Review of: "CNN-Based Road Damage Detection"

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Potential competing interests: No potential competing interests to declare.

The following is the observation of road surface deterioration, which is very important in avoiding frequent repairs and cases of accidents. In tasks related to image recognition, one of the most effective techniques is Convolutional Neural Networks, or CNNs, which prove effective in ascertaining road damage. This paper introduces a CNN-based robotic system for recognizing different types of road surface degradation. It comprises acquiring digital images of uneven road zones and their preliminary image processing, designing and training the CNN architecture, and assessing the model's performance on the test images dataset. The proposed method gives a very good accuracy, which is almost 90%, for detecting various categories of road deterioration such as cracks, potholes, and bumps. The findings show that CNNs hold the promise of improving the status of road maintenance and safety in relation to degradation identification.

Some queries to answer:

1. CNN is the existing model available; what is your proposed model?
2. In your proposed model, what are the accuracy, precision, recall, and F1 score?
3. A graphical abstract is missing in your paper?
4. The novelty of the work is missing in your paper?
5. Your proposed model integration is needed?
6. A research gap is not in your paper?
7. Advantages and limitations are missing in your related work?
8. Proposed model construction is needed?
9. Model comparison is missing in the paper?
10. A comparison analysis of the related work is needed?
11. Mathematical models and implementations are missing?