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研发、设计、测试

贝叶斯网络在软件项目风险评估中的应用

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摘要 在软件项目生存周期早期或创新型项目的研发过程中，可用的案例数据很少或很不完整，项目风险多由专家经验进行主观评估，给风险的客观度量带来了很大的困难。提出了一种基于贝叶斯网络的软件项目风险评估方法，不仅可度量风险影响程度的风险当量，还能度量出多种风险对某种风险后果的组合影响以及单个风险对整体后果的综合影响，从而增强了软件项目风险的预测和应变能力，为有效地降低风险发生概率、提高软件开发成功率提供了一种新的途径。

关键词 贝叶斯网络 软件项目 风险管理 风险评估

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Application of Bayesian networks in software project risk assessment

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Abstract

In the early phase of software project life cycle or the research and development process of innovative project，the available case data are few or incomplete，and project risk mainly experiences the subjective assessment of experts which brings great difficulties for the objective measure of risk.A software project risk assessment method based on Bayesian network is provided，which is not only capable of measuring the risk equivalent of the risk impact，but also able to measure out the combined effect of a variety of risks on the consequences of a certain risk or an individual risk on the overall consequences，thus increasing the prediction and response capabilities of the software project risk，and thus providing a new way that can effectively reduce the risk probability and improve the success rate of software development.

Key words bayesian networks software project risk management risk assessment

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