

Exact probe of the reinforcing steel in RC structures by application of ultrasonic CT

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We describe the development of a non-destructive inspection method for detecting the precise position of the reinforcing steel in reinforced concrete structures, which is recognized as a difficult problem for the time being. For the development of our method to probe the reinforcing steel, we apply an ultrasonic CT technique suggested by Mita-Takiguchi [1]. In our theory, the idea of “the least square solutions” plays an important role.

Reference

[1] Mita, N. and Takiguchi, T. : *Principle of ultrasonic tomography for concrete structures and non-destructive inspection of concrete cover for reinforcement*, Pacific Journal of Mathematics for Industry, (to appear).