
Development of Crack Image Measurement Method by Using Luminance and Geometric Property and In-Situ Experiment of RC Deck

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In the present study, a crack image measurement method including crack extraction using the newly proposed geometric parameter and estimated crack width with an accuracy less than the resolution by using the difference between luminance and background luminance was developed. Verification tests by using an actual cracked and aged structure were performed. As a result, a 0.2 mm wide crack was certainly detected with the measurement range of 1.8×0.9 m and crack widths were estimated with an estimation accuracy of 20~30% of resolution at a probability of 80% or more.