



# INTRODUCTION TO WIND ENERGY

## WELCOME TO AN EMERGING INDUSTRY AND A TRULY EXCITING FIELD OF RENEWABLE ENERGY - WIND POWER!

While harnessing the wind to power machinery and transportation is nothing new, the interest in developing this and other renewable technologies to lessen our dependence on fossil fuels has never been stronger.

This course provides foundational information on wind energy and wind power technology by highlighting the following:

- **HISTORY OF WIND ENERGY AND SCIENCE**
- **HOW WIND GENERATES POWER**
- **GENERATING ELECTRICAL POWER FROM WIND ENERGY**
- **WIND TURBINE MANUFACTURING PROCESS**

You will harness the power of wind and convert it into electricity by building your own model wind turbine. Watch the wind turbine capture the wind's energy and turn it into light. You will learn how this vital renewable-energy technology works in a fun, recreational way.

This course also includes a hands-on industry leading 360-degree immersive virtual reality experience where students can explore wind turbines in a virtual environment.

The wind industry's impact is not limited to energy production. As the construction and ongoing maintenance of turbines and wind farms grow, so do the employment possibilities and the need for educated and well-trained workers.



## LENGTH : 4 WEEKS, 8 MODULES

MODULE 1 - INTRODUCTION TO WIND ENERGY

MODULE 2 - ECONOMICS OF WIND POWER

MODULE 3 - WIND ENERGY CONCEPTS

MODULE 4 - CLASSIFICATIONS OF WIND  
TURBINES

MODULE 5 - WIND TURBINE MODEL KIT

MODULE 6 - MANUFACTURING PROCESS

MODULE 7 - CAREERS IN WIND ENERGY

MODULE 8 - VIRTUAL REALITY EXPERIENCE



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