
























**Bipin Tripathi Kumaon Institute of Technology**  
**TOM & Design Lab**








Sl. No.	Name of Machine/Equipment	Photo
1	CAM Analysis Apparatus	 A blue and red mechanical apparatus used for CAM analysis. It features a vertical shaft with a rotating component and a sensor or camera setup. A label at the bottom of the apparatus reads "CAM ANALYSIS APPARATUS".
2	Universal Governor Apparatus	 A blue and red mechanical apparatus used for studying governors. It has a central vertical shaft with two horizontal arms, each ending in a weight. A motor is connected to the shaft.
3	Motorized Gyroscope	 A red and blue mechanical apparatus used for studying gyroscopes. It consists of a red circular disk mounted on a vertical shaft, which is supported by a blue base. A motor is connected to the shaft.
4	Static & Dynamic Balancing Apparatus	 A blue and red mechanical apparatus used for static and dynamic balancing. It features a horizontal shaft with two weights attached by chains. A motor is connected to the shaft.

5	Universal Vibration Test Machine	
6	Whirling of Shaft Apparatus	
7	Epicyclic Gear Apparatus	
8	Coriolis Component of Acceleration Apparatus	
9	Strain Rosettes Apparatus	







10	Slip & Creep Measuring Apparatus	 A photograph of a slip and creep measuring apparatus. It consists of a blue metal frame supporting a motor, a dynamometer, and a test setup. A white control box with a digital display is mounted on the frame. The apparatus is positioned in a room with a window in the background.
11	Model of Single Plate Clutch	 A photograph of a model of a single plate clutch. The model is mounted on a red base and features a central shaft with a flywheel and a single friction plate. A black handle is attached to the top of the model. The base has a blue label with the word "TECHNED" written on it.
12	Model of Double Plate Clutch	 A photograph of a model of a double plate clutch. The model is mounted on a red base and features a central shaft with a flywheel and two friction plates. A black handle is attached to the top of the model. The base has a blue label with the word "TECHNED" written on it.
13	Journal Bearing Apparatus	 A photograph of a journal bearing apparatus. It consists of a blue metal frame supporting a vertical shaft with a journal bearing. The shaft is supported by a base. The apparatus is positioned in a room with a door in the background.






14	Crank & Slotted Lever Mechanism	 <p>A photograph of a mechanical model titled "CRANK &amp; SLOTTED LEVER MECH". The model features a blue circular base with a white crank and a red slotted lever arm. It is mounted on a wooden base with the title written in gold lettering.</p>
15	Elipse Tracer Model	 <p>A photograph of a mechanical model titled "ELIPSE TRACER MODEL". It consists of a red handle and a blue pen-like component, both mounted on a white base with the title written in red.</p>
16	Four Bar Link Mechanism	 <p>A photograph of a mechanical model titled "FOUR BAR LINK MECHANISM". It shows a four-bar linkage with a yellow triangular link and a black handle, mounted on a white base.</p>
17	Inversion of Four Bar Link Mechanism	 <p>A photograph of a mechanical model titled "INVERSIONS OF FOUR BAR LINK MECHANISM". It features several yellow gears and links arranged on a white base. The text "Locomotive Coupling" and "Ackerman Steering Gear" is visible on the base.</p>
18	Kinematics Pair	 <p>A photograph of a mechanical model titled "KINEMATICS PAIR". It shows various mechanical components, including gears, links, and joints, arranged on a white base.</p>

19	Panthograph Mechanism	 <p>A photograph of a panthograph mechanism. It consists of a blue pen nib attached to a linkage system that can trace a straight line. The mechanism is mounted on a clear acrylic base with four legs. A black label on the base reads "PANTHOGRAPH MECHANISM".</p>
20	Peaucellier Mechanism	 <p>A photograph of a Peaucellier-Lipkin linkage mechanism. It is a linkage system that can convert circular motion into straight-line motion. It is mounted on a clear acrylic base with four legs. A black label on the base reads "PEAUCELLIER LINKAGE DRIVE MODEL".</p>
21	Watt Mechanism	 <p>A photograph of a Watt parallel motion linkage mechanism. It consists of two long links connected by a shorter link, which allows the longer links to move in nearly parallel paths. It is mounted on a clear acrylic base with four legs. A black label on the base reads "WATT MECHANISM".</p>
22	Slotted Link Bar Mechanism	 <p>A photograph of a slotted link bar mechanism. It features a horizontal link with a slot that fits over a vertical link, allowing for a specific type of motion. It is mounted on a clear acrylic base with four legs. A black label on the base reads "CRANK &amp; SLOTTED LINK MECHANISM".</p>
23	Crank Drive to Oscillating Link Mechanism	 <p>A photograph of a crank drive mechanism. It shows a crank (a link that rotates around a fixed pivot) connected to a longer link that oscillates back and forth. It is mounted on a clear acrylic base with four legs. A black label on the base reads "CRANK &amp; SLOTTED LINK MECHANISM".</p>

24	Reciprocating Engine Mechanism	
25	Oscillating Cylinder Mechanism	
26	Witworth Quick Return Mechanism	
27	Single Stage Spur Gear With Intermediate Gear	
28	Two Stage Spur Gear	
29	Cycloidal Gears	
30	Compound Gear Train	



31	Three Stage Spur Gear	 <p>A photograph showing a three-stage spur gear assembly. It consists of three meshing spur gears of different sizes, mounted on a wooden base. The gears are colored blue, silver, and blue from left to right. A black handle is attached to the smallest gear on the right.</p>
32	Internal Gear with Pinion Drive	 <p>A photograph of a mechanical machine used for cutting internal gears. It features a vertical pinion drive mechanism mounted on a grey base. A black handle is visible on the right side.</p>
33	Rack & Pinion Gear	 <p>A photograph of a rack and pinion gear assembly. It shows a red pinion gear meshing with a blue rack gear, mounted on a wooden base. A black handle is attached to the pinion.</p>
34	Bevel Gear	 <p>A photograph of a machine used for cutting bevel gears. It features a red bevel gear mounted on a grey base. A black handle is attached to the side.</p>
35	Rack & Quadrant Gears	 <p>A photograph of a rack and quadrant gear assembly. It shows a red quadrant gear meshing with a blue rack gear, mounted on a wooden base. A black handle is attached to the quadrant.</p>
36	Sliding Wedge Gear with Straight Line	 <p>A photograph of a machine used for cutting sliding wedge gears with a straight line. It features a blue sliding wedge gear mounted on a grey base. A black handle is attached to the side.</p>

<p>37</p>	<p>Model of Pelton Turbine</p>	
<p>38</p>	<p>Model of Francis Turbine</p>	
<p>39</p>	<p>Model of Centrifugal Pump</p>	
<p>40</p>	<p>Model of Reciprocating Pump</p>	
<p>41</p>	<p>Model of Hydraulic ram</p>	



42	Model of Gyroscope	
43	Gear Set	
44	Model of Multiplate Clutch	
45	Model of single shoe brake	
46	Model of double Shoe Brake	

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Bearing Set

