











Table 1. Comparison between measured value and identified value of crack width.

Image No.	Measured Value (mm)	Identified Value (mm)	Absolute Error (mm)	Relative Error (%)
1	0.785	0.726	0.059	7.54%
2	0.982	1.040	0.058	5.87%
3	0.324	0.322	0.002	0.71%
4	0.800	0.809	0.009	1.11%
5	0.635	0.681	0.046	7.21%
6	0.555	0.528	0.027	4.83%
7	0.292	0.313	0.021	7.30%
8	0.567	0.557	0.010	1.85%
9	0.385	0.419	0.034	8.78%
10	0.336	0.343	0.007	2.16%
Average			0.027	4.74%
Standard Deviation			0.021	3.03%

maximum crack width on the image after a series of processing including graying, binaryzation, and denoising, which performs well in detecting cracks on concrete surface. Test result shows that the identification accuracy of the system reaches 95.26%, which is high enough to meet the engineering requirements.

- (2) Using this system, crack width can be easily calculated with high efficiency and convenience, the only requirement is a portable device with Android system. Besides, it is a good way to apply ACWMS to the measurement practice that requires no contact.

### CONFLICT OF INTEREST

The authors confirm that this article content has no conflict of interest.

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