Abstract

Quality of a software system depends on not only its functional but also its non-functional attributes. The prediction and determination of software quality of a component based system (CBS) becomes all the more important as the comprising components should be reusable. For that they must be reliable as well as reusable. Since quality is not something which is easily quantifiable it becomes a tedious task for conventional statistical models to predict software quality. Fuzzy logic can act as a great asset in these cases, where entities are closely related to the real world. An artificial neural network when combined with fuzzy inference system provided an architecture which can be trained and hence, is capable of predicting values. The said system has been employed for the purpose of quality prediction. Based on various factors several approaches have been proposed for determining and predicting software quality. But none of them use the combination of factors proposed in this paper.

Index Terms

Computer Science
Software Engineering

Keywords

Component Based System (CBS), Software Quality, Fuzzy Logic