

# CWSF 2013 - Lethbridge, Alberta



## Nish Singh

### Gosh, My House Keeps Moving!

**Challenge:** Discovery

**Category:** Junior

**Region:** Waterloo-Wellington

**City:** Waterloo, ON

**School:** Centennial P.S.

**Abstract:** This project aimed to determine the effect of space weather on the accuracy of GPS equipment used in cars. Investigations were made to study the impact of proton density, total electron content, solar wind speed and factors such as proximity to high buildings etc. A simple error estimator software was made to auto-correct the readings, based on correlation observed in the experiments.

#### Biography

Hi I'm Nish and my project was called Gosh, My House Keeps Moving! I got the inspiration for my project on my way to Florida to one of my mom's friends house and we were relying on the GPS for guidance as we had never been to Florida before. I was expecting the GPS to take us right to the house. However, I was really surprised when it took us 70-80 meters away from where the house really was. In the future I would like to take a larger set of data, which may yield different conclusions and also create a auto correction formula and or a GPS estimator. My advice to other students is that if they work hard they can accomplish anything. My hobbies include sports particularly basketball and baseball, playing guitar and hanging out with my friends. In university/college I would like to study Math and Science as they are my favourite subjects and my notable experiences are going to the Waterloo-Wellington Science and Engineering fair and also taking a trip to India in December of 2011.

#### Awards

#### Value

Excellence Award - Junior - Bronze Medal Sponsor: Youth Science Canada	\$100
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 100