



MA:

GPS Spoofing

With the growing number of users, Global Navigation Satellite System (GNSS), such as GPS, are becoming interesting targets for attacks. In the past, already some cases have been revealed in which attackers spoofed such signals to misguide users. This can lead to many problems ranging from rather benign delays in packet deliveries to fatal accidents of cars or planes. Therefore, it is important for GNSS receivers to provide robust anti-spoofing mechanisms.

At our group, we developed a new GNSS positioning algorithm which seems particularly suited for spoofing protection.



The goal of this thesis is to explore the benefits of our method and compare it against existing anti-spoofing methods. In this project, you will extend our software-defined GPS receiver with anti-spoofing features and test it in different scenarios.

Requirements: Creativity and programming skills are advantageous. The student(s) should be able to work independently on this topic!

Interested? Please contact us for more details!

Contacts

- Manuel Eichelberger: manuelelei@ethz.ch, ETZ G97