Abstract

Software development effort estimation is the process of predicting the effort required to develop or maintain software based on vague, incomplete or uncertain inputs. Accurate estimate of software development effort is required in the early stages of development life cycle for planning the development activities. Determination of software cost, allocation of resources, scheduling and monitoring of development activities are all dependent on the effort. Hence effort estimation is crucial for the control, quality and success of all software development projects. This paper provides an overview of the three general categories of estimation models namely; Expert Judgment based models, Algorithmic models and Non Algorithmic models. Moreover a comparison of different machine learning techniques, namely Fuzzy Logic, Artificial Neural Network, Case Based Reasoning and Fuzzy Neural Network is done in order to study which machine learning method is more suitable in which situation. Advantages and Disadvantages of these four machine learning techniques are identified as well as it was found that when applying these techniques to the COCOMO dataset the fuzzy logic and Fuzzy Neural Network showed better performance compared to other techniques.
Survey on Different Machine Learning Techniques for Software Effort Estimation


Index Terms

Computer Science
Software Engineering
Keywords