

RESEARCH PROJECT 2023-2024

Department/Area

Telematics/CompSc,IIT

Title/Name

Health condition of a hydraulic pump based on convolutional neural networks

Abstract/Description

Failures in rotating machines have a great impact on the operation and maintenance of power generation plants, and in general, on industrial production systems. These failures have a great simultaneous impact on various areas of the industrial process, such as the reliability of the operation, its maintenance and the use of available financial and human resources.

All of this makes it necessary to continuously monitor the condition of these machines in order to detect anomalies as soon as possible and diagnose their causes. This work intends to study and evaluate the application of Convolutional Neural Networks for this purpose using real data obtained from a hydraulic pump operating in a power plant.

Prerequisites

Required	Python, tensorflow, machine learning techniques,
Recommended	

Supervisor(s)/Tutor(s)

Structure

Format	Semester (extensive, 15 weeks), Summer (intensive, preferably 8 weeks), Both are available
Workload	100 hours (4 ECTS)

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