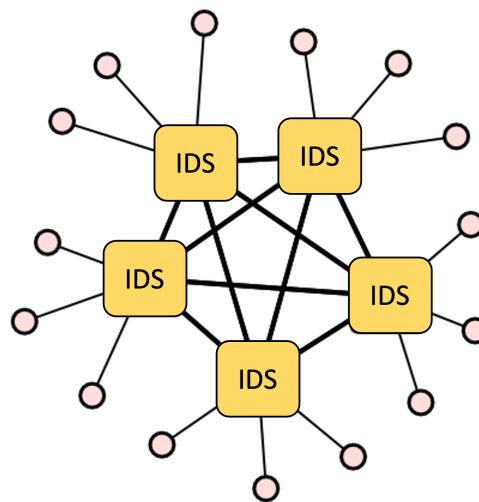


## Master's Thesis

# Load management in a Distributed Intrusion Detection System

## Abstract

An intrusion Detection System (IDS) is an essential requirement for protecting networks. Traditionally IDS protects the network against attacks originating from the internet. This motivates the intruders to initiate their attacks from inside their victim networks. Following this, the network administrators increased the IDS nodes and distribute them around their



network to process also the internal traffic.

## Content

Although a distributed IDS increases the protection coverage, it introduces many new challenges. In this thesis project, you are going to address one of the most fundamental challenges in the area of distributed IDS. You should find an efficient way to distribute network traffics among IDS nodes according to their available resource. Keep in your mind that your solution should have the minimum influence on the network routing and consequently on the network traffic pattern.

To accomplish the task, possibly you should:

- # Do a literature review to understand the state-of-the-art problem.
- # Modify shortest path algorithms according to the IDS load
- # Implement your solution in Mininet and evaluate it under different circumstances.

## Requirements

the following are the main tools that you need to take before starting this challenge:

- \* Research enthusiasm
- \* Programming skills in C and Python
- \* ...