

Abstract:

This short course will try to transmit to the students the fundamentals to perform a spectral analysis of signals for the condition monitoring of induction motors. This type of machine is the primary source of mechanical energy in the industry, service sector and transportation. A non-programmed stop of these machines due to undetected faults may cause high economic losses in these sectors. The early detection of these faults can be achieved by spectral analysis of physical quantities collected from these machines while they are operating. However, it is necessary that the maintenance engineers know how to apply correctly spectral tools and their limitations.