

**MACHINE TOOLS LAB**

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**Laboratory Technician** : Mr. Sunil Gavaskar

**OBJECTIVE:**

The purpose of the laboratory is to provide students with an opportunity to work on the raw materials using different Machine tools like Lathe machine, Drilling machine, Milling machine, Slotting machine, shaping machine and Grinding Machine etc.







**Lab Equipment:**

<b>S.No</b>	<b>Description</b>	<b>Quantity</b>	<b>Cost (Rs)</b>
1	All Geared Lathe Machine with accessories	5	45,000
2	165 mm True chuck	4	24,800
3	Revolving center	4	10,000
4	Chuck Flange	4	8,800
5	Taper turning attachments	4	14,500
6	Radial Drilling Machine	1	1,16,600
7	Drill chuck, arbor, sleeve	1	2,700
8	Drill vice	1	3,200
9	Motorised coolant pump	1	9,400
10	Milling machine	1	2,17,800
11	Coolant pump	1	6,200
12	Dividing head	1	36,100
13	Rotary milling table	1	17,300
14	Shaping machine	1	1,84,800
15	Slotting machine	1	76,700
16	Tool and cutter grinder	1	1,39,200
17	Universal vice	1	17,300
18	Magnetic chuck	1	10,600
19	Surface Grinder	1	1,78,600
20	Magnetic chuck	1	14,700
21	Microfeed cross slide	1	3,300
22	Bench Grinder	1	8,500
<b>Total</b>			<b>11,46,100</b>

**List of Experiments:**

<b>S. No.</b>	<b>NAME OF THE EXPERIMENT</b>
1	Perform plain turning and facing operations on the given work piece using Lathe machine
2	Perform step turning operation on the given work piece using Lathe machine
3	Perform taper turning operation on the given work piece using Lathe machine
4	Perform thread cutting operation on the given work piece using Lathe machine
5	Perform knurling operation on the given work piece using Lathe machine
6	Perform drilling and tapping operations on the given work piece using Radial Drilling machine
7	Produce grooves on the given work piece by performing shaping operation using Shaping machine
8	Produce keyway slot in the given work piece by performing slotting operation using Slotting machine
9	Machine a spur gear to the given module and number of teeth in the given work piece using Milling machine
10	Prepare a flat surface by using the Surface grinding machine