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Automatic Ground Clearance Adjusting Vehicle

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Abstract: The handling of vehicle is very challenging towards the off-road. Suspension is on of the most challenging system to design for the off-road vehicle. The proper suspension design should be adaptive to changing road condition. Hence designer adopt to maintain fixed ground clearance and design the system to require satisfactory parameter. off-road vehicle have to face the rough patches on road where the customer need the high ground clearance of the vehicle, on other sides in cities we run the same vehicle on road where high level ground clearance is not needed. So for different type of tracks, the vehicle ground clearance is designed accordingly and this differentiate the vehicle for On road vehicle (sedan & hatchback cars) and for off-road vehicle there are suitable SUV. In both the cars we needed an adjustable ground clearance system in the vehicle to have finest performance.

Keywords: Ground clearance, SUV, Off-Road

REFERENCES

- [1]. Hrishikesh V Deo, Nam P Suh —Axiomatic Design of Customizable Automotive Suspension The Third International Conference on Axiomatic Design Seoul, June 21-24, 2004
- [2]. Shivaraj Chandrakant Patil- A review on adjustable ground clearance mechanism, December 2016
- [3]. P.E. Uys, P.S. Els, M. Thoresson, —Suspension Settings for Optimal Ride Comfort of Off-road Vehicles Travelling on Roads with Different Roughness and Speeds Journal of Terr mechanics 44 163–175, 2007
- [4]. Debojyoti Mitra —Design Optimization of Ground Clearance of Domestic Cars International Journal of Engineering Science and Technology Vol. 2 (7), 2678-2680, 2010
- [5]. Morteza Montaner- Gh, Mahdi Soleymani Morteza Montazeri-Gh& Mahdi Soleymani —Active Suspension System in Parallel Hybrid Electric Vehicles IUST International Journal of Engineering Science, Vol. 19, No.5-1, Page 97-104, 2008

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[6]. Wikipedia(www.wikipedia.com), YouTube (www.youtube.com) and other internet articles