

ISSN 2332-1091

Volume 10 Number 5A 2022



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 Drawing, Architectural Style, Architectural Theory, Biomechanics, Architectural Design, Coastal Engineering, Building Materials and Technology, Smart Built Environment, Earthquake Engineering, Environmental Engineering, Geotechnical Engineering, Bridge Engineering, Municipal Or Urban Engineering, Organic Architecture, Sociology of Architecture, Structural Engineering, Surveying, Transportation Engineering, Construction Engineering and Management, History of Civil Engineering.

General Inquires

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

Email: editor@hrpub.org

Tel: +1-626-626-7940

Subscriptions (Electronic Version only)

Journal Title: Civil Engineering and Architecture

Journal's Homepage: http://www.hrpub.org/journals/jour_info.php?id=48

Publisher: Horizon Research Publishing Co.,Ltd

Publication Frequency: bimonthly

Electronic Version: freely online available at 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.

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

Prof. Jorge M. Tavares Ribeiro

University of Lisbon, Portugal

Honorary Editor-in-Chief

Dr. Masa Noguchi

University of Melbourne, Australia

Deputy Editor-in-Chief

Prof. Ashraf Badir

Florida Gulf Coast University, USA

Prof. Salvatore Leonardi

University of Catania, Italy

Prof. Philippe Bouillard

Université Libre de Bruxelles, Belgium

Dr. Liyaning (Maggie) Tang

University of Newcastle, Australia

Members of Editorial Board

Prof. Aldo Renato Daniele Accardi

University of Palermo, Italy

Prof. Adel Francis

University of Quebec, Canada

Prof. Muhammad Saleem

University of Dammam, Saudi Arabia

Prof. Alope Kumar Datta

National Institute of Technology, India

Prof. Behzad Sodagar

University of Lincoln, UK

Prof. Rosa Maria Vitrano

University of Palermo, Italy

Prof. Antonio Formisano

University of Naples "Federico II", Italy

Prof. Giuseppe Lacidogna

Polytechnic University of Turin, Turin, Italy

Prof. Stefano Dal Pont

Université Grenoble Alpes (UGA), France

Prof. H. Murat Celik

Istanbul Technical University, Turkey

Prof. Luigi Alini

University of Catania, Italy

Dr. Chia-Hui Lin

National Taiwan University, Taiwan

Dr. Engin Eroglu

Duzce University, Turkey

Dr. Santina Di Salvo

University of Palermo, Italy

Dr. Hongyuan Liu

University of Tasmania, Australia

Dr. Amira Elnokaly

University of Lincoln, United Kingdom

Dr. Damian Beben

Opole University of Technology, Poland

Dr. Ying Wang

Deakin University, Australia

Dr. Daniela Jurasova

University of Zilina, Slovakia

Dr. George Vasdravellis

Heriot-Watt University, United Kingdom

Dr. Lee Pugalish

Northumbria University, United Kingdom

Dr. Maurizio Francesco Errigo

Kore University of Enna, Italy

Dr. Luisa Maria Calabrese

Delft University of Technology, Netherlands

Dr. Masa Noguchi

University of Melbourne, Australia

Dr. Alessandro De Masi

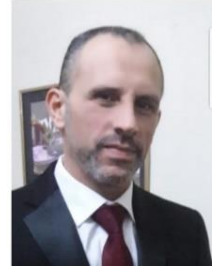
University of Trento, Italy

Editors' Preface

Prof. Hesham M. El-Barmelgy

Chairperson of CPAU

Professor of Sustainable Development and Urban Design, Dean of Faculty of Urban and Regional Planning, Cairo University, Egypt



Dear Readers and Contributors,

As the head of the Contingency Planning and Adaptive Urbanism Conference (CPAU 2022), I would like to express my great appreciation and gratitude to all those who have contributed to the success of our conference, the organizers, the members of the scientific committee, the researchers, the reviewers, and all of the Faculty of Urban and Regional Planning (FURP) administrative members who worked hard to fulfill the high standards required for hosting such a successful scientific event. The conference targeted at, through the publication of 46 research papers, the challenges of promoting contingency planning in the various planning dimensions in Egypt. Thanks to the cooperation with the Civil Engineering and Architecture (HRPUB) editorial board, 25 research papers were published internationally. Looking forward to the next challenge in our upcoming annual conference FURP 2023.

Kind Regards

Prof. Hesham M. El-Barmelgy

Prof. Ebtehal Ahmed Abd-Almoity

CPAU Vice chair

Professor of Regional Planning, Faculty of Urban and Regional Planning, Cairo University, Egypt



Prof. Ahmed M. Yousry

Head of the scientific committee of CPAU

Professor of Urban Planning, Faculty of Urban and Regional Planning, Cairo University, Egypt



Special Issue Scientific Committee

Academians	University	Country
Prof. Abdallah El-Erian	Cairo University	Egypt
Prof. Aboulfetouh Saad Shalaby	Cairo University	Egypt
Prof. Ahmed Abdullah Mohammed Abdel Ghany	Cairo University	Egypt
Prof. Ahmed El-Bakly	Institute of National Planning	Egypt
Prof. Ahmed Hosney Radwan	Helwan University	Egypt
Prof. Ahmed Mahmoud Yousry	Cairo University	Egypt
Prof. Ahmed Sami	Ain Shams University	Egypt
Prof. Alaa El-din Yassin	Cairo University	Egypt
Prof. Ebtehal Ahmed AbdAlmoity	Cairo University	Egypt
Prof. Ehab Okba	Fayoum University	Egypt
Prof. Ghada Mahmoud Ahmed Hassan	Cairo University	Egypt
Prof. Hala Saad Mekawi	Cairo University	Egypt
Prof. Hesham Mohamed El-Barmelgy	Cairo University	Egypt
Prof. Hisham Mahmoud Aref	Fayoum University	Egypt
Prof. Khaled Mahmoud Samy	Umm Al-Qura University	KSA
Prof. Laila Mohammad El Sayyed El Masry	Cairo University	Egypt
Prof. Mohamed Alaa Mandour	Helwan University	Egypt
Prof. Mohamed Hesham Saud Kamel	Alexandria University	Egypt
Prof. Mohammad Hussein Refaat	Cairo University	Egypt
Prof. Mohamed Shehata	Cairo University	Egypt
Prof. Mohga Emam Imbaby Hassan	Fayoum University	Egypt
Prof. Mona Soliman	Fayoum University	Egypt
Prof. Randa Gala	Cairo University	Egypt
Prof. Soad Youssef Hasanein Bashandy	Cairo University	Egypt
Prof. Tarek Abou El-seoud	Cairo University	Egypt

Civil Engineering and Architecture

Volume 10 Number 5A 2022

Spatial Analysis Model for Allocation of High-Rise Building

(<https://www.doi.org/10.13189/cea.2022.101401>)

Nehal M. Mohamed, Soad Y. Bashandy, Hesham M. El-Barmelgy, Abdullah F. Al-Attar 1

Lack of Resilience in the Integrated Coastal Zone Management and the Regional Strategic Plans in Egypt's Northwest Coast Region

(<https://www.doi.org/10.13189/cea.2022.101402>)

Ebtehal Ahmed Abd-Almoity, M. H. Refaat, H. S. Amin, M. R. Abdel- Rahman33

Towards More Human Cities in Egypt: Human-City Urban Planning Model HCUPM

(<https://www.doi.org/10.13189/cea.2022.101403>)

Ghada Eldeeb, Mohamed Shehata, Hisham Hafez47

Constructing a Theoretical Framework of the Urban Transformation Processes of the Port City Interface towards Resilient Egyptian Port Cities

(<https://www.doi.org/10.13189/cea.2022.101404>)

Walid Abaza, Aboul-Fetouh Shalaby, Maye Yehia71

Interplay of Actors and Dynamics in Urban Development Projects: A French Experience on the West Side of Paris

(<https://www.doi.org/10.13189/cea.2022.101405>)

Maye Yehia93

An Egyptian Tsunami Contingency Plan

(<https://www.doi.org/10.13189/cea.2022.101406>)

Shaimaa EL Mowafy, Hesham M. EL-Barmelgy, Heba Mohamed Ammar 111

Assessing the Identity of Place through Its Measurable Components to Achieve Sustainable Development

(<https://www.doi.org/10.13189/cea.2022.101407>)

Omnia Ali, Yasser Mansour, Abeer Elshater, Ayman Fareed137

A Framework for National Urban Policy-Making Evaluation Methodology: Challenges of Natural Resources Sustainability in Egypt

(<https://www.doi.org/10.13189/cea.2022.101408>)

Raghda Zakariya, Mohammed Shehata, Hisham Hafez158

Spatial Monitoring and Classifying of Urban Deterioration in the Egyptian Cities Using Geographic Information System (GIS) Approach: A Case Study of Mansoura City, Egypt (https://www.doi.org/10.13189/cea.2022.101409)	
Mohamed A. Osman, Karim Q. Tphoon, Mohamed Shehata, Mina A. Lamee	176
Gated Community Walkability Design Efficiency Model (https://www.doi.org/10.13189/cea.2022.101410)	
Nouran Abdallah Saadawy, Sahar Ismail Abdel Hady	189
A Methodology for Evaluating Housing Programs in Egypt (https://www.doi.org/10.13189/cea.2022.101411)	
Mohamed Badr, Mohamed Shehata	214
Computer Based Smart Urban Upgrading Model (SUUM) (https://www.doi.org/10.13189/cea.2022.101412)	
Soaad Bashandy, Hesham EL-Barmelgy, Tarek Abou El Seoud, Asmaa Sallam	240
Landscape Design as a Tool to Meet Children's Needs in Residual Urban Spaces (https://www.doi.org/10.13189/cea.2022.101413)	
Shereen Farouk Abou Dagher, Mohammad Refaat, Rania El Messeidy	271
A GIS Vulnerability Assessment Tool to Support Strategic Planning of Cities Facing Flash Floods - Case Study of Nuweiba City - Egypt (https://www.doi.org/10.13189/cea.2022.101414)	
Safaa A. Ghoneim, Maha M. Elsayed, Hossam Sami Amer.....	288
The Resilience of Egyptian Cities against Health Crises 'Egyptian Pandemic City Tool' (https://www.doi.org/10.13189/cea.2022.101415)	
Engy Ramadan Mostafa, Hesham Mohamed El-Barmelgy, Kariman Ahmed Shawky.....	313
Opportunity to a Place: How Street Network Structure Affects the Acquisition of Riverfront Spaces at Minia City (https://www.doi.org/10.13189/cea.2022.101416)	
Hussam. E. M. Magdy, Abullah Al-Attar	339
Assessing the Safety of Settlements from Flood Risk (https://www.doi.org/10.13189/cea.2022.101417)	
Doaa Amin, Khaled Gaber, Eatemad Keshta, Safaa A. Ghoneim	352
Management Strategies of Existing Urban Areas Development under Egypt's Vision 2030: Between State Policies and the Rights of Existing Residents (https://www.doi.org/10.13189/cea.2022.101418)	
Ahmed Muhammed Elsadek Wahaballa, Morad Abdelkader Abdelmohsen, Muhammed Ibrahim Gabr	380
Identifying Main Driving Forces Affecting Urban Sprawl in the Vicinity of Cultural Heritage Sites in Egypt (https://www.doi.org/10.13189/cea.2022.101419)	
Madonna Nawar, Hesham El-Barmelgy, Abdullah El-Attar, Taher Osman	391

Development of a Methodological Framework for Measuring Energy Performance of Urban Patterns in New Egyptian Communities (Toward Achieving Sustainable Urban Regeneration)

(<https://www.doi.org/10.13189/cea.2022.101420>)

Farahat Kholoud, Sehata Mohamed, Abou El Seoud Tarek410

A Spatio-Economic Logit Model for Aerotropolis Region of Metropolitan Cairo International Airport, Egypt

(<https://www.doi.org/10.13189/cea.2022.101421>)

Mohamed Samir Ragab, Randa Galal Hussein, Walid Nabil Bayoumi, Tarek Abou El Seoud.....440

Civil Engineering and Architecture

Call for Papers

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.

Aims & Scope

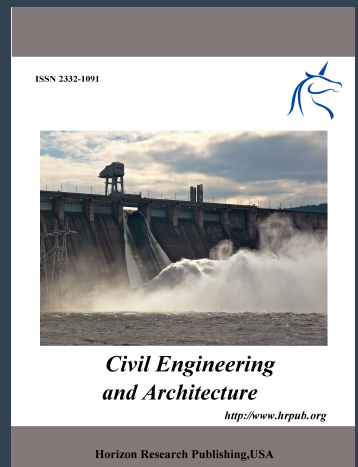
- Architectural Drawing
- Architectural Style
- Architectural Theory
- Biomechanics
- Architectural Design
- Coastal Engineering
- Building Materials and Technology
- Smart Built Environment
- Earthquake Engineering
- Environmental Engineering
- Geotechnical Engineering
- Bridge Engineering
- Municipal Or Urban Engineering
- Organic Architecture
- Sociology of Architecture
- Structural Engineering
- Surveying
- Transportation Engineering
- Construction Engineering and Management
- History of Civil Engineering

Editorial Board

Prof. Jorge M. Tavares Ribeiro	University of Lisbon, Portugal
Dr. Masa Noguchi	University of Melbourne, Australia
Prof. Ashraf Badir	Florida Gulf Coast University, USA
Prof. Salvatore Leonardi	University of Catania, Italy
Prof. Philippe Bouillard	Université Libre de Bruxelles, Belgium
Dr. Liyaning (Maggie) Tang	University of Newcastle, Australia
Prof. Aldo Renato Daniele Accardi	University of Palermo, Italy
Prof. Adel Francis	University of Quebec, Canada
Prof. Muhammad Saleem	University of Dammam, Saudi Arabia
Prof. Alope Kumar Datta	National Institute of Technology, India
Prof. Behzad Sodagar	University of Lincoln, UK
Prof. Rosa Maria Vitrano	University of Palermo, Italy
Prof. Antonio Formisano	University of Naples "Federico II", Italy
Prof. Giuseppe Lacidogna	Polytechnic University of Turin, Turin, Italy
Prof. Stefano Dal Pont	Université Grenoble Alpes (UGA), France
Prof. H. Murat Celik	Istanbul Technical University, Turkey
Prof. Luigi Alini	University of Catania, Italy
Dr. Chia-Hui Lin	National Taiwan University, Taiwan
Dr. Engin Eroglu	Duzce University, Turkey
Dr. Santina Di Salvo	University of Palermo, Italy
Dr. Hongyuan Liu	University of Tasmania, Australia
Dr. Amira Elnokaly	University of Lincoln, United Kingdom
Dr. Damian Beben	Opole University of Technology, Poland
Dr. Ying Wang	Deakin University, Australia
Dr. Daniela Jurasova	University of Zilina, Slovakia

Manuscripts Submission

Manuscripts to be considered for publication have to 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.



Contact Us

Horizon Research Publishing
2880 ZANKER RD STE 203
SAN JOSE, CA 95134
USA
Email: editor@hrpub.org

Submit your paper at http://www.hrpub.org/journals/jour_submitmanuscript.php?id=48

Available Online http://www.hrpub.org/journals/jour_info.php?id=48

Horizon Research Publishing

<http://www.hrpub.org>