

Technical training of wind turbines VESTAS and GAMESA

1. Introduction
2. Health and safety on wind turbine
 - 2.1. Requirement for health and safety
 - 2.2. Legal aspects
3. Division of wind turbines due to the type and construction
4. Characteristics of the wind turbine
 - 4.1. Yaw system
 - 4.2. Mechanical brake
 - 4.3. Blades
 - 4.4. Pitch system
 - 4.5. Gearbox
 - 4.6. Hydraulics
 - 4.7. Foundation and tower
 - 4.8. Power generator
 - 4.9. Anemometer and wind vane
 - 4.10. CMS – Condition Monitoring System
 - 4.11. Transformer
 - 4.12. Switchgear
5. Control system of wind turbine
6. Maintenance manual of the wind turbine
 - 6.1. Electric scheme
 - 6.2. Hydraulic scheme
 - 6.3. Maintenance manuals of hoist and service lift
7. Ways to reduce costs of maintenance
8. Summary and final exam