

Eastside High student is Grand Award Winner in state science fair, will represent Florida in international fair

Eastside High School junior Vedant Karalkar has qualified for the prestigious Regeneron International Science and Engineering Fair by developing a low-cost diagnostic test for high-poverty nations, a project that earned top honors in the recent state competition.

The results of the state fair, which was held virtually from March 28 through April 1, were announced the evening of Wednesday, March 7. Twenty-one Alachua County Public School middle and high school students were recognized at the fair.

Karalkar took first place in the high school chemistry division and was named one of just eight Best in Fair Grand Award winners. That recognition has earned him a \$1000 award and a spot in the international competition, which will be held virtually May 3-6.



"I am very proud to represent Alachua County in the science fair, and I hope to continue this project in the future," said Karalkar.

Karalkar's project is called 'Fabrication of Napthalimide Chemosensor Using InkJet Printing on Cellulose Paper for Determination of Uric Acid and Metal in Solution.' In layman's terms, the young scientist developed a low-cost sensor that could be used to test for a variety of diseases in areas with little or no access to current diagnostic tests that often require more expensive instruments, sophisticated techniques and/or highly-skilled medical personnel.

"The idea first came to me when I was researching the reason for the cause of the rise in infections in low-resource countries," he said. "I saw that many could not even test for infections until it was too late."

The project also won special awards from the American Chemical Society Florida chapter, the Yale Science and Engineering Association and the United States Office of Naval Research.

Also competing at the international fair will be Buchholz High School Junior Jeffrey Xue. He earned a spot with his project 'College Football Playoff Expansion: A Statistical Analysis via Monte Carlo Simulation,' which earned the highest recognition at the Alachua Regional Science and Engineering Fair held in February.

A list of local award winners for the Florida State Science and Engineering Fair is available at:
<https://bit.ly/3t1ZqUP>

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