

Project Title: Software Project Cost Estimator (SPCE): An Innovative Software Cost Estimation System Incorporating Fuzzy Logic and Neural Networks
Project No.: RG 034-10ICT
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Abstract:

Software development effort estimation is the process of predicting the effort for developing software based on some parameters. It has been characterised as one of the biggest challenges in software project management. Time and cost estimates at the early stages of software development are the most difficult to obtain, and often they are the least accurate. Traditional algorithmic techniques such as the regression models, Software Life Cycle Management (SLIM), COCOMO II, function points, etc. involve an estimation process. Today, however, they are not acceptable to software developers and companies, as non-algorithmic soft computing techniques on effort estimation such as fuzzy logic and artificial neural networks can be used as alternatives. This research aims to propose and develop an effective model based on fuzzy logic and neural networks to estimate software development cost. Variables that impact directly on the accuracy of software estimation such as experience, size, and complexity of project together with the capabilities of fuzzy logic and artificial neural networks are considered in developing a new model that can produce to lower percentage of error in software cost estimation.