## **IJARSCT**



## International Journal of Advanced Research in Science, Communication and Technology

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

Volume 5, Issue 1, November 2025



## Role of Computer-Aided Design (CAD) in Modern **Manufacturing**

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**Abstract:** Computer-Aided Design (CAD) has become an essential technology in modern manufacturing industries. It allows engineers and designers to create, visualize, and modify detailed models before production, reducing design errors, saving time, and improving product quality. The integration of CAD with Computer-Aided Manufacturing (CAM) and Computer-Aided Engineering (CAE) has transformed the traditional manufacturing process into a digital and highly automated workflow. This paper discusses the role, advantages, and applications of CAD in manufacturing and explores future trends such as AIdriven design and Industry 4.0 integration.

**Keywords**: Computer-Aided Design



DOI: 10.48175/568



