



DEPARTMENT OF AERNAUTICAL ENGINEERING
AS3361-THERMODYNAMICS AND STRENGTH OF MATERIALS LABORATORY

Sl. No.	Description of Equipment	Available
1.	Universal Tensile Testing machine with double 1 shear attachment -“40 Ton	1
2.	Torsion Testing Machine (60 NM Capacity)	1
3.	Impact Testing Machine (300 J Capacity)	1
4.	Brinell Hardness Testing Machine	1
5.	Rockwell Hardness Testing Machine	1
6.	Spring Testing Machine for tensile and compressive loads (2500 N)	1
7.	Metallurgical Microscopes	-
8.	Muffle Furnace (800 C)	1
9.	4 stroke twin cylinder diesel engine	1
10.	Cut section model of 4 stroke diesel engine and cut section model of 2 stroke petrol engine	1
11.	Parallel and counter flow heat exchanger test rig	1
12.	Bomb Calorimeter	1
13.	Vapour compression refrigeration test rig	1
14.	Vapour compression air-conditioning test rig	1
15.	Conductive heat transfer set up	1
16.	Composite Wall	1



CE3362 - FLUID MECHANICS AND MACHINERY LABORATORY

Sl. No.	Description of Equipment	Available
1	Bernoulli's Experiment Apparatus with accessories	01
2	Orifice/Venturi meter with accessories	01
3	Friction factor measurement setup with accessories	01
4	Low speed jet facility with accessories	01
5	Metacentric height instrument with accessories	01
6	Centrifugal pump with accessories	01
7	Gear pump with accessories	01
8	Submersible pump with accessories	01
9	Reciprocating pump with accessories	01
10	Pelton wheel turbine with accessories	01
11	Francis Turbine with accessories	01



AE3411 – AERODYNAMICSM LABORATORY

Sl. No.	Description of Equipment	Available
1	Subsonic Wind tunnel	1
2	Models (Rough and Smooth cylinder Symmetric Aerofoil, Cambered Aerofoil and thin Aerofoil) with pressure tapings	1 each
3	Pitch change mechanism	1
4	Multi tube Manometer	1
5	Pitot-Static Tubes	1
6	Flat plate	1
7	Wind Tunnel balances (3 or 6 components)	1
8	Smoke Generator	1
9	Supersonic wind tunnel with accessories	1
10	Schlieren system	1
11	Water flow channel	1
12	Heleshaw apparatus	1



AE3412 – PROPULSION LABORATORY

Sl. No.	Description of Equipment	Available
1.	Jet engine	1
2.	Piston engine	1
3.	High Speed Jet facility with compressor and storage Tank	1
4.	Multitube manometer	3
5.	Wind tunnel	1
6.	Pressure transducer/ Pressure scanner with 16 ports	1
7.	Ramjet facility	1
8.	Conical flame holder model	-
9.	Hemispherical flame holder model	-
10.	Compressor cascade blade setup with provision to change incidence angle	-
11.	Schlieren system	1
12.	Convergent nozzle	1
13.	Convergent divergent nozzle	1
14.	Thruster with load cells	1
15.	Subsonic Diffuser models (Atleast for any two different angles)	1 each
16.	Blower set up	1
17.	2D/3D traverse mechanism	-
18.	Pitot tube and Pitot Static tube	1 each
19.	Propeller Blade Model	1



AE3511-AIRCRAFT STRUCTURES LABORATORY

Sl. No.	Description of Equipment	Available
1.	100 kN Universal Testing Machine	1
2.	Beams with weight hangers and dial gauges	6
3.	Column set up with dial gauges	2
4.	Photo elasticity set up with models	1
5.	Vibration set up with accessories	1
6.	Wagner beam	1
7.	Unsymmetrical bending set up	1
8.	Set up for combined bending and torsion	1
9.	Facilities for the fabrication of composite laminates using hand lay up	1



AE3581-CAD LABORATORY

Sl. No.	Description of Equipment	Available
1	Desktop Computer with accessories	30
2	CATIA/Solidworks/PRO-E –Licenced CAD Packages	-
3	UPS	1
4	Printer	1



AE3612-FLIGHT TRAINING / FLIGHT SIMULATION LABORATORY

Sl. No.	Description of Equipment	Available
1.	Microprocessor 8085 Kit	10
2.	Adder/Subtractor Binary bits Kit	10
3.	Encoder Kit	10
4.	Decoder Kit	10
5.	Multiplexer Kit	10
6.	Demultiplexer Kit	10
7.	computers	10
8.	Regulated power supply	10
9.	Standard Mathematical analysis software	1



AE3711-AERO ENGINE AND AIRFRAME LABORATORY

Sl. No.	Description of Equipment	Available
1	Aircraft Piston engines	1
2	Set of basic tools for dismantling and assembly	1 set
3	NDT equipment	1 set
4	Micrometers, depth gauges, vernier calipers	2 sets
5	Valve timing disc	1
6	Shear cutter pedestal type	1
7	Drilling Machine	1
8	Bench Vices	1
9	Radius Bend bars	1
10	Pipe Flaring Tools	1
11	Welding machine	1
12	Glass fibre, epoxy resin	1
13	Strain gauges and strain indicator	1



AE3712-AIRCRAFT SYSTEMS LABORATORY

Sl. No.	Description of Equipment	Available
1.	Serviceable aircraft with all above systems	-
2.	Hydraulic Jacks (Screw Jack)	2
3.	Trestle adjustable	-
4.	Spirit Level	2
5.	Levelling Boards	-
6.	Cable Tensiometer	-
7.	Adjustable Spirit Level	1
8.	Plumb Bob	1
9.	Weighing machine	1
10	Load cell	1



AE3781-COMPUTATIONAL ANALYSIS LABORATORY

Sl. No.	Description of Equipment	Available
1.	High End system/Work station with necessary storage system	30
2.	Modelling and CFD & FE Analysis packages with Licence	-
3.	UPS	1
4.	Printer	1



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

AD3271 – Data Structures Design Laboratory

Sl. No.	Description of Equipment	Required numbers (for batch of 30 students)
1.	Python 3 interpreter for Windows/Linux	Available



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

AD3311 – Artificial Intelligence Laboratory

Sl. No.	Description of Equipment	Required numbers (for batch of 30 students)
1.	INTEL based desktop PC with min. 8GB RAM and 500 GB HDD, 17” or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	Python, Numpy, Scipy, Matplotlib, Pandas, seaborn	Available
4.	Python3.9 and above	Available



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

AD3381 – Database Design and Management Laboratory

Sl. No.	Description of Equipment	Required numbers (for batch of 30 students)
1.	INTEL based desktop PC with min. 8GB RAM and 500 GB HDD, 17” or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	PostgreSQL, NetBeans / Visual Studio	Available
4.	Oracle Database 12 or higher, MySQL 5.7 or higher, SQL Server 2022(16.x)	Available
5.	UMLLET Version 15 and above, JetUML, version 8.0 and above, Star UML version v5.0 and above	Available



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

AD3411 – Data Science and Analytics Laboratory

Sl. No.	Description of Equipment	Required numbers (for batch of 30 students)
1.	INTEL based desktop PC with min. 8GB RAM and 500 GB HDD, 17” or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	Python , Numpy, Scipy ,Matplotlib, Pandas, seaborn, statmodels	Available
4.	Python3.9 and above	Available



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

AL3461 – Machine Learning Laboratory

Sl. No.	Description of Equipment	Required numbers (for batch of 30 students)
1.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
2.	Dev C++ / Eclipse CDT / Code Blocks / CodeLite / equivalent open source IDE	Available
3.	Python , Numpy, Scipy ,Matplotlib, Pandas, seaborn, statsmodels Python3.9 and above, Anaconda Distribution, R	Available



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

AD3511 – Deep Learning Laboratory

Sl. No.	Description of Equipment	Required numbers (for batch of 30 students)
1.	INTEL based desktop PC with min. 8GB RAM and 500 GB HDD, 17” or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	Python , Numpy, Scipy ,Matplotlib, Pandas, seaborn, statsmodels Python3.9 and above, Anaconda Distribution	Available
4.	sci-kit learn	Available



DEPARTMENT OF BIOTECHNOLOGY
BT3211 - BIOORGANIC CHEMISTRY LABORATORY

Sl. No.	Description of Equipment	Available
1	Hot Plate with Magnetic Stirrer	8
2	pH Meter	8
3	Water bath (10 L)	8
4	Weighing Balance	8
5	Colorimeter	8
6	Reflux condenser	8
7	Heating Mantle	8
8	Ice Flaking Machine	1
9	Hot Air Oven	1
10	Vortex	8
11	Thermometer	8
12	Polari meter	1
13	Static Incubator	1
14	Air Condenser and CaCl ₂ guarded tube	8
15	Double surface condenser and CaCl ₂ guarded tube	8



BT3361 - BIOCHEMISTRY LABORATORY

Sl. No.	Description of Equipment	Available
1	Autoclave	1
2	Hot Air Oven	1
3	Incubators	2
4	Light Microscopes	4
5	Incubator Shaker	1
6	Colorimeter	2
7	Laminar Flow Chamber	2
8	Centrifuge	1
9	Spectrophotometer	2
10	Weighing Balance	2
11	pH Meter	2



BT3362- CELL AND MICROBIOLOGY LABORATORY

Sl. No.	Description of Equipment	Available
1.	Autoclave	1
2.	Hot Air Oven	1
3.	Incubators	2
4.	Light Microscopes	4
5.	Incubator Shaker	1
6.	Colorimeter	2
7.	Laminar Flow Chamber	2
8.	Colony Counter	1
9.	Bunsen Burner	4
10.	Phase Contrast Microscope	2



**BT3411 - CHEMICAL ENGINEERING LABORATORY FOR
BIOTECHNOLOGISTS**

Sl. No.	Description of Equipment	Available
1.	Colorimeter	2
2.	Filter leaf	1
3.	Plate and Frame filter press	1
4.	Orifice meter	1
5.	Venturimeter	1
6.	Rotameter	1
7.	Packed column	1
8.	Fluidized beds column	1
9.	Simple Distillation setup	1
10.	Steam distillation setup	1
11.	Centrifuge/Pump	1
12.	Heat Exchanger	2



**BT3461 - ANALYTICAL
INSTRUMENTATION LABORATORY**

Sl. No.	Description of Equipment	Available
1.	Colorimeter	5
2.	Spectrophotometer	2
3.	Weighing Balance	2
4.	pH Meter	2
5.	Chromatography Column	2



BT3561 - IMMUNOLOGY LABORATORY

Sl. No.	Description of Equipment	Available
1.	Elisa reader or strip Reader	1
2.	Microscopes	4
3.	Microwave oven	1
4.	Hot plate	4
5.	Vortex mixer	4
6.	Table top refrigerated Centrifuge	1
7.	Fluorescent Microscope	1
8.	Mini Spin Centrifuge	1
9.	Water Purification Unit	1



BT3511 - MOLECULAR BIOLOGY AND GENETIC ENGINEERING

Sl. No.	Description of Equipment	Available
1.	Micropipettes (0.5-2.5 µl).	3 Nos
2.	Micropipettes (2-20 µl)	5 Nos
3.	Micropipettes (20-200 µl)	5 Nos
4.	Micropipettes (100-1000 µl)	5 Nos
5.	Refrigerated centrifuge.	2 Nos
6.	Chemical fume hoods (for handling toxic solv	2 Nos
7.	Temperature controlled Incubator shaker	2 Nos
8.	Temperature controlled water bath	2 Nos
9.	Ice flake machine	2 Nos
10.	Agarose gel apparatus with power packs	15 Nos.
11.	Laminar Air flow (3 or 4 ft length)	2 Nos
12.	PCR machine (96/48 Wells)	2 Nos
13.	SDS-PAGE apparatus	30 Nos.
14.	Western transfer apparatus (Semi dry)	2 Nos
15.	Western transfer apparatus (wet)	30 Nos.



BT3661 - BIOPROCESS LABORATORY

Sl. No.	Description of Equipment	Available
1.	Autoclave	1
2.	Hot Air Oven	1
3.	Incubators	2
4.	Light Microscopes	4
5.	Temperature Controlled Incubator Shaker	1
6.	Colorimeter	2
7.	Laminar Flow Chamber	2
8.	Centrifuges	2
9.	Spectrophotometer	2
10.	Fermenter	1
11.	Weighing Balance	2
12.	Water Bath with Temperature Control	2
13.	Magnetic Stirrer	2
14.	Hot Plate	2
15.	Vortex Mixer	1
16.	Micropipette	2
17.	-20°C deep freezer	1



BT3761 - DOWNSTREAM LABORATORY

Sl. No.	Description of Equipment	Available
1.	Refrigerated Centrifuge	2
2.	Cross flow filtration set up	2
3.	HPLC	1
4.	Sonicator	1
5.	Water Distiller	1
6.	Deep freezer	1
7.	Lyophilizer	1
8.	Refrigerator	1



DEPARTMENT OF CHEMICAL ENGINEERING

CH3312 - TECHNICAL ANALYSIS LABORATORY

S.No.	Description of Equipment	Availability
1.	Silica Crucible	20
2.	Heating Mantle	3
3.	Muffle Furnace	1
4.	Hot air oven	1
5.	Desiccator	5
6.	Vacuum pump	1
7.	Condenser	10
8.	Reflux Condenser	10
9.	Pensky martens closed cup apparatus	1
10.	Cleveland Open cup apparatus	1
11.	Cloud point apparatus	1
12.	Saybolt Viscometer	1
13.	Redwood Viscometer	1
14.	Bomb Calorimeter	1
15.	COD reflux	1
16.	Orsat apparatus	1
17.	UV-Vis Spectrophotometer	1
18.	Fume hood	1



CH3411 – FLUID MECHANICS LABORATORY

S.No.	Description of Equipment	Availability
1.	Viscometer	1
2.	Venturi meter	1
3.	Orifice meter	1
4.	Rotameter	1
5.	Weir and Notches	1
6.	Open drum with orifice	1
7.	Pipes and fittings	1
8.	Helical and spiral coils	1
9.	Centrifugal pump / Gear pump / Reciprocating	1 - 1
10.	Packed column	1
11.	Fluidized bed	1



CH3412 – MECHANICAL OPERATIONS LABORATORY

S.No.	Description of Equipment	Availability
1.	Sieve shaker	1
2.	Leaf filter	1
3.	Plate and Frame Filter Press	1
4.	Sedimentation Jar	1
5.	Jaw Crusher	1
6.	Ball Mill	1
7.	Cyclone Separator	1
8.	Roll Crusher	1
9.	Elutriator	1
10.	Drop Weight Crusher	2
11.	Sieves.	Set of 5



CH3511 – COMPUTATIONAL CHEMICAL ENGINEERING LABORATORY

S.No.	Description of Equipment	Availability
1.	Computers with Microsoft, MATLAB Software, Process Simulation Software Tool	15



CH3512 – HEAT TRANSFER LABORATORY

S.No.	Description of Equipment	Availability
1.	Thermal Conductivity Apparatus	1
2.	Cooling Tower	1
3.	Tray Dryer	1
4.	Open Pan Evaporator	1
5.	Packed Bed	1
6.	Double Pipe Heat Exchanger	1
7.	Bare and Finned Tube Heat Exchanger	1
8.	Vertical and Horizontal Condenser	1
9.	Agitated Vessels and Helical Coils	1
10.	Stefan - Boltzmann apparatus	1



CH3561 – MASS TRANSFER LABORATORY

S.No.	Description of Equipment	Availability
1.	Simple distillation setup	1
2.	Steam distillation setup	1
3.	Packed column	1
4.	Liquid-liquid extractor	1
5.	Forced draft dryer	1
6.	Wetted wall column	1
7.	Rotating disc contactor	1
8.	Cooling tower	1
9.	Absorption column	1
10.	Diffusion Cell	1
11.	Surface Evaporation setup	1



CH3611 – CHEMICAL REACTION ENGINEERING LABORATORY

S.No.	Description of Equipment	Availability
1.	Batch reactor	2
2.	Plug flow reactor	2
3.	Continuous Stirred Tank Reactor	2
4.	Sono chemical reactor	1
5.	Photo chemical reactor	1
6.	Packed bed reactor	2
7.	Adiabatic Reactor	1
8.	Cascade CSTR	1
9.	Semi batch reactor	1
10.	PFR followed by CSTR	1



CH3612 – PROCESS EQUIPMENT DESIGN AND DRAWING

S.No.	Description of Equipment	Availability
1.	Drawing Table	30



CH3711 – PROCESS CONTROL LABORATORY

S.No.	Description of Equipment	Availability
1.	U tube manometer with controller	1
2.	Interacting Tank	1
3.	Non Interacting Tank	1
4.	Open loop control system	1
5.	Closed loop control system	1
6.	ON/OFF controller	1
7.	Control valve characteristics	1
8.	Pressure Tuner	1
9.	Temperature Tuner	1
10.	Proportional Controller	1
11.	Flow Transmitter	1
12.	Level Transmitter	1
13.	Cascade control system	1



DEPARTMENT OF CIVIL ENGINEERING
M.E. STRUCTURAL ENGINEERING
ST4161-ADVANCED CONSTRUCTION ENGINEERING AND EXPERIMENTAL
TECHNIQUES LABORATORY

Sl. No.	Description of Equipment	Availability
1	Ultrasonic flaw detector	1
2	Four probe apparatus	1
3	Ultrasonic interferometer	1
4	Sodium vapour lamp	1
5	Co-ordination microscope with Longitudinal and transverse movement	2
6	Ammeter	1
7	Voltmeter	1
8	Screw gauge	2
9	Vernier caliper	2
10	Electroscope	1
11	Spectroscopy	1
12	Proving Ring	1
13	LVDT	1
14	High frequency generator	1
15	Concrete Compression Testing Machine	1
16	L box apparatus	1
18	V funnel apparatus	1
19	Slump Cone	2
20	Core cutter	1
21	Ultrasonic Pulse Velocity	1
22	Rebound Hammer	1
23	Concrete Permeability Test Apparatus	1



ST4211-NUMERICAL AND FINITE ELEMENT ANALYSIS LAB

Sl. No.	Description of Equipment/Software	Available
1.	Matlab/Simulink or similar softwares	25 license
2.	ANSYS/ABAQUS or similar FEA softwares	25 license
3.	Computer	25 nos



ST4212- STRUCTURAL DESIGN STUDIO

Sl. No.	Description of Equipment	Available
1.	STAAD/ETABS	25 license
2.	Computers	25 nos
3.	Autocad	25 use license



DEPARTMENT OF CIVIL ENGINEERING

CE3361- SURVEYING AND LEVELLING LABORATORY

Sl. No.	Description of Equipment	Availability
1.	Chain	10
2.	Cross Staff	10
3.	Ranging Rod	50
4.	Steel Arrows	100
5.	Prismatic Compass	10
6.	Dumpy Level	5
7.	Tilting Level	5
8.	Levelling Staff	10
9.	Theodolite	10
10.	Total Station	5



CE3311 WATER AND WASTEWATER ANALYSIS LABORATORY

Sl. No.	Description of Equipment	Availability
ANALYSIS OF WATER SAMPLE		
1.	Sampling and preservation methods for water & wastewater i. Sample container ii. Gloves & Eye protection glass iii. Filtration Equipment	2 2 1
2.	Measurement of Electrical Conductivity & turbidity I. Electrical Conductivity meter II. beakers III. Turbidity meter	2 10 2
3.	Determination of Fluoride in water by Spectrophotometer method i. Spectrophotometer/ (UV visible) ii. Cuvette iii. Beakers & Pipette & bulb iv. Volumetric Measuring cylinder	1 1 Set 2 1
4.	Determination of Iron in water i. Pipette & bulb (2ml) ii. Beakers iii. Measuring cylinders 100ml iv. Burette	4 2 5 1
5.	Determination of Sulphate in water i. Spectrophotometer/ (UV visible) ii. Cuvette iii. Pipette & Bulb iv. Beakers v. Volumetric Flask (1000ml) vi. Volumetric Flask (25ml/50ml)	1 1 Set 2 2 1 7
6.	Determination of Optimum Coagulant Dosage by Jar test Apparatus i. Digital Flocculator ii. Pipette & Bulb (5ml) iii. Beakers iv. Volumetric Measuring cylinder (100ml)	1 2 2 2



7.	Determination of Availability chlorine in bleaching powder & residual Chlorine in water i. Burette ii. Pipette & Bulb (2ml) iii. Beakers iv. Measuring cylinder (100ml) v. Conical Flask (250ml)	2 4 2 2 2
ANALYSIS OF WASTEWATER SAMPLE		
8.	Estimation of Suspended Volatile & Fixed Solids i. Porcelain weighing dishes ii. Evaporation dishes iii. Hot air oven iv. Muffle furnaces v. Whatman filter paper No.42 vi. Conical Flask vii. Desiccator	2 2 1 1 2 2 1
9.	Determination of sludge volume index in wastewater i. Imhoff cone ii. Hot air Oven iii. Filter paper iv. Porcelain weighing dishes v. Funnel (glass) vi. Measuring cylinder	1 1 2 2 1 1
10.	Determination of Dissolved Oxygen i. BOD bottle (300ml) ii. Burette iii. Pipette & bulb (2ml) iv. Measuring cylinder (100ml) v. Conical Flask (250ml)	2 2 4 2 2
11.	Estimation of BOD i. BOD bottles (300ml) ii. Incubator Electrical iii. Burette iv. Conical Flask (250ml) v. Measuring cylinder (50ml) vi. Beaker	6 1 2 2 2 1
12.	Estimation of COD i. Reflexing Apparatus ii. Conical Flask (250ml) iii. Burette iv. Pipette & bulb (5ml) v. Measuring cylinder (50ml) vi. Beakers	1 2 2 2 1 2



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13.	Determination of TKN & Ammonical Nitrogen in wastewater	1
	i. Kjeldhal Nitrogen Analyser(Digital)	1
	ii. Conical Flask (250ml)	
	iii. Measuring Jar	1
	iv. Beakers	1
	v. Burette& Pipette	2



CE3411 HYDRAULIC ENGINEERING LABORATORY

Sl. No.	Description of Equipment	Availability
1.	Rotameter	1
2.	Orifice meter/mouthpiece, Venturimeter and Notches	1
3.	Bernoulli's Experiment	1
4.	friction factor in pipes.	1
5.	minor losses	1
6.	Centrifugal pumps	1
7.	Gear pump	1
8.	Submersible pump	1
9.	Reciprocating pump	1
10.	Pelton wheel turbine	1
11.	Francis turbine	1
12.	metacentric height of floating bodies	1



CE3412-MATERIAL TESTING LABORATORY

Sl. No.	Description of Equipment	Availability
1.	Beam Mould-15 × 15 × 70 cm-Cast Iron	1 No
2.	Compaction Factor Apparatus - IS 1199	1 No
3.	Cylindrical Mould-150 mm dia x 300 mm ht	1 No
4.	Bulk Density Cylindrical Metal Measure-3 Ltr.	1 No
5.	Coarse Sieves - 45 cm dia-G.I.-12.50mm	1 No
6.	Coarse Sieves - 45 cm dia-G.I.-10.00mm	1 No
7.	Coarse Sieves - 45 cm dia-G.I.-2.36 mm	1 No
8.	Coarse Sieves - 45 cm dia-G.I.-40.00mm	1 No
9.	Coarse Sieves - 45 cm dia-G.I.-31.50mm	1 No
10.	Coarse Sieves - 45 cm dia-G.I.-25.00mm	1 No
11.	Coarse Sieves - 45 cm dia-G.I.-20.00mm	1 No
12.	Coarse Sieves - 45 cm dia-G.I.-16.00mm	1 No
13.	Coarse Sieves - 45 cm dia-G.I.-12.50mm	1 No
14.	Coarse Sieves - 45 cm dia-G.I.-10.00mm	1 No
15.	Coarse Sieves - 45 cm dia-G.I.-6.30mm	1 No
16.	Length Gauge (Elongation Gauge)	1 No
17.	Masonry Trowel Medium - 6"	1 No
18.	G.I.Tray – 450 × 450 × 50MM	1 No
19.	Pycnometer Bottle	1 No
20.	Evaporating Basin - Porcelain Dish - 150mm dia	1 No
21.	Fine Sieve -20 cm dia-Brass 4.75 mm	1 No
22.	Fine Sieve - 20 cm dia-Brass-2.36 mm	1 No
23.	Fine Sieve - 20 cm dia-Brass-1.18 mm	1 No



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24.	Fine Sieve - 20 cm dia-Brass-0.600mm (600mic)	1 No
25.	Fine Sieve - 20 cm dia-Brass-0.300mm (300mic)	1 No
26.	Fine Sieve - 20 cm dia-Brass-0.150mm (150mic)	1 No
27.	Fine Sieve - 20 cm dia-Brass-0.075mm (75mic)	1 No
28.	Slump Test Apparatus With Tamping Rod16mm Dia × 600mm Long Graduated	1 No
29.	Tamping Rod-16mm dia × 600mm	1 No
30.	Flexural Strength Testing Machine	1 No
31.	Coating Thickness Gauge	1 No
32.	Electronic Weighing Balance -50 Kg-1 Gm	1 No
33.	High Precision Table Top Balance(20kg)	1 No
34.	High Precision Table Top Balance(3kg)	1 No
35.	Compression Testing Machine - 2000 KN	1 No



CE3413- SOIL MECHANICS LABORATORY

Sl. No.	Description of Equipment	Availability
1.	DETERMINATION OF INDEX PROPERTIES 1. Sieves 2. Hydrometer 3. Liquid and Plastic limit apparatus 4. Shrinkage limit apparatus 5. Thermometer	2 Sets 2 Sets 2 Sets 3 Sets 2
2.	DETERMINATION OF INSITU DENSITY AND COMPACTION CHARACTERISTICS 1. Sand replacement method accessories and core cutter method accessories 2. Proctor Compaction apparatus 3. Relative Density apparatus	2 Sets 2 Sets 1
3.	DETERMINATION OF ENGINEERING PROPERTIES 1. Permeability determination i. Constant head method ii. Falling head method 2. Three Gang Consolidation test device 3. Direct Shear apparatus 4. UTM of minimum of 20 kN capacity 5. Van Shear apparatus 6. Triaxial shear apparatus 7. California bearing ratio test apparatus 8. Weighing machine 20 kg capacity 9. Weighing machine – 1 kg capacity	1 1 1 1 1 1 1 1 1 3



CE3511-HIGHWAY ENGINEERING LABORATORY

Sl. No.	Description of Equipment	Availability
1.	Specific gravity determination of the coarse aggregate sample 1. Pycnometer/Specific gravity bottle 2. Weighing Machine	4 1
2.	Determination of abrasion value of the coarse aggregate sample 1. Los Angeles Abrasion Testing Machine 2. Weighing Machine 3. Sieve	1 1 3
3.	Determination of water absorption capacity of the coarse aggregate sample 1. Hot Air Oven 2. Weighing Machine	1 1
4.	Specific gravity determination of the bitumen/asphalt sample. 1. Specific Gravity bottle 2. Weighing Machine	4 1
5.	Determination of consistency of the bituminous material. 1. Penetrometer 2. Time Measuring Device	1 3
6.	Viscosity determination of bituminous binder. 1. Orifice Viscometer 2. Stirrer 3. Thermometer	1 1 1
7.	Determination of softening point of the asphalt/bitumen sample 1. Ring and Ball Apparatus 2. Steel Balls – 2 nos (9.5mm dia)	1 1
8.	Determination of ductility value of the bitumen sample 1. Briquette Mould 2. Ductility Machine	2 1
9.	Estimation of loss of bitumen on heating 1. Oven with Rotating Shelf 2. Weighing Scale 3. Thermometer	1 1 1



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10.	Determination of optimum binder content by Marshall method 1. Mould Assembly 2. Sample Extractor 3. Marshall Stability Test Machine 4. Compaction Pedestal and Hammer 5. Breaking Head	6 1 1 1 1
11.	Determination of stripping value of the bituminous mix demonstration i. IS Seives ii. Thermometer iii. Beaker	1 1 1
12	Determination of bitumen content in the bituminous mix by cold solvent extraction method 1. Centrifuge Extractor 2. Weighing Machine	1 1



**CE3611 BUILDING DRAWING AND DETAILING
LABORATORY**

Sl. No.	Description of Equipment	Availability
1.	AUTOCAD	10 users
2.	Revit	10 users



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

M.E Computer Science Engineering

CP4161 - Advanced Data Structures and Algorithms Laboratory

Sl. No.	Description of Equipment	Availability
1.	Systems with 64-bit Linux Operating System with opensource G++ or GCC compiler	Available



CP4212 - Software Engineering Laboratory

Sl. No.	Description of Equipment	Availability
1.	INTEL based desktop PC with min. 8GB RAM and 500 GB HDD, 17” or higher TFT Monitor, Keyboard and mouse and GPU as required	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	ArgoUML/ STARUML/JetUML that supports UML 1.4 and higher Selenium, JUnit or Apache JMeter, Bugzilla, testDirector, TestLink	Available



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

B.E. – Computer Science Engineering

CS3271 - Programming in C Laboratory

Sl. No.	Description of Equipment	Availability
1.	Systems with Linux Operating System with GNU compiler	Available



CS3311 – Data Structures Laboratory

Sl. No.	Description of Equipment	Availability
1.	TEL based desktop PC with min. 8GB RAM and 500 GB HDD, 17” or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	Dev C++ / Eclipse CDT / Code Blocks / CodeLite / equivalent open source IDE	Available



CS3361 – Data Science Laboratory

Sl. No.	Description of Equipment	Availability
1.	TEL based desktop PC with min. 8GB RAM and 500 GB HDD, 17" or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	Python 3.9 or later, Anaconda Distribution	Available
4.	Scipy, statmodels, seaborn, plotly	Available



CS3461 – Operating Systems Laboratory

Sl. No.	Description of Equipment	Availability
1.	INTEL based desktop PC with min. 8GB RAM and 500 GB HDD, 17" or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	DevC++ / Eclipse CDT / Code Blocks / CodeLite / equivalent open source IDE	Available



CS3481 – Database Management Systems Laboratory

Sl. No.	Description of Equipment	Availability
1.	INTEL based desktop PC with min. 8GB RAM and 500 GB HDD, 17” or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	Oracle Database 12 or higher, MySQL 5.7 or higher versions, SQL Server 2022(16.x)	Available



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

EC8761 - ADVANCED COMMUNICATION LABORATORY

S. No	Description of the Equipment	Availability
1.	KLYSTRON POWER SUPPLY	3
2.	KLYSTRON TUBE WITH MOUNT	3
3.	GUNN POWER SUPPLY	3
4.	GUNN OSCILLATOR	3
5.	PIN MODULATOR	3
6.	ISOLATOR	5
7.	ATTENUATOR,VARIABLE	5
8.	FREQUENCY,METER,DIRECT READING	5
9.	SLOTTED SECTION WITH PROBE	5
10.	DETECTOR MOUNT WITH DETECTOR	5
11.	TERMINATION,MATCHED	10
12.	MOVABLE SHORT	5
13.	SLIDE SCREW TUNER	4
14.	HORN ANTENNA	2
15.	FIXED ATTENUATOR	3
16.	MAGIC TEE	2
17.	E PLANE TEE	2
18.	H PLANE TEE	2
19.	DIRECTIONAL COUPLER	2
20.	VSWR METER	5
21.	MICROWAVE POWER METER	2



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22.	RADIATION TABLE	1
23.	UNIVERSAL WAVEGUIDE STAND	25
24.	COOLING FAN	3
25.	BNC TO BNC CABLE	10
26.	ANALOG & DIGITAL LINK KIT	2
27.	NUMERICAL APERTURE ATTENUATION MEASUREMENT KIT	2
28.	OPTICAL POWER SOURCE	3
29.	OPTICAL POWER METER	2
30.	PIN DIODE TRANIER KIT	2
31.	LED MOUNT SOURCE WITH 870 MM TRANIER KIT	2
32.	MODE CHARACTERISTIC TRANIER KIT	2



EC3361 - ELECTRONIC DEVICES AND CIRCUITS LABORATORY

S. No	Description of the Equipment	Availability
1.	CATHODE RAY OSCILLOSCOPE	15
2.	FUNCTION GENERATOR	15
3.	DUAL REGULATED POWER SUPPLY	15
4.	DIGITAL MULTIMETER	15
5.	DIGITAL LCR METER	2
6.	IC TRAINER KIT	30
7.	IC TESTER	05



EC3352 - DIGITAL SYSTEMS DESIGN

S. No	Description of the Equipment	Availability
1	CATHODE RAY OSCILLOSCOPE	15
2	FUNCTION GENERATOR	15
3	DUAL REGULATED POWER SUPPLY	15
4	DIGITAL MULTIMETER	15
5	DIGITAL LCR METER	2
6	IC TRAINER KIT	30
7	IC TESTER	05



EC3492 - DIGITAL SIGNAL PROCESSING

S. No	Description of the Equipment	Availability
1	CATHODE RAY OSCILLOSCOPE	20
2	FUNCTION GENERATOR	20
3	DSP TRAINER KITS	20
4	SCILAB SOFTWARE	Open Source



EC3561 - VLSI LABORATORY

S. No	Description of the Equipment	Availability
1	FPGA KITS	15
2	XILINX ISE SIMULATOR	25 USERS
3	CADENCE	10 USERS



EC3462 - LINEAR INTEGRATED CIRCUITS LABORATORY

S. No	Description of the Equipment	Availability
1	CATHODE RAY OSCILLOSCOPE	15
2	FUNCTION GENERATOR	15
3	DUAL REGULATED POWER SUPPLIES(0-30V)	15
4	DUAL POWER SUPPLY/SINGLE MODE POWER SUPPLY	15
5	IC TRAINER KIT	30
6	MULTIMETER	15
7	IC TESTER	05



EC3461 - COMMUNICATION SYSTEMS LABORATORY

S. No	Description of the Equipment	Availability
1	CATHODE RAY OSCILLOSCOPE	15
2	FUNCTION GENERATOR	15
3	DUAL REGULATED POWER SUPPLIES(0-30V)	15
4	DUAL POWER SUPPLY/SINGLE MODE POWER SUPPLY	15
5	PAM, PPM, PWM MODULATION & DEMODULATION KIT	2
6	SUPERHETERODYNE AM RECEIVER	2
7	AM TRANSMITTER KIT	2
8	PCM MODULATION AND DEMODULATION KIT	2
9	FM TRANSMITTER KIT	2
10	FM RECEIVER KIT	2
11	ASK MODULATION AND DEMODULATION KIT	2
12	FSK MODULATION AND DEMODULATION KIT	2
13	PSK MODULATION AND DEMODULATION KIT	2
14	ANALOG SAMPLING & RECONSTRUCTION KIT	2
15	QPSK MODULATION & DEMODULATION KIT	2
16	LINE CODING DECODING TRAINER KIT	2
17	DELTA ADAPTIVE SIGMA DELTA MODULATION	2
18	TDM PAM MODULATION & DEMODULATION	2
19	MIXED SIGNAL OSCILLOSCOPE	2
20	DIGITAL STORAGE OSCILLOSCOPE	2



EC3401 - Networks and Security

S. No	Description of the Equipment	Availability
1.	LAN TRANIER KITS	02
2	NS2 SIMULATION SOFTWARE	Open Source



CEC367 - INDUSTRIAL IoT AND INDUSTRY 4.0

S. No	Description of the Equipment	Availability
1	RELAY, BUZZER DC MOTOR INTERFACE	05
2.	STEPPER MOTOR INTERFACE	05
3.	TRAFFIC LIGHT INTERFACE	05
4.	ZIGBEE MODULES	10
5.	FPGA MODULE	01
6.	RASPBERRY PI 4 8GB/4GB KIT	08
7.	ARDUINO UNO	10
8.	IR SENSOR	05
9.	WATER LEVEL SENSOR	05
10.	GAS SENSOR	05
11.	PIR SENSOR	05
12.	SOIL MOISTURE SENSOR	05
13.	SMOKE SENSOR	05
14.	LDR SENSOR	05
15.	THERMISTOR SENSOR	05
16.	HUMIDITY AND TEMPERATURE SENSOR	05
17.	GSM SENSOR	06
18.	GPS SENSOR	06



ET3491 - EMBEDDED SYSTEMS AND IOT DESIGN

S. No	Description of the Equipment	Availability
1	8085 MICROPROCESSOR KIT	15
2	8086 MICROPROCESSOR KIT	19
3	8051 MICROCONTROLLER KIT	20
4	8255 INTERFACE BOARD	5
5	8253/8251/8254 INTERFACE BOARD	5
6	8279 INTERFACE BOARD	5
7	8259 INTERFACE BOARD	5
8	STEPPER MOTOR CONTROL INTERFACING CARD	8
9	TRAFFIC LIGHT CONTROL INTERFACING CARD	5
10	ADC INTERFACE CARD	7
11	DAC INTERFACE CARD	7
12	PRINTER INTERFACING CARD	5
13	AC & DC MOTOR WITH CONTROLLER	5
14	DIGITAL CLOCK INTERFACE	5
15	ARM7 DEVELOPMENT BOARD	10



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

BE3271 BASIC ELECTRICAL AND ELECTRONICS ENGINEERING LABORATORY

S. No.	Description of Equipment	Availability
1	DC Motor Generator Set	1
2	DC Shunt Motor	1
3	Single Phase Induction Motor	1
4	Ammeter AC and DC	5
5	Voltmeter AC and DC	6
6	Watt-meters LPF and UPF	1
7	Rheostats of various ranges	1
7	Resistors, Capacitors & Breadboards	10
8	Cathode Ray Oscilloscopes	1
9	Regulated Power Supplies	1
10	Transistors (BJT, MOSFET)	1
11	SCR	1
12	Multimeter	1
13	Tachometer	1
14	Transformer (6-0-6)V	1
15	Semiconductor devices like Diode, Zener Diode	1
16	Digital IC trainer kit	1
17	Necessary digital IC	6



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

GE3271 ENGINEERING PRACTICES LABORATORY

S. No.	Description of Equipment	Availability
1	Single phase house wiring setup	2
2	Three phase house wiring setup	2
3	Staircase wiring setup	2
4	Fluorescent lamp wiring setup	2
5	Emergency lamp wiring setup	2
6	Iron box wiring setup	2
7	Soldering Iron & lead	15
8	Continuity tester	15
9	Laptop	2
10	Desktop computer	2
11	Multi Meters	15
12	LED TV	2
13	Regulated Power Supplies	2
14	Resistors, capacitors, diodes, transistors	200



EE3271 ELECTRIC CIRCUITS LABORATORY

S. No.	Description of Equipment	Availability
1	PC With Circuit Simulation Software	40
2	Printer	2
3	Regulated PowerSupply: 0 - 15 V D.C	19
4	Oscilloscope	18
5	Digital StorageOscilloscope (20 MHz)	1
6	DC and AC Voltmeters	25
7	Ammeters	30
8	Multimeters	15
9	Decade Resistance Box,Decade Inductance	12
10	Single PhaseWattmeter	16
11	Circuit Connection Boards	115
12	Connecting wires	Available
13	Three phase star anddelta connected load/single phase load bank	3
14	Resistors, capacitors,inductors	Available



EE3311 - ELECTRICAL MACHINES LABORATORY I

S. No.	Description of Equipment	Availability
1	DC Shunt Motor with Loading Arrangement	3
2	DC Shunt Motor Coupled With Three phase Alternator	3
3	Single Phase Transformer	11
4	DC Series Motor with Loading Arrangement	2
5	DC Compound motor with loading Arrangement	1
6	DC Shunt Motor Coupled With DC Compound Generator	2
7	DC Shunt Motor Coupled With DC Shunt Generator	2
8	Tachometer – Digital / Analog	9
9	Single Phase Auto Transformer	4
10	Three Phase Auto Transformer	1
11	Single Phase Resistive Loading Bank	2
12	Three Phase Resistive Loading Bank	2
13	Rheostats	2



EC3311 - ELECTRONICS LABORATORY

S. No.	Description of Equipment	Availability
1	Semiconductor devices like Diode, Zener Diode, NPN Transistors, JFET, UJT, Photo diode, Photo Transistor	100
2	Resistors, Capacitors and inductors	6000
3	Necessary digital IC 8	1650
4	Function Generators	18
5	Regulated 3 output Power Supply $5 \pm 15V$	19
6	CRO	18
7	Storage Oscilloscope	1
8	Bread boards	115



EE3411 ELECTRICAL MACHINES LABORATORY II

S.No.	Description of Equipment	Availability
1	DC Shunt Motor Coupled With Three phase Nonsalient pole Alternator	2
2	DC Shunt Motor Coupled With Three phase salientpole Alternator	0
3	DC Shunt Motor Coupled With Three phase Slip ring Induction motor	1
4	Three Phase Induction Motor with Loading Arrangement	3
5	Single Phase Induction Motor with Loading Arrangement	2
6	Tachometer – Digital /Analog	9
7	Single Phase AutoTransformer	4
8	Three Phase AutoTransformer	3
9	Single Phase Resistive Loading Bank	2
10	Three Phase Resistive Loading Bank	2
11	Capacitor Bank	1
12	Three Phase Resistive Loading Bank	2
13	Rheostats	2



EE3512 CONTROL AND INSTRUMENTATION LABORATORY

S. No.	Description of Equipment	Availability
1	Desktop	40
2	Matlab latest version	30



EE3511 POWER ELECTRONICS LABORATORY

S. No.	Description of Equipment	Availability
1	SCR, MOSFET, TRIAC,GTO,IGBT	10
2	Single phase SCR based halfcontrolled converter	2
3	Single phase SCR based fullycontrolled converter	2
4	MOSFET based step upchoppers	1
5	MOSFET based step down choppers	1
6	IGBT based single phase PWMInverter	2
7	IGBT based three phase PWMInverter	2
8	AC voltage controller	4
9	Voltmeter, Ammeter	30
10	Regulated Power Supply:0 - 15 V D.C	19
12	Patchchords	100
13	Multimeter	15
14	CRO	18
15	Computer	30



EE3611 POWER SYSTEM LABORATORY

S. No.	Description of Equipment	Availability
1	Personal Computers (Intel Core i5 or i7, 500 GB, 8 GB RAM)	30
2	Printer laser	1
3	Dot matrix	1
4	Server (Intel Core i7, 2 TB, 8 GB RAM or higher) (High Speed Processor)	1
5	Software: EMTP / ETAP / CYME / MIPOWER / any Power system simulation software	5
6	Compilers: C, C++, Matlab	30



DEPARTMENT OF INFORMATION TECHNOLOGY

CS3271 - Programming in C Laboratory

Sl. No.	Description of Equipment	Availability
1.	Systems with Linux Operating System with GNU compiler	Available



CS3361 - DATA SCIENCE LABORATORY

S. No.	Description of Equipment	Availability
1.	INTEL based desktop PC with min. 8GB RAM and 500 GBHDD, 17" or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	Python 3.9 or later, Anaconda Distribution	Available
4.	Scipy, statmodels,seaborn, plotly	Available



CD3281 - DATA STRUCTURES AND ALGORITHMS LABORATORY

Sl. No.	Description of Equipment	Availability
1	INTEL based desktop PC with min. 8GB RAM and 500 GBHDD, 17" or higher TFT Monitor, Keyboard and mouse	Available
2	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3	Dev C++ / Eclipse CDT / Code Blocks / CodeLite / equivalent open source IDE	Available



CS3461 - OPERATING SYSTEMS LABORATORY

Sl. No.	Description of Equipment	Availability
1.	INTEL based desktop PC with min. 8GB RAM and 500 GBHDD, 17" or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	Linux Ubuntu 20 or higher	Available
4.	DevC++ / Eclipse CDT / Code Blocks / CodeLite / equivalent open source IDE	Available



CS3481 DATABASE MANAGEMENT SYSTEMS LABORATORY

Sl. No.	Description of Equipment	Availability
1.	INTEL based desktop PC with min. 8GB RAM and 500 GBHDD, 17” or higher TFT Monitor, Keyboard and mouse	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
4.	Oracle Database 12 or higher, MySQL 5.7 or higher versions, SQL Server 2022(16.x)	Available



IT3681 - MOBILE APPLICATION DEVELOPMENT LABORATORY

S.No.	Description of Equipment	Availability
1.	Android Studio	Available
2.	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3.	Dev C++ / Eclipse CDT / Code Blocks / CodeLite / equivalent open source IDE	Available



IT35 11 -FULL STACK WEB DEVELOPMENT LAB

S.No.	Description of Equipment	Availability
1	INTEL based desktop PC with min. 8GB RAM and 500 GBHDD, 17” or higher TFT Monitor, Keyboard and mouse	Available
2	Windows 10 or higher operating system / Linux Ubuntu 20 or higher	Available
3	Node js ,Express, Angular, MongoDB, React, Web Server,XAMPP latest version / Equivalent web server	Available



DEPARTMENT OF MANAGEMENT STUDIES
M.B.A. Master of Business Administration
BA4112 Business Communication Laboratory

Sl.No.	Description of Equipment	Availability
1.	Server (PV System, 1 GB RAM/40 GB HDD, OS: windows server, Audio Card with headphones (With mike), JRE 1.3	1
2.	Client Systems (PIV or above, 512 MB RAM/40 GB, OS: windows, Audio card with headphones (with mike) JRE 1.3	1
	Interactive Teacher Control Software	1
	English Language Lab Software	1
	Career Lab software	1
3.	Handicam Video Camera (with video lights and mic input)	1
4.	Television-29" or above	1
5.	Collar mike	1
6.	Cordless mikes	1
7.	Audio Mixer	1
8.	DVD Recorder / Player	1
9.	LCD Projector with MP3 /CD /DVD provision for audio / video facility – Desirable	1
10.	Interactive White Board	1



BA4212 Data Analysis and Business Modelling Laboratory

Sl.No.	Description of Equipment	Availability
1	Computer with (Processor P -V or above)	25
2	Licensed Spread Sheet and Analysis Software Microsoft Excel/ SPSS	1



DEPARTMENT OF MECHANICAL ENGINEERING
GE3271 -ENGINEERING PRACTICES LABORATORY

Sl. No.	Description of Equipment	Quantity
Part I: Civil Engineering Practices		
(a) Plumbing Work:		
1.	Pipe Vice	15
2.	Die Holder with Die set	15
(b) Carpentry Work		
1.	Tri Square	15
2.	Hand Saw	15
3.	Carpentry bench wise	15
4.	Firmer Chisel	15
5.	Motrin Chisel	15
6.	Iron Jack	15
7.	Mallet	15
8.	Bench hold fastens	15
9.	Wooden Bench Hook	15
10.	Wood Cutting Machine	2



GE3271 - ENGINEERING PRACTICES LABORATORY

Sl. No.	Description of Equipment	Quantity
Part III: Mechanical Engineering Practices		
a) Welding Work		
1.	Arc welding unit	5
2.	Gas welding unit	2
b) Basic Machining Work		
1.	Lathe Machines	5
2.	Drilling Machines	5
c) Assembly Work		
1.	Centrifugal pump	2
2.	Air-conditioner unit	2
3.	Household mixer	2
(d) Sheet Metal Work		
1.	Steel rule	5
2.	Bend snips	5
3.	Straight snips	5
4.	Scriber	5
5.	Divider	5
6.	Trammel	5
7.	Prick Punches	5
8.	Centre punches	5
9.	Pliers	5
10.	Ball pean hammer	5



11.	Raising hammer	5
12.	Riveting hammer	5
13.	Square free hammer	5
14.	Anvil	3
15.	Swage block	3
16.	Wige gauges	2
(e) Foundry Work		
1.	Cope and Drag Box	5
2.	Pattern	5
3.	Solid pattern	5
4.	Split pattern	5
5.	Runner	5
6.	Riser	5
7.	Sprue	5
8.	Sand reamer	5
9.	Trowel	5



ME3382 - MANUFACTURING TECHNOLOGY LABORATORY

S. No.	Name of the Equipment	Quantity
1.	Unitech All Geared Lathe	23
2.	Radial Drilling Machine	1
3.	Universal Cylindrical Grinding Machine	1
4.	Slotting Machine	1
5.	Gear Hobbing Machine	1
6.	Shaping Machine	4
7.	Universal Milling Machine	1
8.	Capstan Lathe	1
9.	Turret Lathe	1
10.	Surface Grinding Machine	1
11.	Tool & Cutter Grinder	1
12.	Bench Grinder	1
13.	Band Saw Machine	1
14.	Butt Welding Machine	1
15.	Bench Grinding Machine	1
16.	Lathe Tool Dynamometer	1
17.	Milling Tool Dynamometer	1
18.	CNC Trainer Lathe	1
19.	CNC Trainer Mill	1
20.	Horizontal Milling Machine	1



ME3381 - COMPUTER AIDED MACHINE DRAWING LABORATORY

ME3681 - CAD/CAM LAB

ME 8711 - SIMULATION AND ANALYSIS LABORATORY

Sl. No.	Description of Equipment	Quantity
1.	Computer Server	01
2.	Computer nodes or systems (CPU with 4 GB main memory) networked to the server	45
3.	Windows Operating System	45
4.	Solid Works	60 Users
5.	Autodesk Inventor	125 Users
6.	Auto CAD	125 Users
7.	CIMCO	60 Users
8.	MASTERCAM	60 Users
9.	Octave	Open Source
10.	A3 size plotter	01
11.	Laser Printer	01



CE3481 - FLUID MECHANICS AND MACHINERY LABORATORY

S. No	Name of the Equipment	Quantity
1	Venturi Meter Setup	1
2	Orifice Meter Setup	1
3	Rotameter Setup	1
4	Pipe Friction Setup	1
5	Reciprocating Pump	1
6	Centrifugal Pump	1
7	Gear Oil Pump Setup	1
8	Pelton Wheel Setup	1
9	Francis Turbine Test Rig	1
10	Kaplan Turbine Test Rig	1
11	Stop Watch	3
12	Tachometer	1



CE3481 - STRENGTH OF MATERIAL LABORATORY

S. No	Name of the Equipment	Quantity
1	Rockwell Hardness Testing Machine	1
2	Spring Testing Machine	1
3	Binocular Metallurgical Microscope	3
4	Muffle Furnace	1
5	Torsion Testing Machine	1
6	Impact Testing Machine	1
7	Single Disc Polishing Machine	1
8	Metallurgical Specimen Set	1
9	Universal Testing Machine	1
10	Brinell Hardness Testing Machine	1
11	Rosette Strain Gauge	1
12	Beam apparatus	1



ME3461 - THERMAL ENGINEERING LABORATORY

S. No	Name of the Equipment	Quantity
1.	I.C Engine 2 stroke Cut model	1
2.	I.C Engine 4 stroke Cut Model	1
3.	Red Wood Viscometer	1
4.	Apparatus for Flash and Fire Point	1
5.	4-stroke Single cylinder Diesel Engine with mechanical loading	1
6.	4-stroke Twin cylinder Diesel Engine with electrical loading.	1
7.	Single cylinder Petrol Engine with Electrical Loading	1
8.	Morse Test Multi cylinder Petrol Engine	1
9.	Steam Turbine and Boiler Setup	1
10.	Tachometer	1
11.	Stop Watch	2



ME3581- DYNAMICS LABORATORY

S. No.	Name of the Equipment	Quantity
1.	CAM Profile Analyzer with Tachometer	1
2.	Motorized Gyroscope	1
3.	Governor Apparatus (Watt, Porter, Proell, Hartnell)	1
4.	Whirling of Shaft Apparatus	1
5.	Dynamic Balancing Machine	1
6.	Static Balancing Machine	1
7.	Dynamic Balancing Machine (Rotating)	1
8.	Vibrating Table	1
9.	Vibration test Facilities Apparatus	1
10.	Gear Model (Spur, Helical, Bevel and Worm)	1
11.	Kinematic Models	1
12.	Turn table Apparatus	1
13.	Compound Pendulum	1
14.	Flywheel and Connecting Rod	1
15.	Spring Mass Vibration System	1
16.	Stop Watch	6
17.	Digital Tachometer	3



ME3581 - METROLOGY AND MEASUREMENTS LABORATORY

S. No.	Name of the Equipment	Quantity
1.	Micrometer	5
2.	Vernier Caliper	5
3.	Vernier Height Gauge	1
4.	Vernier Depth Gauge	2
5.	Slip Gauge Set	1
6.	Gear Tooth Vernier	1
7.	Sine Bar	2
8.	Sine Centre	1
9.	Bevel Protractor- Magnifying Glass	1
10.	Mechanical Comparator – Dial Gauge	1
11.	Auto Collimator	1
12.	Temperature Measurement Setup	1
13.	Prestige Kettle	1
14.	Force Measuring Setup	1
15.	Torque Measuring Setup	1
16.	Vibration measuring setup	1
17.	Surface Plate	1
18.	Profile Projector	1
19.	LVDT (Displacement Apparatus)	1
20.	Surface finish Measuring Equipment	1
21.	Bore Gauge	1
22.	Telescope Gauge	1



ME3611- HEAT TRANSFER LABORATORY

S. No	Name of the Equipment	Quantity
1.	Guarded plate apparatus	1
2.	Lagged pipe apparatus	1
3.	Natural convection-vertical cylinder apparatus	1
4.	Forced convection inside tube apparatus	1
5.	Pin-fin apparatus	1
6.	Stefan-Boltzmann apparatus	1
7.	Emissivity measurement apparatus	1
8.	Parallel/counter flow heat exchanger apparatus	1
9.	Single/two stage reciprocating air compressor.	1
10.	Refrigeration test rig	1
11.	Air-conditioning test rig	1
12.	Composite wall apparatus	1
13.	Thermal conductivity of insulating powder apparatus	1
14.	Fluidized Bed Cooling Tower	1



ME3781 - MECHATRONICS & IOT LABORATORY

Sl. No.	Description of Equipment	Quantity
1.	Basic Pneumatic Trainer Kit with manual and electrical controls/ PLC Control each	2
2.	Basic Hydraulic Trainer Kit	1
3.	Hydraulics and Pneumatics Systems Simulation Software	1
4.	8051 - Microcontroller kit with stepper motor and drive circuit sets	5
5.	Image processing system with hardware & software	1
6.	Compressor	1



DEPARTMENT OF SCIENCE AND HUMANITIES
BA3171 PHYSICS AND CHEMISTRY LABORATORY
Physics Laboratory

Sl. .	Description of Equipment	Availability
1	Torsional Pendulum	5
2	Simple harmonic oscillations of cantilever: 1 Meter wooden scale, G-clamp	5
3	n-uniform bending: Travelling Microscope	5
4	Uniform bending: Travelling Microscope	5
5	Ultrasonic Interferometer apparatus with high frequency wave generator	5
6	Air Wedge: 45°C inclined glass plate set-up sodium vapour lamp	5
7	Diode Laser (red)	5
8	Post office box	5
9	Michelson Interferometer set-up	5
10	Melde's String apparatus	5
11	CRO having XY mode.	5

Chemistry Laboratory

Sl. .	Description of Equipment	Availability
1.	pH meter	15
2.	Conductivity Meter	15
3.	Potentiometer	15
4.	Flame Photometer	4
5.	Electronic Balance (Four digit)	1
6.	Hotplate with temperature controller	5
7.	Hot Air Oven	1
8.	Muffle Furnace	1
9.	Magnetic Stirrer	2