

Evaluation of Dynamic Properties Transmission Tower Structures Using Drone Image

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ABSTRACT

The existing dynamic properties evaluation technology analyzes the state of the structure by attaching a sensor on the structure under construction and obtaining displacement and acceleration by height in real time after completion of the structure. This causes cost and space inefficiency. The study proposes a method of evaluating the dynamic properties of a structure using drone and image analysis technology that have recently emerged in the construction industry. After the real-time movement of the structure was captured by an image with a drone, the movement was extracted by using image recognition technology, and the dynamic properties of the structure could be finally analyzed by using it. In order to evaluate the applicability of the technology, we tried to evaluate the dynamic properties of the transmission tower structure, and the experimental results proved the possibility.

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