Afer few years of construction, many structures start showing the cracks. Though few minor and other distress. Cracks in any building are a common occurrence but it is important to understand the causes and the measures needed to be taken for their prevention. Buildings that have developed cracks in their RCC parts may pose a great danger to the life and property because the process of corrosion progresses very fast and could cause even the collapse of the structure. Therefore, it is advisable that proper repairs and rehabilitations are carried out faster. In this process identification and removal of the cause of cracking is of prime importance and this must be removed in the first step.

There are many reasons which can cause cracks in the buildings as for example chemical reactions in concrete construction, changes in temperature and climate, movements and settlement in foundation of buildings, shrinkage, environmental stresses, corrosion etc.

Identification of Cracks
Multi storied buildings are more of dynamic structures rather than static. They go through the normal phenomenon of settlement, deflections, vibrations and movement because of the movements of loads and wind. With time this dynamism causes some stresses, which can show up in the form of cracks in many structures in the walls, slabs, ceiling etc. At times these types of cracks are only plaster deep and can be treated by, chasing them into ‘V’ shaped groves and filling them up with good quality cement based crack filler. Surface cracks in the plaster, and those, at the junction of the soffit of the beam and the top of brick work in a wall or those, at the junction of column and the brick work, are mostly plaster cracks and can be treated easily.

In the reinforced concrete structures (RCC), if the concrete is having porosity or the section is not properly reinforced, cracks can develop and water/moisture reaches the steel by leakage. This water in the presence of carbon dioxide oxidizes the steel and causes rusting or corrosion. The volume of corroded steel is much larger than the volume of steel hence exerts a lot of pressure on the neighboring concrete and the concrete develops cracks. The cracks due to corrosion can appear on slabs, columns and beams. These cracks are larger and generally associated with brown colored stains. Thus, it is easy to identify that building has developed a structural problem and need further investigations and physical examination of the steel by a competent structural repair Consultant. After removal of the cover concrete the degree of the problem can be established.

Causes for Corrosion
Corrosion is caused by the oxidation of steel. Reinforcing steel when comes in contact with atmospheric carbon dioxide in the presence of moisture the corrosion process starts and spreads fast like cancer. Ground water