Abstract

Defect prediction and assessment are the essential steps in large organizations and industries where the software complexity is growing exponentially. A large number of software metrics are discovered and used for metric prediction in the literature. Bayesian networks are applied to find the probabilistic relationships among the software metrics in different phases of software life cycle. Defects in a software project lead to minimize the quality which might be the impact on the overall defect correction. Traditional Bayesian networks are system dependable and their models are invariant towards the accurate computation. Bayesian network model is used to predict the defect correction at various levels of the software development. This model reveals the high potential software efforts and metrics required to minimize the overall cost of the organization for decision support.

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**Index Terms**

Computer Science | Software Engineering

**Keywords**

Project metrics, probability estimation, Bayesian network.