# A variable combinatorial test suite strategy based on modified greedy algorithm

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**ABSTRACT**

A software should be tested before released to the market to be sure that a software has been achieved the quality assurance measurement objectives. Therefore, one of the testing sorts is the combinatorial interaction testing (CIT) which is intended to discover the faults that are happened by interacting between the software features. Test case generation is the most active area of CIT research. As the problem of generating the most minimum test suite of CIT is NP-hard (i.e. NP where NP terms Non-deterministic Polynomial). Several researchers have been addressed the combinatorial interaction testing issues by developing the various strategies based on a search-based approach or a pure-computational approach, although, these are useful, but most of them have a lack to support the variable strength interaction which is one of CIT techniques. A variable strength interaction is the interaction between some of software features which have higher priority than the interaction between the others software features. This proposed will suggest a new CIT strategy based on a modified greedy algorithm (MGA) with addressing the supporting of variable strength interaction to generate a satisfactory test suite size.