Abstract

Geo-fencing is an application which plays a major role in security for Unmanned Aerial Vehicles (UAVs) and Micro Aerial Vehicles (MAVs). This application can be used in Ground Control Station (GCS), which helps in increasing the level of security, or it can be used on board UAV to increase the level of automation. The current work includes two types of geo-fencing (polygonal and circular) techniques for GCS. The geo-fencing algorithm has been implemented and tested using Unmanned Aerial System (UAS) simulator which consist of UAV Flight Simulator (UAVFS), Communication link (CL) and GCS. A Graphical User Interface (GUI) has been designed which helps in user interaction and the simulated results are satisfactory. The geo-fencing algorithm is developed in Visual C#. Net environment.

References


Index Terms

Computer Science
Artificial Intelligence
Keywords
Unmanned Aerial Vehicle (uav)  Ground Control Station (gcs)  Geo-fencing  Gui  C#.net
Uav Simulator