

Functional Decomposition Based Effort Estimation Model for Software-Intensive Systems

Authors : Nermin Sökmen

Abstract : An effort estimation model is needed for software-intensive projects that consist of hardware, embedded software or some combination of the two, as well as high level software solutions. This paper first focuses on functional decomposition techniques to measure functional complexity of a computer system and investigates its impact on system development effort. Later, it examines effects of technical difficulty and design team capability factors in order to construct the best effort estimation model. With using traditional regression analysis technique, the study develops a system development effort estimation model which takes functional complexity, technical difficulty and design team capability factors as input parameters. Finally, the assumptions of the model are tested.

Keywords : functional complexity, functional decomposition, development effort, technical difficulty, design team capability, regression analysis

Conference Title : ICCSE 2014 : International Conference on Computer and Software Engineering

Conference Location : Istanbul, Türkiye

Conference Dates : September 29-30, 2014