

A new approach to describe DEVS models using both UML State Machine Diagrams and Fuzzy Logic

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Abstract

This paper deals with a method which enables to describe a system using both UML State Machine Diagrams and Fuzzy-DEVS (to describe uncertain data) then to perform its simulation using DEVS formalism. The goal of the paper is to simplify the modeling of DEVS models, and also to take into account possible uncertainties on the transitions between states, by using a language based on UML State Machine Diagrams . This language is a part of a larger approach which final purpose is to create a high level intuitive language to enable non-computer scientists to describe DEVS models.

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Biography

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Jean-François Santucci is Professor in Computer Sciences at the University of Corsica since 1996. His main research interests are modelling and simulation of complex systems. He has been author or co-author of more than 100 papers published in international journals or conference proceedings. He has been the scientific manager of several research projects corresponding to European or industrial contracts. Furthermore he has been the advisor or co advisor of more than 20 PhD students and since 1998 he has been involved in the organization of more than 10 international conferences.