IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 5, Issue 6, March 2025

A Review Paper on "Gear Drives for Various Applications"

Satyam Alai, Mithilesh Ahirrao, Shubham Govardhane, Omkar Chavan

Department of Mechanical Engineering Guru Gobind Singh Polytechnic, Nashik, India

Abstract: Gear drives are fundamental components of mechanical power transmission, playing a critical role in various applications. This paper explores the different types of gear drives and their suitability for specific uses. It emphasizes the factors that vary depending on the application, such as design, load capacity, torque transmission, gear ratio, material selection, failure management, cost-effectiveness, and sustainability. The purpose of this paper is to raise awareness of the technical considerations involved in selecting gear drives for different applications while ensuring cost efficiency and sustainability. Understanding these factors will enable engineers and designers to make informed decisions when selecting and designing gear drives, ensuring optimal performance, reliability, and efficiency.

DOI: 10.48175/IJARSCT-24284

Keywords: Gear drives, Power Transmission and Efficiency

