

The Process Oriented Approach in Fault-Tolerance Design

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Abstract

The development of new and complex systems are constrained by security and safety requirements that impose a new framework of design by considering the corresponding problems from the first stages of the system design. Thus, the fault - tolerance design becomes an area integrated in the global design process of a system, that determines new functional and structural solutions specific to safety and security. Also, these problems must be extended from electronics and software to all other technical areas, especially to the heterogeneous ones, such as mechatronics, but also in manufacturing and industrial processes, construction, IT&C (Information Technology & Communications). The safety and security are problems specific to management processes also, such that corresponding fault - tolerance solutions should be developed. In this context becomes necessary to determine and develop a new general approach for fault - tolerance design both in technical and management systems. The present paper proposes and develops the integrated framework of the process oriented approach in the fault - tolerance design. The approach is based on the identification of the functional processes specific to the fault - tolerance concept.

References:

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