MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE GWALIOR

Department of Mechanical Engineering

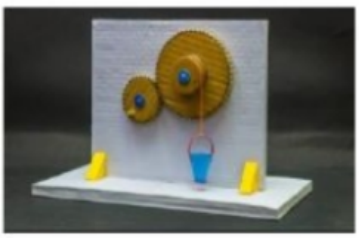
REPORT OF SKILL BASED MINI PROJECT

THEORY OF MACHINES (120411)

Title of Project: DEMONSTRATION MODEL OF SPUR GEAR with pulley

Introduction: Spur gear are the simplest type of gear. They consist of a cylinder or disk with teeth projecting radially. Viewing the gear at 90 degrees from the shaft length (side on) the tooth faces are straight and aligned parallel to the axis of rotation.

Description of Model



Firstly we had drawn the dimensions of the circle of 5 cm and 2cm radius. After the cutting of the section we cut the straight rectangle of length equals to the perimeter of those circles with respective radius 5 and 2 cm of the circle and breadth of 1 inch. The perimeter is equals to 2*pi*r that is 31.4 and 12.5. After preparing 2-2 sets of each we made a pulley model with supporting cardboard of Rectangle. Then connected to the well and demonstrated the well pulley model.

Applications of Model

The model demonstrates about the applications of Spur gear as follows:

1. Power transferring shaft of water well demonstration.
2. Transmissions.
3. Conveyor systems.
4. Speed reducers.
5. Engines and mechanical transportation systems.
6. Gear pumps and motors.
7. Machining tools.

What I Learned Through Project:

By using this demonstration we had learned about how the spur gear help us in transmission of the power and how we can use in our day to day life.

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