



Introduction

In collaboration with the Dynamic Systems and Design Cluster at Faculty of Engineering, Ain Shams University, the following internships are available for the undergraduate students. The aim of these internships is to improve the Higher Education in mechanical engineering in the fields of condition monitoring of sustainable technologies to improve climate change resilience in the education.

Benefits for the students:

- Possibility to work in a high-quality research environment.
- Participate in a real-life project and interact with a team of qualified engineers.
- Certificate of Participation in the project upon successful completion.

Please note that this is a full-time internship.

Internship Timeline:

Deadline for application	12/07/2022
Internship Period	24/7 to 22/9

To apply, send your **CV** to hr.asugards@eng.asu.edu.eg indicating **the title of** the project you are applying for.

Measurement of blade vibrations using wireless accelerometers

Project Description

Wireless sensors are commonly used nowadays in the machines and wind turbines. However, it is necessary to find out suitable locations to track the vibrations and compare it with a signature signal.

Scope of Work

- Placing wireless accelerometers on small wind turbine.
- Understand the signature signal of the vibrations of the wind turbine by applying masses on the blades to allow out-of-plane vibrations.
- Signal processing and correlation between vibrations and out-of-balance sources.

Needed Qualifications

- Good Programming skills using Python or MATLAB.
- Prior experience in vibration mechanics.

Number of Participants: 2