A new language for electromagnetic knowledge specification

Hoole, S.R.H.[a] , Mascrenghe, A.[b] and Navukkarasu, K.[b]

[a] University of Jaffna, Sri Lanka
[b] Department of Computer Sciences, University of Peradeniya, Sri Lanka

Abstract

Knowledge specification languages are used in the design of electromagnetic and other products. But these, traditionally used to represent knowledge, do not exploit the full features of object-oriented programming and lack back-tracking. This paper provides the description of the prototype of a new knowledge specification language that we developed, to overcome these short-comings. The specific focus is on electromagnetic product design, vis-à-vis the selection of motors from user specifications. We show that a full integration of object-oriented programming and logic programming is possible.

Author keywords

Finite element analysis; Interpreter; Knowledge specification language; Motor design; Optimisation

Indexed keywords

Engineering controlled terms: Computer hardware description languages; Finite element method; Knowledge acquisition; Logic programming; Motors; Object oriented programming; Optimization

Engineering uncontrolled terms: Electromagnetic knowledge specification; Interpreters; Knowledge specification language; Motor design

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