

## **The Optimum Distance of Lift-Off Height on Different Test Material's Thickness by using Eddy Current Testing Technique**

### **ABSTRACT**

The Eddy current testing (ECT) technique is one of the non-destructive testing (NDT) techniques which is sensitive to the unintended signal such as lift-off (LO) height effect. The output voltage of signal defects with different thicknesses of test materials (i.e., Copper, Brass and Magnesium Alloy) can be determined from the optimum distance of LO height of the ECT technique. Previously, an established frequency was determined for these particular materials (i.e., Copper = (5.00-5.25) MHz, Brass = (4.75-5.25)MHz and Magnesium Alloy= (4.75-5.00)MHz). The frequency then generated the established voltage signal of the ECT technique. The acquired optimum distance of LO height for these materials is approximately 2mm. The findings from this established technique indicated that the determined optimum distance of LO height can find the output voltage signal of the defects as well as to detect the thicknesses.