Abstract

This work describes an approach for distance computation between agents in a multi-agent swarm. Unlike other approaches, this work relies solely on signal Angle-of-Arrival (AoA) data and local trajectory data. Each agent in the swarm is able to discretely determine distance and bearing to every other neighbor agent in the swarm. From this information, I propose a lightweight method for sensor coverage of an unknown area based on the work of Sameera Poduri. I also show that this technique performs well with limited calibration distances.