

Open Journal of Civil Engineering



ISSN: 2164-3164



Journal Editorial Board

ISSN Print: 2164-3164 ISSN Online: 2164-3172

<https://www.scirp.org/journal/ojce>

Editor-in-Chief

Prof. Hwai-Chung Wu

Wayne State University, USA

Associate Editor

Prof. Raja Rizwan Hussain

King Saud University, Saudi Arabia

Editorial Board

Dr. Olanrewaju Abdullateef

Universiti Tunku Abdul Rahman, Malaysia

Prof. Alireza Afshari

Aalborg University, Denmark

Dr. Ali Awaludin

Gadjah Mada University, Indonesia

Prof. Ayman Batisha

Ministry of Water Resources and Irrigation, Egypt

Prof. Fabio Bisegna

Sapienza University of Rome, Italy

Prof. Christopher Chao

The Hong Kong University of Science and Technology, China

Prof. Carlos Chastre

NOVA University of Lisbon, Portugal

Dr. You Dong

The Hong Kong Polytechnic University, Hong Kong (China)

Dr. Massimiliano Ferraioli

University of Campania "Luigi Vanvitelli", Italy

Prof. Cristina Gentilini

University of Bologna, Italy

Dr. Behzad Kalantari

Hormozgan University, Iran

Prof. Jian Kang

University of Sheffield, UK

Prof. Vojko Kilar

University of Ljubljana, Slovenia

Prof. Kiyoshi Kobayashi

Kyoto University, Japan

Dr. Guan Lin

The Hong Kong Polytechnic University, Hong Kong, China

Prof. Triantafyllos Makarios

Aristotle University of Thessalonik, Greece

Prof. George C. Manos

Aristotle University of Thessaloniki, Greece

Prof. Haji Mohd Idrus Haji Mohd Masirin

Universiti Tun Hussein Onn Malaysia, Malaysia

Prof. Ali M. Memari

Pennsylvania State University, USA

Dr. Hosein Naderpour

Semnan University, Iran

Prof. Deepa G. Nair

Cochin University of Science & Technology, India

Prof. John-Paris Pantouvakis

National Technical University of Athens, Greece

Prof. Low Sui Pheng

National University of Singapore, Singapore

Prof. Miroslav Premrov

University of Maribor, Slovenia

Prof. Nicola Pugno

University of Trento, Italy

Dr. Ying Qin

Southeast University, China

Dr. Gian A. Rassati

University of Cincinnati, USA

Dr. Rehan Sadiq

University of British Columbia, Canada

Prof. Evangelos J. Sapountzakis

National Technical University of Athens, Greece

Prof. Mehdi Setareh

Virginia Tech University, USA

Dr. Xijun Shi

Texas State University, USA

Prof. Zengqing Sun

Central South University, China

Prof. Wen-Pei Sung

National Chin-Yi University of Technology, Chinese Taipei

Prof. Chong-Shien Tsai

Feng Chia University, Chinese Taipei

Prof. Francesco Ubertini

University of Bologna, Italy

Dr. Roberto Valentino

University of Parma, Italy

Dr. Heng Wei

The University of Cincinnati, USA

Prof. Ka-Veng Yuen

University of Macau, China

Prof. Vahid Zanjani Zadeh

Bechtel Corporation, USA

Prof. Jun Zhang

Tsinghua University, China

Table of Contents

Volume 12 Number 3

September 2022

Using Geometry Data from Ground Penetrating Radar to Improve Pavement Layers Auscultation Using Seismic Surface Waves Inversion Method

C. D. Diene, M. Ndiaye..... 271

Slope Stability Considering the Top Building Load

M. Didit, X. W. Zhang, W. D. Zhu..... 292

Study of Attapulgit as an Additive in Reinforced Concrete by Substitution of Cement and Its Effects on the Durability Properties of Hardened Concrete

M. Bodian, D. Keinde, I. Yade, K. Hannawi, P. W. Agbodjan, M. Fall, A. Darquennes..... 301

Structural Analysis of a RC Shear Wall by Use of a Truss Model

P. G. Papadopoulos, P. E. Lamprou 320

Using Radial Neural Network to Predict the Ultimate Moment of a Reinforced Concrete Beam Reinforced with Composites

S. M. Randrianarisoa, L. C. Andriambahoaka, H. S. Rakotondranja, A. L. Raminosa..... 353

Geotechnical Characterization of Termite Mound Soils of Congo

L. Ahouet, M. O. Ngoulou, S. N. Okina, S. Dzaba 370

Behaviour and Analysis of Horizontally Curved Steel Box-Girder Bridges

M. Mairone, R. Asso, D. Masera, P. Palumbo 390

The Ambiguous Boundary between Buildings and Environment: *Exploring the Interpretation of Traditional Aesthetic in Contemporary Japanese Architecture*

P. Jiang..... 415

Simulation and Experiment Study on the Bridge Deflection Measuring Method Based on Secant Inclination

Y. Wu, J. Li..... 438

Identification of Glass Powders and Sands from the Crushing of Glass Waste from the City of Lomé in Togo

A. D. Kplolanyo, S. E. Ouro-Djobo, A. K. Bollanigni, G. K. Senanou 451

Open Journal of Civil Engineering (OJCE)

Journal Information

SUBSCRIPTIONS

The *Open Journal of Civil Engineering* (Online at Scientific Research Publishing, <https://www.scirp.org/>) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$79 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

Copyright and reuse rights for the front matter of the journal:

Copyright © 2022 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

Copyright for individual papers of the journal:

Copyright © 2022 by author(s) and Scientific Research Publishing Inc.

Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

Disclaimer of liability

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: ojce@scirp.org



Call for Papers

Open Journal of Civil Engineering

ISSN Print: 2164-3164 ISSN Online: 2164-3172

<https://www.scirp.org/journal/ojce>

Open Journal of Civil Engineering (OJCE) is an international journal dedicated to the latest advancement of civil engineering. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of civil engineering.

Editor-in-Chief

Prof. Hwai-Chung Wu

Wayne State University, USA

Associate Editor

Prof. Raja Rizwan Hussain

King Saud University, Saudi Arabia

Editorial Board

Dr. Olanrewaju Abdullateef
 Prof. Alireza Afshari
 Dr. Ali Awaludin
 Prof. Ayman Batisha
 Prof. Fabio Bisegna
 Prof. Christopher Chao
 Prof. Carlos Chastre
 Dr. You Dong
 Dr. Massimiliano Ferraioli
 Prof. Cristina Gentilini

Dr. Behzad Kalantari
 Prof. Jian Kang
 Prof. Vojko Kilar
 Prof. Kiyoshi Kobayashi
 Dr. Guan Linv
 Prof. Triantafyllos Makarios
 Prof. George C. Manos
 Prof. Haji Mohd Idrus Haji Mohd Masirin
 Prof. Ali M. Memari
 Dr. Hosein Naderpour

Prof. Deepa G. Nair
 Prof. John-Paris Pantouvakis
 Prof. Low Sui Pheng
 Prof. Miroslav Premrov
 Prof. Nicola Pugno
 Dr. Ying Qin
 Dr. Gian A. Rassati
 Dr. Rehan Sadiq
 Prof. Evangelos J. Sapountzakis
 Prof. Mehdi Setareh

Dr. Xijun Shi
 Prof. Zengqing Sun
 Prof. Wen-Pei Sung
 Prof. Chong-Shien Tsai
 Prof. Francesco Ubertini
 Dr. Roberto Valentino
 Dr. Heng Wei
 Prof. Ka-Veng Yuen
 Prof. Vahid Zanjani Zadeh
 Prof. Jun Zhang

Subject Coverage

All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes original papers including but not limited to the following fields:

- Assemblage and System
- Behavior of Structures
- Behavior of Structures under Seismic Loads
- Building and Environmental Acoustics
- Building Climate Systems
- Building Energy
- Civil and Environmental Engineering
- Coastal Engineering
- Composite Materials
- Concrete Structures
- Construction Economics
- Construction Engineering
- Design and Performance of Green Building
- Design Optimization of Structures
- Earthquake Engineering
- Energy Efficient Building Technology
- Energy Saving Building Materials
- Evaluation of Building Envelope Systems under
- Structural and Environmental Loads
- Evaluation of Glazing Systems for Energy Performance
- Fire Engineering
- Foundations Dynamics
- Geotechnical Engineering
- Health Monitoring and Life Prediction of Structures
- High Performance Concrete
- Hydraulic Engineering
- Life Cycle Engineering
- Materials and Durability
- Materials Engineering
- Mechanics and Materials Aspects of Advanced Construction Materials
- Municipal or Urban Engineering
- Nondestructive Testing and Evaluation
- Numerical Modelling of Structures
- Optimal Design of Structures
- Properties and Mechanics of Concrete
- Residential, Commercial, Industrial and Public Works
- Seismic Evaluation of Building Nonstructural Components
- Simulation Optimization and Risk Management
- Soil-Structure Interaction
- Structural Engineering
- Structural Evaluation of Panelized and Masonry Wall Systems
- Structural Reliability Analysis
- Surveying
- Sustainable Structures
- Transportation Engineering
- Ventilation and Indoor Air Quality
- Water Supply and Drainage

We are also interested in: 1) Short Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

<https://www.scirp.org/journal/ojce>

E-mail: ojce@scirp.org