

## **APPLICATION OF FRP FOR STRENGTHENING AND RETROFITTING OF CIVIL ENGINEERING STRUCTURES**

**C. SELIN RAVIKUMAR<sup>1</sup> & T. S. THANDAVAMOORTHY<sup>2</sup>**

<sup>1</sup>Research Scholar & Assistant Professor, Dr. M. G. R. Educational and Research University, Chennai, Tamil Nadu, India

<sup>2</sup>Professor & Past Vice-President, Indian Concrete Institute, Adhiparasakthi Engineering College, Kancheepuram,  
Tamil Nadu, India

### **ABSTRACT**

Civil engineering structures could be damaged by several causes such as earthquakes, cyclones, blast and so on. These kinds of loading either collapse the structure prematurely or cause extensive damages to it. When the damage occurs to a limited extent, it is possible to retrofit the structure. A review of the available literature has disclosed that umpteen numbers of retrofitting methodologies are available. Among them, efficient and effective method of repairing damaged structures is the application of Fiber Reinforced Plastics (FRP). In the past, several structures have been rehabilitated using the FRP techniques. This paper presents a critical review of the repairing of masonry and concrete structures using the FRP techniques and appropriate concluding remarks.

**KEYWORDS:** Civil Engineering Structures, Damage, Strengthening, Retrofitting, FRP