Zoe Harris

Red Light Green Light Fuzzy In-Between Light

Challenge: Innovation
Category: Junior
Region: Ottawa
City: Ottawa, ON
School: Academie Jeanne D'Arc
Abstract: This project tests a fixed time traffic control system against a "fuzzy" logic traffic control system in a virtual model. The green light time does not change in the fixed time system, while the green light time is modified depending on the number of waiting cars in the fuzzy logic system. However, the fixed time system worked more efficiently than the fuzzy logic system.

Biography

My name is Zoe Harris, I am 12 years old, and I am in Grade 8. My favourite subject at school is English. I want to be a writer or a computer scientist when I'm older. I got the inspiration for Red Light Green Light Fuzzy In-Between Light from my dad, who introduced me to fuzzy logic. If I were to continue this project, I would make it more realistic (increasing grid size, adding rush hours, and so on). To other students thinking about doing a science project: do try to choose a subject you're interested in. It makes every step of the way so much easier.

Awards	Value
Carlson Wagonlit Award - Junior Sponsor: Carlson Wagonlit Travel	$500
Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - $2000 Entrance Scholarship Sponsor: Western University	$2 000
Total	$2 500