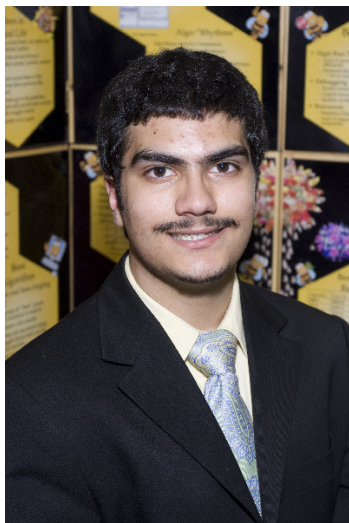# CWSF 2009 - Winnipeg, Manitoba

## Arash Marzi

### A Bee Inspired Multi-Objective Optimization Algorithm For A Greener Tomorrow

**Division:** Earth & Environmental Sciences / Environmental Innovation
**Category:** Intermediate
**Region:** Strait
**City:** Antigonish, NS
**School:** Dr. John Hugh Gillis Regional School

**Abstract:** The application of a bees inspired algorithm to a reference system; in order to produce optimal solutions for the environmental/economic dispatch problem. The algorithm was given multiobjective capablilities and its performance was improved using a novel approach in developing a zone filter for the algorithm.

| Biography |
| --- |
| I am currently fifteen, in grade ten pre-IB and live in Antigonish, NS. I have many accomplishments, the main one is completion of two first year University courses on C programming at StFX, with one of the highest marks in class. I completed an online Gaelic course from St. Anna's Gaelic College. I have a black belt in Tae Kwon do and I am learning Capoeira. I've played the violin for 5 years and play oboe. I have been assisting the Antigonish Community Science Center for 7 years and I am also the creator and leader of my school's Robotics club. My interests range from computer science/engineering to history. I want to design an electric-powered car and to make a human useable AI interface implant. I enjoy literature from the 1800s like Fyodor Dostoevsky's Crime and Punishment and Oscar Wilde's Dorian Gray. Also I like fantasy/fiction books by R.A. Salvatore. I listen to metal, alternative, hip-hop, Celtic and intrumental music and play various video games. I am fluent in Farsi, English and learning Gaelic and French. I hope to become an engineer and work for a power or automotive company. |

| Awards | Value |
| --- | --- |
| The University of Western Ontario Scholarship Gold Medallist - $2000 Entrance Scholarship Sponsor: University of Western Ontario | $2 000 |
| Honourable Mention - Environmental Innovation - Intermediate Sponsor: EnviroExpo, Presented by VIA Rail Canada | $100 |
| Gold Medal - Computing & Information Technology - Intermediate Sponsor: Intel of Canada, Ltd. | $1 500 |
| Total | $3 600 |