Fast Deployment of UAV Networks for Optimal Wireless Coverage

ABSTRACT

- By considering such UAV heterogeneity to cover the whole target area, this paper studies two fast UAV deployment problems one is to minimize the maximum deployment delay among all UAVs for fairness consideration.
- The other is to minimize the total deployment delay for efficiency consideration.
- We prove both min-max and min-sum problems are NP complete in general.

EXISTING SYSTEM

- Unmanned Aerial Vehicle networks have emerged as a promising technique to rapidly provide wireless coverage to a geographical area, where a flying UAV can be fast deployed to serve as cell site.
- Existing work on UAV-enabled wireless networks overlook the fast UAV deployment for wireless coverage, and such deployment problems have only been studied recently in sensor networks.
- Unlike sensors, UAVs should be deployed to the air and they are generally different in flying speed, operating altitude and wireless coverage radius.

PROPOSED SYSTEM

- The fast deployment of heterogeneous UAVs to provide wireless coverage is of great practical importance.
- To the best of our knowledge, this is the first work to deal with the emergency criteria of minimization of the maximum deployment delay and the total deployment delay among all UAVs till covering the whole target area.

HARDWARE REQUIREMENTS

- Processor - Intel core i3
- RAM - 2B
- Hard Disk - 20 GB

SOFTWARE REQUIREMENTS

- Operating System : LINUX
- Tool : Network Simulator-2
- Front End : OTCL (Object Oriented Tool Command Language)

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