

## **46ESS-20: Engine Health Monitoring System - Industrial**

**ELOM KOSHI ADZAHO**

*The monitoring of the health of an industrial gas turbine is important since it gives vital information about machinery performance, reliability, efficiency and maintenance. The high costs associated with the operations and maintenance of industrial gas turbines means that there has to be adequate monitoring techniques in place to enable the end user to maximize engine availability and reliability, reduce downtime, avoid catastrophic failures and ultimately improve bottom line costs. This has led to the development of improved monitoring systems to achieve this aim. It is important to note that the monitoring systems serve only as backup for prudent operations and maintenance practices.*

*This paper looks at the evolution of engine health monitoring systems for general industrial turbine applications over the years. Firstly, it looks at the working theory behind engine monitoring. The various monitoring methods, their applications, advantages and disadvantages also discussed briefly. Then the evolution of monitoring technology is discussed. Finally, the paper discusses the future development of health monitoring systems for industrial turbines.*