

Evaluation of setting in concrete using non-contact ultrasonic method

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ABSTRACT

Innovative technique for setting estimation in cement-based materials using a concept of non-contact ultrasonics is presented. The suggested method efficiently measures the setting behavior from concrete without wet-sieving and physical coupling procedures. The results are experimentally evaluated under different mix proportions and curing temperature. The method demonstrates that the setting is clearly defined and has a great potential for field application.

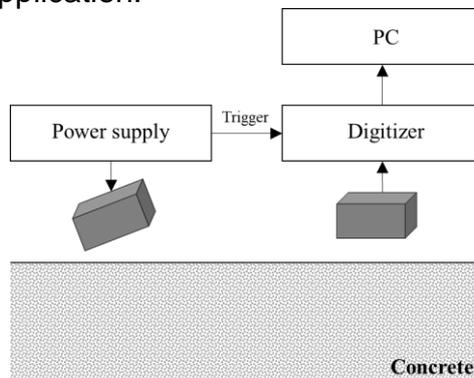


Fig. 1 Illustration of non-contact ultrasonic method in concrete

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