

Title: A hybrid method for increasing the accuracy of software development effort estimation

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Abstract: Since software development environments, methods and tools are changing rapidly, the importance of accurate estimations in software projects is increasing significantly. Inaccurate estimations can lead to unpleasant results in the software projects so that many projects are failed at the early stages of the project. During the recent years, numerous estimation methods have been proposed that most of which are based on statistical techniques. Among all existing methods, simplicity of analogy based method makes it so common in this field. Analogy methods usually present accurate estimations but if the level of non normality in the software project datasets is high or type of most project features is categorical, these methods are confronted with inaccurate estimation problem. In this paper, genetic algorithm has been used under a new framework to improve the performance of analogy methods. A large dataset has been employed to evaluate the performance of the proposed method and the results have been compared with the other estimation methods. The results showed that the proposed method outperformed the other methods considerably