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MULTI-LEVEL HIVE BASED CUBESAT SYSTEM FOR EARTH OBSERVATION USING LOW COST LAUNCH SYSTEM

Abstract

At the current time, the topology of the world is changing in a rapid phase such that we can observe changes in the Hydrosphere even within a short distance range. Monitoring the changes with high fidelity will provide the field experts with valuable data which will help them to understand the driving force of that change and help the stakeholders to make insightful and timely decisions on the detection of forest fires, and the investments in new startups. For that, we propose a new hive mind connected to Cubesat for earth observation which will take data in a predefined perimeter of interest. For a specific area, multiple small Cubesat are launched instead of a single large one which collects data at various sections and area and through sensor fusion provide a better result than a single large satellite for that area. Along with that we also propose a low-cost Cubesat observatory and launch system using High Altitude balloons which reduce the Cost and weight of the Cubesat considerably and increase access to space.