

**NEURAL NETWORK ALGORITHMS IN CLASSIFYING
CONTINUOUS VALUED INPUTS**

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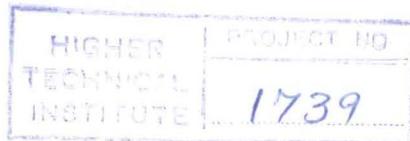
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Summary

The aim of this scientific and research work is to examine the field of Artificial Neural Networks from both the theoretical and practical points of view. A critical analysis covering historical background, theory, algorithms, and applications is presented.

Both the perceptron and multi-layer perceptron based neural net models will be examined. Simulated data in two and three dimensional spaces has been generated to train, and then evaluate single layer, two layer and three layer neural nets.

Finally, the capacity of multi-layer perceptron nets have been applied for classifying data in the fields of medical diagnosis and weather forecasting.

This document is divided into five chapters. The first chapter is an introduction to the field of neural networks. The second chapter covers the basic theory of neural networks. The third chapter covers the design of neural nets. The fourth chapter covers the application of neural nets to medical diagnosis and weather forecasting. The fifth chapter is a conclusion.

Artificial neural networks are being used in many different applications. One of the most common applications is pattern recognition. Pattern recognition is the process of identifying patterns in data. This can be done by using neural nets. Neural nets are able to learn from data and then use that knowledge to classify new data.

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