

10<sup>th</sup> International Conference on**EMERGING MATERIALS AND NANOTECHNOLOGY**

July 27-29, 2017 Vancouver, Canada

**Effect of chemical treatment on mechanical properties of HEMP/polymer matrix composites – A review****M V Varalakshmi<sup>1</sup>, V Venu Gopal Reddy<sup>2</sup> and G Jaya Chandra Reddy<sup>3</sup>**<sup>1</sup>Malla Reddy Engineering College, India<sup>2</sup>Jawaharlal Nehru Technological University, Anantapur, India<sup>3</sup>Yogi Vemana University College of Engineering, India

Nowadays natural fibers form an interesting alternative for the most widely applied fiber in the composite technology. Natural biodegradable polymers are called biopolymers. There are two main renewable sources of biopolymers, i.e. (i) starch, polysaccharides and cellulose and (ii) proteins. To improve the mechanical properties of such polymers or to enrich their degradation rate, natural polymers are modified using chemicals. The use of hemp fibers as reinforcement in composite materials has increased in recent years as a response to the increasing demand for developing biodegradable, sustainable, and recyclable materials. Hemp fibers are found in the stem of the plant which makes them strong and stiff, a primary requirement for the reinforcement of composite materials. In the present work, Hemp composites are developed under chemical treatment (Alkaline, Acrylonitrile and Benzoylation treatments) and their mechanical properties are evaluated. Mechanical properties of Hemp/polymer are compared with glass fiber/epoxy. These results indicate that Hemp can be used as a possible reinforcing material for creating low load bearing thermoplastic composites.

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