

Geosci. Instrum. Method. Data Syst. Discuss., referee comment RC1
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accepted subject to minor revisions

Anonymous Referee #1

Referee comment on "IoT-based 4-dimensional high-density electrical instrument for geophysical prospecting" by Keyu Zhou et al., Geosci. Instrum. Method. Data Syst. Discuss., <https://doi.org/10.5194/gi-2021-1-RC1>, 2021

This manuscript describes the technical realization of the IoT-based 4-dimensional high-density electrical instrument for geophysical prospecting, which is used for geophysical exploration. The paper explains that the instrument developed in the study successfully addresses a number of shortcomings of high-density electrical instruments currently available on the market for use in shallow geophysical prospecting, including bulkiness, weight, limitations in data acquisition accuracy, and difficulty of connecting to the Internet for remote monitoring. The experimental part shows that the accuracy is within 1/1000 and the system can be applied to perform actual field measurements. I have attached below comments arising from the manuscript, which might be helpful to further improve the quality of the paper.

- The references need to be enriched;
- Wireless communication technology is used between a control center and a high-density electrical instrument, how far does it support transmission?
- Complete AB front-end resistance channel in Figure4;
- Complete the remote interface of Figure 12 and provide the details of the remote interface;
- I recommend enhancing the Conclusions by mentioning limitations of the instrument developed in your study or potential barriers to its use.