7th African Conference on Non Destructive Testing (ACNDT) & the 5th International Conference on NDT and Materials Industry and Alloys (IC-WNDT-MI)

2016

Non intrusive stochastic finite elements method applied for non destructives NDT problems

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Abstract : The current work concerns the study of harmful defect detection for the inspected structure by eddy current non destructive testing. So a non intrusive stochastic finite element method was exploited in the case of 2D magnetodynamic equation. The electrical conductivity is considered as random variables and generated using Monte -Carlo method.

Keywords : Stochastic finite element method, Eddy Current, Conducting plate, Random variable