

The Analysis of Different Classes of Weighted Fuzzy Petri Nets and Their Features

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Abstract : This paper presents the analysis of 6 different classes of Petri nets: fuzzy Petri nets (FPN), generalized fuzzy Petri nets (GFPN), parameterized fuzzy Petri nets (PFPN), T2GFPN, flexible generalized fuzzy Petri nets (FGFPN), binary Petri nets (BPN). These classes were simulated in the special software PNeS® for the analysis of its pros and cons on the example of models which are dedicated to the decision-making process of passenger transport logistics. The paper includes the analysis of two approaches: when input values are filled with the experts' knowledge; when fuzzy expectations represented by output values are added to the point. These approaches fulfill the possibilities of triples of functions which are replaced with different combinations of t-/s-norms.

Keywords : fuzzy petri net, intelligent computational techniques, knowledge representation, triangular norms

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