

## **Renewable Energy Engineering**

### ***Extended exercise 2.1***

#### ***Use of wind speed data and demonstration of Probability Density Functions, Cumulative Density Functions and a Wind Rose***

Using the set of 10-minute mean wind data, plot and explain a:

- a. Binned Histogram of wind speed at each height
- b. Probability Density Function of each anemometer
- c. Cumulative Density Function of each anemometer
- d. Wind Rose

#### ***Data and Resources to support the Exercise***

- Data: FD1t50\_students.xlsx
- Explanation of data: Example 2.1 Wind resource explanation.ppt
- Example solution: Example 2.1 Example solution.ppt
- Matlab m. files to give example solution