Abstract

Risk management has an increasing importance in the domain of software project management because it has direct effects on the project success. Therefore, software organizations are challenged to achieve effective and efficient risk management. Measuring risks in software development is a main activity that must be performed in risk management. Risk measurement is one of the hot topics that need more efforts, especially in the environment of multiple software projects. Multiple projects environment include many projects that may share recourses. This paper conducts a structured literature review to find patterns or trends in software development for measuring project risk. It aims to reveal the aspects of risk measurement process, risk indicators, and different scales of software projects. This paper provides a proposed framework for risk assessment in multiple projects environment with shared recourses for different scales at organizations of various capacities.

**Index Terms**

Computer Science  
Software Engineering

**Keywords**

Software development projects, risk assessment, Indicator, Measure, Metric, large-scale project.