

Prashant M. Pawar · Babruvahan P. Ronge
R. Balasubramaniam · Anup S. Vibhute
Sulabha S. Apte *Editors*

Techno- Societal 2018

Proceedings of the 2nd International
Conference on Advanced Technologies
for Societal Applications - Volume 2

Structural Behaviour of Ferro Cement Slab Panels



Bhimaji D. Kanawade, Kaluram S. Lanaghe, Sandeep L. Hake,
Piyush K. Bhandari, and Ayan A. Sengupta

Keywords Ferrocement slab panel (FSP) · Flexural strength · Wire mesh · Bamboo

1 Introduction


Ferrocement is a wire mesh reinforcement embedded with mortar. These are durable and efficient materials. Ferro cement is a type of thin-wall reinforcement concrete [1, 2] commonly constructed of hydraulic cement mortar [3], reinforced with closely spaced layers of continuous. It is relatively small diameter mesh [2]. Ferro cement is considered to be an extension of reinforced concrete technology.

Commonly known ferrocement is good for Architecture but bad for Engineers. In past engineers, designers and contractors used Ferro cement for the construction of aircraft hangars, boats, and buildings and a variety of other structures. It is a very durable, cheap and versatile material [4, 5]. Ferrocement is a form of reinforced concrete that differs from conventional reinforced. It consists of closely spaced, multiple layers of mesh or fine rods [3, 6, 7] completely embedded in cement mortar. Many types of researches deal with the developing of ferrocement properties by adding different materials like polymers, metakaolin [8]. Some of the researchers also used bamboo for ferrocement [9]. It has several advantages compared to ordinary reinforced concrete [2] plates, such as lower density, abrasion resistance, compressive strength and flexural strength [10]. The shelter is one of the basic needs of a human being [11–14]. Most dwellings in rural areas are made of cheap local materials including low quality wood, scrap materials, earth material which is temporary and completely unsafe. Many developing countries in the world suffer from housing shortages resulting from population growth, internal migration, war, natural disaster, to mention a few [7, 15, 16]. Ferrocement is a composite material

B. D. Kanawade (✉) · K. S. Lanaghe · S. L. Hake · P. K. Bhandari · A. A. Sengupta
Dr. V. V. Patil College of Engineering, Ahmednagar, Maharashtra, India

© Springer Nature Switzerland AG 2020
P. M. Pawar et al. (eds.), *Techno-Societal 2018*,
https://doi.org/10.1007/978-3-030-16848-3_75

835


PRINCIPAL
Dr. Vithalrao Vikhe Patil
College of Engineering
Ahmednagar