

Satellites and Drones: Integrating Two Systems for Monitoring Air Quality and the Stress of the Plants

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Abstract : Unmanned aerial vehicles (UAV) platforms or remotely piloted aircraft system (Rpas) - with dedicated sensors - are fundamental support to the planning, running, and control of the territory in which public safety is or may be at risk for post-disaster assessments such as flooding or landslides, for searching lost people, for crime and accident scene photography, for assisting traffic control at major events, for teaching geography, history, natural science and all those subjects that require a continuous cyclical process of observation, evaluation and interpretation. Through the use of proximal remote sensing information related to anthropic landscape and nature integration, there is an opportunity to improve knowledge and management decision-making for the safeguarding of the environment, for farming, wildlife management, land management, mapping, glacier monitoring, atmospheric monitoring, for the conservation of archeological, historical, artistic and architectural sites, allowing an exact delimitation of the site in the territory. This paper will go over many different mission types. Within each mission type, it will give a broad overview to familiarize the reader but not make them an expert. It will also give detailed information on the payloads and other testing parameters the Unmanned Aerial Vehicles (UAV) use to complete a mission. The project's goal is to improve satellite maps about the stress of the plants, air quality monitoring, and related health issues.

Keywords : proximal remote sensing, remotely piloted aircraft system, risk, safety, unmanned aerial vehicle

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