

## **Application of Image Analysis Engine around Railway Track to Night Vision Images**

Atsushi SHIMIZU      Shintaro MINOURA

We developed a method for capturing and analyzing images using images captured at night by a stereo camera. We also verified the feasibility of using the developed methods for platform limit measurement and difference detection of the environment around railway. The result confirmed that by combining infrared light projectors with different irradiation angles and irradiation distances, it is possible to capture a clear image of the rail periphery while capturing the general shape of the image as a whole. We also developed a method for measuring the distances around the platform and examined the measurement accuracy. The average error was less than 20 mm. Furthermore, by setting appropriate parameters, we confirmed that the difference detection can be properly performed even for night vision images.