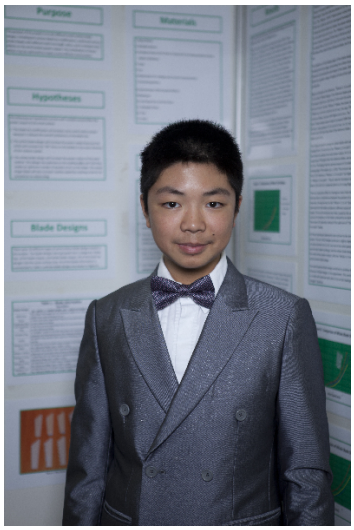
ESPC 2013 - Lethbridge (Alberta)



Kelvin Leung

Wind Turbine Blade Design and Optimization

Défi: Énergie
Catégorie: Intermédiaire
Région: Renfrew County
Ville: Pembroke, ON
École: Fellowes High School

Sommaire: The purpose of this project is to test different wind turbine blade designs for different wind speeds. Blades with blade tip modifications, airfoil shapes, and various humpback whale flipper shapes were tested. The whale blade with the optimal pitch-to-length ratio of 1/10 produced the highest power output. A "Winglet" blade tip could be added to the whale blade create a more efficient wind turbine blade.

Biographie

My name is Kelvin Leung and I am currently in Grade 10 at Fellowes High School. I have a great interest in Science. During an experiment when I was little, I burnt a mark in my kitchen by making a Kleenex catch fire when having a wire connected on a 6V battery, and I have been interested in electricity ever since. My favourite subjects in school are math and science, but I also enjoy most other subjects. In the previous years, I have entered the Math Kangaroo Contest and represented Canada to go to a Math Camp in France. My other interests are playing the piano, violin, badminton, and reading. I received a gold medal in the Royal Conservatory of Music piano exam for Ontario. In my community, I have volunteered to play the piano to raise money for the Cancer Society. In the future, I want to pursue a career as a scientist or something else science-related, and use my skills to get involved in the community in many ways. I have been interested in renewable energy for a long time because I believe that they can be improved upon to be our main electricity source in the future.

Prix	Valeur
Prix d'excellence - Intermédiaire - Médaille d'argent Commanditaire: Sciences jeunesse Canada	300,00 $
Bourse d'études de Western University Médaillé d'argent - Bourse d'admission de 2 000 $ Commanditaire: Université Western	2 000,00 $
Total	2 300,00 $