Abstract

The process of estimating time and cost required for developing software is called software cost estimation. It is one of the steps to be carried out in project planning. Early software estimation models are based on regression analysis or mathematical derivations. Today's models are based on simulation, neural network, genetic algorithm, soft computing, fuzzy logic modeling etc. This paper aims to utilise an adaptive fuzzy logic model to improve the accuracy of software time and cost estimation. Using advantages of fuzzy set and fuzzy logic can produce accurate software attributes which result in precise software estimates. 63 Historic projects of NASA dataset having COCOMO format is used in the evaluation of the proposed Fuzzy Logic COCOMO II. Eight membership functions available in fuzzy logic are used and a comparison is made to find out which membership function yields better result in terms of Mean Magnitude of Relative Error (MMRE) and PRED (25%).
Software Cost Estimation using Fuzzy Logic

References


Index Terms

Computer Science Emerging Trends in Technology

Keywords

Software Cost Estimation Models  Cocomo II  Soft Computation Techniques  Fuzzy Logic
Membership Function
Mean Relative Error
Pred (25%).