



## **International Journal on Recent Researches In Science, Engineering & Technology**

A Journal Established in early 2000 and upgraded to International journal in 2013 and is in existence for the last 10 years. It is run by Retired Professors from NIT, Trichy. It is an absolutely free (No processing charge No publishing charge etc) Journal Indexed in DIIF and SJIF.

**Research Paper**

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ISSN (Print) : 2347-6729  
ISSN (Online) : 2348-3105

**Volume 1, Issue 10,  
Oct. 2013**

**DIIF IF :1.46  
SJIF IF: 1.329**

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### **A Review on Design and development of planetary gear systems**

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Abstract : Planetary Gear Trains (PGTs) are included in the course work of undergraduate mechanical engineering student through the subject theory of machines. The traditional methods of analyzing PGTs keeps the learner from becoming familiar with their mechanism and design. Literature review revealed that, through extensive work was reported on traditional text book method, only discrete references were made on the unified general methods of parallel visualizing the various parameters like velocity, torque and power in PGTs. Complex mechanical systems, such as antormobiles which require a simultaneous study of above parameters. Hence it has become essential to design and develop unified methods to understand the interdependence of the various input and output parameters of PGTs. An attempt is made in this paper to review the various research papers on design of PGTs with a view, to identify the various issues and challenges associated and the technologies and to address such issues. The major contribution of the problem work lies in identifying the thrust areas in design of PGTs ,for their satisfactory performance, including failure due to resonance conditions, pitting failure etc.