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SMALL SATELLITES AND UAV: A COLLABORATION FOR BETTER DEVELOPMENT IN EARTH
OBSERVATION ACTIVITIES IN AFRICA

Abstract

Small satellite missions have increased in the last few years, the quest to improve its application in telecommunication, navigation and Earth Observation services have increase. There is a need to continue to offer cost-efficient solutions to replace or complement more expensive, larger satellite missions and the quest of African nations in this section is far from developed. The use of unmanned aerial vehicle (UAV) to also perform these applications will help reduce the initial cost on the huge satellite budgets. These systems can be made in less time and flown to take the data record in various segments when the need is required. It will be serve as a compliment to the CubeSat, and the general small satellites. This paper worked on a review of the impact of collaborating the UAV and small satellites in projects in Africa to help bridge the gap in support of capacity building and engineering education. Major African countries are embarking on space policy reviews to fortify the success of these projects. Challenges such as testing facilities, launching opportunities, human capacity, policies and African country collaboration was also discussed in this paper. The effort to combine this two projects to get to develop this continent research wise will boost space exploration, reconnaissance and security amidst supporting countries. Keywords: small satellite, unmanned aerial vehicle, drones, Africa