

# CWSF 2017 - Regina, Saskatchewan



## Danish Mahmood

### W.I.N.I.T.S. (Wireless Interconnected Non-Invasive Triage System)

**Challenge:** Innovation

**Category:** Junior

**Region:** Thames Valley

**City:** London, ON

**School:** Ryerson P.S.

**Abstract:** W.I.N.I.T.S. is a cost-efficient vital sign monitoring system that includes a novel biomedical finger sensor, W.I.N.I.T Band. This device can wirelessly and continuously measure cuffless blood pressure, heart rate, SpO2, and body temperature. In mass casualty incidents, first responders, paramedics, and hospitals will be able to receive real-time updating vital signs on an online dashboard and device OLED screens, eliminating the need of patient reassessment.

#### Biography

Danish Mahmood is a grade 8 gifted-student currently attending Ryerson P.S. in London Ontario. This is his second consecutive year attending CWSF and he has been involved in regional science fairs since grade 4. He loves applying STEM in creative ways to solve challenging problems. He is an aspiring scientist and is competitive in his academics. In his spare time, he plays different sports, reads books, enjoys music and shows his artistic skills. He has won many awards in math contests run by University of Waterloo and Brock University. This year his project targeted a global issue: Triage in mass casualty incidents. He created a Wireless Interconnected Non-Invasive Triage System (W.I.N.I.T.S) which included the development of a novel biomedical sensor, W.I.N.I.T Band, that can non-invasively and continuously measure the cuffless blood pressure, heart rate, SpO2, and body temperature of a patient. Danish hopes to pursue his career in medicine. He would advise other students to work on a project that they are passionate about.

#### Awards

#### Value

S.M. Blair Family Foundation Award - Junior Sponsor: S.M. Blair Family Foundation	\$500
Youth Can Innovate Awards - Junior Sponsor: The Gwyn Morgan and Patricia Trotter Foundation	\$500
Challenge Award - Innovation - Junior Sponsor: Youth Science Canada	
Excellence Award - Junior - Gold Medal Sponsor: Youth Science Canada	\$250
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
Platinum Award - Best Junior Project Sponsor: Youth Science Canada	\$1 000
<b>Total</b>	<b>\$6 250</b>