

OKLAHOMA INNOVATIONS – OCAST'S OFFICIAL NEWSLETTER

FEBRUARY 2016 - [Watch the Video Edition](#)

INNOVATIVE OKLAHOMA COMPANIES FEATURED IN THE OKLAHOMAN

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STATEWIDE ENGINEERING FAIR DRAWS 900 STUDENTS FROM ACROSS OKLAHOMA

More than 900 middle and high school students from across the state recently took on challenging engineering projects as they competed in the Oklahoma Engineering Fair at the Science Museum Oklahoma.

Sponsored by the GE Foundation, the philanthropic organization of General Electric Corp., and the Oklahoma Engineering Foundation, the Engineering Fair required student engineers to devise innovative ways to solve engineering challenges in one of eight different categories.

Students came from a cross-section of school districts, from Sayre in Western Oklahoma to Krebs in the Southeast, and many points in between.

The mission of the engineering fair is to encourage students across the state to embrace STEM education, or science, technology, engineering and math, said Adrienne Covington Graham, executive director of the Oklahoma Engineering Foundation.

Students use the STEM method – research an idea, build a working prototype, then try to improve upon it – to solve challenges such as oil extraction, bridge building, tower building, rubber band-power vehicles, electric motors, ping pong ball launchers, an aerospace competition and something called Wacky Wonder Works (think Rube Goldberg inventions).

“Engineers every day have to solve design problems,” Covington Graham said. “We want the students to come one year, figure out why their design didn’t work, make it better and then come back the next year. They can do that from the sixth grade all the way through high school.”



Students with top projects earned scholarships and medals for their work, while schools earned plaques and other awards.

“The bottom line for Oklahoma is the knowledge that students gain from working in teams to solve complex problems,” said Michael Carolina, executive director of the Oklahoma Center for the Advancement of Science and Technology (OCAST).

“It is energizing to me to see our next generation of scientists and engineers who are engaged in these engineering activities,” Carolina said. “I think the students will take from this the spirit of competition, the spirit of teamwork. You not only have to know the discipline and have knowledge of scientific principles, but also how to work as a team, depending on each other to get a particular task accomplished.”

[Watch a video of the Engineering Fair](#)

INTELLECTUAL PROPERTY EDUCATIONAL WEBINARS FOR SBIR/STTR SMALL BUSINESSES TO BE HELD

The United States Patent & Trademark Office (USPTO) in partnership with the Small Business Administration is delighted to announce the release of the second installment of the quarterly Intellectual Property Educational Webinars (IPEW) for Small Business Innovation Research/Small Business Technology Transfer businesses, presented live March 21 – March 30. Find more information by going to www.uspto.gov/learning-and-resources/ip-policy/other-ip-organizations-and-agencies/your-intellectual-property.



ROSE STATE COLLEGE HOLDS INVENTION CONVENTION

Rose State College hosted the 27th Annual Oklahoma Student Inventors Exposition, also known as the “Invention Convention” on Tuesday, March 1. The competition was free and was open to students in grades kindergarten through twelve.

Former public school teacher and Rose State College Regent Betty J.C. Wright came up with the idea of the convention along with inventor/businessman Julian Taylor. The pair wanted to provide a way for students to use their math, science and creative-thinking skills.

According to Ms. Wright the purpose of the exposition has been to foster creativity, problem-solving, inventive thinking and ingenuity. This year’s event included 172 entries from schools around the state.

Tinker airmen judged the different age categories, and representatives of Taylor Valve and OCAST’s Sharron DaVault determined the grand prize winner.



The annual competition is sponsored by Julian Taylor, Betty J.C. Wright, Taylor Valve Technology, Rose State College, Oklahoma Patent Attorneys and Patent Agents and the Oklahoma Center for the Advancement of Science and Technology.

REGIONAL RESOURCE MEETING HELD IN BROKEN ARROW

Part of the OCAST mission is to help grow and diversify Oklahoma's economy. One way to do that is to provide seed funding for new and emerging technologies. Another way, though, is to help our existing high-tech firms grow and expand in any way we can.

That was evident February 18 at Flight Safety International (FSI). FSI is a high-tech manufacturing firm located in Broken Arrow. In partnership with the Broken Arrow Economic Development Authority, OCAST worked to connect FSI engineering directors with the area's CareerTechs, community colleges and public and private universities. FSI provided a tour of the facility and then described in detail the type of skills required for an employee to be successful, not only in their company, but in similar industries.

"I think it was huge success," stated Cornell Cross of OCAST, "It is was exciting to see industry and academia working so closely together. The end result will undoubtedly be FSI and other high-tech related industries being better able to meet their workforce demands."

BUDGET UPDATE

The last two years have been difficult for the R&D Community in Oklahoma. Oklahoma's fiscal years run July 1 through June 30. OCAST began Fiscal Year 2016 (July 1, 2015) with an appropriation of \$15.9 million, a 43 percent reduction from our base of \$22.9 million and well below the \$44 million needed to meet demand of existing programs. Unfortunately, the situation has worsened. Since the beginning of the fiscal year, all state agencies have been cut an additional seven percent in order to bring the budget into balance after a revenue failure was declared. That equals a loss of an additional \$1.1 million to the OCAST budget.

OCAST has undertaken several cost savings measures, but with reductions that far exceed our general administrative costs, which are less than five percent, we have had to cut funding for programs as well. What that means is that fewer awards will be made, fewer deals will be funded and ultimately fewer technologies brought to market and fewer jobs created.

Fiscal Year 2017 looks to be bleak as well. Further cuts will be made. Now is the time to engage with the legislature and begin laying the groundwork for the recovery in our economy. If you would like to help in this effort, please contact Chad Mullen, Director of Government Affairs, at chad.mullen@ocast.ok.gov and he will be glad to walk you through the process.

We will get through the crisis, but many R&D projects will leave the state in the wake of these historic cuts. With your help, we can begin to rebuild.