工程与应用

基于粗糙集与AHP理论的IT项目风险群决策

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摘要 针对IT项目的风险管理与群决策过程中存在大量不确定、不完全信息等特征,在传统决策方法的基础上,将粗糙集方法与AHP理论相结合,提出了粗集IT项目风险群决策的基本步骤,并借助粗糙集的原理与方法,通过实例分析探讨了IT项目风险群决策中关于知识表达、属性约简、规则挖掘、方案排序等方法,尤其是引入属性动态权重、专家主观权重、客观权重的概念与计算方法,进而对整个决策排序算法进行了改进。

关键词 <u>粗糙集方法</u> <u>层次分析法理论</u> <u>IT项目风险管理</u> <u>智能决策系统</u> <u>动态权重</u>

分类号

Method of rough set and AHP theory in IT project risk group decision making

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Abstract

Aiming at the imprecision and uncertainty of risk factors, this paper analyzes the basic characters of IT project, and points out the problems existing in the group decision making. Meanwhile, the basic steps of RSGDS is put forward. With the rough set theory, the main processes of knowledge reasoning such as attributes reduction and rules mining are discussed, especially introducing the concept of dynamic weight, then the algorithm of rules reduction and mining is optimized and ameliorated.

Key words <u>rough set</u> <u>Analytic Hierarchy Process (AHP) theory</u> <u>IT project risk management</u> intelligent decision support system; dynamic weight

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