

## **OPTIMIZATION OF AUTOMOBILE MINOR BREAKDOWN REPAIR FUNCTION USING ARTIFICIAL NEURAL NETWORK**

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### **Abstract**

This article explains an approach to formulate mathematical model for optimization of Automobile minor breakdown repair function by using Artificial Neural Network & dimensional analysis. Subsequent comparison of these models is done to decide their applicability in the dynamic environment of automobile minor breakdown repairing. In view of the increasing competition in the automobile sector, different automobile companies are taking great efforts to improve their after sales service [1, 2 & 3]. One of the most important aspects of after sales service is the minor breakdown repairing of a vehicle. The minor breakdown repairing offers certain advantages, such as low parking space, high bay productivity, customer satisfaction, increased revenue and higher customer inflow. Franchisee or authorized service centers are facing tough competition from non franchisee workshops in the domain of minor breakdown repairs. The major customer preference towards non franchisee workshops is attributed to the low time consumed in minor repairs. Often the delays during these minor repairing negates the advantages offered by franchisee workshops. Hence, it was necessary to generate a reliable and valid approach for delineating a model for optimization of minor breakdown repairing functions of automobiles in general and Passenger Cars in particular.

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