

## Bike Service Mobility Vehicle to Provide Better Convenience for Tier-1 City User



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**Abstract:**

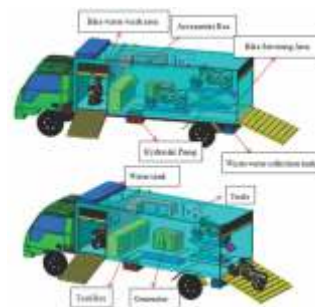
In recent years Indian automotive market is growing at faster rate, especially in two wheeler segment, thus, providing service for them is difficult task. On the other side, due to the busy schedule of users they are finding difficulties in giving the bike for service. To overcome from this problem, Mobile Bike Service Vehicle is one of the possible solutions. In this project work conceptual design of bike service mobility vehicle has been carried out to provide better convenience for tier -1 city users.

The main aim of this project is to provide better bike service to the customers by designing mobility vehicle for motor cycles. At the beginning of the project required literatures, journals and books were referred and summarized it for further references. Customer requirements and problems were collected by conducting Gemba study at existing service centers. The bike owners were also considered in the Gemba study to understand their requirements. Quality Function Deployment (QFD) and Product Design Specifications (PDS) were generated by using the outputs of Gemba study. Three concepts were generated by hand sketch by considering the customer requirements. A suitable concept was selected by weighted ranking method and modeled using Catia V5 software. Final model was analyzed for ergonomic study by using CATIA tool. The scaled down mock-up model of finalized was made using acrylic sheet and polyurethane thick sheet.

At the end of this project, it has been found that the designed product is meeting the customer requirements. The scope for future works was also analysed in order to improve the project in future.



**Digital model of bike service mobility vehicle**



**Detailed view of bike service mobility vehicle**



**Interior ergonomic analysis**



**Mock-up model of bike service mobility vehicle**