



Project Title:

Use of Failure Models and Bayesian Methods for Real-Time Failure Prediction Uncertainty Management

The project aims to develop reliable approaches for real-time lifetime prediction of electronic products. Precursor-based approach uses precursor variables for monitoring a product's health and correlates the changes in the precursor variables with the impending failure of the product. Physics-of-failure is an approach that utilizes knowledge of a product's life-cycle loading and failure mechanisms to assess product reliability. The reliability of both approaches, however, are strongly influenced by uncertainty factors such as unexpected changes in life-cycle usage and environmental profiles, and uncertainty analysis is an important part and must be incorporated in the design of both approaches for a more reliable fault detection and lifetime prediction of electronic products.

Research Assistant (Several Positions)

Requirements:

- A bachelor or master degree in electrical/electronic/mechanical/manufacturing engineering or above.
- Good background in signal processing and probability & statistics.
- Preference will be given to applicants with background in machine learning/big data analytics/IoT.

Interested candidates please email your CV to Dr Ka-Hong Loo (kh.loo@polyu.edu.hk), Department of Electronic and Information Engineering, The Hong Kong Polytechnic University.