CWSF 2018 - Ottawa, Ontario

Ayana Nanthakumar

Developing The Electrocardiogram as a Unique Biometric Identifier

Challenge: Innovation
Category: Junior
Region: Peel
City: Mississauga, ON
School: Mentor College

Abstract: This project was done to test the possibilities of electrocardiograms as unique biometric identifiers. Through visual analysis and the creation of a digital software, it attempted to study if the characteristics of one's ECG were variant enough from person to person to be used as a biometric identifier, similar to fingerprint or iris recognition; however, without the disadvantages of possible replicas and recording hazards.

Biography
Ayana Nanthakumar is a 14 year old girl in grade 8, born in Birmingham, Alabama and raised in Mississauga, Ontario.She enjoys many sports such as basketball and hockey. She enjoys playing with the competitive element of goaltending in the boys rep league in Mississauga. She is studying at Mentor College, where she has achieved the highest academic average achievement award, along with the science award, math award, and athlete of the year award. She is an eloquent speaker and has a creative passion for innovation, an inspiration to her science fair experiment on developing the electrocardiogram as a unique biometric identifier. She hopes to expand this project with further investigations on the practicality and usefulness of this scientific discovery.

Awards	Value
Excellence Award - Junior - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - $1000 Entrance Scholarship Sponsor: Western University	$1 000
Total	$1 000

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