

### **Method for Evaluating Rebar Corrosion Rate of RC Bridge in Service Based on Visual Observation**

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In this study, a method for evaluating the rebar corrosion rate of RC bridge in service was developed. This method of ours evaluated the rebar corrosion rate by an inverse analysis with use of existing deterioration prediction model based on visual clues such as the area of spalling of cover concrete. Using the method, the rebar corrosion rate was evaluated for RC bridge in service which was deteriorated by the carbonation, and the impact of the environmental condition, the cover depth and the uncarbonated depth on the rebar corrosion rate was examined. The result indicated that the rebar corrosion rate in the wet condition was 2.2 times larger than that in the dry condition, and the impact of dry-wet condition on the rebar corrosion rate was larger than these of other factors.