

EARTH OBSERVATION SYMPOSIUM (B1)  
Future Earth Observation Systems (2)

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GENERIC NANO SATELLITE CONSTELLATION FOR MONITORING FOREST-FIRES

**Abstract**

Forest fires are a great threat to the developing world as well as the wildlife in the World. The probability of breakouts are unpredictable and the results turn out to be catastrophic.

Hence to monitor such forest fires and to overcome such outbreaks aerial images would be useful and to mitigate the level of damage and the areas affected as well as to provide timely guidance we propose the usage of nano-satellites to face this situation.

Hence, we present concept paper on a constellation of nano-satellite with adequate payloads of different kinds is proposed to monitor forest that could be used by not just one nation or one organization but a group of nations and organization at a very economical cost.

This effort may help in assisting the group of firefighters, geologists, environmentalist and also statisticians to measure the level of damage and fight fires.

As a initial step a nano-satellite "NIUSAT MARK-1" is under realization with two Cameras as payloads, One would be a RGB and the other cameras is a Short wave Infra Red (SWIR) Camera. an functional, ground station with a Mission Control Center has been set-up.

The prime objective of the mission is to enable the younger generation with world class - Space Age Technology at an economical cost, as well as provide the society a platform to perform as a single team even though they are located in different continents. The project also has an objective of empowering the new generation by sharing the knowledge of satellites.

As a single team we may operate, beyond borders and provide timely information for a social and global cause.