Fault Detection for Railway Traction Motor Bearing Through Leakage Current

Yo SAKAIDANI Minoru KONDO Ken TAKAHASHI

Many researches on detecting the machinery faults in the early stage are being conducted for preventing the failures during operation. In this report, a method to detect the faults of the railway traction motor bearings through the leakage currents is proposed. The proposed method combines the octave band analysis and the machine learning. To verify the effectiveness of the proposed method, the experiments simulating the abnormality of an inner race of bearing are conducted. Based on these results, a fault detection system for the railway traction motor bearing through leakage current is proposed.