



K S RANGASAMY COLLEGE OF TECHNOLOGY
Tiruchengode – 637215
(An Autonomous Institution, Affiliated to Anna University, Chennai)
DEPARTMENT OF MECHANICAL ENGINEERING



Flipped Class			
Programme & Branch	B.E. & Mechanical Engineering	Year/Sem/Sec	III / VI / A
Course Code & Name	50 ME 603 – Design of Mechanical Transmission Systems	Date	06.02.2023

The video link for the topic of Gear fundamental is <https://youtu.be/Mh1fZ9zwc10?t=14>. All the students are informed to listen to the video and come prepared for the activity to be held on 07.02.2023 (3rd Hour) in our classroom.

Course Instructor
(Mr.B.Balaji)



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Flipped Class Activity Report			
Programme & Branch	B.E. & Mechanical Engineering	Year/Sem/Sec	III / VI / A
Course Code & Name	50 ME 603 – Design of Mechanical Transmission Systems	Date Hour	07.02.2023 3rd Hour

Questions:

- 1) List the characterizes of gear tooth profile.
- 2) State law of gearing.
- 3) Line of action of cycloid gear profile is _____.
- 4) Most of the gear tooth profile is Involute, Justify?
- 5) Both the base and pitch circle of an involute gear are the same. True/False.

The above questions have been asked to the students and they shared their answers. All the students answered questions no.1, no.3 and no.5 correctly. But few students answered questions no.2 and no.4 correctly. So, I discussed the non-answered topic in the classroom.

Course Instructor
(Mr.B.Balaji)

Module Coordinator
(Dr.S.Jeyaprakasam)



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Flipped Class – Questions and Answers			
Programme & Branch	B.E. & Mechanical Engineering	Year/Sem/Sec	III / VI / A
Course Code & Name	50 ME 603 – Design of Mechanical Transmission Systems	Date Hour	07.02.2023 3 rd Hour

Questions and Answers:

1) List the characterizes of gear tooth profile.

- Constant Velocity ratio
- Relative-Rolling in Nature
- More than one pair to be in contact
- Cantilever beam of uniform strength

2) State law of gearing.

The law of gearing states that the angular velocity ratio of meshed gear system must remain constant and also the common normal at the point of contact must pass through the pitch point.

3) Line of action of cycloid gear profile is Curve.

4) Most of the gear tooth profile is Involute, Justify?

Yes, Most of the gear tooth profile is Involute. Because of the following benefit

- Gearing law unaffected by change in center distance
- Gear tooth generation is easy and inexpensive
- Interchangeability is possible.
- Radial load acting on the gear profile is constant

5) Both the base and pitch circle of an involute gear are the same. ~~True~~/False

Course Instructor

(Mr.B.Balaji)

Module Coordinator

(Dr.S.Jeyaprakasam)