

Considerations regarding the design of fault tolerant control systems for commercial aircrafts

The electrical flight control in the case of fly-by-wire avionics needs to meet very stringent dependability requirements. To achieve a fail-safe control fault tolerant architectures are used. The paper presents a method for the numerical assessment and comparison of different architectures. Examples of implementations for Airbus and Boeing aircrafts are considered. It is shown that the use of both hardware and software redundancy is very important.