DFIG AGENDA

#1--9/16/2014

Team Welcome

- Project Description
- Project goals/outcomes
- Brainstorm individual assignments
- Project update – intro to RSCAD Software

Objectives/Personal Objectives

- Obtain RSCAD Software from JJ
- All paperwork completed
- Create 1 -2 page of objectives by next meeting
- Come up purpose
- Talk to Dr. Hess to get more details
- Work on RSCAD

DUE and Upcoming events:

- Sept. 26 **(Friday)** Need written report of needs from client (Dr. Hess)
- OCT. 7 Weekly design report
    - Keep in contact with client for objective status updates
    - 1-2 pages long

DFIG AGENDA

#2--9/23/2014

Problem Definition – UPDATED - Talked to Dr. Hess 9/22/2014

- Deliverables
    - Model verification/comparison for mikes DFIG simulation
    - Design protection for 1 fault using SEL equipment
    - If enough time test the protection design

Objectives/Personal Objectives

- Obtain RSCAD through JJ (he has keys)
    - Work through tutorials to learn software (1-8 must have access to RACK to simulate)
    - Obtain 'Open VPN GUI' if using own computer
- Talk to Johnson about google calendars for open time slots to use VPN
    - Visited with Dr. Johnson but he was busy – said to email him a gmail account and he would give access
- Everyone sign-up/give gmail account for access to google docs for agenda, minutes, and other documents
- Finish Contract
- Written client report
- Need binder for portfolio

DUE and Upcoming events:

- Sept. 26 **(Friday)** Need written report of needs from client (Dr. Hess)
- OCT. 7 Weekly design report
    - Keep in contact with client for objective status updates
    - 1-2 pages long

DFIG AGENDA

#3

9/30/2014

Completed Tasks and Personal Objectives:

- Obtain RSCAD through JJ
- Go through the tutorials
- Obtain access to google calendar from Dr. Johnson

Upcoming and Personal Objectives

- Finish more tutorials this week – we will need to sign up for another slot
    - No one has signed up yet
- Availability of snapshot day (421 has a conference)
- Need Pictures of Equipment for Snapshot and logbook

DUE:

- 10/3 Transcript of client interview and target specs
- 10/6 Logbook check
- 10/14 snapshot day

DFIG AGENDA

#5

10/16/2014

Weekly Recap

- Turned In Logbooks
- Turned In Portfolio
- Target Specs Completed
- Discuss any information we found researching faults on DFIG

Upcoming

- Finish more tutorials this week – we will need to sign up for another slot
- Continue research on DFIG and how Faults effect the system
- Today – wiki design in GJ 114 group 2 at 4:00
- Need to Contact SEL to find personnel on fault/DFIG

DUE:

- 10/14 Snapshot day
- 10/31 mid-semester wiki page due to instructor.

DFIG AGENDA

#5

10/16/2014

Weekly Recap

- Debrief on snapshot day
    - Tiras found a contact from senior seminar?
- Debrief on conference
    - Power Engineers contact
    - Phase calculations for fault analysis?
    - Chosen fault – line to ground

Upcoming

- Continue thinking on how to detect the fault
- Continue thinking on how to protect the fault (SEL equipment?)

DUE:

- 11/3 mid-semester wiki page due to instructor
- 11/3-21 Design Review
- 11/10 Logbook & portfolio review

DFIG AGENDA

#6

10/21/2014

Weekly Recap

- Got Tim lendberg's project information – created copy
    - Characterization of DFIG
        - DC Resistance
        - DFIG Capability test
        - Locked Rotor Test
        - Open Stator Test
    - Calibrate sensors
        - Torque transducer
        - Voltage and current sensors
    - Further develop DFIG control
        - Employ both converters
        - Field oriented-control
        - Other control algorithms
    - Implement field oriented control
- Got Rishabhs crowbar model
    - Model that uses averaged models instead of modeling the details of the switching. This gives a good look at the control response
- Possibly will get switching model form Alaap

Items to address

- Send emails to engineers
- Continue thinking on how to detect the fault
- Continue thinking on how to protect the fault (SEL equipment?)

DUE:

- 11/3 mid-semester wiki page due to instructor
- 11/3-21 Design Review
- 11/10 Logbook & portfolio review

DFIG AGENDA

#7

10/28/2014

Weekly Recap

- Evaluate Wikipage
- Discuss how meeting went with Dr. Johnson
- Any emails from power engineers?

Items to address

- Send emails to engineers
- When will we meet for the design review
- Continue thinking on how to detect the fault
- Continue thinking on how to protect the fault (SEL equipment?)

DUE:

- 11/3 mid-semester wiki page due to instructor
- 11/3-21 Design Review
- 11/10 Logbook & portfolio review

DFIG AGENDA

#8

11/04/2014

Weekly Recap

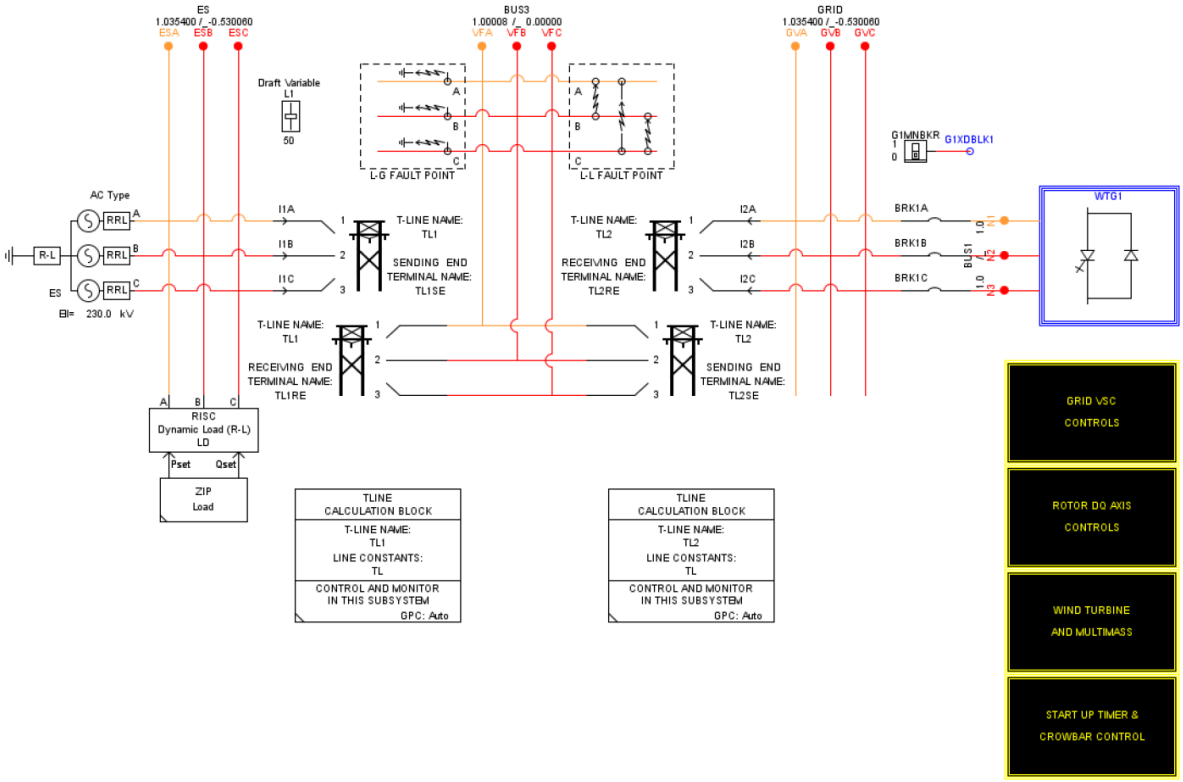
- Present research we came up with
  - 411
  - 421
  - T-line example

Items to address

- Send emails to engineers
- **When will we meet for the design review**
- Continue thinking on how to detect the fault
- Continue thinking on how to protect the fault (SEL equipment?)

DUE:

- Wiki page presentation today
- 11/3-21 Design Review
- 11/10 Logbook & portfolio review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TLINE
CALCULATION BLOCK
T-LINE NAME:
TL1
LINE CONSTANTS:
TL
CONTROL AND MONITOR
IN THIS SUBSYSTEM
GPC: Auto
TLINE
CALCULATION BLOCK
T-LINE NAME:
TL2
LINE CONSTANTS:
TL
CONTROL AND MONITOR
IN THIS SUBSYSTEM
GPC: Auto
GRID VSC
CONTROLS
ROTOR DQ AXIS
CONTROLS
WIND TURBINE
AND MULTIMASS
START UP TIMER &
CROWBAR CONTROL

DFIG AGENDA

#9

11/11/14

Weekly Recap

- DFIG Test Today
- T-line update
- Relays update
- Waiting on email from Normann F.

DUE:

- 11/3-21 Design Review
- Design Review participation
- Team Member Citizenship Assessment
- 12/5 Proof of Concept – Semester Snapshot day

DFIG AGENDA

#9

11/18/14

Weekly Recap

- Review DFIG test
    - Power.
    - Characterization model?
- T-line update
    - Got a model compiling
- Began thinking on presentation

DUE:

- 11/3-21 Design Review
- Design Review participation
- Team Member Citizenship Assessment
- 12/5 Proof of Concept – Semester Snapshot day

DFIG AGENDA

#11

12-9-2014

Weekly Recap

- How did the design review go?
- How did Snapshot go?
- RSCAD model update from Normann
    - Checked model and modified a couple setting (breakers)
    - Gave suggestions on what he wanted to see
        - RLC circuit for collector bus
        - Voltages and transformers changed
- Obtained Normann's presentation and two support documents last night from Dr. Johnson

DUE:

- **AT THE END OF THE WEEK**
    - Logbook
    - Wikipage
    - Portfolio
    - Snapshot poster