Abstract

In this article we illustrated the applications of Artificial neural network in a nuclear reactor. We have designed and developed a Neural Network (ANN) model for process modeling of Intermediate Heat Exchanger (IHX) subsystem in nuclear reactor. Based on the theoretical calculations carried out for primary and secondary outlet temperature of IHX the multi layer neural network is implemented with back propagation algorithm for modeling of the IHX and trained. It has several advantages as compared to the conventionally calculated results. The result shows that neural network model gives faster and more accurate prediction of output for given data.

Reference


[ Neural networks, Electronics Textbook Statsoft.

Index Terms

Computer Science Neural Networks

Key words

Neural network intermediate heat exchanger
multi layer perceptron
back propagation algorithm