

Challenge Journal of **CONCRETE RESEARCH LETTERS**

Vol.8 No.3 (2017)

CFRP acidic environment acoustic
emission compressive strength
concrete corrosion cracking
ductility durability ferrocement
fly ash mechanical properties palm oil
fuel ash reinforced concrete self-
compacting concrete silica fume steel
mesh strength strengthening
superplasticizer water absorption



TULPAR
ACADEMIC PUBLISHING

ISSN 2548-0928



Challenge Journal

OF CONCRETE RESEARCH LETTERS

EDITOR IN CHIEF

Prof. Dr. Mohamed Abdelkader ISMAIL

Curtin University Sarawak, Malaysia

EDITORIAL ADVISORY BOARD

Prof. Dr. Abdullah SAAND	<i>Quaid-e-Awam University of Engineering, Pakistan</i>
Prof. Dr. Alexander-Dimitrios George TSONOS	<i>Aristotle University of Thessaloniki, Greece</i>
Prof. Dr. Ashraf Ragab MOHAMED	<i>Alexandria University, Egypt</i>
Prof. Dr. Ayman NASSIF	<i>University of Portsmouth, United Kingdom</i>
Prof. Dr. Gamal Elsayed ABDELAZIZ	<i>Benha University, Egypt</i>
Prof. Dr. Hamidah Mohd SAMAN	<i>Universiti Teknologi Mara, Malaysia</i>
Prof. Dr. Han Seung LEE	<i>Hanyang University, Republic of Korea</i>
Prof. Dr. Zubair AHMED	<i>Mehran University, Pakistan</i>
Dr. Aamer Rafique BHUTTA	<i>Universiti Teknologi Malaysia, Malaysia</i>
Dr. Khairunisa MUTHUSAMY	<i>Universiti Malaysia Pahang, Malaysia</i>
Dr. Mahmoud SAYED AHMED	<i>Ryerson University, Canada</i>
DR. Jitendra Kumar SINGH	<i>Hanyang University, Republic of Korea</i>

E-mail: cjcr1@challengejournal.com

Web page: cjcr1.challengejournal.com

TULPAR Academic Publishing
www.tulparpublishing.com





CONTENTS

Feasibility of using self-compacting concrete in civil engineering applications

Zeinab A. Etman, Mounir M. Kamal, Mohamed R. Afify, Tamer I. Ahmaed

70

Study on partial replacement of groundnut shell ash with cement

Nadiminti Venkata Lakshmi, Polinati Satya Sagar

84

Effectiveness of crack repairing measures in Tabuk City, Saudi Arabia

Yazan Issa

91

