

# Conceptual Design of a Police Night-Patrolling Vehicle for Urban India



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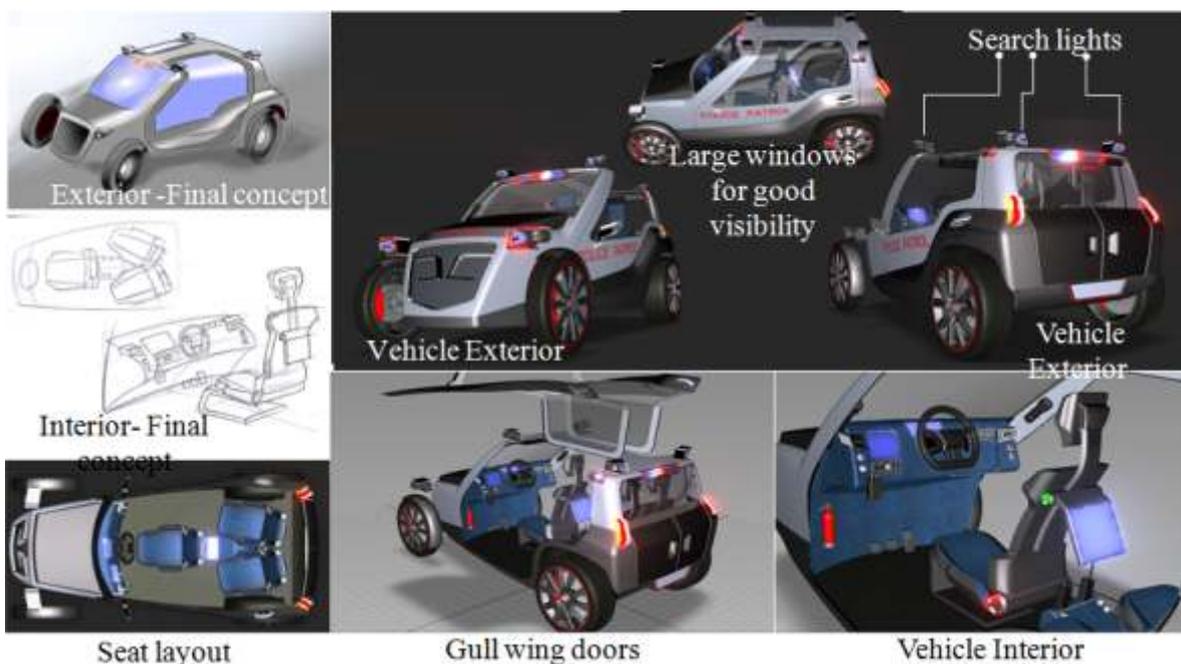
**Keywords:** Police, Night Patrolling, Urban, Visibility, Search Light

**Abstract:**

The urban population in India is continuously increasing for last few decades. It is also observed that the crime rate is also increasing with the population. Police patrolling is one of the method by which the crime rate can be brought down. The possibility of crime is more during night time as compared to day times. So night patrolling has to be more vigilant and effective for preventing crimes. Mobility is one of the factors which determine the effectiveness of patrolling. Hence it is clear that the patrolling vehicle has a major role in the night patrolling. The project is focused on the conceptual design of a police night patrolling vehicle for urban India.

The vehicles used for night patrolling in India are not specifically designed for the purpose as they are modifications of the existing vehicles. Extensive literature survey was conducted for identifying the problems associated with current night patrolling vehicles. Customer requirements were identified from customer survey at various police stations. The major problems identified were, problems related to visibility, ingress and egress, lack of sufficient storage space and health problems caused due to the usage for long hours. The patrolling vehicle design was made by considering all these customer feedbacks and literature survey conducted. The final design consists of a two-row seating layout with a single seat at the front and two seats at the rear. The seats were designed based on the ergonomic factors and Indian anthropometric dimensions. The vehicle is equipped with rotatable search lights on the roof. There are enough storage spaces in the vehicle in which the patrolling equipments can be carried.

The proposed design of the patrolling vehicle has got good visibility from inside during night time. The ingress and egress of the vehicle is easy for both driver and passenger because of the ergonomic seating layout and door design. The ergonomic interior design of the vehicle makes it suitable for long hour usage. The packaging and seat layout of the vehicle makes it compact in size. Hence, it is concluded that the proposed design is suitable for the night patrolling in urban areas.



**Conceptual design of Police-night patrolling vehicle**