

Related Work Survey

3D Path Planning for UAVs for Maximum Information Collection

- URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6564676>
- Plans the paths of UAVs in 3 dimensions that avoids forbidden regions and maximizes information collection from desired regions
- Formulates problem as a multiple Travelling Salesman Problem and uses the Pattern Search method to solve this problem.
- Using the grid of desired and forbidden regions, this approach uses a genetic algorithm with initial population of the solutions from the mTSP to optimize the waypoints being used for the UAVs.
- They don't talk about scalability, they only did tests with up to 3 UAVs, and they are using a GA whilst solving mTSP. It is probably safe to say that their algorithm doesn't scale well with respect to anything in their parameter space.

Path Planning of Autonomous Underwater Vehicles for Adaptive Sampling Using Mixed Integer Linear Programming