Project proposal

Project title	Evaluation of location tracking techniques for Wireless Forensics
First Supervisor	Dr — Dimitris Tsaptsinos
Second Supervisor	tbc
School	Computing and Information Systems
Other member of supervisory team (no more than three KU supervisors in total)	
Specific requirements beyond 2:1 degree	

Project summary

(max 4,000 characters)

MSc by Research

In recent years wireless networks have become widespread due to their convenience but such convenience comes with a cost since the same security features as in a wired environment might not be implemented. This provides the opportunity for an intruder to gain access within feet from a house or an office building. The need exists for Digital Forensic methods and tools specifically aimed at obtaining viable evidence in wireless networks. According to the seven processes suggested by the Digital Forensics Research Workshop the process begins with network discovery. Network discovery refers to the question “Can we trace back to the intruder?” The majority of published work addressing location tracking is based on the assumption of wired networks. Existing techniques proposed for wireless network tracking report limitations if for example the attacker is not at the same building or even floor.
In this proposal the main focus is to consider location tracking techniques when a wireless medium is attacked. The work to be undertaken will highlight current limitations through experimentation and propose solutions to overcome such drawbacks.