Development of Signal Facilities Management Support System Using Camcorder Video on Train Cab

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Signalling facilities in railways are continuously installed in scattered locations along lines between stations. As a result, a great deal of labor has continued to be required in maintenance work for performing individual inspections and facility management work for verifying the location and type of installation up to the day. Then, to reduce the workload in maintenance, there is a requirement for a system that can automatically recognize and inspect facility without going to the site. Therefore, we have developed a system that supports maintenance work on signalling facility with only one camcorder installed in a train cab. The proposed system recognizes signalling facilities from video obtained by camera and estimates the location of the facility to assist the maintenance work. This paper describes an outline of the proposed system and the fundamental elemental technologies used to build it.