

46ESS-22: Vibration Monitoring for Gas turbine

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Vibration monitoring is very important in the gas turbine engine system, because the gas turbine engine has many rotational components such as shafts, bearings and gears which are always effected by unbalance load. Typically, a vibration analysis system consists of an analysis module which is connected to a generic vibration sensor located at the gas turbine engine. The vibration monitoring system accuracy relies on the sensor signal. The problem of vibration monitoring systems is that the sensor always has a finite life and after long hours operation it usually decays accuracy and they do not include a diagnostic component which is capable of comparing in real-time the measured vibration amplitudes .Therefore we need to establish a control system which includes a vibration monitoring system that has a diagnostic component and is capable of evaluating in real-time and measured changes in the vibration amplitudes for multiple components.