

## **New model transformation using requirement traceability from requirement to UML behavioral design.**

### **ABSTRACT**

Model transformation (MT) has become an important concern in Software Engineering [1], because it is related to system design. Model transformation can be used in many different application scenarios, for instance, to provide interoperability between models of different size and complexity [2]. Traditionally, model transformations are done for purposes such as code generation, refinement, and refactoring [3]. Currently, there are researches on Model Transformation from Requirement to Use Case diagram, Use Case description to Activity diagram and Use Case to Sequence Diagram and many more. However, the research is based on only one specific output and not comprehensive as it should be because it only converts the requirement into one specific Unified Modeling Language (UML) diagram at a time. Transformation model need one important approach, which is the requirement traceability in order to trace the keywords as input before automatically converted into UML diagram. In this paper, we propose an approach and tool to transform the requirement in to UML model that are Use Case diagram and Activity diagram since there are still not exist the transformation which is required from requirement into behavioral UML diagram called RETRANS. It is different from the existing program because this tool will convert the requirement into two different UML diagrams at a time which is not provided by the existing tool. We have also come out with a framework as the main guidance for developing this project.

**Keyword:** Model transformation; UML model; Requirement traceability.