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  
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**Keywords**

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

FQSIG.