

ECSD NEWS RELEASE

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PHS Junior Offered a \$161,000 Scholarship for his Science Project

In the spring of 2015, the Pensacola News Journal featured an extraordinary young man, Alexander Pope. Pope was then an 8th grader at Brown Barge Middle School. He was quiet, studious, friendly, and already smarter than a room full of people. And, he was already starting to show the Science and Engineering community what he could do. His science project that year was, "Can You Get Your Transistors In Line?," and it captured first place in the junior high physics division at the Florida State Science and Engineering Fair. His presentation at State that year was amazing – but 8th graders don't get to compete at the International level. So, he was done competing.

Then, he moved up to Pensacola High School where he continued his quest to impress professional scientists and engineers each year. As a junior, he is already looking forward to college and has his eye on the Florida Institute of Technology.

A few weeks ago, on May 13 – 18, the Intel International Science and Engineering Fair, the largest pre-collegiate science fair in the world, was held in Pittsburgh, PA. There were more than 1800 students representing 81 territories and countries and Alexander Pope was one of them.

This Pensacola High School junior was there to represent the West Panhandle Region of Florida with a device he designed to monitor environmental status of mesocosms.

Sidebar: A mesocosm is a "biological system that contains the physical features and organisms of an ecosystem but is restricted in size or scope for use in conducting scientific experiments." (According to www.thefreedictionary.com)

He created a sensor device that could measure the air and water quality of several molecular species to determine environmental quality for living organisms and built the algorithm to record the data on computer via wifi. The title of this project was "Monitoring Environmental Status of a Mesocosm using an ESP32."

Once again this now taller, still totally impressive, young scientist impressed the judges and Alexander Pope won the Presidential scholarship awarded by his school of choice! Yes, the Florida Institute of Technology awarded him full tuition for all 4 years of college. The scholarship award is worth more than \$161,000 and he gets to attend a college he has been hoping to attend. Pope plans to start there in the fall of 2020.

An additional fact that might interest those interested in the possibilities that come with competing in science and engineering fairs, from all over the country, only 3 of these scholarships were granted at ISEF, and our local science fair student is one of those three recipients. None of his teachers from Brown Barge or Pensacola High School (or even those of us who have had the pleasure of meeting him along the way) are surprised. In our book, he wasn't one of the top three students there, he was Number One!

Photos attached:

- 1 -Florida Institute of Technology's Logo
- 2- Alexander Pope on stage as they were about to announce he had won the scholarship
- 3 - Alexander Pope in front of his presentation board, "Monitoring Environmental Status of a Mesocosm Using an ESP32."

If you would like to read the article that ran when he won State back in 8th grade, here is the link:

<https://www.pnj.com/story/news/local/education/2015/04/09/eighth-grader-tops-state-science-fair/25543237/>

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Monitoring Environmental Status of a Mesocosm Using an ESP32

Background

Background text describing the project's context and motivation.

Engineering Goal

Engineering Goal text detailing the specific objectives of the project.

Need

Need text explaining the environmental or scientific requirements that the project addresses.

Components

Components text listing the hardware and software elements used in the project.

Procedures

Procedures text describing the methodology and steps taken during the project.



Architecture Design

Architecture Design text detailing the system's structure and sensor integration.



Design

Memory and Processing

Memory and Processing text describing the data storage and handling capabilities of the ESP32.

Monitoring

Monitoring text detailing the data collection and real-time display features.



Continuous Monitoring Display



Conclusion

Conclusion text summarizing the project's findings and the effectiveness of the ESP32-based system.

Future Studies

Future Studies text suggesting potential areas for further research and development.



Additional project information, including contact details and a QR code.



