## KINGDOM OF SAUDI ARABIA

Ministry of Higher Education

## KING ABDULAZIZ UNIVERSITY

## **Faculty of Science**



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# Existence of approximate solutions of the forced Duffing equation with discontinuous type integral boundary conditions

(2009) Nonlinear Analysis: Real World Applications, 10 (1), pp. 358-367. Cited 3 times.

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#### **Abstract**

We develop a generalized quasilinearization technique to obtain a sequence of approximate solutions converging monotonically and quadratically to the unique solution of the forced Duffing equation with discontinuous type integral boundary conditions. © 2007 Elsevier Ltd. All rights reserved.

## **Author Keywords**

Duffing equation; Integral boundary conditions; Quadratic convergence; Quasilinearization

ISSN: 14681218