Practice Periodical on Structural Design and Construction

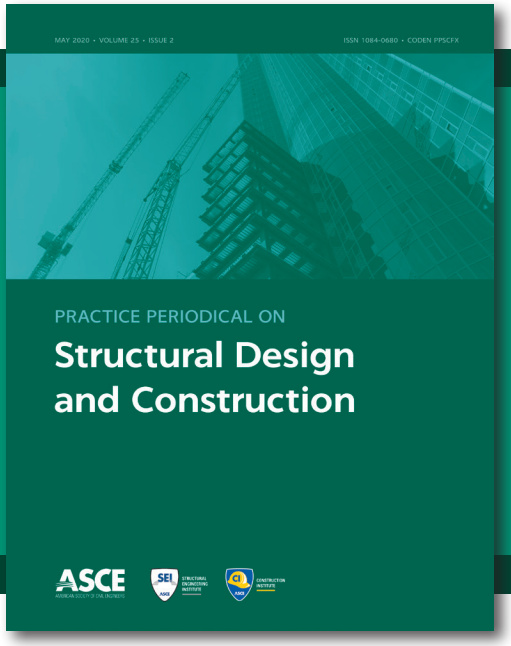
Chief Editor:
Soliman Khudeira, Ph.D., P.E., S.E., Illinois Institute of Technology (Soliman.Khudeira@iit.edu)

Guest Editors:
Masoomeh Mirrashid, Ph.D., Semnan University, Iran (m.mirrashid@semnan.ac.ir)
Hosein Naderpour, Ph.D., Semnan University, Iran (naderpour@semnan.ac.ir)
Lukasz Sadowski, Ph.D., Wrocław University of Science and Technology, Poland (lukasz.sadowski@pwr.edu.pl)
Gui-Lin She, Ph.D., Hunan University, China (glshe@hnu.edu.cn)
Bahira Abdulsalam, Ph.D., P.Eng., Composites Infrastructure Innovation Solutions Corp, Ontario, Canada (bahira.abdulsalam@compositeinfrastructure.com)

Call for Papers

Special Collection: Strengthening, Retrofitting, and Rehabilitation of Structures

Submit manuscripts:
https://www.editorialmanager.com/jrnsceng



Introduction

The performance of various structures under different loads, such as earthquakes, has demonstrated the need for focusing attention on existing buildings and infrastructure built using the old generation of instructions. Undesirable performance and vulnerable behavior of structures during recent earthquakes, has led to the need to re-examine the previous codes. Therefore, the issue of retrofitting and rehabilitation of the existing buildings is one of the most important topics in civil engineering. Structures, such as earthquake-damaged buildings or buildings that lack stability or strength for the considered loads, need to be retrofitted. To do this, it is necessary to identify the best possible solutions for each project and specify the optimal strategy with the lowest cost, the highest reliability, and the best possible implementation for the project. For example, the use of advanced composite materials, such as externally bonded Fiber Reinforced Polymer (FRP) sheets and FRP near-surface mounted rebar, is currently a standard method in retrofitting existing reinforced and prestressed concrete structures as well as masonry and steel structures, bridges and infrastructures. In this special collection, the latest advances in retrofitting and rehabilitation of structures and infrastructures are highlighted.

Scope

The application areas of interest include, but are not limited to, applications of strengthening retrofitting repair and rehabilitation of structures. This includes utilizing the traditional methods of structural strengthening using concrete steel as well as by utilizing advanced technologies utilizing the superior properties of advanced fiber reinforced polymer composites FRP and the various systems, the types of structural systems include but not limit to the following

continued on reverse

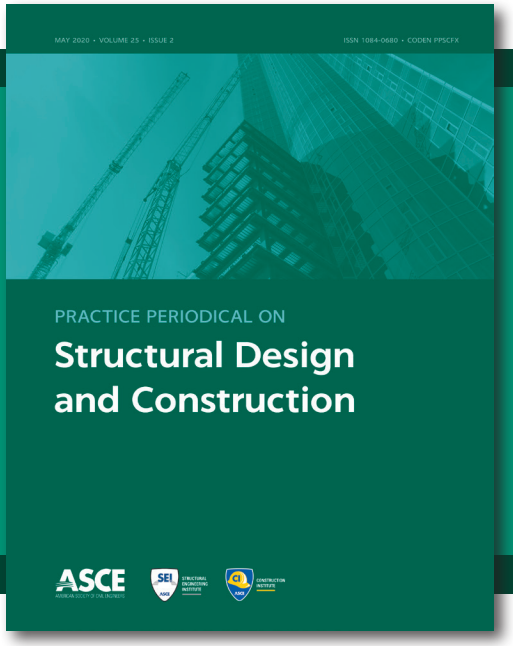
Practice Periodical on Structural Design and Construction

Chief Editor:
Soliman Khudeira, Ph.D., P.E., S.E., Illinois Institute of Technology (Soliman.Khudeira@iit.edu)

Guest Editors:
Masoomeh Mirrashid, Ph.D., Semnan University, Iran (m.mirrashid@semnan.ac.ir)
Hosein Naderpour, Ph.D., Semnan University, Iran (naderpour@semnan.ac.ir)
Lukasz Sadowski, Ph.D., Wrocław University of Science and Technology, Poland (lukasz.sadowski@pwr.edu.pl)
Gui-Lin She, Ph.D., Hunan University, China (glshe@hnu.edu.cn)
Bahira Abdulsalam, Ph.D., P.Eng., Composites Infrastructure Innovation Solutions Corp, Ontario, Canada (bahira.abdulsalam@compositeinfrastructure.com)

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Special Collection
Submission Deadline
July 31, 2021



Call for Papers

Special Collection: Strengthening, Retrofitting, and Rehabilitation of Structures

Submit manuscripts:
https://www.editorialmanager.com/jrnsceng

- Reinforced concrete structures
- Prestressed concrete structures
- Reinforced concrete and prestressed concrete bridges
- Steel and composite bridges
- Masonry structures and historic buildings and monuments
- Steel structures
- Applications of hybrid systems
- Seismic and blast retrofitting of structures
- Health monitoring of structures
- Development of codes and specifications for the strengthening and retrofitting works
- Reliability evaluation and safety
- Health Monitoring of the strengthened and retrofitted structures
- Damage assessment and testing of constituent materials
- In situ testing of the repaired and strengthened works
- Field applications of the strengthening and retrofitting works
- Condition survey of existing structures as well as the determination of strengthening and retrofitting demands of destressed elements
- Management of projects comprising strengthening and retrofitting of structures and bridges
- Macroeconomics, resilience, and crisis management

Submission Information

Submissions will be accepted on a rolling basis (no current deadline).

Submit manuscripts: https://www.editorialmanager.com/jrnsceng. Authors are encouraged to prepare their manuscripts in accordance with guidelines in "Publishing in ASCE Journals: A Guide for Authors" (https://ascelibrary.org/r/publishingguide).

Please note that all accepted papers submitted in response to this Call for Papers will be published in regular issues of the *Practice Periodical on Structural Design and Construction* and assembled online on a page dedicated to this Special Collection.