UTC Aerospace Systems

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Theoretical Aspects of Prognostics

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- In majority of the Prognostic and Health Management applications particle filtering-based algorithms are being implemented as the state-of-the-art.
- PF-based prognosis frameworks have demonstrated their drawbacks when trying to estimate the probability of failure in nonlinear, non-Gaussian systems performing uncertain operating profiles.
- To overcome this issue, it is first necessary to establish adequate performance metrics for the framework which has been discussed and presented in recent years.
- It has been observed that not much work has been done on standardizing prognostics definitions as they suffer from ambiguous and inconsistent interpretations.
- The aim of the session is to bring together experts in the area to discuss about the lack of standards due to varied end-user requirements
- Varying application domains, including aerospace, automotive, nuclear power, electrical etc.