NEURAL NETWORK DESIGN TO CONTROL
CANNON BARREL POSITION ON
THE MOVEMENT PLATFORM

ABSTRACT

The balance of cannon barrel position on the war ship need to be done to make it stays stable. Its unbalance position that caused by pitch and roll disturbance will influence the target accuracy. By this disturbance, the balancing control on the movement platform can be done by using Neural Network Control method which their training and elevation angles movements can be controlled.

In this research, the cannon movement system is modeled in training and elevation movements and their disturbances are modeled by having pitch and roll. The system is simulated to get error in the output of controller which is processed by using the neural network coordination system control. The learning process in the neural network is made using back propagation method in order to get the weight value in the different disturbances which their results are given to the simulation of coordination model.

The coordination system results of this research show that the training angle velocity is 57.21°/s and the elevation angle velocity is 31°/s with the scale factor for angle velocity is 0.593.

Key words: Training, elevation and neural network