

## Abstract Details

**Title:** Importance of Controlling Cracks in a Structure

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**Abstract:** The main aim of this study is to discuss some of the very common causes of cracks in concrete and their preventive measures as cracks can also be called as the braking or fracturing of concrete in two or more parts or we can say it as the separation which can be both complete as well as incomplete separation, cracks in concrete is said to be that inherent feature in concrete which can't be fully prevented but can be controlled up to some extent. As this phenomenon of incomplete or complete separation of concrete is very common, so to ensure the durability of the structure, engineers and researchers are making their efforts in finding the causes and their remedial measures and to overcome such problems various new techniques of healing of cracks in concrete were introduced with time among those, healing of concrete with synthetic polymers such as epoxy treatments are very common but on the other hand such epoxy treatments are very harmful to the environment as well as to the human health, due to those certain limitations, the use of bacterial concrete is focused (Kadian, 2018). As bacterial concrete is a special type of concrete which has the ability to heal itself whenever cracks appears on the surface of concrete, in formation of bacterial concrete, bacteria's such as bacillus subtilis JC3 is the most commonly used soil bacterium which instigates the precipitation of calcite (Kadian & Pannu, Durability Performance of Bacterial Concrete, 2018) when the concrete surface comes into the contact with moisture. Apart from this, the most important aspect of this study is to find the causes of cracks and observing carefully its characteristics such as shape, size, depth and the behavior of the crack.

**Keywords:** Cracks, Bacterial Concrete, Drying Shrinkage, Stresses, Structural Failure.