

Next Generation Prediction Methodologies and Tools for System Safety Analysis

Why: Most common risk modelling methodologies (FT/ET) lack the ability to depict crucial aspects of engineering systems, such as stochastic dependencies, components aging and complex maintenance strategies.

What: The development of novel theoretical and computational tool is needed to shift towards more realistic risk modelling, but retaining the familiarity and robustness of current modelling languages.

How: Through the adoption and integration of a wide range of techniques, such as Fault Trees, Binary Decision Diagrams, Petri Nets and Markov Models.

