

ISSN 2332-1091

Volume 6 Number 2 2018



# *Civil Engineering and Architecture*

<http://www.hrpub.org>

Horizon Research Publishing, USA

## Civil Engineering and Architecture

Civil Engineering and Architecture is an international peer-reviewed journal that publishes original and high-quality research papers in all areas of civil engineering and architecture. As an important academic exchange platform, scientists and researchers can know the most up-to-date academic trends and seek valuable primary sources for reference. The subject areas include, but are not limited to the following fields: Architectural design competition, Architectural drawing, Architectural style, Architectural theory, Atmospheric sciences, Biomechanics, Building materials, Coastal engineering, Computational science and engineering, Construction engineering, Control engineering, Earthquake engineering, Environmental engineering, Forensic engineering, Geodesy, Geophysics, Geotechnical engineering, Materials engineering, Municipal or urban engineering, Organic architecture, Sociology of architecture, Structural engineering.

## General Inquires

Publish with HRPUB, learn about our policies, submission guidelines etc.

Email: [editor@hrpub.org](mailto:editor@hrpub.org)

Tel: +1-626-626-7940

## Subscriptions

**Journal Title:** Civil Engineering and Architecture

**Journal's Homepage:** [http://www.hrpub.org/journals/jour\\_info.php?id=48](http://www.hrpub.org/journals/jour_info.php?id=48)

**Publisher:** Horizon Research Publishing Co.,Ltd

**Address:** 2880 ZANKER RD STE 203 SAN JOSE, CA 95134 USA

**Publication Frequency:** bimonthly

**Electronic Version:** freely online available at [http://www.hrpub.org/journals/jour\\_info.php?id=48](http://www.hrpub.org/journals/jour_info.php?id=48)

## Online Submission

Manuscripts should be submitted by Online Manuscript Tracking System (<http://www.hrpub.org/submission.php>).

If you are experiencing difficulties during the submission process, please feel free to contact the editor at [submission@hrpub.org](mailto:submission@hrpub.org).

## Copyright

Authors retains all copyright interest or it is retained by other copyright holder, as appropriate and agrees that the manuscript remains permanently open access in HRPUB 's site under the terms of the Creative Commons Attribution International License (CC BY). HRPUB shall have the right to use and archive the content for the purpose of creating a record and may reformat or paraphrase to benefit the display of the record.

## Creative Commons Attribution License (CC-BY)

All articles published by HRPUB will be distributed under the terms and conditions of the Creative Commons Attribution License(CC-BY). So anyone is allowed to copy, distribute, and transmit the article on condition that the original article and source is correctly cited.

## Open Access

Open access is the practice of providing unrestricted access to peer-reviewed academic journal articles via the internet. It is also increasingly being provided to scholarly monographs and book chapters. All original research papers published by HRPUB are available freely and permanently accessible online immediately after publication. Readers are free to copy and distribute the contribution under creative commons attribution-non commercial licence. Authors can benefit from the open access publication model a lot from the following aspects:

- High Availability and High Visibility-free and unlimited accessibility of the publication over the internet without any restrictions;
- Rigorous peer review of research papers----Fast, high-quality double blind peer review;
- Faster publication with less cost----Papers published on the internet without any subscription charge;
- Higher Citation----open access publications are more frequently cited.

# Civil Engineering and Architecture

---

## Editor-in-Chief

Elizabeth Martin-Malikian Southern Polytechnic State University, USA

## Members of Editorial Board

Chia-hui Lin	The University of Melbourne, Australia
Janendranath Mandal	Indian Institute of Technology, India
Engin Eroglu	Duzce University Faculty of Forestry, Turkey
Hasan Tahsin Ozturk	Karadeniz Technical University, Turkey
Antonio Brencich	University of Genoa, Italy
Santina Di Salvo	University of Palermo, Italy
Hongyuan Liu	University of Tasmania, Australia
Aldo Renato Daniele Accardi	Architectural Department, Italy
Halil Zafer Alibaba	Eastern Mediterranean University, North Cyprus
Adel Francis	École de technologie supérieure (ÉTS), Canada
Amira Elnokaly	University of Lincoln, UK
Damian Beben	Opole University of Technology, Poland
Mohamed Mostafa Hassan Mostafa	Central University of Technology, South Africa
Stephen Eromobor	Central University of Technology, South Africa
Ying Wang	Deakin University, Australia
H.M.A. Mahzuz	Shahjalal University of Science & Technology Sylhet, Bangladesh
Tomaz Tollazzi	University of Maribor, Slovenia
Jonas Jakaitis	Vilnius Gediminas Technical University, Lithuania
Daniela Staffenova	University of Žilina, Slovenia
Petros Christou	Frederick University, Cyprus
George Vasdravellis	Heriot-Watt University, UK
Lee Pugalis	Northumbria University, UK
Maurizio Francesco Errigo	Delft University of Technology, Netherlands
Elizabeth Grant	University of Adelaide, Australia
Luisa Maria Calabrese	Delft University of Technology, Netherlands