Remaining useful life

Considering the uncertainty due to the inconsistency of data disturbance and the variation of operation condition, the accurate estimation of remaining useful life (RUL) is challenging. This ...

This research paper endeavors to develop and compare predictive models for estimating the Remaining Useful Life (RUL) of manufacturing and engineering systems through the utilization ...

Remaining useful life prediction and state of health diagnosis for lithium-ion batteries based on improved grey wolf optimization algorithm-deep extreme learning machine algorithm - ???

In recent times, predicting the remaining useful life of lithium-ion batteries in electric vehicles has become increasingly significant in improving battery lifetime and vehicle performance. ...

In the context of intelligent manufacturing, deep learning-based remaining useful life (RUL) prediction has become a research hotspot in the field of Prognostics and Health Management (PHM). The traditional approaches often require ...

Remaining Useful Life prediction has long been a critical task in the field of industrial equipment maintenance. As equipment complexity continue to evolve, traditional prediction methods ...

In recent years, domain adaptation (DA) has been extensively applied to predicting the remaining useful life (RUL) of bearings across conditions. Although traditional DA-based methods have ...

Remaining useful life (RUL) constitutes an essential element of prognostics and health management in contemporary industry, and accurate predictions of RUL are essential for ...

Additionally, existing health indicators used in determining the first prediction time (FPT) of the remaining useful life (RUL) often fail to reflect the true health state of WT components, ...

Lifetime or remaining useful life (RUL) prognostics, as an essential part of prognostics and health management (PHM), have attracted increasing attention and play an important role in many ...

?? An intelligent hybrid deep learning model for rolling bearing remaining useful life prediction ?????????????????????? ???? ??(??) ????? ??? ...

Aiming at the problems of existing rolling bearing remaining useful life (RUL) prediction methods, such as the single feature extraction capability and the inability to fully utilize the ...

Remaining useful life

This study proposes Dynamic Warping (DW) as a sensor reconstruction method for Remaining Useful Life (RUL) estimation. The method utilizes the DW model for sensor reconstruction, ...

The prediction of remaining useful life (RUL) of manufacturing equipment is a critical task in prognostics and health management (PHM). There is a large amount of uncertain information ...

The service life or useful life of an asset is the total expected operational lifetime from the moment an asset is installed until it"s retired, while RUL is the remaining portion from the current point ...

Traditional data-driven methods need to be based on manually designed features to achieve health state recognition and thus predict the remaining useful life (RUL) of a bearing. Under ...

Accurate prediction of lithium-ion batteries" remaining useful life (RUL) is critical for system reliability and safety. This study proposes a novel forecasting framework that fuses modal ...

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