**LISTED RESPONSE TO COMMENT/SUGGESTIONS OF**

***REVIEWER 3***

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| ***No*** | ***Reviewer’s Comment/Suggestion*** | ***Author’s Comment*** | ***Action Taken\*\*\**** |
| 1 | In the description of D\* Lite, I think that k\_1(s) = min(g(s),rhs(s)+h(s,s\_{goal}) ) should be k\_1(s) = min(g(s),rhs(s)) + h(s,s\_{goal}). | Thank you for your correction. We've fixed that typo. | The formula is corrected accordingly. |
| 2 | Novelty of the paper has not been highlight clearly. The authors claimed that they proposed a GA base multi-objective path planner. However, such GA based planner has been widely studied in literature. I cannot find the new thoughts in Section IV. Please rewrite this paragraph and clearly state what is new. In addition, the author extend single objective optimization to the multi-objective optimization, is this Pareto optimal result? Any differences and why the proposed methods are needed? | Thanks for your suggestions. We actually developed the multi-objective genetic path-planner (MOGPP) as a soft computing alternative in order to evaluate effectiveness of MOD\* Lite algorithm. Furthermore, we only state that MOGPP is a complete algorithm, and eventually finds a solution in search space but does not guarantee optimal solutions and hence Pareto front. With regards to your suggestion, we extend the first paragraph of Section IV as follows;  “Many real-life optimization problems are NP-hard where optimal solutions could not be found in polynomial time. As evolutionary computing methods are classified as stochastic soft-computing methods and can be applied to NP-hard problems, many genetic algorithms are developed with respect to this problem [citations given]. In order to show efficiency and effectiveness of MOD\* Lite algorithm in terms of time and solution quality, we developed a stochastic evolutionary algorithms (a multi objective genetic path planner named MOGPP) as an alternative soft computing genetic realization for finding paths considering multiple objectives and conducted a comparative experimental study. MOGPP is designed as a complete algorithm, which could eventually find non-dominated valid path(s) from initial location to target one, if any exists. It does not guarantee to find optimal solutions and show Pareto front in that respect.” | First paragraph of Section IV is extended. |
| 3 | It is good to see that the authors use large paragraph to compare the results But I would like to see the authors analyze the time and space complexity of the algorithm. | We need to explain the time and space complexity calculation issues. |  |
| 4 | Clear explanation of Figure 5 is necessary. | We added explanation for Figure 5. | We added a paragraph (now the 2nd paragraph of Section V-B) related to Figure 5 as requested. |
| 5 | In the introduction part, authors claimed that current results are not the incremental method. I think you need to do a better literature review. Please be aware of following related papers on the GA multi-objective path planning, the pareto-optimal multi-objective optimization. "K-Order Surrounding Roadmaps Path Planner for Robot Path Planning", Journal of Intelligent & Robotic Systems September 2014, Volume 75, Issue 3-4, pp 493-516; "Sampling-based algorithms for optimal motion planning" International Journal of Robotics Research, Volume 30 Issue 7, June 2011; "Pareto-optimal coordination of multiple robots with safety guarantees" Autonomous Robots, 32(3): 189-205, 2012. Game theory-based negotiation for multiple robots task allocation, Robotica, DOI: 10.1017/S0263574713000192 . "Multiple Objective Genetic Algorithms for Path-planning Optimization in Autonomous Mobile Robots.", Soft Computing, DOI: 10.1007/s00500-006-0068-4. | In accordance with your suggestions, we have also covered following studies in “Related Work and Background” section:   * "K-Order Surrounding Roadmaps Path Planner for Robot Path Planning", Journal of Intelligent & Robotic Systems September 2014, Volume 75, Issue 3-4, pp 493-516; * "Sampling-based algorithms for optimal motion planning" International Journal of Robotics Research, Volume 30 Issue 7, June 2011; * "Pareto-optimal coordination of multiple robots with safety guarantees" Autonomous Robots, 32(3): 189-205, 2012. * Game theory-based negotiation for multiple robots task allocation, Robotica, DOI: 10.1017/S0263574713000192.   As "Multiple Objective Genetic Algorithms for Path-planning Optimization in Autonomous Mobile Robots. , Soft Computing, DOI: 10.1007/s00500-006-0068-4” is already referenced in “Related Work and Background” section, it is remained unchanged. | Modifications and additions are done in accordance with author reply in Section II. |