

# CWSF 2013 - Lethbridge, Alberta



## Melissa Chopcian

### Improved Methods for Robotic Eye Surgery

**Challenge:** Innovation

**Category:** Senior

**Region:** Lambton County

**City:** Sarnia, ON

**School:** Northern C.I. & V.S.

**Abstract:** The purpose of this innovation is to develop an improved method for robotically performing specialty eye surgeries on the retina. Surgical systems for operating on the eye's retina can be improved by using a computer imaging system controlled by a raster scanning laser. This kind of innovation would have human and commercial benefit.

#### Biography

My name is Melissa Chopcian. I am a grade 11 student at Northern Collegiate in Sarnia, Ontario. My science fair project is an innovation that can be used to improve laser eye surgery. I have many interests. I like to volunteer at our local hospital and nursing home. I also like to play the piano and alto saxophone. I really enjoy playing sports such as hockey, skiing, sailing, swimming, volleyball, and tennis. I have an older brother named Christopher. He has also competed in past Canada Wide Science Fairs. My favorite subjects in school are math and chemistry. I really enjoy solving equations and learning about neat things. When I grow up, I want to become a pediatrician. I truly like helping others, especially sick children.

#### Awards

#### Value

CSSE Engineering Innovation Award - Senior Sponsor: Canadian Society for Senior Engineers	\$1 000
Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	\$100
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$3 100</b>