We are thankful for the insightful reviews, and have substantially modified our paper in response. Our answers to each point raised by the reviewers are written in blue.

Gratefully,

Srikanth and Aaron.

**Reviewer  1**

1. The authors should list the objective of the paper clearly in the Introduction section. In Introduction, they specified that the focus is on path planning, trajectory optimization and responding to dynamic network condition. The paper does mention those topics. However, in the Overview section, they have mentioned that the paper’s focus is on tipping points, which is a deciding factor between cost of energy and routing UV. However, they have not discussed anything about tipping points beyond the overview.

Ans.) The abstract has been substantially changed.

2. The authors should mention some numeric example and judicious threshold for deciding the tipping points.

Ans.) The tipping points have been substantially modified the algorithm is explained in greater detail and simulation results have been shown to prove what has been done. The other factors mentioned are moved to the future work section.

3. Specify the variable p\_i's in Section III-B

Ans.) Done the changes.

4. Was the Solutions for subtasks verified by the quadcopter testbed or by the setup described in III-C.1 (probably in Fig 3.a)? Please mention accordingly.

Ans.) Hardware Experiments have not been done yet. It would be verified in the future by implementing the proposed algorithm.

5. Several corrections:

- Section III, 2nd paragraph: "ravel" should be "travel"

- In Section V, figure numbers have been misplaced. "Fig-6" should be "Fig-5", "Fig-7" should be "Fig-6" and "Fig-8" should be "Fig-7",

Ans.) Done the specified changes.

**Reviewer  2**

The authors exploit wireless power transfer technology and robot control of unmanned vehicles to benefit low-energy wireless sensor network. The approach combines sensor network energy replenishment with efficient delivery of sensor data to the sink. The UV path is planned to visit each wireless sensor node.

1. This is an interesting problem. However, the optimization problem on energy efficiency of the system should be better formulated.

Ans.) Simulation results with the minimization of cost function has been added. The mTSP solver has been incorporated into the algorithm to improve the functionality and minimize the cost function.

1. The paper shows preliminary experiment design and the simulation results. It will be good to show the experiment results.

Ans.) Simulation results with the minimization of cost function has been added. Hardware experiments are reserved for the future.

1. The abstract and the conclusion seem to be written in a rush and modifications are needed.

Ans.) The abstract has been substantially modified…..

1. Where is Fig. 8 that is mentioned?

Ans.) Fig 8 is more visible

**Reviewer  3**

-Fig. 8 is referred to at the end of the paper, but does not exist in the paper. Please add the figure or remove the discussion of it.

Ans.) Fig 8 is more visible

**Reviewer  4**

The paper concerns finding optimal paths for UAVs to visit a set of nodes in a wireless network. There are three novel aspects to this work. 1) The motivation is to recharge the nodes using wireless energy transmission. 2) The UAV needs to get with a minimum radius of each node, it does not need to visit each one. This relaxes the problem, but may open new issues of multiple solutions. 3) To solve the problem, the authors suggest a locally optimal approach to iteratively solve for a path. The algorithm is novel, but, in my opinion, is very similar to the concept of snakes/active contours in computer vision.

1. I found the idea presented interesting, but the paper seems a bit "half baked". The algorithms are not described in detail, nor is there any proof of convergence or suboptimality.

Ans.) The algorithm section is re-written and the great detail is given to the steps in the algorithm. The cost-function has been plotted to prove the optimality and screen shots at different stages of the algorithm is a visual proof that the path is being optimized.

1. It is not clearly explained how to compute the cost or value of each location (phi in (1)).

Ans.) The equation of the cost-function has been mentioned and the explanation of the algorithm is given in detail.

1. Also, in (2) K is not explained or described, so I one can only infer that it may be connected to the K’s in section III.

Ans.) This issue has been addressed.

1. Likewise with W\_n in (2). These flaws are significant because most of the weight of this paper rests on Section IV. There are just a few simulation results presented.

Ans.) This issue has been addressed.

1. The paper could be better organized, and there are some minor grammar issues and typos (e.g. "ravel" vs "travel").

Ans.) This issue has been addressed.

1. In summary, there are some very interesting ideas presented, but the paper seems premature. The authors could probably improve the presentation and make this more clearly an "initial investigation" type paper.