PROBLEM STATEMENT

Intrusion Detection and Recovery System for Drone Signals.

The diversity of applications involving drones is increasing every year. The introduction of reliable drones with impeccable services has become a necessity in every sector.

The main security threats for drones are Signal interference, drone hijack and hacking of information. Signal interference is the distortion in the propagation of radio waves due to noise and unwanted climatic conditions. These have a drastic effect on the strength of the signal. Hijack is the de-authentication attacks which break to communication between the UAV and controller and establishes a new connection with the attacker. Wi-Fi hijacking and GPS spoofing techniques can be used to relay false information to a UAV. Another risk is the possibility of hijacking or jamming a drone in flight. The third challenge concerns to safety and protection of drones from data trafficking by an unauthenticated source which, in general terms, is referred as hacking. These malicious attacks on the security system of drones corrupt the data. Hence, a promising intrusion detection and recovery system should be devised to improve security and performance of drones.