

NEWS METRO BUSINESS OPINION SPORTS ENTERTAINMENT/LIFE WEATHER OBITUARIES CLASSIFIEDS JOBS REAL ESTATE CARS MARKETPLACE CONTESTS

Home News Local News Education

Maggie Walker student competes for national prize

Story Comments

Print Font Size:

Recommend 75

Tweet 7

2

17



P. KEVIN MORLEY/TIMES-DISPATCH

Saumil Bandyopadhyay's invention, a light and radiation detector, could have multiple real-world applications.

Posted: Friday, November 30, 2012 12:00 am | Updated: 3:28 pm, Fri Nov 30, 2012.

RANDY HALLMAN | TIMES-DISPATCH

His invention doesn't look at all spectacular.

It takes up only a fraction of the space in the palm of Saumil Bandyopadhyay's hand.

But it has the potential to save lives, helping vehicles avoid crashes, or as an element of radiation treatment. It could be used for buried mine detection. Millions of them could be posted around the globe to monitor climate change.

And it could be worth \$100,000 to him by Tuesday.

Bandyopadhyay, a 17-year-old senior at Maggie L. Walker Governor's School for Government and International Studies, is one of six national semifinalists who will be at George Washington University in Washington on Saturday through Tuesday for the individual Siemens Competition in Math, Science & Technology. There is also a team competition.

Having won a \$3,000 scholarship in the southeastern regional competition at Georgia Tech University, Bandyopadhyay is gunning for the top national prize, a \$100,000 scholarship.

"I'm nervous," he said. "I've been practicing my presentation, preparing for the judges' questions."

He co-holds a provisional patent on his invention, which, in case you have the education to decipher the official description, is a "universal detector of light and radiation: multifunctionality enabled by quantum-mechanical wavefunction and density-of-states engineering, photomodulated electron tunneling, and quantum confined charge transport in nanowires."

His detector operates at room temperature, making it significantly less expensive than detectors in use now, he explained, because they must be immersed in the extreme cold of liquid nitrogen to work. It is also significantly more sensitive than current state-of-the-art detectors.

By the way, Bandyopadhyay also plays the violin.

His mother, Anuradha Bandyopadhyay, is a math and science instructor. His father, Supriyo Bandyopadhyay, is a professor of electrical and computer engineering at Virginia Commonwealth University.

Born in South Bend, Ind., Saumil Bandyopadhyay lived in Lincoln, Neb., before coming to the Richmond area. He started school at Springfield Park Elementary in Henrico County, then went to Echo Lake Elementary and was in the gifted program at Three Chopt Elementary and the International Baccalaureate program at Moody Middle School.

At Maggie Walker, he is editor of a 500-question academic tournament played nationwide, captain of the school's Quizbowl team and director of the Walker Model Congress, a conference that teaches students about U.S. government.

BREAKING NEWS

Lindsey Vonn hospitalized after crash in super-G in Austria

UPDATE: East End duplex fire displaces 3

PolitiFact: Sen. Saslaw, former service station owner, wrong on gas claim

Mourning Henrico store owner, officials, community commit to end violence

Cantor says GOP must 'explain why we're doing what we're doing'

BE SOCIAL



Top Cars & Vehicles Top Homes & Real Estate

TOP CARS & VEHICLES

2007 Odyssey

\$14,200

Updated: Yesterday

Cadillac

\$3,395

Updated: Yesterday

More Top Cars & Vehicles

POLITIFACT VIRGINIA



How did they rate on the Truth-O-Meter?

"One-third of the gasoline is purchased by out-of-state people" in Virginia — Richard Saslaw



Details

Says his plan to raise car registration to \$56 would still leave Virginia with a fee that's "equal to or lower than most states." — Bob McDonnell



Details

Says Virginia economic development officials "decided they didn't want to bid on" his company's electric automobile plant. — Terry McAuliffe



Details

He has worked as a laboratory intern since the seventh grade and has served as a mentor in an engineering program for minority students. He has published peer-reviewed papers in scientific journals and has worked with graduate students, professors and Army scientists.

a service of the

Richmond Times-Dispatch

Asked if he expected to win, he said, "I'll do my best. I know everyone there will have an amazing project. It will be interesting to find out more about them and their projects."

Since the Siemens competition began in 1999, only one other Richmond-area student has made it to the national finals. Linda Brown Westrick, a Maggie Walker student from Hanover County, finished third to win a \$40,000 scholarship in 2003.

Westrick graduated from MIT with a bachelor's degree in math and is teaching and studying for her doctorate at the University of California at Berkeley. She laughed when she was asked by telephone if she had tips for Bandyopadhyay.

"I have no advice about how to win," Westrick said. "But looking back at my experience, what was most important was the other students I met there. I'm still friends with most of them. It was really exciting to meet them and talk with them in that setting."

rhallman@timesdispatch.com (804) 649-6844

© 2013 Richmond Times-Dispatch. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

Recommend
75

Tweet
7

2

17

Discuss

Print

Posted in [Education](#) on *Friday, November 30, 2012 12:00 am*. *Updated: 3:28 pm.*

Similar Stories

- 7-year-old brandishes loaded gun on Henrico school bus
- Henrico High set to undergo major renovation
- City school employees not happy with budget cuts, job losses
- 2nd-grader brandished loaded handgun on Henrico school bus
- Board members lead school budget debate

Most Read

- New 15-story office tower planned for downtown Richmond
- Suspect charged with murder as community mourns death of Henrico storekeeper
- Extra salary boost urged for state workers
- Southern Season coming to Henrico County
- UPDATE: Power outage figure drops below 400 after storm



Add a comment...

Comment



Arsene Van Persie · Top Commenter · Gate Polisher at God's Servant

Asked if he expected to win, he said, "I'll do my best. I know everyone there will have an amazing project. It will be interesting to find out more about them and their projects." Love this quote from him. Respect for his competitors and the humility/hunger to learn from them. Good luck, and stay hungry my friend.

Reply · 8 · Like · November 30, 2012 at 6:26am



Casey Quinlan · Top Commenter · Mighty Mouth at Mighty Casey Media LLC

Every kid I've ever met from Maggie Walker has been impressive. Whether Saumil wins 1st Place in the Siemens or not, he's already made a mark on the world. Can't wait to see what he comes up with next. He's got a huge future.

Reply · 5 · Like · November 30, 2012 at 4:55am



Jeanette Tierney · Richmond, Virginia

This is an amazing young man. What a great example and influence on the rest of the student body at Maggie Walker. Good luck to him. I am also so proud to say I have an amazing granddaughter attending Maggie Walker.

Reply · 2 · Like · November 30, 2012 at 6:57am



Charles Dillard · Top Commenter · Virginia Tech

I'm still working on "shoe tying" and "potty training".

Reply · Like · November 30, 2012 at 6:41am



Ntin Nainani · Johns Hopkins

I've had the honor of knowing and working with Saumil when I attended MLWGS. Incredibly hardworking and motivated, Saumil gives his best efforts for everything, even the most minor assignments. On top of all of his incredible accomplishments, he is a true class act: modest, respectful, professional, and kind. Best of luck to you at Nationals, Saumil! Regardless of the final results, you've made a huge impact in the world and your community, and your future has endless possibilities.

Reply · 21 · Like · November 30, 2012 at 10:19am

Facebook social plugin

SECTIONS

News
Metro
Business
Opinion
Sports
Entertainment/Life
Weather
Archives
Classifieds
Obituaries
Jobs

SERVICES

Contact Us
Advertise
Subscription Services
Email Newsletters
Submission Forms
Site Index
Add Search Toolbar
Shop The Times-Dispatch

CONTACT US

TimesDispatch.com

Richmond Times-Dispatch
Phone number: 804-649-6000
E-mail: content@timesdispatch.com
Address: 300 E. Franklin St.
Richmond, VA 23219

SEARCH

Search in:

<input checked="" type="checkbox"/> All	<input type="checkbox"/> Opinion	<input type="checkbox"/> Photos
<input type="checkbox"/> News	<input type="checkbox"/> Community	<input type="checkbox"/> Video
<input type="checkbox"/> Sports	<input type="checkbox"/> Opinion	

Richmond.com | Mechanicsville Local | Midlothian Exchange | Powhatan Today | Goochland Gazette | PolitiFact Virginia

© Copyright 2013, Richmond Times-Dispatch, Richmond, VA. Powered by BLOX Content Management System from TownNews.com. Terms of Use