Weekly Report – [Gearbox, Brake, Coupling] Group no.10

Team Leader: Nehang Jitendra Joshi

Week Number: [Week 4, 11 August to 16 August 2025]

1. Summary of Progress This Week

[Short bullet or paragraph overview of what the team worked on]

- Study of last year's documentation
- · Research for appropriate mechanical drive train system and gearbox layout
- Research on relevant standards and guidelines
- Research on gearbox variants, mechanical brake systems and couplings (high speed side)
- Benchmark and definition of gearbox, brakes and coupling
- Research on possible suppliers suitable for delivering to Syria

[Highlight tasks completed or in progress]

Research on previous year documents and got information about gearbox, brake, coupling

<u>Remarks</u>- Fully research is still pending due to taking decision for appropriate because in every project they used different drive train concept as per area of the country

• Research on appropriate drive train concept and gearbox

<u>Remarks-</u> Got mostly idea about which is most relevant concept for wind turbine in Syria region but still need conformation about the variants of the drive train and gearbox just because of Syrian region is located in middle east and its very different location than western European countries so it would like to more critical than previous year project to choose drive train and its needs to required mentor guidance.

• Research on brake system and coupling for wind turbine

<u>Remarks-</u> Got idea about various kind of brake system and coupling which is use for most advance developments and which is most suitable for turbine but still needs to be use other medium to get more information about it (like research paper, YouTube, company documentation.

We are able to find that which kind of company can still provide in the Syria region and it should be cost effective as per aim of the project so we are still trying to find and try from next week would be possible to find for new or cost cutting design.

Research on standards and guild line and benchmarks for gearbox, brake, coupling

Remarks- Mostly aware and filmier with standards but still required to few

Research on Syrian market and know about suppliers

<u>Remarks-</u> Research on possible suppliers suitable for delivering to Syria is still remain just because lack of knowledge and new country for project which is quite far from wind turbine market.

• [Mention any collaboration with other teams, if applicable]

Not now for second week.....

2. Milestone/Deadline Status

- Current Phase: [Concept Phase, Interface Freeze, etc.]
- On Track? [Yes/No]
- Notes: [If delayed, explain why and new estimate]
 - Got some idea about from the internet and some website that is <u>Winenergy</u> group of company which origin of the German possible to provide in Syria because they have large production of gearbox which can gives good amount of work output and higher generation rates.
 - Enercon company is also leading for supplies in Syrian region.
 - ZF wind power Antwerpen also who is responsible to provide in this country
 - ZF wind power and giants company like Siemens and flander 40-50% stockholder for this project for suppliers.

(Above companies are located in European region mostly are capable enough)

- Goldwind and Dongfang is also could become leading for suppliers of gearbox,brake,coupling (**Asian region** and these companies located in china)
- Remarks- possibility for some other companies can do still research and proof required for supply chain

3. Next Week's Plan

- [Brief tasks or goals for the upcoming week]
- [Mention any planned meetings or dependencies]
 - Research previous year documentation in detail
 - Software installation (Solidworks, Anysys, Dlubal).

 - Get more information or gathering from companies website, articles and generals.....
 - Familiar with wind turbine data trough research paper.....
 - Practice and try to improve data and information about topic.

In sum up we are still trying to improve our method for work balance sure that we will do before 20^{th} August......

• 10 hours / This week

Media used

 $(Google\ chrome,\ YouTube,\ WhatsApp,\ research\ paper,\ company's\ pdf\ and\ documents)$

• Medium of compunction with team mates

(WhatsApp group) Remarks- will try to improve for offline as well as online meeting (zoom, WebEx)

4. Request to Head of Project
• [Specify if you need any files, software, licenses, or support from other teams]
Notify if we need
• [Any organizational support or coordination help
None as of now
• [Mention any technical or coordination issues]
None as of now
 [Explain what support is needed, if any]
Notify if we need