

Dear Reviewer,

Please find below the answers to all your comments and suggestions. Thank you for your review.

Sincerely,

Tomas Straka

Lukas Vojtech

Marek Neruda

1. *Although the authors have done a lot of work, the novelty of this manuscript is not very specific.*

The novelty of the proposed approach is the verification of the use of the RTg algorithm for simulation of a radio signal propagation in the 3D indoor environment for RFID technology. The practical contribution is to provide a useful tool for implementing RFID technology in terms of time and cost. We've added a more understandable description of this approach.

2. *Some of the similar works on radio wave propagation may be helpful for the authors for literature review, e.g., Terahertz waves propagation in an inhomogeneous plasma layer using the improved scattering-matrix method, ELF wave propagation simulation using FDTD method and satellite constellation concept for early warning system.*

We have considered and added new references. Thank you.

3. *For professional terms or methods, they should be highly consistent. For example, "ray tracing (graphics) method" in the text and "Graphical Ray Tracing Method" in the title.*

We have corrected these inconsistencies. Thank you.

4. *There are many grammars and writing mistakes. For example, "The conclusion of this paper is given in Section 4."*

We have made corrections in the text. Thank you.

5. *It is suggested to redraw Figure 1 for readability.*

Figure 1 has been redrawn to improve readability. Thank you.

6. *The label of Figures 3 and 4 are not written correctly.*

The labels of the figures have been corrected. Thank you.

7. *Figure 5 is not clear, and the font size and font format in the figure are inconsistent. The authors should check it carefully.*

Figure 5 is taken from other authors, therefore the font size and type is different. We have improved its quality to ensure good readability of the text in the figure. Thank you.

8. *In section 2.6, the author should correct "see Figure 3 and Figure 3"*

We have corrected this mistake in the text. Thank you.

9. *Section 2.7 is one of the most important parts of the paper, and the authors should analyze this section in detail and explain the complex phenomenon in Figure 9 and Figure 10.*

We have added an expanded explanation in Section 2.7 and now in Section 2.8. Thank you.

10. *More explanations should be provided in Figure 5. Are the simulation times of antenna #1 and antenna #2 the same?*

We have added a description for Figure 5 and clarified the results of Table 5, i.e., time consumption. It is mentioned in the text that the difference in simulation time between antenna 1 and antenna 2 is in the lower units of seconds. Thank you.