Analyzing Effort Estimation in Multistage based FL-COCOMO II Framework using various Fuzzy Membership Functions

Abstract

Software development has always been characterized by some metrics. One of the greatest challenges for software developers lies in predicting the development effort for a software system which is based on developer abilities, size, complexity and other metrics. Several algorithmic cost estimation models such as Boehm's COCOMO, Albrecht's Function Point Analysis, Putnam's SLIM, ESTIMACS etc. are available but every model has its own pros and cons in estimating development cost and effort. Most common reason being project data which is available in the initial stages of project is often incomplete, inconsistent, uncertain and unclear. In this paper, soft computing based technique is explored to overcome the problems of uncertainty and imprecision resulting in improved process of software development effort estimation. The paper considers a multistage software estimation approach using six key cost drivers in COCOMO II model. The selected cost drivers are the inputs to fuzzy expert systems and the effort multiplier is obtained as output.
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**Index Terms**

Computer Science  
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**Keywords**

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