**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. | Corrections are done in accordance with author reply. |
| 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 actuall propose multi-objective genetic path-planner (MOGPP) as a soft computing alternative genetic realization of multi-objective path planning problem, and only used on our experimental results for comparison. 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]. To show that MOD\* Lite gives feasible and qualified performance, in terms of time and solution quality, it is a must to compare it with a stochastic evolutionary method. Thus, a multi objective genetic path planner, MOGPP is also proposed in this study as an alternative soft computing genetic realization for finding paths considering multiple objectives.  MOGPP 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 or suboptimal solutions.”  In addition. we only state that MOGPP is a complete algorithm, and eventually finds a solution in search space. Pareto optimality is more or less related with fitness function of genetic algorithm, which might separately be considered out of this study's scope.  Hocam buraya ekstra destek gerekebilir. | Modifications and additions are done in accordance with author reply in Section IV. |
| 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. | Following paragraph is added to explain Figure 5 on Section V-B:  “Example of the search space of MOD\* Lite with 30% sensor range is given in Figure 5. In this figure, starting point is (0,0) with green dot and target point is (100,100) with red dot. Several threat zones are displayed all over the environment with pink dots. The more darkness a threat zone cell is, the more risk is exposured by agent. Inner cells of threat zones are designed to expose more risk. The fogged gray area represents agent' s sensor range on that particular iteration. The blue dot on (40,47) is temporary goal, which must be the closest available cell to actual target within sensor range in regards of Manhattan distance. So on each iteration, temporary goal is re-calculated and paths are planned to that particular cell. Also calculated path can be seen as purple dots, from agent's current location -cyan dot- to temporary goal.” | Modifications and additions are done in accordance with author reply in Section V-B. |
| 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. |