

## Meeting minutes for team meeting-3

**Date:** February 26<sup>th</sup>, 2019

**Location:** Power lab (GJL 102)

**Time:** 2:30PM - 3:30 PM

**Attendees:** Dr. Herbert Hess, Zhengqi Li, Xin Han.

**Note Taker:** Manasa Pothamsetty

**Q1:** How many poles for the DFIG that is being used?

**Ans:** Data plate provides the rpm and frequency which can be used to calculate the number of poles. for this DFIG it should be approximately 5.

$$\text{Number of poles} = 120 * f / \text{rpm}$$

**Q2:** how to determine frequency of PWM.

**Ans:** There will be 2 frequencies one is an underlying frequency of 60Hz and the other is determined depending on what voltage we need at the capacitor.

**Q3:** What will be a good goal for the end of this semester?

**Ans:** Modeling the DFIG and getting a DC voltage on the Capacitor will be a good goal.

- Open Circuit and short circuit test (OTC and STC are performed to find the parameters that will be used to model the DFIG):
  - If slip=0 open circuit test
  - If slip =1 short circuit test (I.e. Zero speed at the rotor).
- We can either make 2 or 1 model for super synchronous and sub synchronous modes depending on our convenience and understanding.
- Verify the parameters such as Torque and speed.

**Challenge:** variable frequency might result in small voltage across the Capacitor.

**Note:** Next meeting will be held on Thursday (March 7<sup>th</sup>, 2019) at 12:30 PM in Power lab instead of Tuesday (March 5<sup>th</sup>) due to snapshot.