

ABSTRACT

Nondestructive testing (NDT) is the practice of looking for flaws or differences in a material, component, or assembly without damaging the part's or system's capacity to function normally. Different types of NDT techniques are used for thickness measurement of sheets of materials but direct interfacing technique with parallel plate capacitor is more efficient. In this work we measured the thickness of 100 μm -1000 μm sheets of paper having density 80g/cm³. The experiments conduct at 3mm, 5mm, and 10mm distance at resistance of 100k Ω -500k Ω . By increasing the distance between plates of capacitor, the signals difference decreases at constant resistance. As a result, signal is best at a minimum distance of plates of capacitor. When the resistance increases the error(%FSS) also increase. At low resistance the error(%FSS) is minimum.