"येथे बहुतांचे हित"

## Techno-Social Excellence Marathwada Mitra Mandal's INSTITUTE OF TECHNOLOGY (MMIT)

Lohgaon, Pune-411047.

"Mechanized Design Application"

## **Department of Mechanical Engineering**

**Course Name: Kinematics of Machinery** 

Class: SE Mechanical Engineering Course Code: 202047 (2019 Pattern)

## **Course Objectives:**

- 1. To make the students conversant with kinematic analysis of mechanisms applied to real life and industrial applications.
- 2. To develop the competency to analyze the velocity and acceleration in mechanisms using analytical and graphical approach.
- 3. To develop the skill to propose and synthesize the mechanisms using graphical and analytical technique.
- 4. To develop the competency to understand & apply the principles of gear theory to design various applications.
- 5. To develop the competency to design a cam profile for various follower motions.

## **Course Outcomes:**

On completion of the course, learner will be able to

- CO1. APPLY kinematic analysis to simple mechanisms
- CO2. ANALYZE velocity and acceleration in mechanisms by vector and graphical method
- CO3. SYNTHESIZE a four bar mechanism with analytical and graphical methods
- CO4. APPLY fundamentals of gear theory as a prerequisite for gear design
- CO5. CONSTRUCT cam profile for given follower motion