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Fp-Petri Nets: A Tool for Complex Systems Modelling

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Abstract
This paper presents the results of a study concerning the use of Fp-Petri Nets as a tool for complex systems modelling. Petri Nets (PN) are a formal and graphical modelling tool for discrete event systems. Modelling flexible manufacturing systems (FMS) and solving scheduling problems usually involve very complex sequences that can hardly be modelled with existing CPN. A modelling formalism for sequential processes by means of CPN incorporating polynomial functions into arcs is introduced in this paper.

Keywords: system, complex system, model, Petri Nets, coloured Petri Nets, Fp-Petri Nets

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