

**Mostafa Tajik**

I was born in Tehran, Iran in 1990. I received my B. Sc. In Mechanical Engineering from K. N. Toosi University of Technology, Tehran, Iran in 2013. Currently I'm a M. Sc. Student in Mechatronics Engineering at K. N. Toosi University of Technology, Tehran, Iran.

**Research Interest :**

- Fault Detection & identification
- System Identification
- Control Engineering
- AVR Microcontrollers programming
- Mechatronics Systems
- Neural Networks

**Thesis Title :**

Gas Turbine Shaft Unbalance Fault Diagnosis By Using Vibration Data

**Abstract :**

This thesis focuses on shaft unbalance fault diagnosis of a heavy duty V94.2 gas turbine. Signal-based methods in fault detection are applied to vibration data obtained from Parih Sar power plant, Gilan, Iran. Different feature extraction methods are applied to vibration data. Dimensionality reduction methods are used to select appropriate features for classification task. At last step, normal and fault classes are classified using Bayes classifier and neural networks such as MLP and RBF.

**Supervisor :**

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