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A review on control and maneuvering of cooperative fixed-wing drones

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Autopilot Pesawat Tanpa Awak Menggunakan Algoritme Genetika untuk Menghilangkan Blank Spot

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ANALISIS PENENTUAN *POWER LOADING* PADA DESAIN AWAL PESAWAT TERBANG TANPA AWAK LSU-05 NG (ANALYSIS OF POWER LOADING DETERMINATION IN THE INITIAL DESIGN OF UNMANNED AIRCRAFT LSU-05 NG)

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**Rancang Bangun Sistem Kontrol Penyemprotan Cairan
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Article

UAV Mission Planning with SAR Application

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**Perancangan dan Analisis Karakteristik Aerodinamik
Pada Pesawat Fix Wing VTOL UAV**

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Design and performance analyses of a fixed wing battery VTOL UAV

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Energy Efficient Full-Duplex UAV Relaying Networks Under Load-Carry-and-Delivery Scheme

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Design and fabrication of a fixed-wing Unmanned Aerial Vehicle (UAV)

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Autonomous recovery of a Fixed-wing UAV Using a Line Suspended Between Two Multirotor UAVs

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Perancangan Sistem Autonomous Drone Quadcopter Dengan Menggunakan Metode Waypoint

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Pergerakan Autonomous Pesawat Tanpa Awak Berdasarkan Tinggi Terbang Pesawat

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Rancang Bangun Rover Berpenggerak Brushless dengan Kontroler Pixhawk menggunakan Joystick

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Article

Design, Manufacturing, and Flight Testing of an Experimental Flying Wing UAV

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Modifikasi Motor *Brushless* Berbasis Lilitan pada Sistem Propulsi untuk Meningkatkan Performa Terbang *Unmanned Aerial Vehicle*

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PEMANFAATAN TEKNOLOGI UNMANNED AERIAL VEHICLE (UAV) QUADCOPTER DALAM PEMETAAN DIGITAL (FOTOGRAMETRI) MENGUNAKAN KERANGKA GROUND CONTROL POINT (GCP)

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Perancangan dan Analisis Karakteristik Aerodinamik Pada Pesawat Fix Wing VTOL UAV

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ANALISA RANCANGAN KESEIMBANGAN MENGGUNAKAN SENSOR IMU TYPE – MPU6050 PADA QUADCOPTER

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Rancang Bangun *Boost Converter* Untuk *Charging* Baterai *Unmanned Aerial Vehicle (UAV)* Bertenaga Surya

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Sistem Pemetaan Udara Menggunakan Pesawat Fixed Wing

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ABSTRACT: Generally aerial mapping mission is a high cost operation and require an aircraft that must be controlled by a reliable pilot. In an effort to solve the problem. Unmanned Aerial Vehicle (UAV) technology becomes one of the solutions, due to consideration of operational costs, accident risk, and flight preparation time.

This research shows an aerial mapping system using a fixed wing glider plane characteristics UAV built from polyfoam, balsa wood, and carbon fiber. The shape of the wing airfoil is flat-bottomed and the wing's position is top wing. The UAV motion controllers are ailerons, elevators, rudders driven by servo motors. Use the flight controller to allow aircraft to fly automatically. The altitude, speed, and position of the aircraft can be monitored via telemetry connected to the flight controller and a laptop. The aerial mapping method implemented is photogrammetric. The UAV will fly to the area to be mapped and do a sequential photo shoot until the entire area is covered. All photo data will be processed to become a territorial map. Using mission planner software for UAV programming and PIX4D software for image data processing. The UAV has been tested to air automatically following the programmed lanes. The flight controller can trigger the camera automatically at the pre-programmed position. Testing of map quality results was obtained by experimental flight of 100m, 125m, and 150m with a cruising speed of 12m /s. The best map result is from a height of 100m with a cruising speed of 12 m / s aircraft.

KEYWORDS: Aerial mapping system, UAV fixed wing, PIX4D