

## **Development of Railway Bridge Inspection Method Using Video Camera and UAV**

Fumiaki UEHAN      Manabu IKEDA      Kodai MATSUOKA

To improve method of soundness inspection of railway bridges, we have developed two kinds of remote non-contact inspection techniques in which a video camera and a drone robot are used, respectively. The system using video camera can measure vibrations of structure at multiple points synchronously without installing any targets on the surface of the structure. Therefore, it can be applied to the inspection of bridge main girders, bearings, and overhead wire poles, etc. The system using drone robot can conduct close-up shooting, hammering test and rebar explorations of the underside and side surfaces of concrete structures. In addition to those, it can also analyze the measured data with AI diagnostic techniques of the measured data.