

## Anti-spoofing system

### FIELD

Cyber, Security

### R&D ROADMAP

Beta prototype construction  
(system)

### PROJECT STATUS

POC

### IP STATUS

Provisional patent application

### CONTACTS

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### CHALLENGE

Global Navigation Satellite Systems (GNSS) are extremely sensitive to jamming interference, thus create serious challenge in the modern battlefield. The insufferable effortlessness those systems can be disrupted demands for a serious and innovative solution. One cannot exaggerate in the meaning of localization (both for the army soldier and cannonball), especially in real-time. A GPS-guided missile which can estimate its position error bound in real time would be far more superior to current missiles. Thus, a true need exists for a holistic system which is capable of coping with GNSS jamming, both in the battlefield and for sensitive facilities.

The system consists of a light sensor-network (clients) and a server. (can be one of the sensors). Each sensor sends in real-time some of its GNSS raw data. By means of crowd-sourcing the server utilizes the data from various sensors to pinpointing the jammer. An important by-product of the system is an intelligent GNSS error bound.

### THE INNOVATION

In order to provide a holistic solution for GNSS attacks, we offer a sub-system which can detect GPS spoofing by intelligent antenna selection algorithm while using commercial GNSS receivers.

The sensors can be either stationary or dynamic. The sensor sends only 'suspicious events' based on its algorithm.

### APPLICATIONS

Anti-spoofing system. Single sensor's algorithm defines 'suspicious events' and report them to the server.

### PROJECT STATUS:

A laboratory proof of concept was achieved and a full working prototype is being developed.



### PRINCIPAL INVESTIGATOR

Prof. Boaz Ben Moshe is the Co-Head the Kinematics and Computational Geometry Lab in Ariel University. Dr. Ben Moshe's scientific interests lie primarily in theoretical and applied aspects of Computational Geometry and Location Optimization.

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