

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul Jurnal Ilmiah (Artikel) : Development Of Seismic Microzonation Maps Of Semarang, Indonesia
 Jumlah Penulis : 4 Orang (Windu Partono, Sri Prabandiyani RW, Masyur Irsyam, Syamsul Maarif)
 Status Pengusul : penulis pertama/ ~~penulis ke-~~ / ~~penulis korespondensi**~~
 Identitas Jurnal Ilmiah :
 a. Nama Jurnal : Jurnal Teknologi (Jurnal Internasional, Scopus)
 b. Nomor/ ISSN : eISSN 2180-3722
 c. Vol, no, bulan, tahun : Vol 77 No. 11 Pp. 99-107, September 2015, hal. 99-107
 d. Penerbit : UTM Press.
 e. DOI artikel (Jika ada) : 10.11113/jt.v77.6428
 f. Alamat web Jurnal :
 http://www.jurnalteknologi.utm.my/index.php/jurnalteknologi/article/view/6428

Kategori Publikasi Jurnal Ilmiah:
 (beri ✓ pada kategori yang tepat)

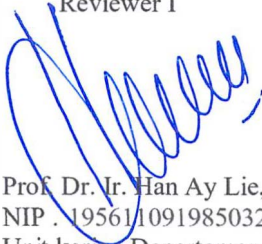
- ☒ ~~Jurnal Ilmiah Internasional/~~ Internasional bereputasi
☐ Jurnal Ilmiah Nasional Terakreditasi
☐ Jurnal Ilmiah Nasional/ Nasional terindeks di DOAJ, CABI, COPENICUS

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata /Nilai Akhir yang diperoleh
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi jurnal (10%)	3.00	3.00	3.00
b. Ruang lingkup dan kedalaman pembahasan (30%)	7.50	8.00	7.75
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9.00	8.00	8.50
d. Kelengkapan unsur dan kualitas penerbit (30%)	7.50	9.00	8.25
Total = (100%)	27	28	27.5

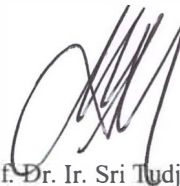
Penulis ke 1 dari 4 = $27.50 \times 60\% = 16.50$

Reviewer I



Prof. Dr. Ir. Han Ay Lie, M.Eng
 NIP . 195611091985032002
 Unit kerja : Departemen T.Sipil FT.UNDIP

Reviewer II



Prof. Dr. Ir. Sri Tadjono, MS
 NIP .195303091981031005
 Unit kerja : Departemen T.Sipil FT.UNDIP

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul Jurnal Ilmiah (Artikel) : Development Of Seismic Microzonation Maps Of Semarang, Indonesia
 Jumlah Penulis : 4 Orang (Windu Partono, Sri Prabandiyani RW, Masyur Irsyam, Syamsul Maarif)
 Status Pengusul : penulis pertama/ penulis ke- / penulis korespondensi**
 Identitas Jurnal Ilmiah :
 a. Nama Jurnal : Jurnal Teknologi (Jurnal Internasional, Scopus)
 b. Nomor/ ISSN : eISSN 2180-3722
 c. Vol, no, bulan, tahun : Vol 77 No. 11 Pp. 99-107, September 2015, hal. 99-107
 d. Penerbit : UTM Press
 e. DOI artikel (Jika ada) : 10.11113/jt.v77.6428
 f. Alamat web Jurnal :
 http://www.jurnalteknologi.utm.my/index.php/jurnalteknologi/article/view/6428

Kategori Publikasi Jurnal Ilmiah: ☒ Jurnal Ilmiah Internasional/ Internasional bereputasi
 (beri ✓ pada kategori yang tepat) ☐ Jurnal Ilmiah Nasional Terakreditasi
☐ Jurnal Ilmiah Nasional/ Nasional terindeks di DOAJ, CABI, COPENICUS

Hasil Penilaian Peer Review :

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Yang Diperoleh
	Internasional <input checked="" type="checkbox"/>	Nasional Terakreditasi <input type="checkbox"/>	Nasional Tidak Terakreditasi <input type="checkbox"/>	
a. Kelengkapan unsur isi jurnal (10%)	4			3
b. Ruang lingkup dan kedalaman pembahasan (30%)	12			7,5
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	12			9
d. Kelengkapan unsur dan kualitas penerbit (30%)	12			7,5
Total = (100%)	40			27

Catatan Penilaian artikel oleh Reviewer:

- Jurnal JT lengkap, daftar isi, board, reviewer index - index termasuk scopus, penerbit juga jelas. UTM sebagai institusi penerbit mempunyai reputasi internasional. Para reviewer tidak semuanya memiliki reputasi tinggi, tampak dari H index dari editor maupun reviewer yang tidak optimal. Tulisan pada gambar - gambar tidak jelas dan ada yang tidak terbaca.
- Analisa berdasar dan kesimpulan berdasar, zona analisa mencakup area yang terbatas dan ada kemiripan pendekatan dengan paper dari penulis yang sama, walaupun fokus penekanan berbeda.
- Similarity 19% berasal dari akumulasi istilah - istilah baku. Novelty tulisan ini bagus dan bermanfaat.
- Jurnal tersebut sering ada temuan bahwa gambar-gambar berbahasa Indonesia, sehingga dapat disimpulkan proses review dan penyelesaian atas jurnal ini di tahap final kurang baik

Penulis I = $0,6 \times 27 = 16,20$

Semarang,
Reviewer

19-1-2019

Prof. Dr. Ir. Han Ay Lie, M.Eng.
NIP.195611091985032002

Unit kerja : Departemen Teknik Sipil FT UNDIP

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul Jurnal Ilmiah (Artikel) : Development Of Seismic Microzonation Maps Of Semarang, Indonesia
 Jumlah Penulis : 4 Orang (Windu Partono, Sri Prabandiyani RW, Masyur Irsyam, Syamsul Maarif)
 Status Pengusul : penulis pertama/ penulis ke- / penulis korespondensi**

Identitas Jurnal Ilmiah : a. Nama Jurnal : Jurnal Teknologi (Jurnal Internasional, Scopus)
 b. Nomor/ ISSN : eISSN 2180-3722
 c. Vol, no, bulan, tahun : Vol 77 No. 11, September 2015, Pp. 99-107
 d. Penerbit : UTM Press
 e. DOI artikel (Jika ada) : <https://doi.org/10.11113/jt.v77.6428>
 f. Alamat web Jurnal : <http://www.jurnalteknologi.utm.my/index.php/jurnalteknologi/article/view/6428>

Kategori Publikasi Jurnal Ilmiah: ☒ Jurnal Ilmiah Internasional/ Internasional bereputasi
 (beri ✓ pada kategori yang tepat) ☐ Jurnal Ilmiah Nasional Terakreditasi
☐ Jurnal Ilmiah Nasional/ Nasional terindeks di DOAJ, CABI, COPENICUS

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Yang Diperoleh
	Internasional <input checked="" type="checkbox"/>	Nasional Terakreditasi <input type="checkbox"/>	Nasional Tidak Terakreditasi <input type="checkbox"/>	
a. Kelengkapan unsur isi jurnal (10%)	4			3
b. Ruang lingkup dan kedalaman pembahasan (30%)	12			8
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	12			8
d. Kelengkapan unsur dan kualitas penerbit (30%)	12			9
Total = (100%)	40			28

Catatan Penilaian artikel oleh Reviewer:

- Kelengkapan unsur isi jurnal terpenuhi.
- Hanya 2 pustaka yang disitasi dalam pembahasan. Terdapat penyebutan – penyebutan “kelvin-voigt model” tanpa menyebutkan pustakanya.
- 16 dari 32 pustaka terbitan 10 tahun terakhir.
- Penerbit Q3 dengan index SJR 2015 0,147.

Penulis 1 = $0,6 \times 28 = 16,8$

Semarang, 19 – 01 - 2019
 Reviewer

Prof. Dr.Ir. Sri Tadjono, MS.
 NIP. 195303091981031005
 Unit kerja : Departemen Teknik Sipil FT UNDIP

Document details

< Back to results | < Previous 7 of 7

↗ Export ↴ Download 🖨 Print ✉ E-mail 📄 Save to PDF ☆ Add to List More... >

View at Publisher

Jurnal Teknologi Open Access
Volume 77, Issue 11, 2015, Pages 99-107

Development of seismic microzonation maps of Semarang, Indonesia (Article)
(Open Access)

Partono, W.^a ✉, Wardani, S.P.R.^a, Irsyam, M.^b, Maarif, S.^c 👤

^aDiponegoro University, Semarang, Indonesia
^bBandung Institute of Technology, Bandung, Indonesia
^cNational Agency for Disaster Management, Indonesia

Abstract

⌵ View references (32)

The new Indonesian Code for seismic resistance design for building has been issued recently. It follows the concept of Risk-Targeted Maximum Considered Earthquake (MCER). Seismic risk microzonation of Semarang is analyzed using the new concept. Seismic risk microzonation study for hazard mitigation is also performed for the whole city based on deterministic approach, considering the closes distance fault (Lasem Fault). Interpretation of local site effects is performed by carrying one-dimensional ground response analysis. Depth of bedrock is estimated based on single station feedback seismometer measurement. Geotechnical parameters are interpreted from recent and previous measurements. The result of deterministic microzonation study includes the distribution of surface peak ground acceleration (PGA) and spectral acceleration due to Lasem Fault. The obtained results are compared with the distribution of surface PGA and spectral acceleration obtained through new code. © 2015 Penerbit UTM Press. All rights reserved.

SciVal Topic Prominence ⓘ

Topic: wave velocity | Shear waves | seismic hazard

Prominence percentile: 63.173 ⓘ

Author keywords

Bedrock Deterministic Local site effect Risk-targeted maximum considered earthquake Seismic microzonation

ISSN: 01279696
Source Type: Journal
Original language: English
DOI: 10.11113/jt.v77.6428
Document Type: Article
Publisher: Penerbit UTM Press

References (32)

View in search results format >

☐ All | Export 🖨 Print ✉ E-mail 📄 Save to PDF Create bibliography

☐ 1 Tata Cara Perencanaan Struktur Bangunan Gedung Dan Non Gedung SNI 1726:2012. ICS 91.120.25:91.080.01. Cited 2 times.
Badan Standarisasi Nasional

☐ 2 Minimum Design Loads for Buildings and Other Structures
(2010) American Society of Civil Engineers
Virginia. xLii+608p

Metrics ⓘ View all metrics >

5 Citations in Scopus
1.51 Field-Weighted
Citation Impact



PlumX Metrics ⌵
Usage, Captures, Mentions,
Social Media and Citations
beyond Scopus.

Cited by 5 documents

Building evaluation using two components of acceleration time histories causes by shallow crustal fault earthquakes with maximum magnitude 7 Mw
Partono, W. , Irsyam, M. , Dwi Atmanto, I.
(2018) MATEC Web of Conferences

Development of two components acceleration time histories for Semarang, Indonesia, due to Semarang fault earthquake scenarios using 30 meters soil deposit model

Partono, W.
(2018) MATEC Web of Conferences

Development of seismic risk microzonation map for Semarang due to Semarang fault earthquake scenarios with maximum magnitude 6.9 Mw

Partono, W. , Irsyam, M. , Retno Wardani, S.P.
(2018) MATEC Web of Conferences

View all 5 citing documents

Inform me when this document is cited in Scopus:

Set citation alert >

Set citation feed >

Related documents

Seismic microzonation of Semarang, Indonesia based on site response analysis using 30 M soil deposit model

- 3 Manual for Zonation on Seismic Geotechnical Hazard. Revised edition (1999) *Technical Committee for Earthquake Geotechnical Engineering (TC4) of International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE)*, 209.

- 4 Anbazhagan, P., Sitharam, T.G.
Seismic microzonation of Bangalore, India

(2008) *Journal of Earth System Science*, 117 (SUPPL.2), pp. 833-852. Cited 36 times.
<http://www.springerlink.com/content/1144h0413j241722/fulltext.pdf>
doi: 10.1007/s12040-008-0071-5

[View at Publisher](#)

- 5 Asrurifak, M.
Peta Respon Spektra Indonesia Untuk Perencanaan Struktur Bangunan Tahan Gempa Dengan Model Sumber Gempa Tiga Dimensi Dalam Analisis Probabilitas
(2010) *Disertasi Doktor Teknik Sipil, Institut Teknologi Bandung*
xxviii + 283

- 6 Irsyam, M., Dangkoa, D.T., Hendriyawan, Hoedajanto, D., Hutapea, B.M., Kertapati, E.K., Boen, T., (...), Petersen, M.D.
Proposed seismic hazard maps of Sumatra and Java islands and microzonation study of Jakarta city, Indonesia

(2008) *Journal of Earth System Science*, 117 (SUPPL.2), pp. 865-878. Cited 32 times.
<http://www.springerlink.com/content/f3506236477u30k8/fulltext.pdf>
doi: 10.1007/s12040-008-0073-3

[View at Publisher](#)

- 7 Irsyam, M., Sengara, I.W., Aldimar, F., Widiyantoro, S., Triyoso, W., Natawijaya, D.H., Kertapati, E., (...), dan Ridwan, M.
(2010) *Summary: Development of Seismic Hazard Maps of Indonesia for Revision of Seismic Ringkasan Hasil Studi Tim Revisi Peta Gempa Indonesia 2010*
1 Juli, Bandung

- 8 Newcomb, K.R., McCann, W.R.
Seismic history and seismotectonics of the Sunda Arc.

(1987) *Journal of Geophysical Yrch*, 92 (B1), pp. 421-439. Cited 252 times.
doi: 10.1029/JB092iB01p00421

[View at Publisher](#)

- 9 Elnashai, A., Kim, S.J., Yun, G.J., dan Sidharta, D.
The Yogyakarta Earthquake of May 27, 2006
(2007) *Mid-America Earthquake (MAE) Center Report*, 7 (2), p. 57. Cited 2 times.

- 10 Irsyam, M., Hendriyawan, A., Ridwan, M., Aldimar, M., Sengara, F., Widiyantoro, I.W., Triyono, S., (...), Firmanti, A.
(2013) *Past Earthquake in Indonesia and New Seismic Hazard Maps for Earthquake Design of Buildings and Infrastructures, Chapter 3 of Part 1 of 'Geotechnical Predictions and Practice in Dealing with Geohazards'* edited by Chu, Jian, Wardani, S.P.R., and Lizaka, A. due April 2013. ISBN 978-94-007-5674-8. Springer

- 11 McGuire, R.K.
Probabilistic seismic hazard analysis and design earthquakes: closing the loop

(1995) *Bulletin - Seismological Society of America*, 85 (5), pp. 1275-1284. Cited 366 times.

Partono, W. , Wardani, S.P.R. ,
Irsyam, M.
(2016) *Jurnal Teknologi*

Development of acceleration time histories for Semarang, Indonesia, due to shallow crustal fault earthquakes

Partono, W. , Irsyam, M. ,
Wardani, S.P.R.
(2017) *AIP Conference Proceedings*

Development of site class and site coefficient maps of Semarang, Indonesia using field shear wave velocity data

Partono, W. , Irsyam, M. ,
Prabandiyani Retno Wardani, S.
(2017) *MATEC Web of Conferences*

[View all related documents based on references](#)

[Find more related documents in Scopus based on:](#)

[Authors >](#) [Keywords >](#)

☐ 12 Boore, D.M., Atkinson, G.M.
Ground-motion prediction equations for the average horizontal component of PGA, PGV, and 5%-damped PSA at spectral periods between 0.01 s and 10.0 s

(2008) *Earthquake Spectra*, 24 (1), pp. 99-138. Cited 943 times.
doi: 10.1193/1.2830434

[View at Publisher](#)

☐ 13 Campbell, K.W., Bozorgnia, Y.
NGA ground motion model for the geometric mean horizontal component of PGA, PGV, PGD and 5% damped linear elastic response spectra for periods ranging from 0.01 to 10 s

(2008) *Earthquake Spectra*, 24 (1), pp. 139-171. Cited 704 times.
doi: 10.1193/1.2857546

[View at Publisher](#)

☐ 14 Chiou, B., Youngs, R.R.
NGA Model for Average Horizontal Component of Peak Ground Motion and Response Spectra
(2008) *PEER 2008/09. Pacific Engineering Research Center. College of Engineering*
University of California Berkeley

☐ 15 Youngs, R.R., Chiou, S.-J., Silva, W.J., Humphrey, J.R.
Strong ground motion attenuation relationships for subduction zone earthquakes

(1997) *Seismological Research Letters*, 68 (1), pp. 58-73. Cited 380 times.

[View at Publisher](#)

☐ 16 Atkinson, G.M., Boore, D.M.
Empirical ground-motion relations for subduction-zone earthquakes and their application to Cascadia and other regions

(2003) *Bulletin of the Seismological Society of America*, 93 (4), pp. 1703-1729. Cited 325 times.
<http://www.bssaonline.org/>
doi: 10.1785/0120020156

[View at Publisher](#)

☐ 17 Zhao, J.X., Zhang, J., Asano, A., Ohno, Y., Oouchi, T., Takahashi, T., Ogawa, H., (...), Fukushima, Y.
Attenuation relations of strong ground motion in Japan using site classification based on predominant period

(2006) *Bulletin of the Seismological Society of America*, 96 (3), pp. 898-913. Cited 330 times.
doi: 10.1785/0120050122

[View at Publisher](#)

☐ 18 Luco, N., Ellingwood, B.R., Hamburger, R.O., Hooper, J.D., Kimball, J.K., dan Kircker, C.A.
Risk-Targeted versus Current Seismic Design Maps for Conterminous United States
(2007) *SEAOC 2007 Convention Proceedings*. Cited 49 times.

☐ 19 Nakamura, Yutaka
Method for dynamic characteristics estimation of subsurface using microtremor on the ground surface

(1989) *Quarterly Report of RTRI (Railway Technical Research Institute) (Japan)*, 30 (1), pp. 25-33. Cited 1554 times.

- 20 Bonnefoy-Claudet, S., Baize, S., Bonilla, L.F., Berge-Thierry, C., Pasten, C., Campos, J., Volant, P., (...), Verdugo, R.

Site effect evaluation in the basin of Santiago de Chile using ambient noise measurements ([Open Access](#))

(2009) *Geophysical Journal International*, 176 (3), pp. 925-937. Cited 66 times.
doi: 10.1111/j.1365-246X.2008.04020.x

[View at Publisher](#)

- 21 Johansson, J., Mahecha, E., Acosta, A., Arellamo, J.
H/V Microtremor Measurements in Pisco, Peru after the 2007 August 15 Earthquake
(2008) *14th World Conference on Earthquake Engineering*. Cited 2 times.
Beijing, China

- 22 Seht, M.I.-V., Wohlenberg, J.
Microtremor Measurements Used to Map Thickness of Soft Sediments
(1999) *Bulletin of the Seismological Society of America*, 89 (1), pp. 250-259. Cited 277 times.

- 23 Parolai, S., Bormann, P., Milkereit, C.
New relationships between V_s , thickness of sediments, and resonance frequency
calculated by the H/V ratio of seismic noise for the cologne area (Germany)
(2002) *Bulletin of the Seismological Society of America*, 92 (6), pp. 2521-2527. Cited 179 times.
<http://www.bssaonline.org/>
doi: 10.1785/0120010248

[View at Publisher](#)

- 24 Partono, W.
(2015) *Pembuatan Peta Mikrozonasi Gempa Kota Semarang Melalui Pengembangan Program Seismic Hazard Dengan Mempertimbangkan Kondisi Fragility Bangunan*. Cited 2 times.
Disertasi, Program Doktor Teknik Sipil, Diponegoro University

- 25 (1996) *Geological Map of the Magelang and Semarang Sheets*. Cited 2 times.
Java

- 26 Osaki, Y., dan Iwasaki, R.
On Dynamics Shear Moduli and Poisson's Ratio of Soil Deposits. *Soil and Foundations*
(1973) *JSSMFE*, 13 (4), pp. 59-73. Cited 105 times.

- 27 Ohta, Y., Goto, N.
Empirical shear wave velocity equations in terms of characteristic soil indexes
(1978) *Earthquake Engineering & Structural Dynamics*, 6 (2), pp. 167-187. Cited 193 times.
doi: 10.1002/eqe.4290060205

[View at Publisher](#)

- 28 Imai, Tsuneo, Tonouchi, Keiji
CORRELATION OF N VALUE WITH S-WAVE VELOCITY AND SHEAR MODULUS.
(1982) , pp. 67-72. Cited 138 times.
ISBN: 9061912512

□ 29 Abrahamson, N.A.
(1998) *Non-Stationary Spectral Matching Program Rspmatch* >>Pg& E Internal Report. Cited 28 times.

□ 30 Iwan, W.D.
On a class of models for the yielding behavior of continuous and composite systems
(1964) *Journal of Applied Mechanics, Transactions ASME*, 34 (3), pp. 612-617. Cited 552 times.
doi: 10.1115/1.3607751
[View at Publisher](#)

□ 31 Mróz, Z.
On the description of anisotropic workhardening
(1967) *Journal of the Mechanics and Physics of Solids*, 15 (3), pp. 163-175. Cited 996 times.
doi: 10.1016/0022-5096(67)90030-0
[View at Publisher](#)

□ 32 Bardet, J.P., Tobita, T.
(2001) *NERA a Computer Program for Nonlinear Earthquake Site Response Analysis of Layered Soil Deposits*. Cited 337 times.
Department of Civil Engineering University of Southern California

🔍 Partono, W.; Diponegoro University, Semarang, Indonesia; email:windu_bapake_dila@yahoo.com
© Copyright 2015 Elsevier B.V., All rights reserved.

< Back to results | < Previous 7 of 7

^ Top of page

About Scopus

What is Scopus
Content coverage
Scopus blog
Scopus API
Privacy matters

Language

日本語に切り替える
切换到简体中文
切换到繁體中文
Русский язык

Customer Service

Help
Contact us

ELSEVIER

[Terms and conditions](#) ↗ [Privacy policy](#) ↗

Copyright © 2019 Elsevier B.V. ↗. All rights reserved. Scopus® is a registered trademark of Elsevier B.V.
We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies.

 RELX Group™

Jurnal Teknologi (Sciences and Engineering)

Open Access ⓘ
Scopus coverage years: from 2010 to 2018
Publisher: Penerbit Universiti Teknologi Malaysia
ISSN: 0127-9696 E-ISSN: 2180-3722
Subject area: Engineering: General Engineering

[View all documents >](#) [Set document alert](#) [Journal Homepage](#)

[Visit Scopus Journal Metrics ↗](#)

CiteScore 2017 ⓘ
0.35

SJR 2017 ⓘ
0.177

SNIP 2017 ⓘ
0.378

[CiteScore](#) [CiteScore rank & trend](#) [Scopus content coverage](#)

CiteScore 2017 ▼ Calculated using data from 30 April, 2018

0.35 = $\frac{\text{Citation Count 2017}}{\text{Documents 2014 - 2016*}}$ = $\frac{1,209 \text{ Citations} >}{3,486 \text{ Documents} >}$

*CiteScore includes all available document types [View CiteScore methodology >](#) [CiteScore FAQ >](#)

CiteScore rank ⓘ

Category	Rank	Percentile
Engineering		
General Engineering	#188/270	30th

CiteScoreTracker 2018 ⓘ Last updated on 11 April, 2019 Updated monthly

0.46 = $\frac{\text{Citation Count 2018}}{\text{Documents 2015 - 2017}}$ = $\frac{1,404 \text{ Citations to date} >}{3,064 \text{ Documents to date} >}$

Metrics displaying this icon are compiled according to Snowball Metrics ↗ , a collaboration between industry and academia.

- About Scopus
- What is Scopus
 - Content coverage
 - Scopus blog
 - Scopus API
 - Privacy matters

- Language
- 日本語に切り替える
 - 切换到简体中文
 - 切换到繁體中文
 - Русский язык

- Customer Service
- Help
 - Contact us



JURNAL TEKNOLOGI

SCIENCES & ENGINEERING

eISSN : 2190-3722



[HOME](#) [ABOUT](#) [LOGIN](#) [REGISTER](#) [SEARCH](#) [CURRENT](#) [ARCHIVES](#)
[ANNOUNCEMENTS](#) [SUBMISSIONS](#) [PUBLICATION ETHICS](#) [PENERBIT UTM PRESS](#) [UTM](#)

Home > Archives > **Vol 77, No 11**

Vol 77, No 11

Geotechnical and Earthquake Engineering

Chief Editor: Aminaton Marto Editorial Boards: Masayuki Hyodo, Masyhur Irsyam, Ramli Nazir, Edy Tonnizam Mohamad, Kamarudin Ahmad, Fauziah Kasim, Nor Zurairahetty Mohd Yunus, Tan Choy Soon

Table of Contents

Science and Engineering

[INSTRUMENTED PILE LOAD TESTING WITH DISTRIBUTED OPTICAL FIBRE STRAIN SENSOR](#) [PDF](#)

Hisham Mohamad, Bun Pin Tee

[UNCONFINED COMPRESSIVE STRENGTH AND MICROSTRUCTURE OF CLAY SOIL STABILISED WITH BIOMASS SILICA](#) [PDF](#)

Fauziah Kasim, Aminaton Marto, Nur Amalina Abdul Rahman, Choy Soon Tan

[GENERATION OF A PAIR OF SURFACE TIME HISTORIES FOR JAKARTA USED FOR EARTHQUAKE RESISTANCE DESIGN OF INFRASTRUCTURES](#) [PDF](#)

B.M. Hutapea, M. Asrurifak, Hendriyawan Hendriyawan, Masyhur Irsyam

[STATIC RESPONSE ON LIME COLUMN AND GEOTEXTILE ENCAPSULATED LIME COLUMN \(GELC\) STABILISED MARINE CLAY UNDER VERTICAL LOAD](#) [PDF](#)

Siaw Yah Chong, Khairul Anuar Kassim, Kenny Tiong Ping Chiet, Choy Soon Tan

[MODELLING THE EFFECT OF WIND FORCES ON LANDSLIDE OCCURRENCE IN BUDUDA DISTRICT, UGANDA](#) [PDF](#)

Okello Nelson, Azman Kassim, Gambo Haruna Yunusa, Zaihasra Abu Talib

[PREDICTION OF UNCONFINED COMPRESSIVE STRENGTH OF ROCKS: A REVIEW PAPER](#) [PDF](#)

Ehsan Momeni, Ramli Nazir, Danial Jahed Armaghani, Mohd For Mohd Amin, Edy Tonnizam Mohamad

[EFFECT OF SENSOR ROTATION ON ASSESSMENT OF BENDER ELEMENT APPARATUS](#) [PDF](#)

Badee Alshameri, Aziman Madun, Ismail Bakar, Edy Tonnizam Mohamad

[ROCK SLOPE ASSESSMENT USING KINEMATIC AND NUMERICAL ANALYSES](#) [PDF](#)

Mohammed Ali Mohammed Al-Bared, Rini Asnida Abdullah, Nor Zurairahetty Mohd Yunus, Mohd For Mohd Amin, Haryati Awang

[LIQUEFACTION RESISTANCE OF SAND MATRIX SOILS](#) [PDF](#)

Choy Soon Tan, Aminaton Marto, Ahmad Mahir Makhtar, Siaw Yah Chong, Faizal Pakir

[FULL SCALE STATIC LOAD TEST ON THE SPIDER NET SYSTEM](#) [PDF](#)

Helmy Darjanto, Masyhur Irsyam, Sri Prabandiyani Retno

[EVALUATION OF VS,30 ESTIMATING MODELS FOR INDONESIA](#) [PDF](#)

Widjojo A. Prakoso, I Nyoman Sukanta

[SEGMENT'S JOINT IN PRECAST TUNNEL LINING DESIGN](#) [PDF](#)

Siti Norafida Jusoh, Hisham Mohamad, Aminaton Marto, Nor Zurairahetty Mohd Yunus, Fauziah Kasim

[DEVELOPMENT OF SEISMIC MICROZONATION MAPS OF SEMARANG, INDONESIA](#) [PDF](#)

Windu Partono, Sri Prabandiyani Retno Wardani, Masyhur Irsyam, Syamsul Maarif

[SHEAR STRENGTH DEGRADATION OF SEMARANG BAWEN CLAY SHALE DUE TO WEATHERING PROCESS](#) [PDF](#)

Idrus M Alatas, Samira A Kamaruddin, Ramli Nazir, Masyhur Irsyam, Agus Himawan

[UTILIZATION OF SUGARCANE BAGASSE ASH FOR STABILIZATION / SOLIDIFICATION OF LEAD-CONTAMINATED SOILS](#) [PDF](#)

Saiful Azhar Ahmad Tajudin, Aminaton Marto, Mohamad Azim Mohammad Azmi, Aziman Madun, Mohd Hazreek Zainal Abidin

[SEISMIC TIME-HISTORY GROUND-MOTIONS FOR A SPECIFIC SITE IN JAKARTA](#) [PDF](#)

Jurnal Teknologi (Sciences and Engineering)

Q2

Engineering
(miscellaneous)

best quartile

SJR 2018

0.18

powered by scimagojr.com



0.46

2018

CiteScore

32nd percentile

Powered by **Scopus**

USER

Username

Password

☐ Remember me

Login

FONT SIZE

INFORMATION

- [For Readers](#)
- [For Authors](#)
- [For Librarians](#)

I Wayan Sengara, Muhammad Addifa Yulman, Andri Mulia

[COMPARISONS ON THE RESPONSE OF SHALLOW GEOTHERMAL ENERGY PILE
EMBEDDED IN SOFT AND FIRM SOILS](#)

[PDF](#)

Aminaton Marto, Ahmad Mahir Makhtar, Adriana Amaludin

[EFFECT OF DRYING-WETTING PROCESS ON FRICTION CAPACITY AND ADHESION
FACTOR OF PILE FOUNDATION IN CLAYEY SOIL](#)

[PDF](#)

Daniel Tjandra, Indarto Indarto, Ria Asih Aryani Soemitro



Copyright © 2012 [Penerbit UTM Press](#), Universiti Teknologi Malaysia.

Disclaimer : This website has been updated to the best of our knowledge to be accurate. However, Universiti Teknologi Malaysia shall not be liable for any loss or damage caused by the usage of any information obtained from this web site.

Best viewed: Mozilla Firefox 4.0 & Google Chrome at 1024 × 768 resolution.



Home > About the Journal > **Editorial Team**

Editorial Team

Chief Editors

[Jurnal Teknologi Editorial Team](#)

[Professor Dr. Rosli Md Illias](#), Universiti Teknologi Malaysia, Malaysia

Editors

[Professor Datuk Dr. Ahmad Fauzi Ismail](#), Universiti Teknologi Malaysia, Malaysia

[Professor Dr. Muhammad Hisyam Lee](#), Universiti Teknologi Malaysia, Malaysia

[Professor Dr. Ruzairi Abdul Rahim](#), Universiti Tun Hussein Onn Malaysia, Malaysia

[Professor Dr. Azman Hassan](#), Universiti Teknologi Malaysia, Malaysia

[Professor Dr. Hadi Nur](#), Universiti Teknologi Malaysia, Malaysia

[Professor Dr. Mohammad Nazri Mohd. Jaafar](#), Universiti Teknologi Malaysia, Malaysia

[Professor Dr. Zainal Salam](#), Universiti Teknologi Malaysia, Malaysia

[Professor Dr. Rosli Hussin](#), Universiti Teknologi Malaysia, Malaysia

[Professor Dr. Mohd. Rosli Hainin](#), Universiti Teknologi Malaysia, Malaysia

[Professor Dr. Mohd Shahir Shamsir Omar](#), Universiti Teknologi Malaysia, Malaysia

[Professor Dr. Safian Sharif](#), Universiti Teknologi Malaysia, Malaysia

[Professor Sr. Dr. Mazlan Hashim](#), Universiti Teknologi Malaysia, Malaysia

[Professor Dr. Mohd Saberi Mohamad](#), Universiti Malaysia Kelantan, Malaysia

[Professor Dr. Hesham Ali El-Enshasy](#), Universiti Teknologi Malaysia, Malaysia

[Assoc. Prof. Dr. Norhazilan Md Noor](#), Universiti Teknologi Malaysia, Malaysia

[Assoc. Prof. Dr. Mohd Hafiz Dzarfan Othman](#), Universiti Teknologi Malaysia, Malaysia

[Dr. Pei Sean Goh](#), Universiti Teknologi Malaysia, Malaysia

[Dr. Syafiqah Saidin](#), Universiti Teknologi Malaysia, Malaysia

[Dr. Dalila Mat Said](#), Universiti Teknologi Malaysia, Malaysia

Editorial Board

[Professor I. S. Jawahir](#), University of Kentucky, United States

[Professor Dr. Xianshe Feng](#), University of Waterloo, Canada

[Professor Dr. Mustafizur Rahman](#), National University of Singapore, Singapore

[Professor Dr. William McClusky](#), University of Ulster, United Kingdom

[Professor Vijay K. Arora](#), Wilkes University, United States

[Assoc. Prof. Dr. G. Arthanareeswaran](#), National Institute of Technology, Tiruchirapalli, INDIA

[Assoc. Professor Dr. Arun M Isloor](#), National Institute of Technology Karnataka, INDIA

[Professor Dr. Jamaliah Md Jahim](#), Universiti Kebangsaan Malaysia, Malaysia

[Professor Dr. Che Hassan Che Haron](#), Universiti Kebangsaan Malaysia, Malaysia

Jurnal Teknologi (Sciences and Engineering)

Q2

Engineering
(miscellaneous)

best quartile

SJR 2018

0.18

powered by scimagojr.com



0.46

2018

CiteScore

32nd percentile

Powered by **Scopus**

USER

Username

Password

☐ Remember me

Login

FONT SIZE

INFORMATION

- [For Readers](#)
- [For Authors](#)
- [For Librarians](#)



Copyright © 2012 Penerbit UTM Press, Universiti Teknologi Malaysia.

Disclaimer : This website has been updated to the best of our knowledge to be accurate. However, Universiti Teknologi Malaysia shall not be liable for any loss or damage caused by the usage of any information obtained from this web site.

Best viewed: Mozilla Firefox 4.0 & Google Chrome at 1024 × 768 resolution.

DEVELOPMENT OF SEISMIC MICROZONATION MAPS OF SEMARANG, INDONESIA

Windu Partono^{a*}, Sri Prabandiyani Retno Wardani^a,
Masyhur Irsyamb, Syamsul Maarif^c

^aDiponegoro University, Semarang, Indonesia

^bBandung Institute of Technology, Bandung, Indonesia

^cNational Agency for Disaster Management, Indonesia

Article history

Received

3 August 2015

Received in revised form

31 August 2015

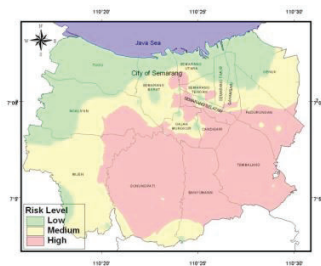
Accepted

23 September 2015

*Corresponding author

windu_bapake_dila@yahoo.com

Graphical abstract



Abstract

The new Indonesian Code for seismic resistance design for building has been issued recently. It follows the concept of Risk-Targeted Maximum Considered Earthquake (MCER). Seismic risk microzonation of Semarang is analyzed using the new concept. Seismic risk microzonation study for hazard mitigation is also performed for the whole city based on deterministic approach, considering the closest distance fault (Lasem Fault). Interpretation of local site effects is performed by carrying one-dimensional ground response analysis. Depth of bedrock is estimated based on single station feedback seismometer measurement. Geotechnical parameters are interpreted from recent and previous measurements. The result of deterministic microzonation study includes the distribution of surface peak ground acceleration (PGA) and spectral acceleration due to Lasem Fault. The obtained results are compared with the distribution of surface PGA and spectral acceleration obtained through new code.

Keywords: Risk-Targeted Maximum Considered Earthquake; seismic microzonation; deterministic; local site effect; bedrock

Abstrak

Kod baru Indonesia badi rekabentuk rintangan seismik untuk bangunan telah diterbitkan baru-baru ini. Ia menggunakan konsep *Risk-Targeted Maximum Considered Earthquake* (MCER). Kajian mikrozonasi seismik bagi Semarang telah dianalisis dengan menggunakan konsep baru ini. Kajian risiko mikrozonasi seismik untuk mitigasi bencana juga dilakukan untuk seluruh bandar berdasarkan pendekatan deterministik, berasaskan dengan jarak sesar terdekat (Sesar Lasem). Penafsiran pengaruh tapak tempatan telah dilakukan dengan menjalankan analisis sambutan bumi satu-dimensi. Kedalaman batu hampar telah dianggar berdasarkan pengukuran stesen tunggal maklumbalas seismometer. Parameter geoteknik ditafsirkan dari pengukuran terkini ini dan sebelumnya. Keputusan kajian mikrozonasi deterministik termasuk pengagihan pecutan puncak tanah (PGA) dan pecutan spektrum disebabkan oleh Sesar Lasem. Keputusan yang diperolehi telah dibandingkan dengan pengagihan PGA permukaan dan pecutan spectrum yang didapatkan berdasarkan kod baru.

Kata kunci: Risk-Targeted Maximum Considered Earthquake; mikrozonasi seismik; deterministik; pengaruh tapak tempatan; batu hampar

© 2015 Penerbit UTM Press. All rights reserved