

Moderator: Brian Cartwright

Minutes Taker: Shea Morrison

- **Updates from Teams**

- Stator Design Team Updates
 - Electrical team
 - Created a model that outputs force per coil – Matt Phillips
 - Chapter 7 in Wimer's thesis
 - Basic MatLab script to create Force created by each coil in FESS
 - Mechanical team
 - Working on heat transfer models for new designs. - Cooper Atkinson
 - Heat Transfer research, talked to John Crepeau
 - Fins with no conventions
 - Nick Bauchus : Cooling caps in more ideas
 - Thermal grease – thermally conductive, electrically insulated, cheap
 - Make sure to check life span – stop being thermally conductive after some time – David Arnett
 - Strom Electric, in Troy, ID for research on resin used on stator. Need material property
 - Kyle : Shaft changes and ideas
 - Working on solid works models
 - Looking at full range of designs – discussing in design review
 - Dr. Hess : talk to Rachel under Dr. Ralm
 - Good with material testing
 - Invite her to design review Friday
- Controls team
 - Still reviewing the whole system from the top down
 - Hysteresis, Bang-bang, and PID schemes have different places
 - Sources using Hysteresis & Bang-Bang control interchangeably
 - Can use a Bang-Bang to create a Hysteresis
 - Found and compiled dual-core example code
 - It's two separate source files and executables
 - 2 processors on same card – part of optimization
 - DMA to help cores talk
 - Look into code in order to shuffle information in and out of the DMA
 - Found a guide, theoretically ready to test it on one of our 7xDs

-
- **Updates from Mentors (Dr. Hess, David, Justin)**
 - David : finishing paperwork for IRIC, submitting later today
 - Justin : in contact with Dr. Tau to get ANSYS licenses. Approx \$11.3k to split between professors. Advance Package = 25 research seats with 250 teaching seats for \$15k.
 - Hess, Zadeghol, Tau, Budwig, Kamar, Zing interested professors in order to contact and discuss options. Also see if any other professors from separate University affiliates from Boise, Twin Falls, Coeur D'Alene branches are interested to split cost even more. Meeting 4:00 PM Friday to discuss.

- **Tuesday Meeting Updates**
 - Update from meeting with Dr. Berven
 - Hopefully still attending Design Review for Stator Team
 - Friday @ 3:00PM in ECE Conference Room

- **Updates from Senior Design (Dr. Feng Li)**
 - Controls team still scheduling design review date, waiting on Dr. Hess
 - Feng Li's Optional PCB workshop on the 15th, RSVP

- **Next meeting review (16 November 2016)**

Moderator: Shea Morrison

Minutes Taker: Ian Tanimoto

- **Adjourn**