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(57) Abstract :
Abstract: Crack detection is critical for structural safety and security monitoring. Manual crack detection takes a long time and relies on inspectors' subjective assessments. The study develops an intelligent image processing approach for automatic fracture detection and analysis. The proposed system proposes Min-Max Gray Level Discrimination (M2GLD) to pre-process the Otsu-thresholding image. This grey intensity adjustment method aims to improve crack detecting accuracy. Using M2GLD with the Otsu approach, followed by other shape analysis methods, can detect crack faults in digital images. Thus, the built model can help building managers and engineers maintain structures.

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