

CONTROL OF THE AIRCRAFT WITH THE USE OF MODEL REFERENCE ADAPTIVE CONTROL

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The article describes control of a small size fixed-wing UAV (Unmanned Aircraft Vehicle) with the use of model reference adaptive control scenario (MRAC). The aircraft model used in research is modified linear model – modifications enable application of presented approach. Simulation results are presented. Control algorithms were implemented to the universal autopilot designed for UAV operations. Presented solution can be applied for fixed wing UAV aircraft, as well as manned aircraft with indirect (fly-by-wire) control systems with separate servos for each control surface. The article focuses on advantages and limitations of presented approach and possibilities of further development.

References

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