# Cloud-Edge based Lightweight Temporal Convolutional Networks for Remaining Useful Life Prediction in IIoT

At present, there are still several challenges to be addressed for current data-driven prediction methods. First, prediction methods in the cloud server may cause delays of equipment health monitoring due to the interaction latency and huge data transmission. Second, RUL prediction models usually have complex architectures and a large number of parameters to ensure high prediction accuracy, which may lead to poor time-consumption performance. Third, the data constantly generated and collected from IIoT can be further used to improve the prediction accuracy.

目前，对于现在的数据驱动的预测方法仍面临几个挑战。首先，云端的预测方法会导致设备健康监视器的延迟，来源于交互延迟和大量数据的传输。其次，RUL预测模型通常具有复杂的结构和大量参数保证预测精准度，导致时间消耗性能较差。第三点，可以进一步利用IIOT不断产生的和收集的数据来提高预测精度。