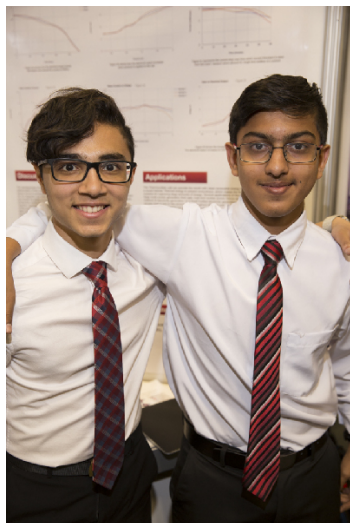


# CWSF 2016 - Montreal, Quebec



## Karthik Prasad, Abhinav Boyed

### The Thermovoltaic Cell

**Challenge:** Innovation

**Category:** Intermediate

**Region:** Peel

**City:** Mississauga, ON

**School:** Glenforest S.S.

**Abstract:** The thermovoltaic cell is a device that collects thermal energy (ambient heat) around it and converts it into electricity. This innovation, inspired by solar panels, uses the thermovoltaic effect to harvest thermal radiation and convert it into electricity. The thermovoltaic cell uses a p-type and n-type semiconductor to create an electron junction similar to solar panels.

#### Biographies

**Karthik** - My name is Karthik Prasad. I am a grade 10 student attending the International Baccalaureate Program at Glenforest Secondary School in Mississauga, Ontario. For the past few years, I have been participating in a variety of science competitions such as the Peel Region Science Fair and the Bridge Building Competition. In fact, I represented Ontario at the Canada Wide Science Fair in New Brunswick last year and obtained a silver medal. Another hobby of mine is robotics. I am a part of my school's robotics team and am attending the International Robotics Competition later on this month. However, this doesn't mean that I am a nerd and have no I...

**Abhinav** - My name is Abhinav Boyed and I am a 15 year old from Mississauga, Ontario. I attend Glenforest Secondary School and am part of the IB program. I am passionate about science and music. I am creative and in my leisure time I have built a Solar Car, Sterling Engine, RC Hovercraft and Solenoid Engine. My partner and I have got our inspiration for this project while learning about solar panels in science class. We acknowledge the great benefits that accompany a cell that requires no maintenance and can run continuously with no moving parts. However, the fact that solar panels can run only during the hours of daylight, makes it a less appealing inv...

#### Awards

#### Value

Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	\$250
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$4 250</b>