Abstract

Non-Functional requirements serve as criteria for the selection and prioritization of software requirements. The objective of this paper is to propose an efficient method for the prioritization of non functional requirements. In this paper we use $L^{-1}, R^{-1}$ inverse function arithmetic principle and graded mean integration for the elicitation of decision maker's weight for the qualitative and quantitative softgoal interdependency graph to model the non-functional requirements. Finally the utilization of proposed method is demonstrated with the help of an example.

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**Index Terms**

Computer Science  
Fuzzy Systems

**Keywords**

Softgoal Interdependency graph (SIG)  
Non-functional requirements (NFR)  
Trapezoidal fuzzy numbers (TFN)  
FQQSIG.