**Wind Energy Technology**

The course content for the online training has been carefully thought out syllabus with speciﬁc subject experts giving lectures and going through speciﬁc case studies such that, at the end of the course considerable useful knowledge transfer is perceived.

**The course will address the following aspects:**

1. **INTRODUCTION AND WT COMPONENTS**

* Introduction to Wind Energy Technology and its Status
* Overview of Wind Turbine Components
* The Aerodynamics aspects of Wind Turbine
* Wind Turbine Generator
* Wind – Solar Hybrid Systems

1. **RESOURCE ASSESSMENT**

* Wind Resource Assessment and its techniques
* Sitting guidelines for Wind Measurements
* Site selection for Wind Monitoring Stations
* Wind Measurement and Instrumentation
* Wind Data Collection, Validation, Analysis & Reporting
* Design and Layout of Wind Farms
* Forecasting of Wind and Energy Production

1. **STANDARDS, TESTING & CERTIFICATION**

* International Standards on Wind Turbines
* Type Certification of wind turbine
* Wind Turbine Testing & Measurement Techniques

1. **ELECTRICAL SYSTEMS & GRID INTEGRATION**

* Electrical System in Wind Turbines
* Grid Integration of Renewable Energy

1. **POLICY ANALYSIS & ENVIRONMENTAL ASPECTS**

* Wind Energy Policies and Schemes
* Environmental Aspects of WT Technology