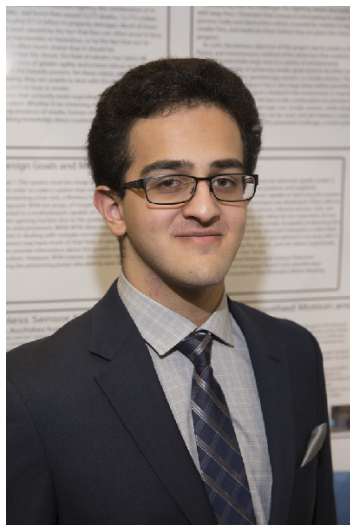


# CWSF 2016 - Montreal, Quebec



## Ahmed Lone

### Novel Camera-Based WSN in Fire Detection

**Challenge:** Innovation

**Category:** Senior

**Region:** Calgary Youth

**City:** Calgary, AB

**School:** Webber Academy

**Abstract:** A novel method of fire detection utilizing a camera-based Wireless Sensor Network was developed, in order to create a system capable of instantaneously distinguishing fire over vast areas. The image processing algorithms featured color, motion and flickering recognition, and were able to detect 100% of all fires they were presented with.

#### Biography

Hey! My name is Ahmed Lone, and I am a grade 11 student attending Webber Academy in Calgary Alberta. I moved here a couple years ago, in grade 9, and steadily got more involved in science fair since. I love math, physics, and programming, and tried to involve the three in my project as much as I could. I'm also involved in debate, model united nations, speech, and robotics and have competed regionally and provincially in all four. This will be my first time attending CWSF, and I'm excited to finally participate! I hope to either continue the development of this project, foray into the world of machine learning, or do both in the future. My only advice to students thinking about doing a project is to never be intimidated by how hard a project may seem, you'll be surprised by how much one can learn. I started this year a neanderthal, and I am now a neanderthal who knows linear algebra. I look forward to meeting all my peers at Montreal!

#### Awards

#### Value

The Actuarial Foundation of Canada Award - Senior Sponsor: The Actuarial Foundation of Canada	\$1 000
The Manning Innovation Achievement Award - Senior Sponsor: Ernest C. Manning Awards Foundation	\$500
Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2500 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$10 000</b>