

عنوان مقاله:

Modeling and Simulation Traffic Alert Collision Avoidance System (TCAS) on Fixed-Wing UAVs

محل انتشار:

هشتمین همایش بین المللی دانش و فناوری مهندسی برق، کامپیوتر و مکانیک ایران (سال: 1402)

تعداد صفحات اصل مقاله: 10

نویسندگان:

Pejman Zarbanooei - Master of Aerospace Engineering, Amirkabir University of Technology, Tehran, Iran

Mehdi Sabzehparvar - Associate Professor of Aerospace Engineering, Amirkabir University of Technology, Tehran, Iran

خلاصه مقاله:

In this study, we propose modeling and simulation of TCAS (Traffic Collision Avoidance System) for unmanned aerial vehicles. First, we explain the main principles of algorithmic performance of the system with respect to its constraints and monitoring criteria. We investigate the nonlinear trajectory equations of the aircraft along the longitudinal axis, while lateral motion is not considered. Using these equations, an inverse dynamic control approach is employed.

.After that, the simulation results are analyzed and shown in three separate phases of the flight

کلمات کلیدی:

TCAS system, TA, RA, Sensitivity Level, Tau

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1966330>

