Abstract

This work outlines the features and functioning of a specifically created MATLAB-developed system which allows obtaining the optimal positioning of sensors or microphone arrays for the localization of objectives in a closed environment.

This optimal positioning is obtained thanks to a genetic algorithm that minimizes localization errors for TDOA and SRP-based systems.

The whole system is being ruled by a MATLAB graphic interface which allows accelerating the usage of functions and easily modifying all of their parameters.

Keywords: Localization, TDOA, SRP, optimal positioning of sensors, microphone arrays.