



# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE GWALIOR

## Department of Mechanical Engineering

### REPORT OF SKILL BASED MINI PROJECT

#### (120411) THEORY OF MACHINES-II

**Title of Project :** TO PREPARE MODEL OF CAM & FOLLOWER

**Introduction:** When the two links are connected either along a line or at a point, it is called a higher pair. Two such higher pair mechanisms will be included in a cam-follower system. A higher pair mechanism is known as cam and follower. For the smooth functioning of a cam-follower mechanism, it is imperative that the follower should move smoothly without requiring too much input power, which means the follower should not jam, during its movement.

#### Description of Model :

- Knife-edge follower:

If the follower has just a knife-edge with the cam then we call it a knife-edge follower. The knife-edge is only theoretical because knife-edge follower is never used because of the very high wear rate. Contact stress will be extremely high.

- Roller follower:

The follower is hinged to a roller and this roller is in contact with the cam, this is called roller follower. This is the cam that rotates and the follower which is hinged here oscillates. It is used when a large force has to be transmitted like in stationary IC engines.

- Flat face follower:

The follower surface which is in contact with the cam is in the form of a flat surface is called a flat face follower. The follower surface, instead of flat, can be also a curved surface.

**Applications of Model :** The cam and follower mechanism is widely used for **operating the inlet and exhaust valves of internal combustion engines**. They are used in wall clocks and the feed mechanism of automatic lathe machines. They are also used in paper cutting machines and weaving textile machinery.

**What I Learned Through Project:** About the uses of CAM & FOLLOWER different types of tools used to make the model .

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