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SYSTEM DIAGNOSIS USING INVERSE TEST POINTS IN SOME PETRI NET MODELS

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Abstract

Petri net is a directed bipartite graph that depicts the structure of a distributed system. Fault diagnosis of systems modeled by Petri nets have been studied using place invariants. In this paper, we introduce a new type of test point in Petri nets called inverse test point. We show that using inverse test points improves fault diagnosis in some Petri net models. We extend this concept to coloured Petri nets. We study this for unary regular nets, a particular subclass of coloured Petri nets.

Key Words: Petri net, Place invariant, k-distinguishability, Test points, Inverse test points.

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