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Remaining Useful Life (RUL) Assessment Using Progressive Bearing Degradation Data and ANN Model

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Abstract : Remaining useful life (RUL) prediction is one of key technologies to realize prognostics and health management that is being widely applied in many industrial systems to ensure high system availability over their life cycles. The present work proposes a data-driven method of RUL prediction based on multiple health state assessment for rolling element bearings. Bearing degradation data at three different conditions from run to failure is used. A RUL prediction model is separately built in each condition. Feed forward back propagation neural network models are developed for prediction modeling.

Keywords : bearing degradation data, remaining useful life (RUL), back propagation, prognosis
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