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Submission Date:
6th October 2022

Journal Name:
IEEE GEOSCIENCE AND
REMOTE SENSING
LETTERS

Dear Editor:

I would like to submit the enclosed manuscript, entitled “A Robust Attention Based Land Cover Classification Scheme for Corrupted Remote Sensing Images” for your consideration. This work has not been submitted elsewhere for publication and all authors have read the manuscript and approved to submit to *IEEE GEOSCIENCE AND REMOTE SENSING LETTERS*. I will outline briefly several significant things reported in this manuscript and reasons why this manuscript deserves serious consideration for publication as a letter.

There is a significant effect of deep learning on the accuracy of land cover classification. Nonetheless, there is always a notable reduction of classification robustness in foggy conditions, which is commonly overlooked. Several challenging factors, like low image quality and occlusion, contribute to this. Instead of focusing solely on classification accuracy, we also explore the influence of attention mechanisms and multimodal fusion on classification robustness. ConvNeXt is adopted as the backbone. Furthermore, we propose Contextual Representation Enhancement Module (CREM) and Cross-Modal Fusion Module (CMFM) based on nonlocal operation. CREM possesses a large perceptive field to fuse local and global features, reducing side effects of the redundant noise. CMFM explores the relationship between multimodal inputs for information recalibration. Extensive ablation and comparison experiments were conducted on the corrupted ISPRS Potsdam and Vaihingen benchmark datasets to validate the proposed method. Compared to the reference model, our framework exhibits excellent accuracy and robustness in the task of land cover classification. Code will be available at <https://github.com/bowenroom/Robust-land-cover-classification>.

Finally, I would like to sincerely invite you to review our article and submit it for peer review, so that we can improve it again if there are any problems. We will appreciate all your attention. Thank you very much for your kind considerations.

If there is any question, please don't hesitate to contact me at bowenroom1@gmail.com.

Kind regards,

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