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## Method and Apparatus for Detection and Characterization of Concrete Cracks



### ▶ MORE INFORMATION

#### MEGA-TREND

- Building Technologies
- Measurement and Instrumentation

#### TECHNOLOGY READINESS LEVEL (TRL)

- TRL 3

#### PATENT/ GRANTED NUMBER

- PI 2016703928

### ▶ TECHNOLOGY OVERVIEW

A method to detect and characterize at least one defect in a specimen using an apparatus comprises steps of: generate a plurality of wave signals on the specimen, by using an impact source, for the wave signals to propagate within the specimen; acquire the wave signals from the specimen, by at least one sensor mounted on the specimen; transmit the acquired wave signals to a signal acquisition system, by the sensor, to process the wave signals; calculate wave parameters of each processed wave signal, by a defect detection and characterization module, to detect the defect in the specimen, wherein the wave parameters include amplitude, velocity, wavelet transform, frequency and phase velocity, the calculated wave parameters are trained to develop a pattern recognition based neural network, by the defect detection and characterization module, to characterize the defect.

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## CONTACT US!

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