**Overview** : The Theory of Machines course for Mechanical Engineering provides a comprehensive underst

and analysis of mechanisms for the specified type of motion in a machine. With the study of rigid bodies motions and forces for the transmission systems, machine kinematics and dynamics can be well understood.

In the lab, students typically have access to a variety of equipment and experimental setups that allow them to observe and manipulate different types of machines and mechanisms. This includes mechanisms like linkages, gears, cams, belts, and pulleys, among others.

**Facilities and Equipment:** Whirling of shaft + Motorized cam analysis, Universal governor, Motorized Gyroscope, Brake lining/ clutch friction test rig, Balancing of reciprocating masses , Universal vibration test rig, Generation of Involute gear-tooth profile model, Epicyclic Gear Train equipment, Cam Analysis equipment, Test rig for Belt Drive Equipment

**Utilization:** This course is for students from S.Y, T.Y Mechanical engineering and S.Y Manufacturing Engineering

S.Y Mechanical Engineering – 8 batches (25 students in each batch)

T.Y Mechanical Engineering – 8 batches (25 students in each batch)

S.Y Manufacturing Engineering – 4 batches (25 students in each batch)

**Lab Incharge:** Dr. Shivnanda Bhavikatti

**Laboratory Area:** 92 m2

A room with many machines and tools

Description automatically generated

**THEORY OF MACHINE :**

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| A machine on a table  Description automatically generatedA machine on a table  Description automatically generated | **Overview** : The Theory of Machines course for Mechanical Engineering provides a comprehensive understanding and analysis of mechanisms for the specified type of motion in a machine. With the study of rigid bodies motions and forces for the transmission systems, machine kinematics and dynamics can be well understood.  In the lab, students typically have access to a variety of equipment and experimental setups that allow them to observe and manipulate different types of machines and mechanisms. This includes mechanisms like linkages, gears, cams, belts, and pulleys, among others.  **Facilities and Equipment:** Whirling of shaft + Motorized cam analysis, Universal governor, Motorised Gyrascope, Brake lining/ clutch friction test rig, Balancing of reciprocating masses , Universal vibration test rig, Generation of involute geartooth profile model, Epicyclic Gear Train eqipment, Cam Analysis equipment, Test rig for Belt Drive Equipment  **Utilization:** This course is for students from S.Y, T.Y Mechanical engineering and S.Y Manufacturing Engineering and Industrial Management.  **Lab Incharge:** Dr. Shivnanda Bhavikatti  **Laboratory Area:** 92 m2 |

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| A blue sign on a building  Description automatically generated | A glass cabinet with a display case  Description automatically generated |
| A room with tables and stools  Description automatically generated | A room with many machines and tools  Description automatically generated |
| A machine on a table  Description automatically generated | A machine on a table  Description automatically generated |
| A room with several equipment  Description automatically generated with medium confidence |  |