

Data-based Approach for Fault Diagnosis of Hydropower Rotors

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The poster presents a novel approach to diagnose rotordynamic faults like unbalance and coupling misalignment from measured vibration. For that purpose, a large database of virtual hydropower rotors and their vibration has been calculated. The goal is to create a data-driven diagnosis system from this database, that will be applicable to a variety of real hydropower rotors. In a first step, a gradient boosting regression algorithm has been applied to the database with some preprocessing and showed promising results that now shall be improved in accuracy.

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