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Long-term shape measurement of bridge using point clouds

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ABSTRACT

The increase in aging infrastructure has driven the development of technologies for systematic maintenance and safety of structures. Recent advancements in shape measurement of structures using point clouds have significantly improved the accuracy of structural condition assessments throughout their lifecycle. However, measurement errors of point clouds acquired from LiDAR often undermine the reliability of assessments. Therefore, there is the need for the development of technologies that can accurately measure the long-term shape of structures. This study proposes a method for long-term shape measurement of structures using point clouds and validates its performance through application to a railway bridge.

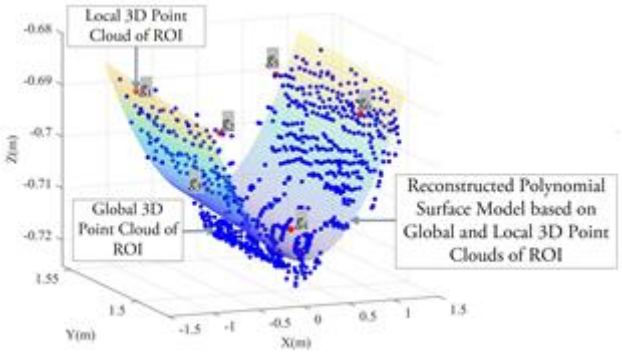

Fig. 1 Shape measurement of bridge using point clouds

REFERENCES

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