Public Abstract

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Title:Condition-Based Monitoring System for Diagnostics and Prognostics of Centrifugal Pumps

Centrifugal pumps are the most commonly used pumps in industry. Therefore, maintenance is a very important part of the pump’s life cycle. This work presents a systematic robust condition-based monitoring process for diagnostics and prognostics of centrifugal pumps. The results showed that this work can control the pump and extend the life of the components. It uses easy engineering tools to make the diagnosing system.
This work will help in reducing energy consumptions in the world. Thus, less fumes and toxic gases are presented in the atmosphere. The world now is heading to more green energy industries. So, this work is a step in the right direction.
This work teaches artificial intelligent methods using simple tools. Those tools can be used to teach students how to control a dynamic system.