

IMPLEMENTATION OF GPS CONTROL TECHNOLOGY AND STABILIZER CAMERA IN UNDERWATER AIRCRAFT (UAV) AS A MONITORER OF FIRE FOREST AND LAND FIRE

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ABSTRACT

UAVs (Unmanned Aerial Vehicles) or unmanned flying machines such as aircraft that are controlled via remote control or autopilot are currently gaining popularity with users in general and widely. The use of aerial photographs produced from unmanned aircraft can be used as an alternative technology in monitoring forest and land fire fires. The purpose of this implementation is to determine the performance of an unmanned aircraft (UAV) equipped with Automatic Navigation GPS Control, Camera Stabilizer, smoke sensors and temperature sensors as monitoring and detecting tools for forest and land fires. This type of aircraft is a fixed wing type that can move automatically according to the waypoint tracking system. The waypoint tracking system is a navigation system based on the position of the Global Positioning System (GPS) and a compass, so that the aircraft can run automatically. The aircraft is also equipped with Arduino nano to control the MQ-5 smoke sensor and the DHT11 temperature sensor. If smoke is detected and the heat of fire is detected during the mission, Arduino will automatically store data and send the detected smoke and temperature values along with the location where the sensor detects smoke and temperature increases via SMS.

“Keywords : UAV (Unmanned Aerial Vehicles), Gps, Arduino, MQ-5, DHT11, Fixed Wing.”