

Abstracts

The passenger ferry has been designed based on safety and affordability with features providing passenger comfort and stability to the ferry. Special consideration has been given to the passenger evacuation plan keeping in mind the safety of passengers. The ferry includes a **fire detection** and fire suppression system and a **draft sensor system** which can be used to address the problem of overloading of the vessel. The vessel shall be constructed with aluminium to make it cost effective with less power requirements.

The introduction of **two hydrofoils** increases the performance characteristics of the vessel which in turn leads to **better fuel efficiency** leading to lesser environmental cost. Due to the **centre bow**, the pitch motion is reduced and passengers can have a comfortable ride, making the ferry a favourite choice for the passengers. The seating arrangement has been provided in a manner so as to allow easy access to people with wheelchairs and strollers. The wide aisles provide the passenger with a feeling of spaciousness while also serving the purpose of easy evacuation during the event of an emergency. Watertight bulkheads have been carefully placed keeping in mind the maximum floodable length. Extensive analysis has been done on the intact and damage stability including stability in the event of evacuation based on the international code of safety for high-speed craft.

Evenly spaced **public announcement system** ensures that the instructions remain clear during an emergency. Space available in the aft of the vessel can be used for **marshalling** during an emergency. **Escape ladders** in the deck area ensure smooth evacuation process. **Life rafts** have been provided to accommodate all the passengers and lifejackets located under the seat are easily retrievable. A separate room has been provided for checked luggage and this ensures all the luggage remains secure and accessible. The **Automatic Identification System (AIS)** located in the navigation room ensures easy communication and visibility of the ferry. The raised height of the pilothouse ensures good visibility for navigation and manoeuvring.

