0.001 mm                      SHIELDED CABLE Impedance : 50 O</p>	
3	Amity Institute of Applied Sciences (AIAS)	BLOCK-E2, 3rd Floor, Room No.-E2-305	Research Lab	Froth Flotation Cell	Mass International	<p>Used to study the performance of Froth Flotation Cell                      To find % recovery of mineral in froth from a standard mixture</p>	
4	Amity Institute of Applied Sciences (AIAS)	BLOCK-E2, 3rd Floor, Room No.-E2-305	Research Lab	Melt Flow Index	Khera	<p>Used to measure the flow rates of thermoplastics by extrusion plastometer indicating the uniformity of the flow rate of the polymer.</p> <ul style="list-style-type: none"> <li>Consists of a heated extruder tube, an interchangeable jet through which the material under test is extruded, and a piston with dead weights to apply the specified pressure on the material inside the extruder tube.</li> <li>PID controller is provided to indicate &amp; control the temperature of the tube.</li> <li>Temperature Range : Ambient to 199.9° C.</li> <li>Diameter of heater tube cavity : 9.55 mm.</li> <li>Dimensions of piston head : 9.47 mm Diameter X 6.35 mm Long</li> <li>Dimensions of jets holes : 2.095 mm X 8.00 mm</li> </ul>	





5	Amity Institute of Applied Sciences (AIAS)	BLOCK-E2, 3rd Floor, Room No.-E2-305	Research Lab	Paint Corrosion Test Furnace		Temperature cycle of 42° C to 48° C & back to 42° C in 60 t070 Minutes. Temperature Accuracy: +/-0.5° C. Stainless Steel Chamber. Humidity Range above 98% R.H. Available in three sizes. (AS PER IS : 101)	
6	Amity Institute of Applied Sciences (AIAS)	BLOCK-E2, 3rd Floor, Room No.-E2-305	Research Lab	Viscometer	Brookfield (DV-E)	<p>Viscosity Range(cP):- 1 - 2M  Spring Torque:-673.7 dyne-cm(0.0673 milli Newton-m)  Low cost and easy to use  Direct display in:  cP or mPa·s  % Torque, Spindle, and Speed  Torque measurement accuracy: 1% of full scale range  Repeatability: 0.2% of full scale range  Compatible with all Brookfield accessories  NIST traceable viscosity standards available  18 speeds for greater range capability (0.3 to 100 rpm)</p>	
7	Amity Institute of Applied Sciences (AIAS)	BLOCK-E2, 3rd Floor, Room No.-E2-305	Research Lab	Cooling Centrifuge	Remi (C-24BL)	<p>Max. Speed(rpm):20000  Max. RCF'g':37570  Max. Tube Size(ml):100  Max. Capacity(ml): 400  Lowest Temp.°C :-8</p>	
8	Amity Institute of Applied Sciences (AIAS)	BLOCK-E1, 4th Floor, Room No.-E1-421	Research Lab	Wrist Action Shaking Machine	Mittal Enterprises	<p>Heavy cast iron base with sturdy construction with two side arms for holding flasks. A fractional H.P. heavy duty Motor with variable speed through continuously variable speed controller is provided. To hold flasks of capacity 100 to 1000 ml. Complete with cord plug etc. To work on 220 V AC 50 Hz single phase. Automatic 0-60 minutes Timer. Model to hold 4 flasks.</p>	





9	Amity Institute of Applied Sciences (AIAS)	BLOCK-E1, 4th Floor, Room No.-E1-416	Research Lab	Muffle Furnace	Jupiter	<p>This furnace is light in weight with ceramic wool insulation (instead of Brick insulation). The outer casing is made of double walled thick PCRC sheet, duly painted with attractive stove enamel. Heating elements are made of Kanthal A-1 wire and backed by high temperature cerwool insulation, which avoids loss of energy.</p>	
10	Amity Institute of Applied Sciences (AIAS)	BLOCK-E1, 4th Floor, Room No.-E1-416	Research Lab	Electrometer / High Resistance Meter	Keithley (6517B)	<p>Measures resistances up to 1016  1fA - 20mA current measurement range  &lt;20 V burden voltage on lowest current ranges  200T input impedance  Unique voltage reversal method for high resistance measurements  &lt;3fA bias current  Optional plug-in scanner cards  Up to 425 rdgs/s  0.75fA p-p noise.  Built-in 1kV voltage source</p>	
11	Amity Institute of Applied Sciences (AIAS)	BLOCK-E1, 4th Floor, Room No.-E1-416	Research Lab	GM Counter	Nucleonix (GC601A)	<p>G.M. Input (From G.M.Counter)  (a) Polarity : Negative  (b) Amplitude : 250 mV (min)  Resolving Time:-6 micro sec (approx)  HV Output:Variable HV using teturn pot upto a maximum of 1500 volts at 1 mA. Line and load regulation better than 0.05%. Ripple less than 20mV.  Display:16 x 2 LCD dotmatrix display has been provided to indicate data counts, Elapsed Time and HV.  Counts Capacity:999999 counts  Preset time:(0-9999) sec.  Programmability:-Includes selection of Preset Time, Storing / Recalling of data, starting and stopping of acquisition etc.,  G.M. Detector pulses can be seen on the oscilloscope.  Unit is powered through a detachable mains cord. It will draw about 250 mA at 230 volts AC at 50 Hz.</p>	

12	Amity Institute of Applied Sciences (AIAS)	BLOCK-E1, 4th Floor, Room No.-E1-416	Research Lab	High Voltage DC Power Supply (Poling Set up)	Aplab (H5K02N)	<p>500W-1.2KW OUTPUT</p> <p>Metering : 3 digit DPMs for voltage and current measurement.  Meter Accuracy : <math>\pm 3</math> counts.</p> <p><b>Constant Voltage Mode :</b>  REGULATION :  Line : <math>\pm 0.01\% \pm 2\text{mV}</math> for <math>\pm 10\%</math> change in line voltage.  Load : <math>\pm 0.01\% \pm 2\text{mV}</math> for load change from zero to full load.  RIPPLE AND NOISE : 1mV rms max. 20Hz to 20MHz.</p> <p><b>Constant Current Mode :</b>  REGULATION :  Line : <math>\pm 0.05\% \pm 10\text{mA}</math> for <math>\pm 10\%</math> change in line voltage.  Load : <math>\pm 0.05\% \pm 10\text{mA}</math> for change in output voltage from 0 volts to maximum output voltage.  Output Polarity : Floating w.r.t. ground.  Overload Protection : Constant current type.  Transient Response : 100<math>\mu\text{sec}</math> within 10mV of set output voltage for load change from 10% to 90%.</p>	
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**Amity School of Engineering and Technology (ASET)**

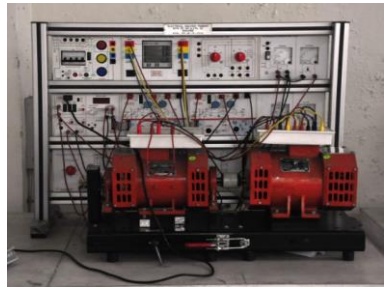

S.No	Institute	Block Room No	Name of Lab	Name of Instrument	Make/Model	Technical Specifications	Image
1	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-08	Mechatronics	Hydraulic Trainer Kit	ADM	It can be used as a Live Demonstrator to show functioning of various hydraulic components and control circuits. Operating pressure is kept at 20 bar for safety of the students. The components / equipments are mounted on an ergonomically designed mobile metal trolley with drip tray. The power pack is mounted at the bottom. The components are permanently mounted on the working area. Quick Release Couplings are used on the components and hoses for fast and easy connections.	
2	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-08	Mechatronics	Pneumatic Trainer Kit	ADM	Compact Ergonomic Design User Friendly, Self Explanatory Systems Leak proof Safety Measures, sturdy piping & Robust Construction Enhanced Electrical Safety Considerations Training Manuals mimic Charts for Operation Ease M.S. powder coated cubical plant with standard Instrument Assemblies Inbuilt Safety Measures to avoid improper usage Relay board logic circuit operation	
3	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-08	Mechatronics	CNC Trainer Milling Machine	3D Technologies	Travel X Axis :-175 mm Travel Y Axis :-115 mm Travel Z Axis :-115 mm Table Size :- 360 x 140 mm Axis Control:- Simultaneous Three Axis Control Accuracy:- 5 Micron each Axis Speed range :-100 – 2500 rpm min Motor Power Cap :-0.75 HP Feed rate Axis :-2-50 mm/ min Control system :-PC based 3 Axis continuous path Power source :-230 V, Single Phase 50 Hz	




4	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-08	Mechatronics	CNC Trainer Lathe Machine	3D Technologies	<p>Industrial cnc controller with provision to connect to pc.  Repeatability <math>\pm 0.005</math> mm  Center height 200mm  Travel z axis 300 mm  Travel x axis 150 mm  Twing over carriage 75  Programmable spindle speed 100 – 2000 rpm  spindle motor 2 h.p ac motor with vfd  Resolution 0.001 mm</p>	
5	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04A	Mechanics of Solids	Impact Testing Maching	Engg. Models & Equip., Roorkee	<p>Pendulum impact testing machine: mechanical version</p> <ul style="list-style-type: none"> <li>• Capacity 30 kgm (300 joules)</li> <li>• Least count 0.2 kgm</li> <li>• Designed for conducting izod and charpy test.</li> <li>• The energy utilized to break izod or charpy specimen is directly indicated by the pointer.</li> <li>• Confirms to IS 1598, IS 1757, IS 1499 &amp; BS 131</li> </ul>	
6	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04A	Mechanics of Solids	Universal Testing Machine (100Kn)	Accurate Scientific International	<p>Unit:- 100 KN  Test Speed :-0.5-1000mm/min (control by keyboard input)  Test range :-400mm MAX  Accuracy:- <math>\pm 0.5\%</math> or better  Motor :-Servo Motor  Power:- 1,220V/50HZ</p>	
7	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04A	Mechanics of Solids	Spring Testing Machine	Engineering models & Equipment	<p>CAPACITY: 5000 KGF: MANUAL</p> <ul style="list-style-type: none"> <li>• Used for testing/measuring the compression, tension and retraction of springs</li> <li>• Has linear least count of 100 grams for load and 0.1 mm for displacement throughout the range of 0 to 5 KN. Manually/Electrically operated.</li> <li>• Displacement for accurately measuring the deflection and expansion of springs.</li> <li>• Test height of 15 inch and is capable of holding springs of O.D. up to 8 inch.</li> <li>• Testing Speed : 40mm/sec</li> <li>• Max . Operating pressure : 250/kg/cm<sup>2</sup></li> <li>• Motor HP: 5 - 7.5 HP</li> <li>• Power supply : 3 phase, 415VAC <math>\pm 6\%</math>50HZ <math>\pm 3\%</math> 4</li> </ul>	






8	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04A	Mechanics of Solids	Rockwell and Brinell Hardness Testing Machine (50 kgm)	Engineering models & Equipment	<p>The machine is a combined version, wherein Rockwell Hardness under A, B and C Scales and Brinell Tests can be conducted.</p> <p>The machine is supplied complete with ball and diamond indenters together with Test Block for HRB and HRC Scales and Ball Indenter for Brinell Hardness test together with an illuminating type Brinell Microscope complete with a BHN Conversion Table.</p> <p>LOAD RANGE :- 60,100,150,187.5 &amp; 250 kgf.</p> <p>MAX.TEST HEIGHT :- 295 mm</p>	
9	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04A	Mechanics of Solids	Torsion Testing Machine (50 kgm)	Engineering models & Equipment	<p>Capacity : 0 to 50 kgm.</p> <p>Range : ONE</p> <p>Rod to be tested : 8 to 20 mm.</p> <p>Load of Measurement : Torque and Twist will be read directly.</p> <p>Other provisions : Automatic stop in case of failure of specimen.</p>	
10	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04	Electrical Machine Lab / Power System Lab	Power Generation Trainer	Anshuman Tech Pvt Ltd (XPO-EMT)	<p>Input 3 phase DOL Starter panel (EMT1)</p> <p>4 pole MCB of 415 V/4A</p> <p>DOL 9A Contactor with 230V / 50Hz / 11VA Coil</p> <p>Bimetallic thermal O/L relay with range 1.4A - 2.3A</p> <p>Consist of 2 nos of (96x96mm) Digital meters one each for 3 ph. &amp; 1 ph. Measures V, I, PF(0.2 lag unity 0.2 lead), Hz</p> <p>Current specs for 3 ph. meter = 5A (Balanced load) and 1A/5A for 1ph. meter (170-250V)</p> <p>FWD/REV, 3 pole 3 way switch with center OFF, 6A/440V</p>	
11	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04	Power System Lab	Power Transmission Line Trainer	Anshuman Tech Pvt Ltd (XPO-PET/TL)	<p>Power Transmission Line Trainer need a few set of associated panels (7-8 nos. typically) which are mounted in a light weight sturdy aluminum profile flat demo panel system. Facilitates easy and safe wiring by students due to use of 4mm sturdy Shrouded banana patch cords and shrouded socket arrangements for high voltage circuits,</p>	

12	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04	Power System Lab	Percentage Biased Differential Relay Trainer	Anshuman Tech Pvt Ltd (XPO-PET/PR/11)	<p>Consisting of voltage injector, current injector, elapsed time counter (1 msec resolution), trip relay logic etc. The Trainer need a few set of associated relay testing (current / voltage injection etc. ) panels (7-8 nos. typically) which are mounted in a light weight sturdy aluminum profile flat demo panel system. Do not need any separate testing kit. Facilitates easy and safe wiring by students due to use of 4mm sturdy Shrouded banana patch cords and shrouded socket arrangements for high voltage circuits</p>	
13	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04	Power System Lab	IDMT Over Current Relay Trainer	Anshuman Tech Pvt Ltd(XPO-PET/PR/111)	<p>Consisting of voltage injector, current injector, elapsed time counter (1 msec resolution), trip relay logic etc. The trainer need a few set of associated relay testing (current / voltage injection etc.) panels (7-8 nos. typically) which are mounted in a light weight sturdy aluminum profile flat demo panel system. Do not need any separate testing kit. Facilitates easy and safe wiring by students due to use of 4mm sturdy Shrouded banana patch cords and shrouded socket arrangements for high voltage circuits</p>	
14	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04	Electrical Machine Lab I	Electrical Machine Trainers with DC Int. & 3 Ph. Salient Pole Machine	Anshuman Tech Pvt Ltd(XPO-EMT/DC+3Ph. Salient)	<p>Trunnion mounted DC Integrated machine is used as Dynamometer for loading other machines (Motors / generators both) with facility to measure shaft power using electronic torque / speed measurement.  1 phase AC integrated motor coupled to DC integrated motor setup (Motor-Generator setup):  1) 3 Phase Salient pole alternator :  Voltage: 415VAC, 50Hz  Capacity: 300W/4 pole/ 1500RPM  Frame/mounting: 100 frame, chassis mounted, 19mm shaft dia with easily swappable gear coupling.  2) DC Integrated motor:  Voltage: <math>V_{arm} = 180V</math>, <math>V_{field} = 180V</math>  Capacity: 300W/2 pole/ 1500RPM/6 terminals  Frame/mounting: 100 frame, chassis mounted, 19mm shaft dia, trunnion mounted m/c for use as dynamometer with torque &amp; speed sensors.</p>	







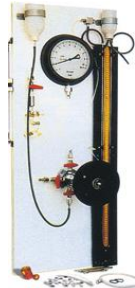
15	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-04	Electrical Machine Lab I/ Power System Lab	Electrical Machine Trainers with DC Int. & 3 Ph. AC Machine	Anshuman Tech Pvt Ltd(XPO-EMT/DC+3Ph. AC)	<p>Motor Specification:  3 phase AC integrated motor coupled to DC integrated motor setup (Motor-Generator setup):  1) 3 AC Integrated motor with following specification:  Voltage: 415VAC, 50Hz, Capacity: 300W/4 pole/ 1500RPM  Frame/mounting: 100 frame, chassis mounted, 19mm shaft dia with easily swappable gear coupling.  2) DC Integrated motor with following specification:  Voltage: <math>V_{arm} = 180V</math>, <math>V_{field} = 180V</math>  Capacity: 300W/2 pole/ 1500RPM/6 terminals  Frame/mounting: 100 frame, chassis mounted, 19mm shaft dia, trunion mounted m/c for use as dynamometer with torque &amp; speed sensors.</p>	
16	Amity School of Engineering and Technology (ASET)	BLOCK- E1, LG-01	Automotive Engineering	IC Engine- Petrol	EDU TEK	<p>The setup consists of single cylinder, four stroke, VCR (Variable Compression Ratio) Petrol engine connected to eddy current / Hydraulic type dynamometer for loading. A tilting cylinder block arrangement is used for varying the compression ratio without stopping the engine and without altering the combustion chamber geometry. Setup is provided with necessary instruments for combustion pressure and crank-angle measurements. These signals are interfaced to computer through engine indicator for P PV diagrams. Provision is also made for interfacing airflow, fuel flow, temperatures and load measurement. The set up has stand-alone panel box consisting of air box, two fuel tanks for duel fuel test, manometer, fuel measuring unit, transmitters for air and fuel flow measurements, process indicator and engine indicator. Rotameters are provided for cooling water and calorimeter water flow measurement.</p> <p>The setup enables study of VCR engine performance for brake power, indicated power, frictional power, BMEP, IMEP, brake thermal efficiency, indicated thermal efficiency, Mechanical efficiency, volumetric efficiency, specific fuel consumption, A/F ratio and heat balance.</p>	





17	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG-01	Automotive Engineering	IC Engine- Diesel	EDU TEK	<p>The setup consists of single cylinder, four stroke, VCR (Variable Compression Ratio) Diesel engine connected to eddy current / Hydraulic type dynamometer for loading. A tilting cylinder block arrangement is used for varying the compression ratio without stopping the engine and without altering the combustion chamber geometry. Setup is provided with necessary instruments for combustion pressure and crank-angle measurements. These signals are interfaced to computer through engine indicator for P PV diagrams. Provision is also made for interfacing airflow, fuel flow, temperatures and load measurement. The set up has stand-alone panel box consisting of air box, two fuel tanks for duel fuel test, manometer, fuel measuring unit, transmitters for air and fuel flow measurements, process indicator and engine indicator. Rotameters are provided for cooling water and calorimeter water flow measurement.</p> <p>The setup enables study of VCR engine performance for brake power, indicated power, frictional power, BMEP, IMEP, brake thermal efficiency, indicated thermal efficiency, Mechanical efficiency, volumetric efficiency, specific fuel consumption, A/F ratio and heat balance.</p>	
18	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG02	Fluid Power Systems/ Fluid Mechanics Lab	Francis Turbine Test Rig (Close Kit)	Engg. Models & Equip., Roorkee	<p>Smw francis turbine horizontal type of size 75mm, develop about 1kw output, made of cast iron spiral casing, bearing housing and aerofoil shaped gun metal guide vane and gun metal runner. Transparent outlet pedestal with stainless steel draft tube. The cast iron external bearing pedestal for longer bearing life. A cast iron base plate and a slotted dead weights for conducting experiments in metric units. Pressure gauge for head measurement in meters. 200mm dia cast iron water cooled brake drum mounted on the main shaft with bearings for load test. The head of the turbine is 10meters and discharge at about 1000 lpm.</p>	
19	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG02	Fluid Power Systems/ Fluid Mechanics Lab	Kaplan Turbine Test Rig.	Engg. Models & Equip., Roorkee	<p>Test rig consists of a Kaplan turbine designed for laboratory experimental purposes and to conduct test in metric units. The specifications of the turbine are as follows:</p> <ul style="list-style-type: none"> <li>Design Speed - 1500 RPM.</li> <li>Capacity - 3.7 KW. (5.0 HP)</li> <li>Design Head and discharge - 7-10m., 4000-5000 lpm.</li> </ul> <p>The unit consists of a cast iron spiral casing, a bearing pedestal, a rotor assembly of shaft, axial flow gunmetal runner and brake drum all mounted on a suitable sturdy base.</p>	



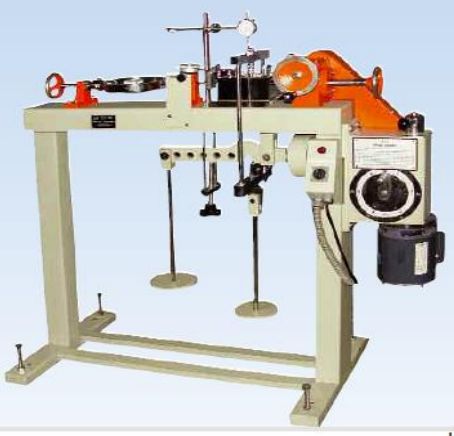
20	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG02	Fluid Power Systems/ Fluid Mechanics Lab	Pelton Wheel Turbine Test Rig (Close Kit)	Engg. Models & Equip., Roorkee	Test rig consists of a Pelton wheel water Turbine, designed for laboratory experimental purposes and to conduct test in metric units. The specifications of the turbine are as follows:- Design Speed - 1000 RPM. Output Power - 1.0 KW	
21	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG02	Fluid Mechanics Lab	Bernoulli's Apparatus		The equipment is designed and fabricated to demonstrate the Bernoulli's theorem. It consists of a test section made of acrylic. It had convergent and divergent sections. Pressure tapings are provided at different locations in convergent and divergent section. Present set-up is self contained water re-circulating unit, provided with a sump tank, centrifugal pump etc. An arrangement is done to conduct the experiment on different flow rates. Flow rate of water is measured with the help of measuring tank and stopwatch.	
22	Amity School of Engineering and Technology (ASET)	BLOCK- E-1, LG02	Fluid Mechanics Lab	Venturi Meter		The Venturi meter is a device used to measure the flow rate. It consists of a tapering contraction section, along which the fluid accelerates towards a short cylindrical throat, followed by a section which diverges back to its original diameter. The device is used to determine the discharge coefficient or the Venturi meter coefficient (C). This value lies between 0.92-0.99 and varies from one meter to another.	
23	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG14	Material Testing/ Geotechnical Engineering Lab	Aggregate Impact Test Apparatus	Aimil Ltd(AIM456)	It is for determining the aggregate impact value and has been designed in accordance with IS:2386 (Part 4), IS:9377. The sturdy construction consists of a base and support columns to form a rigid frame work around the quick release trigger mechanism to ensure an effective free fall of the hammer during test. The free fall can be adjusted through 380 ± 5 mm. The hammer is provided with a locking arrangement.	
24	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG14	Material Testing/ Geotechnical Engineering Lab	Aggregate Impact Test Apparatus	Aimil Ltd(AIM455)	The selection of proper aggregate for a given application is essential to attain the desired quality. Various characteristics required to be determined for the selection of appropriate aggregate from the wide range are available. The following mechanical tests are designed to meet this requirement.  This apparatus is used for measuring resistance of an aggregate to crushing, as per IS:2386, (Part 4).	





25	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG14	Material Testing/ Geotechnical Engineering Lab	Crushing Valve Apparatus	HEICO(HA50.85)	Used for determining the Aggregate Crushing Value, The apparatus consists of a steel cylinder 75 mm dia, a plunger and a steel base plate. The surfaces coming into contact with the aggregate are case hardened.
26	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG14	Material Testing/ Geotechnical Engineering Lab	Digital Ductility App.	Aimil Ltd(AIM 565-1)	Bituminous surfaces exposed to varying temperature conditions undergo expansion & contraction. So an important characteristic of the binder is its ductility & the degree of ductility has an effect on the cracking bituminous surface due to traffic stress. The ductility of bitumen is expressed as the distance in centimetres to which a standard briquette can be elongated before the thread thus formed breaks under specified conditions.
27	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG14	Material Testing/ Geotechnical Engineering Lab	Film Stripping Device	Aimil Ltd(AIM 560)	Film stripping device is used to measure the resistance of bituminous mixtures to stripping of asphalt from aggregate particles. It is generally used to evaluate mineral aggregates & to judge the adhesion of the bituminous materials. The device consists of a disk on which 4 bottles are mounted. The disc rotates at a speed of approx. 100 rpm. The sample, usually the aggregate fraction which passes a 9.525 mm sieve but is retained on a No. 8 sieve, is placed in the bottles & agitated for 15 minutes. The percentage of aggregate stripped can be visually estimated. The device is provided with a pre set counter. Suitable for operation on 220 V, 50Hz, Single Phase, AC supply.
28	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG-01		Sieve Shaker	Heico( HS31.17)	Having a sturdy cast iron body, the sieve shaker has an inclined sieve table which can accommodate a maximum of seven sieves of 150 mm or 200 mm diameter. To hold Having a sturdy cast iron body, the sieve shaker has an inclined sieve table which can accommodate a maximum of seven sieves of 150 mm or 200 mm diameter. To hold
29	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG-01		Vibrating Table	Heico(HC42.142)	The size of the table is 1000mm x 1000mm. It has a heavy duty vibrator with fixed amplitude and vibrations. Operates on 440 v 3 phase supply.




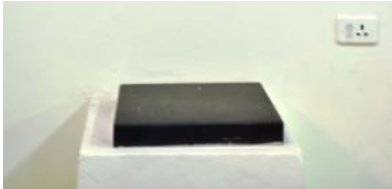
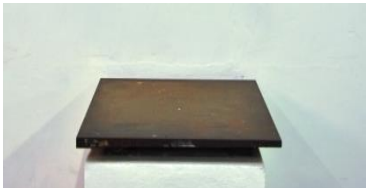
30	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG-01		CTM- 1000kn	Heico(HC44.55)	<p>Compression Testing Machine 1000KN (100 Tons) Capacity (Economy Channel Model) Hand Operated fitted with 15 cm dia load gauge. Compression Testing Machine designed for testing of Cement, Concrete Moulds of Various sizes 15cm x 15cm x cubes, 10cm x 10cm x cubes, 7.06 cm x 7.06 cm cubes, 15cm x 30cm cylindrical mould. Bricks can also be tested by the help of adjustable hand wheel of Compression Testing Machine.</p>	
31	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG-01		Hot air oven	Heico(HS100.105)	<p>This is a double walled oven with the inner chamber made of aluminum or stainless steel sheet and the outer surface of mild steel sheet with a gap of 64 mm between walls filled with glass wool for proper insulation to avoid heat loss. Two or three removable shelves are provided in the inner chamber. The temperature is controlled with a precision thermostat. The inner chamber is heated with the help of coil heaters placed at the bottom with a three point control switch (Rotary Switch) for low, medium and high wattage.</p>	
32	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG14	Surveying Lab	Los Angeles Abrasion Testing Machine	Aimil Ltd (AIM 458)	<p>This machine is for determining the resistance to wear off small size coarse aggregates and crushed rock. The machine consists of a hollow cylinder, mounted on a sturdy frame on ball bearings. A detachable shelf which extends throughout the inside length of the drum catches the abrasive charge and does not allow it to fall on the cover. The drum is rotated at a speed of 30-33 rpm by an electric motor through a heavy duty reduction gear. Supplied complete with a tray for collection of the material. Suitable for operation on 415V, 3 phase, 50Hz, AC Supply.</p>	
33	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG05	Material Testing/ Geotechnical Engineering Lab	Flash (Open) and Fire Point Cleveland with Thermometer	Aimil Ltd(AIM 505)	<p>For determining the flash and fire points of petroleum products, except for fuel oil and those products which have open cup flash point below 79° C (175° F).</p>	
34	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG05	Material Testing/ Geotechnical Engineering Lab	Pore Pressure Apparatus	Heico(HS28.70)	<p>Pore water pressure apparatus mounted on a steel panel, fitted with pressure gauge, mercury manometer, brass scale graduated 50-0-50 cm., drainage burette 50 ml, null indicator with copper coil, Piston pump (hand operated) and water reservoir. Pressure range 0 - 1000 Kpa</p>	

35	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG05	Material Testing/ Geotechnical Engineering Lab	Shrinkage Limit Apparatus	Heico(HS 10.30)	<p>The apparatus conforms to IS:10077, and the test is performed as per IS:2720(Part VI). The set consists of :-</p> <ul style="list-style-type: none"> <li>i) 75 mm square Prong Plate made of 3 mm thick acrylic sheet with three metal prongs.</li> <li>ii) 75 mm square Plain Plate made of 3 mm thick acrylic sheet.</li> <li>iii) Stainless Steel Shrinkage Dish 45 mm in dia, 15 mm deep.</li> <li>iv) Glass cup with ground edge, 50 mm to 55 mm dia, 25 mm deep.</li> <li>v) Flexible Spatula with 80 mm long, 20 mm wide blade.</li> </ul>	
36	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG05	Material Testing/ Geotechnical Engineering Lab	Plastic Limit Apparatus	Heico(HS 10.31)	<p>Conforming to IS: 2720 (Part V) The apparatus consists of :</p> <ul style="list-style-type: none"> <li>i) Glass plate 200mm x 150mm x 3mm thick</li> <li>ii) Porcelain evaporating dish 120 mm dia.</li> <li>iii) Brass rod 3 mm dia, 100 mm long.</li> <li>iv) Flexible spatula with 80 mm long, 20 mm wide blade.</li> <li>v) Moisture Cans 50 mm dia, 12 Nos.</li> </ul>	
37	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG05	Material Testing/ Geotechnical Engineering Lab	Grain Size Distribution Apparatus	Heico(HA10.35)	<p>Test is performed as per IS:2720 (Part- IV) The apparatus comprises of:-</p> <ul style="list-style-type: none"> <li>i) Pipette stand with moving carriage assembly fitted with a scale and holder for holding the pipette in position.</li> <li>ii) Sampling pipette 10 ml capacity fitted with a three way stop cock.</li> <li>iii) Sedimentation tube, 50 mm dia and approximately 350 mm long with mark at 500 ml volume.</li> </ul>	
38	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG05	Material Testing/ Geotechnical Engineering Lab	Laboratory Permeability Apparatus	Heico(HS12.05)	<p>It comprises:-</p> <ul style="list-style-type: none"> <li>i) Compaction Permeameter Mould 1000ml capacity, clamped between top and bottom drainage plates having recess for porous stones. Supplied along with a false bottom plate for use during compaction of soil in the permeameter and extension collar.</li> <li>ii) Stand pipe panel, with three glass tubes of 6 mm, 10 mm and 20 mm dia, one meter long, supplied with wooden meter scale and 3 meter rubber tubing.</li> </ul>	



39	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG05	Material Testing/ Geotechnical Engineering Lab	Laboratory CBR Apparatus (Motorised)	Heico(HS 20.10)	<p>The apparatus consists of :-</p> <ul style="list-style-type: none"> <li>i) Capacity 5000 kg (50 KN).motorized load frame having single rate of strain of 1.25 mm/m. Suitable for a power supply of 220v, 50 Hz, single phase..</li> <li>ii) CBR Mould 150 mm base plate and collar inner dia x 175 mm high.</li> <li>iii) Cutting collar.</li> <li>iv) Perforated swell plate.</li> <li>v) Spacer disc.</li> <li>vi) Metallic ring made of mild steel.</li> <li>vi) Metal tripod aluminium.</li> <li>viii) Penetration Piston Assembly.</li> <li>ix) Proving ring 10 kN capacity.</li> <li>x) One surcharge weight, 2.5 kg, annular.</li> <li>xi) One surcharge weight, 2.5 kg slotted.</li> </ul>	
40	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG05	Material Testing/ Geotechnical Engineering Lab	Unconfined Compressive Strength Test (Motorized, Proving Ring Type)	Heico(HS 22.15)	<p>The unconfined compressive strength test performed as per IS : 2720 (part X). The loading unit is motorised and the gear system provides three different rates of strain 1.25 mm, 1.5 mm and 2.5 mm/min. The unit operates on 220V single phase supply.</p> <ul style="list-style-type: none"> <li>i) Screw jack with frame and dial gauge holder</li> <li>ii) Set of upper and lower platens, 150 mm dia.</li> <li>iii) Cone Seating - 2 Nos.</li> <li>iv) Proving Ring Adapter.</li> </ul>	
41	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG05	Material Testing/ Geotechnical Engineering Lab	Direct Shear Apparatus(motorised)	Heico(HS 24.15)	<p>The unit conforms to IS2720. It has a hand operated horizontal loading system for shearing the specimen. Hangers are provided for creating normal stress. It comprises :-</p> <ul style="list-style-type: none"> <li>i) Shear box assembly, 60 mm square,complete with a U-bracket, guide pins and spacing screws, made of brass.</li> <li>ii) Gripper assembly consisting of two plain grid plates, two perforated grid plates, one base plate and one loading pad, all made of brass.</li> <li>iii) Two porous stones, each 6 mm thick, fitting the shear box</li> <li>iv) Shear box housing of brass, complete with two ball roller strips.</li> <li>v) Loading unit with normal loading of 8 kg/cm2 on 60 mm square specimen.</li> <li>vi) Specimen cutter for a specimen size of 60 mm x 60 mm x 25 mm.</li> <li>vii) Set of weights to give a normal stress upto 3 kg/cm2 through lever, comprising 4 of 0.05 kg/cm2, 1 of 0.1 kg/cm2, 1 of 0.2 kg/cm2, 3 of 0.5 kg/cm2 and 1 of 1 kg/cm2.</li> </ul> <p>is . It is provided with a turret type gear box to get 12 different constant rates of strain i.e 1.25, 0.625, 0.25, 0.125, 0.05, 0.025, 0.01, 0.005, 0.002, 0.001, 0.0004, and 0.0002 mm/min. and arrangements to carry out residual shear strength tests. Suitable for operation with 220V, 50 hz, single-phase supply.</p>	

42	Amity School of Engineering and Technology (ASET)	BLOCK- E-2, LG05	Material Testing/ Geotechnical Engineering Lab	Load Frame (Motorised) 50 Kn	Heico(HS 26.35)	<p>Multi rate of strain.          Designed to accommodate Universal Triaxial Cell for testing soil specimens up to 100 mm in diameter. A turret type motor drive gear unit to give 30 different rates of strain ranging from 6 mm/min down to 0.00048 mm/min. Suitable for operation on 220V, 50 Hz, Single phase supply. a turret type</p>	
43	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG14	Material Testing/ Geotechnical Engineering Lab	Ring and Ball Apparatus	AIM 561-1	<p>Ring and Ball Apparatus is compact user friendly and has better aesthetics. It has magnetic stirrer with heating facility and digital display of temperature, the heating can be adjusted through knob.</p>	
44	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG14	Material Testing/ Geotechnical Engineering Lab	Standard Test Sieves	Heico(HS 32.45)	<p>300 mm diameter (G.I. Sheet Frames)          Aperture Size    Aperture Size          53 mm            16.0 mm          45 mm            13.2 mm          37.5 mm          11.2 mm          31.5 mm          9.5 mm          26.5 mm          8.0 mm          22.4 mm          6.7 mm          19.0 mm          5.6 mm          4.75 mm          4.0 mm</p>	
45	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG14	Material Testing/ Geotechnical Engineering Lab	Universal Penetrometer with Automatic Time Controller	Aimil Ltd(AIM 512-1)	<p>used for testing wide variety of materials such as grease, petroleum, bitumen, tar, asphalt, wax polish , rubber, cement , pharmaceutical creams and soils</p>	

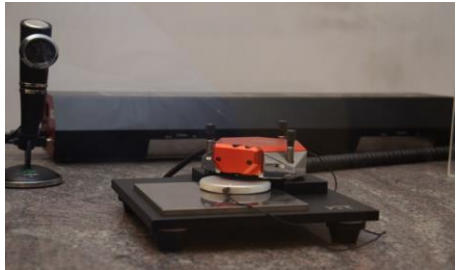



46	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG18	Metrology Lab	Profile Projector	Engg. Models & Equip., Roorkee	<p>300mm screen  10x, 20x and 25x magnification lens mounted on turret  Rotary protractor screen for angular measurement  Two one – micron micrometer heads and a quartz halogen profile and surface illumination.  Coated optics gives bright, clear and sharp images.)  Highly Polished and lapped front-coated mirrors provide distortion – less reproduction.</p>	
47	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG18	Refrigeration and Air Conditioning Lab	Surface Plate	Engg. Models & Equip., Roorkee	400X400mm of Granite	
48	Amity School of Engineering and Technology (ASET)	BLOCK- E-3, LG18	Refrigeration and Air Conditioning Lab	Surface Plate	Engg. Models & Equip., Roorkee	600X600mm of Cast Iron	




**Amity Institute of Advanced Research & Studies (Materials & Devices) - AIARS(M&D)**

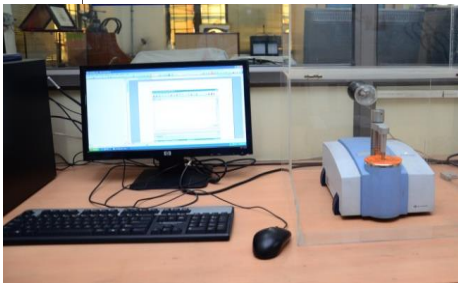

S.No	Institute	Block Room No	Name of Lab	Name of Instrument	Make/ Model	Technical Specifications	Image
1	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No. 417	Scanning Electron Microscopy Lab	Scanning Electron Microscopy (SEM)	Zeiss ( MA EVO -18 Special Edition)	<p>EVO 18 is perfectly suited to a variety of research applications including Semiconductor and Electronics, Geoscience and Materials.</p> <p>Benefit from class leading analytical X-ray geometry &amp; EDS/WDS ports as standard</p> <p>Experience enhanced topographical information using the five segment BSE detector</p> <p>Use variable pressure operation to analyze dry or hydrated samples</p> <p>Handle large specimens in the spacious chamber with flexible stage travel</p>	
2	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No. 417	Scanning Electron Microscopy Lab	Particle Size & Zeta Potential Analyser	Nano Plus /Particulate Systemes	<p>Principle:Combination of both measurements</p> <p>Light Source:Semiconductor Laser</p> <p>Detector:Avalanche Photodiode</p> <p>Minimum Cell/Sample Volume:All four sizes available to use with this system</p> <p>Concentration:Size and Zeta the same as single units</p> <p>Measurement Range:Size and Zeta the same as single units</p> <p>Laser Source:Diode Laser</p> <p>Laser Wavelength:660 nm</p> <p>Laser Power:Dual Laser 30 mW + 70 mW</p> <p>Correlator:Includes both, time-domain and time-of-arrival correlators. Maximum of 1,000,000 equivalent channels</p> <p>Temperate Control:Peltier</p> <p>Temperate Range Operating range: from10 °C below room temperature to 90 °C</p> <p>Temperate Accuracy:within +/-0.2°C</p>	

3	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No.-417	Scanning Electron Microscopy Lab	Thermal Conductivity Meter	Linseis /THB-100	<p>Measuring ranges</p> <p>Thermal conductivity: 0.01 up to 100 W/(mK)</p> <p>Thermal diffusivity: 0.05 up to 10 mm<sup>2</sup>/s</p> <p>Specific thermal capacity: 100 to 5000 kJ/(m<sup>3</sup> K)</p> <p>Measurement uncertainties</p> <p>Thermal Conductivity: better than 2 %</p> <p>Thermal Diffusivity: better than 5 %</p> <p>Heat Capacity: better than 5 %</p> <p>Duration of the measurement</p> <p>Solids: typically 1 to 10 min</p> <p>Liquids: typically 1 to 120 s</p> <p>Service temperature</p> <p>Sensor: -150 °C to 200 °C or -150 to 600°C</p> <p>Sensor type: Kapton or Ceramic insulated sensor</p> <p>Sample size</p> <p>Smallest sample: 3 x 3 x 3 mm</p> <p>Maximum Sample size: unlimited</p> <p>Sample consistence: solid, liquid, gel, powder, granulate</p> <p>Sample temperature*: -150 up to 600 °C</p>	
4	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No.-417	Scanning Electron Microscopy Lab	Ultra-sonicator	Telesonic	<p>Auto frequency chasing, avoiding adjustment liquid crystal display at peak value</p> <p>Menu instruction, convenient operation</p> <p>Display temperature control checking, and set over-hot protection on the samples</p> <p>10 operation programs for application, or backup after refreshing</p> <p>Output amplitude 0-100% adjustment</p>	
5	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No.-417	Scanning Electron Microscopy Lab	UV- VIS Spectrophotometer	Shimadzu (UV-2600)	<p>Measurement wavelength range: 220 nm to 1400 nm</p> <p>Wavelength accuracy: ± 0.1 nm (656.1 nm D2), ± 0.3 nm (all range)</p> <p>Resolution:- 0.1 nm</p> <p>Photometric modes:- Absorbance (Abs.), transmittance (%), reflectance (%), energy (E)</p> <p>Photometric range:-Absorbance: -5 to 5 Abs</p> <p>Transmittance, reflectance: 0 to 100000 %</p>	




6	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No. 417	Scanning Electron Microscopy Lab	Atomic Force Microscopy (AFM)	Nanosurf (Easy Scan 2)	<p>STM Scan Head:500 nm ,1 μm ,500 nmLC,1 μmLC  Max. Scan Range:-500 nm- 1.0 μm  Max. Z-Range:-200 nm  Drive Resolution Z:-3 μm  Drive Resolution XY:-15 μm  Current Set Point:-0.1 - 100 nA in 25 pA steps ;0.2 - 20 nA in 5 pA steps  Imaging modes:-Constant Current (Topography), Constant Height (Current)  Spectroscopy modes :-Current-Voltage, Current-Distance  Tip voltage :-± 10 V in 5 mV steps  Sample approach :-Stick-slip motor  Sample size:-Max 10 mm diameter</p>	
7	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No. 417	Scanning Electron Microscopy Lab	Spectrofluorophotometer	Shimadzu (RF-5301 PC)	<p>Light Source:-150W Xenon lamp. Ozone resolving type lamp housing.  Excitation and emission monochromators:-Concave, blazed holographic grating, F/2.5, 1300 grooves/mm.  Wavelength scale:-220-900nm.  Measuring wavelength range:-220-750nm and 0 order as standard. 220-900nm with the optional R928 photomultiplier.  Spectral bandwidth:-6-step selection of 1.5, 3, 5, 10, 15 and 20nm. (6nm bandwidth is available for half sample height on the excitation side only.)  Wavelength accuracy:-±1.5nm.  Sensitivity:-The S/N ratio is 150 or higher for the Raman line of distilled water (350nm excitation wavelength, 5nm spectral bandwidth, and 2 second response for 98% of the full scale).  Wavelength scanning:-7-step selection of Survey (about 5500nm/min), Super (about 3000nm/min), Very Fast, Fast, Medium, Slow and Very Slow.  Wavelength slewing speed:-About 20,000nm/min.  Response:-8-step selection of 0.02, 0.03, 0.1, 0.25, 0.5, 2, 4, and 8 seconds for 98% of the full scale.  Sensitivity selection:-2-steps of HIGH and LOW. (The sensitivity at HIGH is about 50 times that of LOW.)  Interface:-RS-232C interface, interface for autosampler, and interface for sipper unit.</p>	

8	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No.- 416	Chemistry Lab	Glove Box System	Hind High Vacuum Co.(P) Ltd.	<p>500mm wide and 500mm wide stainless steel box chambers with options for water cooling</p> <p>Single or multiple resistance sources, four position turret resistance source</p> <p>Temperature-controlled sources and controllers for organic materials</p> <p>3kW multi-pocket electron beam source</p> <p>Static and rotary work holders</p> <p>Source shutters and substrate shutters</p> <p>Glow discharge cleaning</p> <p>Film thickness monitoring</p>	
9	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No.- 416	Chemistry Lab	Rapid Thermal Processing Unit (RTP)	MTI Corporation (GSL -100X)	<p>Furnace Structure:-Double layer steel casing with air cooling keeps furnace surface temperature lower than 60°C.</p> <p>Heating Elements:-8 pcs 1Kw Halogen light tube, ( Dia. =10mm, L=300mm, Heated Length =200mm)</p> <p>Standard working life : 2000 hrs. ( depends on heating rate )</p> <p>The Halogen light tube is consumable. Please click picture left to order spare one</p> <p>Heating Zone:-12" length with 4" constant temperature zone within +/-5°C uniformity</p> <p>Working Temperature:-1100°C Max. for &lt; 10 minutes</p> <p>800°C Max. for &lt; 120 minutes</p> <p>600°C Max. for Continuous</p> <p>Max. Heating Rate:-50°C/sec</p> <p>Max. Cooling: 60°C/min (Under vacuum: 200 mtorr), 117°C/min (under atmospheric pressure)</p> <p>Lowest Cooling: 10 °C / minute</p> <p>Thermocouple:-K type, the head of the thermocouple touches the Aluminum Nitride sample holder from underneath</p> <p>Temperature Controller:-PID automatic control via SCR</p>	
10	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No.- 416	Chemistry Lab	Tube Furnace	Delta Furnaces	<p>A tube box furnace is an electric heating device.</p> <p>Used in:</p> <p>To conduct synthesis</p> <p>Purification of organic synthesis</p> <p>Purifications of inorganic compounds</p>	




11	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No. 416	Chemistry Lab	Lyophilizer (Freeze Dryer)	Lyophilizer	<p>Temperature Range:- -85°C  Display Resolution:-0.1°C  Temperature Controller:-Microprocessor based Controller with RTD Sensor(PT-100)  Ports:-8 Ports with 12 manifolds (including 4 spare)  Chamber Size :-Drying Chamber-225mmx150mm  Cold Trap Chamber-350mmx150mm</p>	
12	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No. 415	Thin Flim Lab	Single chamber PECVD systems with reactive ion etching facility	Hind High Vacuum Co.(P) Ltd. (12" MSPT)	<p>Chamber size:- 290 (D)mm X 400 (L) mm  Electrode RF :-( water cooled)  Substrate holder :-125 mm  Ultimate Vacuum:- 5 x 10-6 m.bar</p>	
13	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No. 415	Thin Flim Lab	High Vacuum Evaporation System	Vacuum Equipment Co.	<p>High Vacuum Valve (Butterfly, 90 ° plate valve, bevel gear operated/ cam operated valve)  Liquid Nitrogen trap/ Water cooled chevron baffle  Oil vapour diffusion pump  Vacuum pipe line with Roughing/ Backing valve (3-port ball valves, Butterfly valves, 90 ° plate valves etc.)  Direct drive rotary vacuum pump  Ultimate vacuum of the order of 10-6 torr</p>	




14	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No.- 414	Optical Lab	Fourier Transform Infra-Red Spectroscopy (FTIR)	Bruker Optics /ALPHA FT-IR	<p>Low-cost, small footprint FT-IR spectrometer  Quality components with long lifetime  Intuitive instrument and software design for maximum ease of use  Flexibility: Easily exchangeable QuickSnap™ sampling modules for every analytical question  Intelligence: Electronic coding of sampling modules and spectrometer components  RockSolid™: Robust, high performance results with Bruker's well-proven interferometer design</p>	
15	Amity Institute of Advanced Research & Studies (Materials & Devices)	BLOCK-E3, 4th Floor, Room No.- 417	Scanning Electron Microscopy Lab	Fluorescence Spectrophotometer (Spectrofluorophotometer)	Shimadzu (RF- 5301 PC)	<p>Compared to absorption methods, fluorescence spectroscopy is ten to several thousand times more sensitive. This allows analyzing picogram to nanogram-sized samples with excellent results. Fluorescence can also be used to identify specific molecules in a complex spectral background. This technique is widely used in pharmaceuticals and pharmacology, biochemistry, food science, environmental monitoring and chemical analyses.</p> <p>The RF-5301PC is a versatile fluorescence spectrophotometer that takes full advantage of the benefits of fluorescence spectroscopy by offering high sensitivity, high scanning speed, three-dimensional measurement, and automation. This allows it to be used for a wide range of applications, from routine analysis to research and development. With optional super ion probe software, as well as a water circulation system and syringe adapter, the RF-5301PC can be used for intracellular ion analysis.</p>	



**Amity Institute of Microbial Technology (AIMT)**


S.No	Institute	Block Room No	Name of Lab	Name of Instrument	Make/ Model	Technical Specifications	Image
1	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 402	Research Lab	Gel Documentation System	Biosync Teknology	<p>Camera:-Digital, single-lens reflex, AF/AE camera with built-in flash with APS-C size CMOS sensor</p> <p>Zoom:-12X Optical Zoom and 4X Digital Zoom</p> <p>Lens:-6.0-72.0 mm f/2.7-3.5 (35 mm film equivalent: 36-432 mm)</p> <p>Focusing range:-Normal: 1.6 ft./50 cm-infinity (WIDE), 3.0 ft./90 cm-infinity (TELE), Macro: 3.9 in. 1.6 ft./10-50 cm (W)</p> <p>Rechargeable AA-size NiMH Battery</p> <p>USB 2.0 Hi-Speed (mini-B jack)</p> <p>Max Gel:-size 20X20 cm</p> <p>Image Storage:-SD Memory Card, SDHC Memory Card, Multi Media Card or directly on PC</p>	
2	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 401	Plant Pathogen Interaction Lab	Centrifuge	Scanspeed /1580 R	<ul style="list-style-type: none"> <li>• Multi-purpose high-speed centrifuge(1580R/refrigerated).</li> <li>• Wide range of rotors for a variety of tubes including microtubes.</li> <li>• Temperature settings from -20C to ambient.</li> <li>• "Fast Cool" function for rapid cooling.</li> <li>• Automatic identification of a rotor.</li> <li>• Automatic alarm system for imbalance, over-heat and over-speed.</li> <li>• 5 acceleration and 5 deceleration ramps for sensitive samples.</li> <li>• Program memory for up to 100 programs.</li> <li>• Automatic door release(1580).</li> <li>• Pulse spin button.</li> <li>• Max. RPM 15,000 RPM</li> <li>• Max. capacity 80 x 15 MI</li> <li>• Microprocessor controlled</li> <li>• Run time ≤ 9 hour 59 min or continuous</li> </ul>	
3	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 401	Plant Pathogen Interaction Lab	Fermentor	Bioage	Industrial Scale Fermenter	




4	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 401	Plant Pathogen Interaction Lab	Agrose Gel Electrophoresis	Bio-Rad /PowerPac HV 5000V	The PowerPac HV electrophoresis power supply supports an output of 5,000 V, 500 mA, and 400 W. Suitable for all high-voltage applications, it is ideal for IEF and DNA sequencing.	
5	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 403	Microscopy, Incubator and Plant Tissue Culture Lab	Rotary Shaker	REMI	Platform type mounted on Heavy Duty MS angle frame fitted with heavy cast Iron pulleys. Electrically driven PMDC Motor offering rotary shaking action at fixed speed of 200 rpm or variable speed from 50 to 200 rpm. Flexible spring action lotus shaped clamps: one tray is provided for holding flasks of 500 ml.	
6	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 403	Microscopy, Incubator and Plant Tissue Culture Lab	SHAKER	REMI (CIS - 24 Plus)	<p>Inner Chamber S.S. 304 &amp; Outer chamber M.S. powder coated with Plexi glass inner door</p> <ul style="list-style-type: none"> <li>• Variable speed from 20 RPM to 250 RPM</li> <li>• Digital display of speed with preset facility</li> <li>• Shaking amplitude 25 mm</li> </ul> <p>Chamber Volume (Litres):180  Max shaking Capacity:9 litres  Platform Size:18" x 20"  External Dimensions :70 x 78 x 125  W x D x H (cm)  Temperature Range (Accuracy):5°C to 60° C (±0.5°C)</p>	




7	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 406	Analytical Lab	HPLC	Elite Labchrom (LC 2130)	<p>Microprocessor controlled, self-aspirating, serial configuration dual pump with high flow constancy and integrated reliability control. Especially well-suited to semi-micro (2 mm i.d.) and normal bore columns up to high speed chromatography applications.</p> <p>Flow rate range: 0.001-10 ml/min  Max. pressure: 400 bar (5 ml/min), 200 bar (5-10 ml/min)  Control through EZChrom Elite , other chromatography data systems or via optional keypad  Special functions include system flush programme, delayed pump stop, programme link, constant pressure mode, leak sensor, maintenance logbook, 4 time programmable event contacts, analogue pressure output  Upgrade for gradient operation with optional gradient accessories  The Inert Pump L-2130i is fitted with an inert pump head of PEEK material, which reduce pressure to 27.6 MPa (- 5ml/min) and 13.8 MPa ( 5-10 ml/min)</p>	
8	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 406	Analytical Lab	Double Beam UV-VIS Spectrophotometer	Labtronics (L-2200)	<p>Wavelength Range:-190-1100 nm  Spectral Bandwidth:-1 nm  Working Mode:-T,A,C,E  Optical System:-Double beam  Scanning Speed:-Fast / Medium / Slow  Photometric Range:-0.3 - 3.5 A, 0 to 220 %T  Wavelength Accuracy:-+0.3 nm  Photometric Accuracy:-+ 0.3% T (0-100% T)/ +0.002 A (0-0.1 A)  Detector:-Dual Silicon Photodiode  Display:-6 inches high light blue LCD  Power:-AC:220V + 10%, 50 Hz.</p>	
9	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 406	Analytical Lab	UV-VIS Spectrophotometer	Shimadzu (UV-1800)	<p>Wavelength range :-190 to 1100nm  Spectral bandwidth:- 1nm (190 to 1100nm)  Wavelength display 0.1-nm increments  Wavelength accuracy ±0.1nm at 656.1nm D2  ±0.3nm (190 to 1100nm)  Wavelength repeatability ±0.1nm  Photometric system Double Beam  Photometric range Absorbance: -4 to 4 Abs  Transmittance: 0% to 400%</p>	


10	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 405	Bioprocess Lab	Orbital Shaker	Lab Companion /SKC-7200	<p>The Lab Companion Orbital Platform Shaker (19mm Orbit) has an innovative triple-cam shaking mechanism and offers a reliable performance across a wide speed range. Specially designed to carry out heavy-duty and trouble-free operations continuously. Special acceleration and deceleration circuitry:</p> <p>Low-profile design (122 mm high) minimizing vibration or sliding caused by the high speed shaking motion.</p> <p>Control System: Feedback control PID  Display: VFD  Shaking System  Motion type: Orbital  Frequency (RPM): 30 to 500  Rpm Control at 100rpm: <math>\pm 1</math>  Orbit size (mm / inch, dia): 50 / 1.96</p>	
11	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 405	Bioprocess Lab	Refrigerator -20°C	SAMSUNG	<p>23 cu. ft. French Door Refrigerator  Counter-Depth Design  Large Capacity  Twin Cooling Plus™ System  LED Lighting</p>	

12	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 401	Plant Pathogen Interaction Lab	Confocal Microscope (Resonant Scanning Confocal System)	<p>Nikon (A1R+)</p> <p>Scan head input/output port- 2 laser input ports 3 signal output ports for standard, spectral and optional detector*1  Laser-LU-N3 3-laser unit 405 nm, 488 nm, 561nm lasers are installed ; built-in AOTF  4-laser unit 405 nm, 488 nm, 561nm,640nm laser are installed;built-in AOTF  *Use LU-N4S when using the spectral detector  LU-NV series laser unit Compatible lasers : 405 nm, 445 nm, 458nm,488nm,514nm,532nm,561nm,594nm,640nm,647nm ; built-in AOTF  Standard fluorescence detector Wavelength 400-750 nm  Detector A1-DU4 4 Detector Unit: 4 standard PMTs A1-DUG GaAsP Multi Detector Unit: 2 GaAsP PMTs + 2 standard PMTs  Filter cube 6 filter cubes commonly used for a microscope mountable on each of three filter wheels Recommended wavelengths: 450/50, 482/35, 515/30, 525/50, 540/30, 550/49, 585/65, 595/50, 700/75  Diascopic detector (option) Wavelength 485-650 nm  FOV Square inscribed in a ø18 mm circle  Image bit depth 4096 gray intensity levels (12 bit)  Scan head Standard image acquisition Scanner: galvano scanner x2 Pixel size: max. 4096 x 4096 pixels Scanning speed: Standard mode: 2 fps (512 x 512 pixels, bi-direction), 24 fps (512 x 32 pixels, bi-direction) Fast mode: 10 fps (512 x 512 pixels, bi-direction), 130 fps (512 x 32 pixels, bi-direction)*2  Zoom: 1-1000x continuously variable Scanning mode: X-Y, X-T, X-Z, XY rotation, Free line  High-speed image acquisition Scanner: resonant scanner (X-axis, resonance frequency 7.8 KHz), galvano scanner (Y-axis) Pixel size: max. 512 x 512 pixels Scanning speed: 30 fps (512 x 512 pixels) to 420 fps (512 x 32 pixels), 15,600 lines/sec (line speed) Zoom: 7 steps (1x, 1.5x, 2x, 3x, 4x, 6x, 8x)  Scanning mode: X-Y, X-T, X-Z Acquisition method: Standard image acquisition, High-speed image acquisition, Simultaneous photoactivation and image acquisition  Dichroic mirror Low-angle incidence method, Position: 8 Standard filter: 405/488, 405/488/561, 405/488/561/638, 405/488/543/638, 457/514, BS20/80 Optional filter: 457/514/561  Pinhole 12-256 µm variable (1st image plane)  Spectral detector*3  (option) Number of channels 32 channels  Wavelength detection range 400-750 nm  Spectral image acquisition speed 4 fps (256 x 256 pixels), 1000 lps Pixel size: max. 2048 x 2048  Wavelength resolution 80 nm (2.5 nm), 192 nm (6 nm), 320 nm (10 nm)  Wavelength range variable in 0.25 nm steps  Unmixing High-speed unmixing, Precision unmixing  Z step Ti-E: 0.025 µm, FN1 stepping motor: 0.05 µm Ni-E: 0.025 µm  Compatible microscopes ECLIPSE Ti-E inverted microscope, ECLIPSE FN1 fixed stage microscope, ECLIPSE Ni-E upright microscope (focusing nosepiece type and focusing stage type)  Option Motorized XY stage (for Ti-E/Ni-E), High-speed Z stage (for Ti-E), High-speed piezo objective-positioning system (for FN1/Ni-E)  Software Display/image generation 2D analysis, 3D volume rendering/orthogonal, 4D analysis, spectral unmixing  Image format JP2, JPG, TIFF, BMP, GIF, PNG, ND2, JFF, JTF, AVI, ICS/IDS  Application FRAP, FLIP, FRET(option), photoactivation, three-dimensional time-lapse imaging, multipoint time-lapse imaging, colocalization  Control computer OS Microsoft Windows® 7 Professional 64bits SP1  CPU Intel Xeon E5-2643v3 (3.40 GHz/20 MB) or higher</p>	
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13	Amity Institute of Microbial Technology	BLOCK-E3, 4th Floor, Room No.- 402	Plant Pathogen Interaction Lab	Real Time -PCR	BIO-RAD CFX-96	<p>The CFX96™ optical reaction module converts the C1000 Touch™ thermal cycler chassis into the powerful and precise CFX96 Touch real-time PCR detection system. This six-channel system combines advanced optical technology with precise thermal control to deliver sensitive, reliable detection. Quickly set up runs and monitor amplification traces in real time on the integrated LCD touch screen. With up to five-target detection, unsurpassed thermal cycler performance, unrivaled stand-alone functionality, and powerful yet easy-to-use software, the CFX96 Touch system is designed to advance your qPCR.</p>	
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### Amity Institute of Renewable and Alternative Energy (AIRAE)

S.No	Institute	Block Room No	Name of Lab	Name of Instrument	Make/ Model	Technical Specifications	Image
1	Amity Institute of Renewable and Alternative Energy (AIRAE)	BLOCK-E3, 4th Floor, Room No.- 418	AIRAE	Solar Water Heater Panel (Model)	Maharishi Solar	Lab Model	
2	Amity Institute of Renewable and Alternative Energy (AIRAE)	BLOCK-E3, 4th Floor, Room No.- 418	AIRAE	Solar Water Heater Panel (Model)	Maharishi Solar	Lab Model	
3	Amity Institute of Renewable and Alternative Energy (AIRAE)	BLOCK-E3, 4th Floor, Room No.- 418	AIRAE	Solar Water Heater Panel (Model)	Maharishi Solar	Lab Model	

4	Amity Institute of Renewable and Alternative Energy (AIRAE)	BLOCK-E3, 4th Floor, Room No.- 418	AIRAE	Wind Turbine (Model)	Lab Model	
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