Arash Marzi

Achieving Copenhagen's International CO2 Targets with a Bees Inpsired OA & ANNs

Division: Engineering & Computing Sciences
Category: Senior
Region: Strait
City: Antigonish, NS
School: Dr. John Hugh Gillis Regional School

Abstract: Due to sporadic climate change and global warming, world have signed international protocols promising to reduce their nation's emissions. This study focuses on the application of the bees algorithm, embedded with an artificial neural network, to determine practical yearly reductions for minimizing oil, natural gas, and coal emissions in Canada's manufacturing sector based on the Copenhagen Targets for Canada for 2020.

Biography

I am sixteen, and am finishing my first year of the IB programme. 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 have been assisting in running our Dojo. I am also learning Capoeira. I play the Iranian setar, violin and 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 and a loyal member of my school's debating society. My interests range mostly between computer science/engineering to history. I am fluent in Farsi, English and French. Due to my success in CWSF I have written and published two papers (one as the co-author and the other as the author) and have attended and presented at two world renown conferences. I hope to become an engineer, a scientific researcher or a historian.

Awards

Awards	Value
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - $4000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	$4 000
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - $4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	$4 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - $20,000 Entrance Scholarship ($5,000 each year for 4 years) Sponsor: University of Ottawa	$20 000
The University of Western Ontario Scholarship Gold Medallist - $4000 Entrance Scholarship Sponsor: University of Western Ontario	$4 000
Gold Medal - Computing & Information Technology - Senior Sponsor: Intel of Canada, Ltd.	$1 500
Total	$33 500