Dear Editor:

We are pleased to submit a research article entitled “Identifying minimal failure-causing schemas in the presence of multiple faults” which we wish to be considered for publication in the transactions on software engineering and methodology (TOSEM).

It should be pointed out that this work is a thorough improved version of a previous manuscript which has been rejected by TOSEM after the review process (major revision --> rejection). The reference number of the previous manuscript is TOSEM-2015-0052.R1.

After a careful understanding of the comments from the two reviewers of TOSEM-2015-0052.R1, we found that the main concerns of the reviewers might be that: 1) the description of our approach with FIC\_BS is not explicit. 2) The definition of safe value is not clear as well as the corollaries based on it. 3) Evaluation on three projects is still quite thin. 4) There is no need to use ILP solver as the advantage is limited.

According to the comments of the reviewer, we have made a major revision to the previous manuscript. Our revision includes, but not limited to: 1) Re-use simpler MFS identification—OFOT to improve the description of our approach, 2) As we have use OFOT approach, we have removed the safe value assumption as well as other two corollaries based on it. 3) We added four more projects in our empirical studies. Hence, we now have 7 projects with 16 versions in total. 4) We removed the original approach which is based on ILP solver, and only kept the approach with simple random strategy.

Moreover, we have provided a response letter, which shows the details of our revisions and the responses for all the comments.

We would like to express our great appreciation for your providing a chance to reconsider the manuscript.