Abstract Template

Abstract Title: Ferrocement composites for strengthening of existing school structures in Albania

PhD. Merita Guri[1], Nikolla Vesho[2], Aguljeln Marku[3]

[1]*Dept. of Architecture and Engineering (POLIS University, Albania)*
[2]*Dept. of Architecture and Engineering (POLIS University, Albania)*
[3]*Dept. of Architecture and Engineering (POLIS University, Albania)*

Abstract

The study includes analyses of existing school structures built with retaining unreinforced masonry, where some structural problems have been identified as a result of the degradation of masonry parameters over the years, which reduce their carrying capacity. In Albania, as a high seismic risk country, it is very important to design and evaluate anti seismic structures. From the economic point of view, there are two possibilities: their reinforcement or collapse to replace them with new structures. The possibility of choice is given to us after assessing their current situation and performance. The new and old Albanian design codes do not have established procedures for their seismic evaluation. For this reason, it is necessary to evaluate and improve the carrying capacity of these school structures projects selected in Tirana which are designed in accordance with the old codes [KTP-78, 1978; KTP-89, 1989], nowadays based on the calculation of structural Eurocodes such as EN1996, with ETABS software.

Ferrocement is a low-cost material that improves resistance, stiffness and ductility for masonry school structures. The study provides recommendations and results for the application of this reinforcement technique to similar techniques applied in our country.

Keywords – *retaining unreinforced masonry, seismic evaluation, carrying capacity, stiffness and ductility.*

Professional Biography

Merita Guri has completed her PhD in 2016 at Polytechnic University of Tirana and a Master of Second Level in Housing and Land Development in 2015. She has also a Postgraduate study in Conversion of diploma and recognition of Title:" Construction Engineer for Civil and Industrial Buildings" Polytechnic University of Athina, 1994. She is the head of the Civil Engineering department on the faculty of Architecture and Design at Polis University. She has published more than 5 papers in reputed journals and has been serving as an editorial board member of repute.



Email Id: merita_guri@universitetipolis.edu.al