

### Intern Requirement

No. of students required	1
Preferred Discipline	<ul style="list-style-type: none"><li>• Computer Science/ Computer Engineering</li><li>• Electrical &amp; Electronic Engineering</li></ul>
Prerequisites/ Skills Required	<ul style="list-style-type: none"><li>• Good knowledge in networking</li><li>• Preferably C programming knowledge</li></ul>

### Project Details

Title	Dynamic Network Reconnaissance
Overview/Background	In a large network, it is difficult to persistently monitor its status and ensure that its implementation is according to network plans. From a security perspective, it is also difficult to ensure that legitimate client machines are not operating as a malicious server.
Objectives/Scope/ Deliverables	<p>This project aims to develop a dynamic network reconnaissance tool to profile network and to monitor machines within the network.</p> <p>The tool should be equipped with the following functionalities:</p> <ul style="list-style-type: none"><li>• passively detect new network segments based on network traces, e.g. arp broadcast, icmp, tcp connections, etc</li><li>• determine routes to newly identified network segments</li><li>• monitor machines within network segment for online timings and opened network ports</li><li>• consolidate collected data from different parts of the networks to plot the network infrastructure</li></ul>
Project Duration	6 months