

Multilayer Neural Network and Fuzzy Logic Based Software Quality Prediction

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Abstract : In the software development lifecycle, the quality prediction techniques hold a prime importance in order to minimize future design errors and expensive maintenance. There are many techniques proposed by various researchers, but with the increasing complexity of the software lifecycle model, it is crucial to develop a flexible system which can cater for the factors which in result have an impact on the quality of the end product. These factors include properties of the software development process and the product along with its operation conditions. In this paper, a neural network (perceptron) based software quality prediction technique is proposed. Using this technique, the stakeholders can predict the quality of the resulting software during the early phases of the lifecycle saving time and resources on future elimination of design errors and costly maintenance. This technique can be brought into practical use using successful training.

Keywords : software quality, fuzzy logic, perception, prediction

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