

# **PHM, a Continuum: the Past, Present, and Future**

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## **ABSTRACT**

This Keynote Presentation will explore PHM from the perspective of being a continuum of ever evolving and increasingly effective capabilities. Background experience, particularly in aerospace applications, will be reviewed going from basic diagnostic capabilities to the evolution of the Prognostics and Health Management (PHM) concept. The present state-of-the art of advanced diagnostic and prognostic capabilities; including physics of failure, actual life remaining and prediction models will be explored. Current predictive analytic capabilities will be discussed as they are being applied to platform and component asset management and enterprise-wide solutions. The spread of the PHM concept to many new industry sectors and future applications will be identified. Some significant lessons learned during the evolution of PHM will be cited. The trajectory of future PHM capabilities and applications will be discussed including their use in smart manufacturing and human performance.