

DR. JIVRAJ MEHTA INSTITUTE OF TECHNOLOGY, MOGAR
MECHANICAL ENGINEERING DEPARTMENT

LIST OF LABORATORIES

Sr.	Name of Laboratory	Semester	Location	Lab. Room No	Subjects Covered
1	Engineering Graphics and Design	1st/ 2nd	Ground Floor	19	EGD
2	Basics of Mechanical Engineering	1 st / 2 nd	Second floor	218	BME
3	Workshop	1 st / 2 nd	WORK SHOP	WS	WS, MP, MT, IE, MFA
4	Material Science & Metallurgy	3 rd	First Floor	123	MSMT, MMM
5	Heat Transfer	3 rd	Second floor	215	HT, ET
6	Theory of Machines	3 rd	Third Floor	310	TOM, KTOM, DOM
7	Fluid Mechanics and Hydraulic Machines	4 th	First Floor	121	FMHM
8	Fundamentals of Machine Design	4 th	Third Floor	309	FMD
9	Fluid Power Engineering	5 th	WORK SHOP	WS	FPE
10	Internal Combustion Engines	6 th	WORK SHOP	WS	ICE
11	Computer Aided Design	6 th	First Floor	117	CAD
12	Refrigeration and Air Conditioning	6 th	Second floor	214	RAC
13	Production Technology	6 th	WORK SHOP	WS	PT
14	Computer Integrated Manufacturing	7 th	WORK SHOP/ Ground Floor	WS/ 030	CIM

ABBREVIATION:

WS : Workshop technology
 MP : Manufacturing processes
 MMM : Mechanical Measurement & Meteorology
 MT : Manufacturing Technology
 ET : Engineering thermodynamics
 KTOM : Kinematics and Theory of Machines
 IE : Industrial Engineering
 DOM : Dynamics of Machinery
 MFA : Metal forming analysis

List of Equipment (Mechanical Department)

Sr. No	Name of the Laboratory	Name of the important equipment
1	HEAT AND MASS TRANSFER (ROOM NO-215)	Heat transfer by forced convection apparatus
		Thermal conductivity of Composite wall
		Heat transfer in Natural convention
		Emissivity apparatus
		Stefan Boltzmann apparatus
2	REFRIGERATION AND AIR CONDITIONING (ROOM NO-214)	Refrigerator Tutor
		Air Conditioning trainer
		Mechanical Heat Pump

3	THEORY OF MACHINES (ROOM NO-309)	Porter Governor
		Motorised Gyroscope
4	DYNAMICS OF MACHINE (ROOM NO-309)	Statics & Dynamic Balance
		Whirling of shaft Apparatus
5	MECHANICAL MESURMENT & METROLOGY (ROOM NO -123)	Profile Projector (scientific instrument model-rpp-150 screen size -150 mm)
		Sinebar 100mm
		Deadweight pressure gauge (range 40kg)
		Surface plate 630*630*80
		Precision angle Dekkar Auto collimator sr no=1202104
		Surface Roughness Tester tr-100
		Slip Gauge (set of 83)
6	MATERIAL SCIENCE AND METALLURGY (ROOM NO -123)	Muffle furnace
		Metallurgical Microscope
		Double Disc Polishing machine
7	FLUID MECHANICS AND HYDRAULIC MACHINE (ROOM NO -121)	Metacentric Height Apparatus
		Bernoulli's Theorm apparatus
		Flow measurement by Venturimeter & orifice , Rotameter Apparatus
		Orifice & Mouthpiece Apparatus
		Free & forced vortex flow apparatus
		V- Notch Apparatus
		Reynolds Apparatus
		Pipe Friction Apparatus
		Impact of Jet Apparatus
		Flow Measurement by Venturimeter & orifice , Rotameter apparatus
8	Basic Workshop	Hacksaw machine 14"
		Drilling Machine
		Bench Grinder

		Vernier Calipers 12"
		Outside Micrometer
		Inside Micrometer
		Vernier Height Gauge
		Combination set
		Tri-square 6"
		Bench wise 4"
		Carpentary wise 10"
		Pipe wise 2"
9	Manufacturing process (WORKSHOP)	Light Duty Lathe Machine
		Semi-Automatic light Duty Lathe Machine
		Shaping Machine
		Milling Machine
		Hacksaw Machine
10	COMPUTER INTEGRATED MANUFACTURING (ROOM NO -030)	CNC Lathe trainer machine - Micro turn model SS mt-160
11	FLUID POWER ENGINEERING (WORKSHOP)	Pelton Wheel Test rig
		Reciprocating pump Test rig
		Centrifugal pump Test rig
		Reciprocating air compressor Test rig
		Francis turbine Test rig
		Centrifugal blower Test rig

12	INTERNAL COMBUSTION ENGINE (WORKSHOP)	Carburettor
		Fuel injection Pump
		Two stroke Petrol Engine
		Flash & Fire point Equipment
		Lubricant Viscosity test Equipment