Artificial Neural Networks (ANN) are mathematical models that are able to learn relationships between inputs and desired outputs. Their structure mimics the synaptic networks within the human brain. The knowledge learned by the network is contained in the inter-neuron connections, or weights, that are integral to the model. The value of ANN’s is that they are able to model extremely complex non-linear relationships that other models, for example polynomials, are unable to replicate. This talk will cover some basic concepts of ANN’s, discuss the mathematical development of a simplified ANN, discuss various applications, and show how ANN’s are being used in the field of Naval Architecture.

Friday, October 20 at 1:30pm  Science room 321