

Meeting Minutes

Date: 10/30/14

Present:

- ME students:
 - Steven Blanchette, David Deli, Jeremiah McCalister, Abigail McCool
- CE students:
 - Kimberly Martinson, Theodore Meros
- Faculty/Advisors:
 - Dr. Jung, Dr. Taria

Notes:

- Dr. Jung wants the comparison of weight of different internal designs
 - Stevie will have that by tomorrow
- Dr. Taria is curious as to why we selected the airfoil we did
 - Airfoil selection should be based on:
 - Operation in low drag regions with a large lift
 - Verify angle of attack
 - Concern that C_L is very low on the airfoil selected
 - The efficiency of a 2-D airfoil is larger than a 3-D airfoil because there are no tip losses
- Alternative to carbon fiber – Tegriss
 - Company: Milikin...
 - Jeremiah emailed inquiring the material and determined that the material has to be pressed and heated to be manufactured
- Turbine prototype:
 - Potentially a 15 foot tower therefore the blades would be 6 feet
 - A big prototype is good but it must be within the budget
 - \$1,000 - \$1,200 is a good range
- To do:
 - Cad – Stevie
 - Material cost – David
 - Internals- Jeremiah
 - Modal analysis- Abby
 - Tower cost – Kim
 - Structures- Theo
- Cost analysis by sq foot:
 - Interior beam:
 - Bamboo
 - Parallel grain wood (what prototype will be made of)
 - Fabric:
 - Fiberglass
 - Fiberglass/carbon fiber mix
- NACA64 pg 9