Abstract

The sway velocity, which represents the interaction between sway, roll and yaw of ship, is not actually measurable. However, for effective control of the ship, this interaction also is to be taken into account. In this paper, we present a kalman filter approach for the estimation of the sway velocity, which is one of the states of the mathematical model describing the dynamics of the ship in headsets. The effect of the high frequency rudder motion, used to stabilize the roll on the heading of the ship is determined by simulation results.

References

- R. E. Reid, A. Kemal and B. C. Mears, The use of wave filter design in Kalman filter

Index Terms

Computer Science
Control Systems

Keywords
Kalman filter  rudder roll control