



EGR 286: Data and Command Center Management

This course examines the importance of condition monitoring and its application to offshore wind turbines. Topics include the gathering and analysis of condition monitoring data, the technical and financial rationales behind maintenance decisions, and the significance of the Data and Command Center where all such work is carried out. Also included are the structure of a Data and Command Center, the jobs and roles associated with it, and its importance in offshore wind turbine management and maintenance. Data privacy and security-related issues are also discussed. Prerequisite: EGR 282. Three lecture and three laboratory hours per week. Instructional Support Fee applies.

Course Student Learning Outcomes

1. Demonstrate an understanding of the need and importance of data and command center for the offshore wind farms. 2. Demonstrate an ability to categorize, manipulate and analyze large volumes of data using concepts of mathematics. 3. Ability to identify failures in components by studying abnormalities in condition monitoring data and maintenance reports. 4. Shows an understanding of the regional and global rules and regulations around data privacy and data security. 5. Demonstrates the ability to use tools and software to manage large volumes of data such as SQL, Oracle.

Credits: 4

Program: Engineering