

## **Abstract**

It is believed that many of the mechanisms present in the biological immune system are well suited for adoption to the field of computer intrusion detection, in the form of artificial immune systems because the human immune system provides the human body with a high level of protection from invading pathogens, in a robust, self-organized and distributed manner.

In this final assessment, adaptation of mechanisms in the biological immune system is designed, and it will be implemented on anomaly-based network intrusion detection system.

This network intrusion detection will be tested on both real network traffic and controlled network area for measuring their performance through examines the true and false positive generated by them.

**Keywords:** : artificial immune system, biological immune system, intrusion detection system, anomaly-based, detection, self, non-self.