

## Renewable Energy Engineering

### ***Extended exercise 2.2***

#### ***Use of wind speed data to demonstrate wind shear and determination of Weibull parameters***

Using the set of 10-minute mean wind data provided for Exercise 2.1:

- a. Estimate the wind shear and compare the data with  $1/7^{\text{th}}$  power law.
- b. Estimate the Weibull parameters of the data.

#### ***Data and resources for extended exercise***

- Data: Ex 2\_1 Data.xlsx
- Explanation of data: Example 2.2 Wind resource explanation.ppt
- Example solution: Example 2.2 Example solution.ppt
- MATLAB files to give example solution