Abstract

Rapid growth of software industry leads to need of new technologies. Software effort estimation is one of the areas that need more attention. Exact estimation is always a challenging task. Effort Estimation techniques are broadly classified into algorithmic and non-algorithmic techniques. An algorithmic model provides a mathematical equation for estimation which is based upon the analysis of data gathered from previously developed projects and Non-algorithmic techniques are based on new approaches, such as Soft Computing Techniques. Effective handling of cost is a basic need for any Software Organization. This paper presents the new hybrid Bayesian Network model of PSO for effort estimation. we have developed a tool in MATLAB and at last proved that Bayesian Network with PSO gives more accurate results than other existing techniques. For sake of ease, we use NASA 93 datasets to verify the model and also compare the proposed model with COCOMO and Bayesian Regulation Neural Network Model and it is found that the developed model provides better estimation.


Index Terms

Computer Science
Software Engineering

Keywords
COCOMO  PSO  Bayesian Network  Effort Estimation