

[Sign In](#) | [My EndNote Web](#) | [My ResearcherID](#) | [My Citation Alerts](#) | [My Saved Searches](#) | [Log Out](#) | [Help](#)

ISI Web of Knowledge™

Web of Science

Additional Resources

[Search](#) | [Cited Reference Search](#) | [Advanced Search](#) | [Search History](#) | [Marked List \(0\)](#)

Web of Science®

<< [Back to results list](#)

◀ Record 4 of 4 ▶

Record from Web of Science®

Engineering assessment of cracked structures subjected to dynamic loads using fracture mechanics assessment

[Print](#) | [E-mail](#) | [Add to Marked List](#) | [Save to EndNote Web](#)
[Save to EndNote, RefMan, ProCite](#) more options

Author(s): Kuntiyawichai K, Burdekin FM

Source: ENGINEERING FRACTURE MECHANICS **Volume:** 70 **Issue:** 15 **Pages:** 1991-2014 **Published:** OCT 2003

Times Cited: 8 **References:** 22 [Citation Map](#)

Abstract: This paper presents practical guidance on the assessment of cracked structures subjected to dynamic loading. General reviews of fracture behaviour of structures subjected to dynamic loading are presented. A series of finite element (FE) analyses have been carried out to study the effects of dynamic loading on both fracture toughness specimens under rapid loads and cracked connections in steel framed structures under earthquake loads. FE results of submodel analyses of cracked connections are compared with the results from a simplified method. The simplified method can reduce the analysis time enormously and allows design engineers to assess the possibility of connection fractures, or determine approximate values of toughness and defect size requirements for given peak stress and strain level. (C) 2003 Elsevier Ltd. All rights reserved.

Document Type: Article

Language: English

Author Keywords: fracture; finite element; cracked structures; failure assessment

Reprint Address: Burdekin, FM (reprint author), Manchester Ctr Civil & Construct Engn, POB 88, Manchester M60 1QD, Lancs England

Addresses:

1. Manchester Ctr Civil & Construct Engn, Manchester M60 1QD, Lancs England
2. Ubonratchathani Univ, Dept Civil Engn, Ubon Ratchathani 34190, Thailand

Publisher: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND

Subject Category: Mechanics

IDS Number: 705EX

ISSN: 0013-7944

Cited by: 8

This article has been cited 8 times (from Web of Science).

Vasic S, Ceccotti A [Influence of intermediate deformation rates in softwoods characterized with fracture resistance R-curves](#) WOOD SCIENCE AND TECHNOLOGY 43 7-8 591-614 NOV 2009

Galenne E, Andrieux S, Ratier L [A modal approach to linear fracture mechanics for dynamic loading at low frequency](#) JOURNAL OF SOUND AND VIBRATION 299 1-2 283-297 JAN 9 2007

Kuntiyawichai K, Chucheepsakul S [Assessment of through-wall crack in minimum structures subjected to wave loading](#) ENGINEERING STRUCTURES 28 11 1533-1542 SEP 2006

[[view all 8 citing articles](#)]

[Create Citation Alert](#)

Related Records:

Find similar records based on shared references (from Web of Science).

[[view related records](#)]

References: 22

View the bibliography of this record (from Web of Science).

Suggest a correction

If you would like to improve the quality of this product by suggesting corrections, [please fill out this form](#).

DOI: 10.1016/S0013-7944(02)00257-6

[<< Back to results list](#)

◀ Record 4 of 4 ▶

Record from Web of Science®

Output Record**Step 1:**

- Authors, Title, Source
 plus Abstract
 Full Record
 plus Cited Reference

Step 2:[\[How do I export to bibliographic management software?\]](#)[Print](#) [E-mail](#) [Add to Marked List](#)[Save to EndNote Web](#) [Save to EndNote, RefMan, ProCite](#)

Save to other Reference Software

[Save](#)View in [简体中文](#) [English](#) [日本語](#)

Please give us your [feedback](#) on using ISI Web of Knowledge.

[Acceptable Use Policy](#)

Copyright © 2010 Thomson Reuters

**THOMSON REUTERS***Published by Thomson Reuters*