

## ABSTRACT

Due to the difficulty of recalling the semi-structure form of use case diagram, applying reuse approach to support use case diagram modeling has been of concern as a complex task. Despite of this fact, there are relatively little attentions found in the research community.

Therefore, this paper proposes how Case-Based Reasoning (CBR) – an approach that solves new problem from recalling experiences, can be effectively applied to support the use case diagram reuse. In this research, the diagram retrieval method and adaptation method are designed to reuse the most similar use case diagram by considering use case diagram elements- including use case, actor and relationship. However, in order to present the significant accuracy and precision of the proposed method, experiments were set up to evaluate the proposed method performance.

