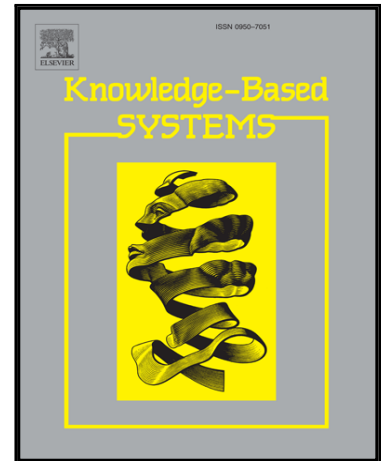


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Knowledge-based systems to enhance learning: A case study on Formal Languages and Automata Theory

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Abstract

The Internet expansion is not only impacting on our social behavior, but also on the way we learn and teach. Thus, more and more online teaching approaches are becoming common and usual. This work focuses on the field of Formal Languages and Automata Theory, describing the process of building an online teaching tool able to help students learn by themselves the fundamentals of this subject. Tools like that are useful to reinforce the knowledge acquired by the students during face-to-face lectures. To reach this goal, the suggested system takes the advantage of knowledge-based systems, and incorporates concepts of declarative, procedural, and conditional knowledge of the subject.

Keywords: Online Teaching, Educational Software, Formal Languages and Automata Theory, Tutoring Systems

1. Introduction

The current information society, where the Internet connections are available in almost every moment and place, has brought many changes to the way people work, make and maintain friendships, communicate, get informed, entertain, do business and many others. One of the most recent ones is the

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