

CAD/CAM LAB

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	Auto Desk Inventer Series 5.3 Software	10 User
2	CATIA V5R9 with CAM Module Software	1 User
3	I-Deas Nx CAD Modular Software	5 User
4	ANSYS 8.1 Advanced Reasearch Version Software	5 User
5	ZN Tutor-cfd-10licences & CFD expert+12licences(Network version)	10 User
6	ALG NASTRAN EDGE CAM	99 User 5 User
7	WC PDM Link 10.2	100 User
8	SIMULATION SOFTWARE	5 Users 99 Users
9	Creo Parametric 2.0	
10	Creo-2 Upgradation	50 User
11	Canon IR 2006 N Copier	1
12	EPSON LCD Projectors	4
13	Tripod Projector	1
14	Dell Power Edge T620 server	1
15	Wind chill PDML ink/Project Link Upgradation	100 User
16	Edge CAM upgradation	15 User
17	Ansys Academic research Mechanical &CFD (Unlimited Nodes)	1 User
18	Ansys Academic Teaching Mechanical &CFD (256000 Nodes)	25 User
19	HP 280G2 Desktop Intel core 6 th Generation	18
20	Standard permanent single user license with modules: Biomass ,Run of River Hydro ,Combined heat and power ,Advanced load hydrogen ,Advanced Grid Advanced Storage, Multi -Year MAT LAB link	1
21	Edge cam Software-Educational Module Maintenance realignment and AMC,15 user network, Solid Machinise Link max	1

CNC ROBOTICS LAB

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	FFT ANALYSER	1
2	Lego Robot Development Kit	2
3	Aurdino board ultimate kit	3
4	Rapberry P1 3 model B 1 GB RAM,1.2 GhZ 64 Bit Quad CoreArm CPU with 802.11N Wifi And Bluetooth-The Complete Kit (With Black Case	4
5	10 X Hingh Torque Encoder DC Servo Motor 900 Rpm w/UART/12C	5
6	Rasberry Pi 3 model B 1 GB RAM 1.2 Ghz 64 Bit quad core arm CPU with 802	6
7	Rasberry Pi 3 model B 1 GB RAM 1.2 Ghz 64 Bit quad core arm CPU with 802	7
8	ICP Array Microphone	8
9	Impulse force hammer	9
10	Strain Measurement Module	10

MECHANICS OF SOLIDS LAB

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	Electronic Universal testing machine – 20T	1
2	Vickers Hardness Tester – 50 Kg	1
3	Impact Testing machine	1
4	Compression Testing Machine – 100T	1
5	Tensile Testing Machine – 5000 KN	1
6	Torsion Testing Machine – 20 Kg_m	1
7	Brinells cum Rockwells tester – 250 Kg	1
8	Pin on disc testing machine	1
9	Conversion Kit UTE to UTE Servo	1

ENGINEERING WORKSHOP

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	Jack Plane	2
2	Hand Shearing Machine	1
3	Bench vice	8
4	Jack Plane	8
5	Stakes	3
6	Stakes	6
7	Stakes	3
8	Adjustable Circular Saw Machine	1
9	Combimax, All purpose Wood Working Machine	1
10	Wood Cutting Machine	1
11	Wood Cutting Machine	1
12	Pipe Vice	1
13	Pipe Cutter	1
14	Stakes	3
15	Power Operated Hydraulic Press	1
16	Pipe Bending Machine	1
17	Blow Moulding Machine	1
18	Bench Vice	10
19	Jackplane	6
20	Plumbing Tools	10
21	Pipe Dia Set	1
22	Grinding Machine	1

FM & HM LAB

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	Verification of Bernoulli's theorem apparatus	1
2	Study of Flow Measurement devices	1
3	Reciprocating pump rig	1
4	Pelton wheel Turbine test rig	1
5	Francis Turbine	1
6	Kaplan Turbine	1
7	Multistage Centrifugal Pump	1
8	Turbine Flow meter	1
9	Losses in pipe fittings apparatus	1
10	Losses in Pipe friction apparatus	1
11	Impact of jet apparatus	1
12	Hydraulic Ram test rig	1
13	Flow through orifice & mouth piece apparatus	1
14	Flow over notches apparatus	1
15	Flow measurement by venturi & Orifice meters	1
16	Centrifugal pump test rig	1
17	Francis Turbine	1
18	Kaplan Turbine	1
19	Multistage Centrifugal Pump	1
20	Turbine Flow meter	1
21	Hydraulic Tilting Flume-Model:FM-17A	1
22	Pelton wheel Turbine Setup	1

HEAT TRANSFER LAB

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	Thermal conductivity of metal rod	1
2	Thermal Conductivity of insulating powder.	1
3	Stefan Boltzman apparatus	1
4	Plain Tube type concentric tube heat exchanger	1
5	Pin fin apparatus	1
6	Natural convection apparatus	1
7	Lagged piped apparatus	1
8	Forced convection apparatus	1
9	Emissivity measurement apparatus	1
10	Critical Heat flux apparatus	1
11	Condensation in drop and film forms	1
12	Composite wall apparatus	1
13	Thermal conductivity of metal rod	1
14	Thermal conductivity of Insulating Material.	1
15	Thermal conductivity of Composite Wall.	1
16	Heat Transfer in Natural Convection	1
17	Heat Transfer in Forced Convection	1
18	Heat Transfer in PIN-FIN	1
19	Heat Transfer in Lagged Pipe	1
20	Emissivity measurement	1
21	Stefan Boltzman's Constant	1
22	Parallel and Counter Flow Heat Exchanger	1
23	Drop and Film Wise Condensation	1
24	Heat Pipe Demonstration	1
25	Critical Heat flux	1
26	Unsteady State Heat Transfer Apparatus	1

MACHINE TOOLS LAB

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	Radial drilling machine 40 mm	1
2	Power Hacksaw (Mechanical)	1
3	Hydraulic Power Hacksaw 8" dia	1
4	Cylindrical Grinder Grinding length 225 mm	1
5	Capston Lathe 25 mm collect	1
6	Bhurji make surface grinder – Table size 225 * 500 mm	1
7	Sander/Polishing Machine	1
8	Router	1
9	Power Impact Drill	1
10	Jig Saw	1
11	Disc Grinder	1
12	Vikrant all geared 6' bed	2
13	Panther Make all geared 6' bed	2
14	Master make tool and cutter grinder Table size 500 * 113 mm	1
15	Sagar make Shaping machine 18" stroke	1
16	Wood Turning Lathe	1
17	Disc and Sand Grinder Machine Power Tools	1
18	Drilling tool dynamometer with digital multi component indicator with independent display for thrust and torque. Range 200 Kg thrust and 10 Kg m-torque.	1
19	Universal Milling machine – 1000* 200 mm table	1
20	Lathe tool dynamometer with digital multi component force indicator with 3 independent Display for X-Y-Z axis range 200 Kg	1
21	Padmini Student all geared 4' bed	2
22	Pinacho Conventional Lathe200X750 Machine with Standard Accessories	1
23	Milling Tool Dynamometer UIL-14C	1
24	Lathe Tool Dynamometer UIL-14C	1
25	Vertical Milling Machine V F-1 S.No.VF1-891	1

METULLURGY LAB

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	Specimen Leveller	1
2	Specimen Hot Drier – Heavy Duty	2
3	Pyromatic Stainless Steel Polishing Stand	1
4	Pyromatic Polishing Machine (Powder Coated)	2
5	Pyromatic Metallographic Linesher (Dry Model)	2
6	Pyromatic Metallography specimen mounting press with digital timer	1
7	Pyromatic jomny end quench apparatus	1
8	Pyromatic Heat Treatment Furnace	1
9	Pyromatic specimen cut-off machine	1
10	Inverted Trinacular metallurgical micro scope	1
11	Inverted Binacular metallurgical micro scope	2
12	Inclined metallurgical micro scope	2
13	Binacular metallurgical micro scope	1
14	100X Imported objective	1
15	Metallurgical Image Alalysis System	1
16	Heat Treatment Muffle Furnace	1
17	Micro Hardness Tester, VHS-1000	1
18	Aluminium Melting Furnace	1
19	Ultrasonicator with standard Accessories	1

PT LAB

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	Spot-welding machine	1
2	Pipe Vice	1
3	Pipe Cutter	1
4	Tig welding set	1
5	Power Press	1
6	Power Operated Hydraulic Press	1
7	Vertical Band Saw machine	1
8	Blow Moulding Machine	1
9	Gas welding set	1
10	Injection Moulding M/c.	1
11	Pipe Bending Machine	1
12	225 Amp Tig & Arc Welding Machine Accessories	1
13	Motorized Pipe Bending Machine Extra Roll Tool Packing & Forwarding	2
14	Digital Ultrasonic Flaw Detector	1
15	Mini Normal Probe 10mm 4 Mhz	1
16	Angle Probe 9x8mm 60dig 4 Mhz	1
17	V1 Reference Block	1
18	Sand Siever	1
19	Sand Muller	1
20	Sand Rammer	1
21	Attachment to Sand Rammer-Base Block	1
22	Attachment to Sand Rammer-Tube Filler	1
23	Attachment to Sand Rammer-Split Specimen Tube	1
24	Attachment to Sand Rammer-Compatibility Tester	1
25	Attachment to Sand Rammer-Flowability Tester	1
26	Universal Strength Machine (Mechanical & Digital)	1
27	Attachment to Sand Rammer-High Dry	1
28	Attachment to Strength Machine-Shear	1
29	Attachment to Strength Machine-Tensile	1
30	Attachment to Strength Machine-Transverse	1
31	Attachment to Strength Machine-Splitting	1
32	Attachment to Strength Machine-Twin Transverse	1
33	Attachment to Strength Machine-Deformation	1
34	Permeability Tester	1
35	Attachment to Permeability Tester-Mould Tester	1
36	Attachment to Permeability Tester-Base Tube	1
37	Mould Hardness Tester 'B' Scale	1

RESEARCH LAB

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	CNC MAX MILL (MTAB)	1
2	6 AXIS ROBOT	1
3	CNC ROUTER	1
4	AVL DIGAS 4445 GAS ANALYZER(MODROBS)	1
5	AVL 437C SMOKE Meter(MODROBS)	1
6	Computerised multi fuel research engine test setup, EGR arrangement (product 240)(MODROBS)	1
7	DST Project	
8	Biodiesel Preparatory Equipment	
9	Split Injection System	
10	NI Lab View Vibration setup	
11	Multi fuel VCR Engine	
12	EGR System for VCR Engine(MODROBS)	1
13	CoCo 80 system: Four 24 bit inputs, One 24 bit output, Application Software includes DSA Software, Calibration Software and EDM PA Viewer	1
14	Lego Robot Development Kit	2
15	Raspberry Pi 3 model B 1 GB RAM,1.2 GhZ 64 Bit Quad Core Arm CPU with 802.11N Wifi And Bluetooth-The Complete Kit (With Black Case	2
16	Ourduino board ultimate kit	1
17	10 X Hingh Torque Encoder DC Servo Motor 900 Rpm w/UART/12C	1
18	Raspberry Pi 3 model B 1 GB RAM 1.2 Ghz 64 Bit quad core arm CPU with 802	2
19	Raspberry Pi 3 model B 1 GB RAM 1.2 Ghz 64 Bit quad core arm CPU with 802	1

THERMAL ENGINEERING LAB

S.NO	NAME OF THE EQUIPMENT	QUANTITY
1	Cleveland's Flash and Fire Point Apparatus	1
2	Two Stage KSC make air compressor test ring (3 HP) with turn ion mounted electric dynamo- meter type	1
3	Twin Cylinder 4 stroke Vertical 10 HP HDC make water cooled D Diesel engine coupled to NANRA make AC alternator test rig along with water rheostat and standard accessories for experimentation with exhaust gas calorie meter	1
4	Slow Speed 4 Stroke Vertical 6HP brand new Anil make water cooled Diesel engine with rope break arrangement exhaust gas calorie meter and standard accessories for experimentation	1
5	Single cylinder 4 Stroke Vertical 5HP kirloskar make water cooled Diesel Engine test rig with rope breaker arrangement, exhaust gas calorie meter and standard accessories for experimentation 1	1
6	Four Cylinder 4 Stroke Vertical 15 HP Ambassador Petrol Engine coupled to Hydraulic Dynamo Meter with morse test facility, clutch and standard accessories for experimentation	1
7	Experimental Refrigeration test rig with 1/3 HP, brand new Hermitically sealed Kirloskar Compressor ad with other standard accessories	1
8	2 Stroke original single cylinder Petrol engine cut section model for port timing diagram experimentation	1
9	Variable speed centrifugal blower test rig with 3 impellers. (Radial, Backward and forward blades)	1
10	Computerized variable compression ratio diesel engine test rig	1
11	Two stroke single cylinder petrol engine	1
12	AVL DIGAS 4445 GAS ANALYZER(MODROBS)	1
13	AVL 437C SMOKE Meter(MODROBS)	1
14	EGR System for VCR Engine(MODROBS)	1
15	Computerised multi fuel research engine test setup,EGR arrangement (product 240)(MODROBS)	1
16	Electronic Variable research Engine test rig with EGR attachment (Product 240)	1
17	Single Cylinder 4-Satroke Petrol engine Test Ring with DC Generator and Facility to Conduct Motoring Test.	1
18	Three Cylinder 4-Satroke Petrol engine Test Ring (with MPFI version) with 10 HP Hydraulic Dynamo Meter and Exhaust Gas Calorimeter	1
19	Digital Infrared Thermometer	1
20	225 Amp Tig & Arc Welding Machine Accessories	1
21	Computerized Bomb Calorimeters	1