Appendix A: Author’s Guide

Do not put contents or lines in headings

A4, vertical page, margin settings (Top 5cm, Bottom 4cm, Left/Right 2.8cm)
Single line spacing, Single column, in Black

Put the title of the paper here with font Arial, size 16pt, centered, length up to 2 lines

First + Middle (initial) + Last name

Sullivan T. Smith*2, Tanaka Ikarashi1a and Ahmed M. Mohamed2b

Affiliations

1Affiliation (Department, Institute, Address, Country) with font Arial, size 9.5pt

2Department of Civil Engineering, Korean Advanced Institute for Science and Technology,
291 Daehak-ro, Yuseong-gu, Daejeon 305-701, Republic of Korea

Abstract

Insert abstract paragraph here with Times New Roman font and 10.5pt size. Abstract length needs to be approximately 250 words (about 15 lines). Do not have References, Equations, Figures, or Tables in the abstract.

Abstract. This study aimed to develop a model to accurately predict the acceleration of structural systems during an earthquake. The acceleration and applied force of a structure were measured at current time step and the velocity and displacement were estimated through linear integration. ……

Keywords: complex terrain; typhoon wind field; CFD simulation; surface roughness length; topography

Main text

1. Introduction

Normally, strong winds have been associated with two types of wind in typhoon prone region. The first one is the nature wind and the other one is the typhoon, or say severe tropical cyclone. Many investigations about the (ility) characteristics of frames of various types have been carried out. Cheng (2011) have studied the elastic critical loads for plane frames by using the transfer matrix method. A general digital computer method has been described by Cheng and Xu (2012) ……

2. Section title: Level 1

The system examined, shown schematically in Fig. 1, is a beam of variable cross section, carrying a so called heavy tip mass M. Its mass moment of inertia with respect to the perpendicular axis at the centroid S is denoted by J_S. Analytical and experimental methods on vibrating frames carrying concentrated masses have been studied by using analytical solutions and the finite element method (Cheng et al. 2013a, b).
2.1 Numerical simulation procedure

One can write the extended form of the Hamilton’s Principle with the notations used in the present study as

\[ U_L = \frac{1}{2} \int_0^d EI (\psi')^2 dx + \frac{1}{2} \int_0^d EA (u')^2 dx \]  

(1)

In consideration of different 10m height wind speed \( v_{10} \) and the power law exponent index \( \alpha \), results shown in Table 2, the representative upstream typhoon wind fields at different directions used as the input data for training ANN model are determined, which is shown in Tables 1-2...

3. Section title: Level 1

A finite element model is developed to represent a cracked beam element of length \( d \) and the crack is located at a distance \( d_1 \) from the left end of the element as shown in Figs. 2-3. Substituting Eqs. (3)-(4) in Eq. (7) yields the general equation for the local compliances as follows (considering that all \( K's \) are independent of \( \eta, \eta' \) see Figs. 2(a)-(b)). In this regard, the circular area taking the bridge as a center with a proper radius shall be considered (see Fig. 1 and 3)......

<table>
<thead>
<tr>
<th>Table 1 Caption: Times New Roman, 10pt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OF-1</strong></td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OF-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>

*OF-1: Observed Frequency for 1st mode; OF-3: Observed Frequency for 3rd mode

Additional explanations for items in the table
4. Section title: Level 1

4.1 Subtitle: Level 2

4.1.1 Subtitle: Level 3

On the day of the beam test, the respective control cylinders were capped and tested in compression to determine the compressive strength of concrete. Table 1 shows that the average values of the 56-day compressive strengths are 69.2 and 68.7 MPa for Series V and S specimens, respectively. The two mix designs were different, they had similar compressive strengths...

Chondros et al. (1998) have developed a continuous cracked beam vibration theory for the lateral vibration of cracked Euler-Bernoulli beams with single-edge or double-edge open cracks...

5. Conclusions

A numerical simulation procedure for predicting directional typhoon wind fields over complex terrain has been proposed in this study.

- The reduction of natural frequency depends on the crack depth and crack location.
- Higher drops in the in-plane natural frequency are observed when the crack is located near the roots of the frame...

Acknowledgments

The research described in this paper was financially supported by the Natural Science Foundation...
References

Journal Papers
Author(s) (Year), “Title of paper (Capital letter only for the first letter)”, *Name of Journal (Italic)*, Volume number in bold (Issue number in non-bold), page-page. doi address.


Books
Author(s) (Year), *Name of Book (Every word starts in capital letter)*, Name of publishing company, City, State, Country.


Proceeding Papers
Author(s) (Year), “Title of paper”, *Name of Proceeding or Name of occasion (Every word starts in capital letter)*, City, Month.


Author(s) (Year), “Title of paper”, Ph.D. Dissertation; Name of University, City, Country.


Magazines
Author(s) (Year), *Title of Paper (Every word starts in capital letter)*, Name of Magazine, Published Month.


Research Reports
Author(s) (Year), “Research Report Title as appears on the cover page”, Research Report Number; Name of University/Institution.


Gourley, B.C., Tort, C., Denavit, M.D., Schiller, P.H. and Hajjar, J.F. (2008), “A synopsis of studies of the monotonic and cyclic behavior of concrete-filled steel tube members, connections and frames”, Report No. NSEL-008; Newmark Structural Engineering Laboratory, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, Champaign, IL, USA.

Design Codes
Design code (Year), *Title*, Full name of the code, Name of Organization; City, Country.

ACI 318 (2011), Building code requirements for structural concrete and commentary, American Concrete Institute; Farmington Hills, MI, USA.

Eurocode (2003), Design of Steel Structures. Part 1.5: Plated Structural elements, European Committee for Standardization; Brussels, Belgium.

Website Links
Name of URL (Year), *Title of the website link; Name of Organization, City, Country*. Link address
