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Pulsed Eddy Current Non-destructive Testing and Evaluation:
A Review

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Abstract

Pulsed eddy current (PEC) non-destructive testing and evaluation (NDT&E) has been around for some time and it is still attracting extensive attention from researchers around the globe, which can be witnessed through the reports reviewed in this paper. Thanks to its richness of spectral components, various applications of this technique have been proposed and reported in the literature covering both structural integrity inspection and material characterization in various industrial sectors. To support its development and for better understanding of the phenomena around the transient induced eddy currents, attempts for its modelling both analytically and numerically have been made by researchers around the world. This review is an attempt to capture the state-of-the-art development and applications of PEC, especially in the last 15 years and it is not intended to be exhaustive. Future challenges and opportunities for PEC NDT&E are also presented.

Keywords

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