OPTIMUM SPEED ON SHIP OPERATION TO REDUCE FUEL CONSUMPTION AND CO₂ EMISSION

Name : Adi Yudho Wijayanto
NRP : 4207 100 071
Departement : Dept. Of Marine Engineering
Faculty of Marine Technology-ITS
Supervisor : I Made Ariana, ST. MT. Dr.MarSc

Abstract

Sea transportation is one of alternative to dispatch in large numbers with low cost. Value of fuel consumption is the biggest influence in the operation of the ship. Rate of fuel consumption is affected by use of the operational speed of ship. The purpose of this study makes the information system that can be used to select the optimal speed of the vessel so that the burnt fuel consumption can be minimized. Making this information the system uses netbeans which is a mediator for making an application. The algorithms are applied in making this information system is to do the calculations using the maximum speed specified by the user. From these calculations there are constraints that must be adhered to the time of setting more than the calculation time It can be implemented, i.e. the choice of the optimum speed for each node shipping distance at any route that could generate a low fuel consumption. Low fuel consumption produce CO₂ in small amounts.

Keyword : optimization ship speed, reduce CO₂, Fuel Consumption