Reinterpretation of Maruti Omni to the Style of 2030 Indian Customers

Student's Name	**S. K. Yarlagadda Ratnakar**	**APD (FT-2012)**
Academic Supervisor(s)	S. Subbaramu and G. Harsha Patil	
Industrial Supervisor(s)		

S. K. Yarlagadda Ratnakar
sriratnakar@gmail.com
Ph. No: 0 74111 43230

Keywords: Maruti Omni, Reinterpretation to 2030, Multi-utility Vehicle, Futuristic

Abstract:

Indian economy is in gradual change and expected to compete with the developed countries by 2030. Owning a car is a symbol of social status. Basic multi utility vehicles are likely to gain the wind and also will fulfill the requirements of a big family and professional usage. Maruti Omni being India's oldest selling Multi Utility Vehicle (MUV) was taken as a bench mark to develop MUV for 2030. Due to its outdated design and features, there is more scope for the reinterpretation of this vehicle for 2030.

First the detailed literature review was carried out on the existing MUVs in Indian market. The expected conditions of the 2030 year like affordability, vehicle sale scope, wages and population were analysed. A detailed product study in comparison to its competitors, customers and market positioning was done. On the basis of this study Quality Function Deployment (QFD) and Product Design Specification (PDS) were developed. Different concepts were generated and more focus was given on cost, aesthetics, interior, exterior design and ergonomics. This was followed by the finalization of concept using Pugh matrix and its digital modelling was carried out in Alias software. Ergonomic analysis was done using CATIA software and rendering was done using Keyshot software.

The reinterpreted design of Maruti Suzuki Omni for 2030 has aesthetic exterior features derived from the metaphors of cat, deer and goddess Kali. Plastic extended bumpers for minor side impact crashes, bonnet at the front for engine placement and safety zones are provided. The interiors are equipped with smart instrument cluster, easy touch screen controls on steering wheel, efficient climate control and safety airbags. Ergonomic analysis has been carried out on the interior to satisfy the Indian anthropometric standards. Finally 1:10 scaled physical model was made for better perception of the generated design.

Interior and exterior concepts

Virtual exterior model of the concept

Virtual interior model of the concept

Ergonomic analysis

Scaled mockup model