Advanced Topic Review Abstract
Software Requirements Prioritization and Fuzzy Logic Framework
Research-oriented
Gowtham Krishna Potluri & Suganya Gunanathan
CSC 8350: Advanced Software Engineering
Department of Computer Science, Georgia State University
Spring, 2018

Abstract
Requirements prioritization is one of the vital phase of software engineering. In involved with complex problems, there is a need to address certain number of requirements at the initial stages to eliminate risk and ensure successive development. Several techniques have been used to prioritize requirements based on the business needs. As this prioritization is done considering several parameters like value, risk, cost, stakeholder agreement, difficulty of implementation and relationship to other Requirements, it is often difficult to decide which technique is to be used. In this literature review, we will be presenting various prioritization techniques along with a comparative study, aspects and issues to be considered while prioritizing requirements. We would also be looking into 'fuzzy based rule engine' framework that helps in predicting appropriate prioritization techniques based on rules and boundary conditions. Fuzzy Logic deals with using the degrees of truth for characterization of the input, instead of the classic logic representation in either “0” or “1”. Though we have several techniques for prioritizing the requirements, each of them is also associated with its own limitation. There is not a single evidence of best prioritization technique that would solve the complex problem involving huge requirements. Even the frameworks/tools developed recently for selecting the best RP method has disadvantages. The high-level goal of this review is to study the various techniques, their challenges and to create a scope for improvisation of these techniques.

Main References: