



Ramgarh Engineering College

(Estd. by Govt. of Jharkhand & run by Techno India under PPP)
(Approved by AICTE, New Delhi & affiliated to Jharkhand University of Technology / Vinoba Bhave University, Hazaribagh)

Corporate Office : EM 4/1, Sector - V, Salt Lake, Kolkata - 700 091
Phone : (91) 33-2357-6163/64/2658/1094, Fax : (91) 33-2357-1097

List of Laboratory & Equipments in NBA Departments

I. Department of Basic Science & Humanities

Sl. No.	Name of the Laboratory	Major Equipments
1.	Physics Lab	Galvano meter, ammeter, slide callipers, Whistone Bridge, Prism, Spectro meter, sodium source, Travelling Microscope.
2.	Chemistry Lab	Viscosity equipment, PH equipment, Conductivity equipment, Weight machine, heating equipment, Distillation equipment, incubator, vibrator equipment, Titration set up.
3.	English Language Lab	PC, Projector, smart screen, AC, CONSOLE,

II. Department of Civil Engineering

Sl. No.	Name of the Laboratory	Major Equipment
1	Surveying	Theodolite, Auto Label, Compass, Chain(30Meter), Alidade, Paintable with Stand, Plumbob, Levelling Staff, Ranging Rod, Tape(30 Meter, 15 Meter), Optical Square, Total Station, GPS, GIS, Distomat
2	Geo-Technical Engineering	Standard penetration test with all Accessories to conduct the test, Plate load test with all accessories to conduct the test, Consolidation test Apparatus, Unconfined compression test apparatus, Shear test apparatus(Direct shear), Triaxial test apparatus, Pycnometer(1liter), Liquid limit apparatus casagrande apparatus, Sieve size .75mm, 2.0mm, 1.0mm, 600mic, 425mic, 300 mic, 212mic, 150mic, 75mic, container 50mm dia and 30 mm height, balance machine (100kg), core-cutter test apparatus, compaction test apparatus (light compaction), CBR test apparatus, plastic limit apparatus, shrinkage limit apparatus field density by sand replacement method, Hot air oven, liquid limit device, sieve shaker (hand operated), plastic limit apparatus, shrinkage limit apparatus, field density by sand replacement method, Hot air oven, liquid limit device, sieve shaker (hand operated), spatula.



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Sl. No.	Name of the Laboratory	Major Equipment
3	Transportation Engineering	Flakiness & Elongation Gauge, Standard penetrometer for bitumen, Tar viscometer, Sieve size 80mm,63mm,50mm,40mm,31.5mm,25mm,20mm,16mm, 12.5mm,10mm,6.3mm,2.36mm,1.7mm Heater,Saucepan, Los-Angeles abrasion test,impact test apparatus,flash&fire test apparatus, marshal stability test.
4	Concrete Structure laboratory	Compressive testing machine, Flexure Testing machine, cube(150x150x150mm), cube(76x76x76mm), cylindrical mould, slump test apparatus, compactin factor test apparatus vee-bee test, concrete mixture machine, remould hammer, beam mould(100x100x500mm), beam mould(150x150x700mm), IS Sieve Size- 80mm,40mm,20mm,4.75mm,2.36mm,1.18mm,1mm,600mic., 425 mic, 300mic,150 mic, Vibration table
5	Environmental Engineering Laboratory	PH meter,TDSmeter, conductivity meter, BOD incubator, turbidity meter
6	Building Materials Laboratory	Vicat Needle Apparatus, Le-Chatelier Mould, OVEN, weight machine 50 ml Specific Gravity bottle, 90 mic. Sieve,IS Sieve Size- 80mm,40mm,20mm,4.75mm,2.36mm,1.18mm, 1mm,600mic., 425 mic, 300mic,150 mic Hand Operated Sieve Shaker
7	Structural Engineering Laboratory	Verniercalliper,Truss Apparatus model, Single Span Beam,Two hinged arch model, weight and dial gauge, Moment area theorem apparatus, Model of strut and columns with various end condition and loads.
8	Water Resources Engineering Laboratory	The hydraulic flume, Symon's rainauge, Model of gravity dam, Model of syphon aqueduct, Model of super passage, Basic Hydrology apparatus, Double ring infiltrometer, Cup type current meter, Tipping Bucket type rainauge, Class A Pan Evaporimeter
9	Transportation Engineering	Sieve and other accessories, California bearing ratio test apparatus, Ring Ball test apparatus, Marshal stability test apparatus, Los angeles abrasion test apparatus, Ductility test apparatus, Impact test apparatus



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III. Department of Electronics & Communication Engineering:

Sl. No.	Name of the Laboratory	Major Equipments
1	Analog electronics Lab	CRO, DSO, Dual Channel DC Regulated power supply, Digital Multi-meter, Function Generator, Digital Multi-meter, Bread board etc. Transistor Application Trainer kit, Class A amplifier trainer kit, Class C amplifier trainer kit, Push-Pull amplifier trainer kit, Common collector transistor amplifier trainer kit, Feedback amplifier (Series & Shunt) Trainer Kit Application of IC 555 as Multi-vibrator Trainer kit Differential Amplifier Trainer kit, Op-amp as a smith trigger Trainer kit
2	Analog and Digital Communication Lab	DC Regulated Power Supply, Digital multi-meter, DSO, CRO, Function Generator, AM transmitter and receiver trainer kit, FM Modulation and Demodulation trainer kit, DSB/SSB AM Transmitter and receiver kit, Analog signal Sampling and reconstruction kit, Super Heterodyne Receiver, Fourier Synthesis kit PWM/PPM trainer kit, PAM trainer kit, MSK Trainer kit, Analog multiplexing kit Modulation using PLL kit, Pre-Emphasis trainer kit.
3	Semiconductor devices Lab	DC Regulated Power Supply, Digital multi-meter, CRO, Function Generator, Transistor characteristics trainer kit, Hall effect experiment trainer kit, Energy bandgap apparatus, PN junction diode characteristics kit, FET Characteristics kit, LUXO meter
4	Computer Simulation Lab (DSP and VLSI)	Digital multi-meter, DSO, FPGA kit with supporting software and Computer.
5	Microwave Engg. Lab	Digital multi-meter, DSO, CRO, Function Generator, Klystron mount with tube, Isolator, Frequency meter, variable attenuator, Slotted section, Tuneable probe, Detectormount, Moveable Short, Matched termination, SS Tuner VSWR Meter, Klystron power supply, bore cable, tube cable, Gunn Power supply, Gunn Oscillator, Gunn based Test bench, Pin Modulator, BNC Cable, Spectrum analyser, Transmission line trainer kit



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Sl. No.	Name of the Laboratory	Major Equipments
6	Telecommunication Lab	Dull power supply, Digital multimeter, DSO, CRO, Function Generator, EPABX trainer kit, DTMF Telephone trainer kit.
7	Basic Electronics Lab	CRO (30 MHz), Dual channel Power supply, Function Generator, Multi-meter, Bread Board, Transistor, Diode, Resistor, capacitor etc. V-I characteristics of Junction diode trainer kit, V-I characteristics of Zener diode trainer kit V-I characteristics of BJT trainer kit Half wave and full wave rectifier trainer kit, V-I characteristics of FET trainer kit Op-amp Trainer kit.
8	Digital Electronics Lab	Dual channel DC power supply, Digital Multi-meter, Bread board, IC7400, 7402, 7404, 7408, 7432, 7486, 74151, 74153, 74266, Digital Trainer kit, BCD trainer kit Multiplexer Trainer kit, Flip-Flop Kit, Register trainer kit, Counter trainer kit.
9	Microprocessor Lab	Microprocessor kits, DSO, Exp kit, Meters, RLC, Loads, CRO

IV. Department of Mechanical Engineering

Sl. No.	Name of the Laboratory	Major Equipments
1	DOM Laboratory	Gyroscopic couple, Rotating Mass System, Cam Follower, Vibration Apparatus, Whirling Speed measurement shaft
2	RAC Laboratory	Ice plant test RIG, Air conditioning system, Mechanical heat pump, Chilling plant, Model of Compressor, Vapour Absorption Refrigeration System
3.	Automobile Laboratory	Automotive Transmission Systems, Automotive Drive Lines and Differentials. Automotive engine systems and sub systems. Fuels supply systems. Engine cooling and lubricating systems, Automotive suspension systems, Automotive steering systems, Automotive Brake systems, Constant Type transmission system, Synchronic type transmission system, Differential with real axle, Front wheel drive line, Real Axle Drive line, Multi Cylinder petrol engine, Single cylinder diesel engine, Multi cylinder diesel engine, Starting system diesel engine, Electrical ignition system diesel engine, Rake and pinion type steering system, Reciprocating ball type steering system, Power steering system



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Sl. No.	Name of the Laboratory	Major Equipments
4	MOS-II Laboratory	Ductility and fatigue test machine, Quarter half full bridge Bending System, Youngs Modulus Machine Simply Supported Beam
5	Workshop Laboratory	Electric Furnace, Electric Furnace for smithy, Welding Machine, Lathe Machine, Shaper Machine, Grinder, Milling Machine, Wood working Vice Circular Saw, Drilling Machine, Planner Machine, Wood Cutter, Bending Machine, Muffle Furnance,
6	Applied Thermodynamics	Refrigeration test rig. Water cooling tower. Cochran boiler model. Compound steam engine model. De-level turbine model. Babcock and Wilcox boiler model. Steam engine model. Steam engine model. Pure reaction turbine model. Condensor
7	HMT Laboratory	Stephan Boltzman Apparatus, Forced convection Apparatus, Conductivity test Apparatus, Pipe flow Apparatus, Parallel or counter flow heat Exchanger
8	Fluid Mechanics Laboratory	Venturimeter Apparatus, Pipe friction Apparatus, Rectangular notch apparatus
9	Thermodynamics Laboratory-II	Orific meter apparatus, Mouth Piece Apparatus, Bernouli Equation Test RIG, Metacentric Height Testing Machine, Toy model of I.C engine (SI & CI), model of steam power plant, model of Cochran Boiler, model of steam turbine, Model of Reciprocating air compressor.
10	MOS-I Laboratory	Universal testing Machine, Impact Testing Machine, Torsion testing Machine, Rockwell hardness testing machine, Brinell hardness testing machine
11	Drawing Hall-I	Drawing Boards
12	Drawing Hall-II	Drawing Boards
13	CADG Lab	Computers