

## **BENGKALIS RIVER SELARI WATER BUS DESIGN**

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### ***ABSTRACT***

*The existence of this water bus facility is an alternative that is very useful for the community, especially the Bengkalis community and the sick. This facility is very useful for passengers who have urgent interests. Roro boats are the only ships used to cross the Selari River, therefore other alternatives are needed under certain conditions. Bengkalis Island is an area that is separated from the mainland so that many people have business outside the island of Bengkalis.*

*To overcome and provide more comfortable facilities for pedestrians and people, it is necessary to have additional ship facilities in the form of a safer and more comfortable crossing boat. To get the main size of the ship by using the sister ship method, namely by using existing ship data.*

*Then the main size of the ship is obtained, namely  $L_{pp} = 9$  m,  $B = 2.40$  m,  $H = 1.10$  m,  $T = 0.3$  m, then carry out the ferry boat design process using Maxsurf and AutoCAD software and carry out the running process to get ship resistance using maxsurf resistance software in order to get the appropriate engine specifications, and the final result of ship stability meets the conditions shown in the pass statement at each tilt angle based on the IMO (International Maritime Organization) A.749 standard.*

*Keywords: Ferry Boat (Passenger Boat), , IMO A.749*