July 15, 2024

Dear Editor-in-Chief,

MDPI Remote Sensing,

I am pleased to submit an original research article entitled “BD-SAT: High-resolution Land Use Land Cover Dataset & Benchmark Results for Developing Division: Dhaka, BD” for consideration for publication in the special issue "Intelligent Remote Sensing Data Interpretation" in MDPI Remote Sensing.

We believe that this manuscript is appropriate for publication in "Intelligent Remote Sensing Data Interpretation" because it advances the applications of computer vision in LULC segmentation for helping sustainable development in developing countries. The BD-SAT dataset's creation marks a significant advancement in geospatial analysis, especially for developing countries where access to high-quality, high spatial resolution land use and land cover (LULC) data is limited. Annotated remote sensing data for developing countries are scarce due to lack of funding; lack of dedicated residential/industrial/economic zones; huge population; and diverse building materials. Therefore, BD-SAT dataset offers comprehensive, pixel-level annotated images covering both urban and rural areas, with a particular focus on the Dhaka metropolitan region. By providing such detailed ground truth information, BD-SAT addresses critical data gaps that have previously hindered the development of effective deep learning models for LULC analysis in these areas. This dataset enhances the capabilities of researchers and practitioners working in urban planning and development and serves as a vital resource for training more accurate and efficient predictive models. The rigorous validation process and benchmark experiments associated with BD-SAT underscore its reliability and potential to significantly impact studies on urban expansion, environmental monitoring, and resource management in developing countries.

This manuscript has not been published and is not under consideration for publication elsewhere. We have no conflicts of interest to disclose. Thank you for your consideration!

Sincerely,

Dr AKM Mahbubur Rahman

Associate Professor

Department of Computer Science and Engineering

Independent University Bangladesh