

# Ministry of Higher Education and Scientific Research, Iraq University of Babylon information technology collage Information Security Department Morning Study



## Intrusion Detection System for Network Security: A Multi-Layer Perceptron Neural Networks Perspective

A Graduate Project Submitted to the Department of Information Security of the College of Information Technology, University of Babylon, in Partial Fulfilment of the Requirements for the Bachelor's degree in Information Security of Information Technology.

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2023-2024

#### **ABSTRACT**

In recent decades, rapid development in the world of technology and networks has been achieved, also there is a spread of Internet services in all fields over the world. Piracy numbers have increased, also a lot of modern systems were penetrated, so the developing information security technologies to detect the new attack become an important requirement. One of the most important information security technologies is an Intrusion Detection System (IDS) that uses machine learning and deep learning techniques to detect anomalies in the network. we use Convolutional Neural Network (CNN) with multilayer perceptron (MLP) to detect the unknown attack package, by using a deep neural network algorithm, also in this model, The proposed system has shown encouraging results in terms of the high accuracy 99.98%