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# Zetron Teams with Engineering Students to Bring Life Saving First Responder Technology Forward

**Redmond, WA August 22, 2019** – **Zetron**, a global leader in integrated mission critical communications technology, today announced that a group made up of Zetron employees and Electrical and Computer Engineering students was selected by industry sponsors as the winning team in the annual University of Washington (UW) Capstone Showcase - The Internet of Life Saving Things for Firefighters (IoLST) project.

The annual ENGineering INnovation and Entrepreneurship (ENGINE) showcase hosted by the Department of Electrical & Computer Engineering (ECE) gives students the opportunity to make a societal impact within a variety of electrical and computer engineering study areas, including healthcare, transportation and artificial intelligence.

This year, Zetron employees teamed with UW ECE students to design and develop an Internet of Life Saving Things environmental sensing and communication system prototype for fire rescue operations.

Competing against nearly 50 other professional/academic teams, UW ECE students Tianning Li, Hong Zhang and Shen Yuan Yao worked together under the guidance of Zetron's, Senior Manager of Software Development, Len Cayetano and UW ECE professor, James Peckol to develop a hand-held device with LTE, satellite, Wi-Fi and Bluetooth connectivity capabilities. The device collects environmental data using gas, temperature, microphone and GPS sensors, and publishes the data in a cloud-based repository that provides immediate, actionable insights and analytics to firefighters operating in potentially hazardous and life-threatening situations.

The Arduino-based IoLST prototype is able to detect multiple types of gases, including Carbon Monoxide (CO), Liquefied Petroleum Gas (LPG), as well as temperatures ranging from -200 to 550 degrees Celsius. A built-in microphone picks up audio signals while the GPS reads latitude and longitude data, which is all then processed by an analytics engine and stored in the Amazon Web Services (AWS) cloud via LTE-M connection.

"Time and actionable information are precious assets to first responders in emergency situations," said Kevin Eckhardt, Vice President of Engineering at Zetron. "Unfortunately there is rarely enough of either, so our team set out to create a solution that could offer more of both. Better real time environmental information saves valuable time and translates to more informed decisions when the lives of both firefighters and the people they're trying to protect are on the line. We're exceptionally proud of the outcome our combined student/staff team was able to achieve and look forward to taking part in other projects with our academia partners that advance higher education while bringing real life saving ideas to light."

The information gathered by the prototype unit is extremely valuable, but only if it can be assimilated with other incoming data related to an emergency and quickly analyzed and communicated to front line responders. So the backend design of the solution enables all the data collected and resulting insights to be easily accessed and utilized through standard mission critical systems that are commonly already in place at emergency response and management centers, such as the **MAX Call Taking** and **MAX Dispatch** solutions offered by Zetron.

For more information about the Engineering Innovation and Entrepreneurship (ENGINE) showcase hosted by the University of Washington's Department of Electrical & Computer Engineering, visit: **https://www.ece.uw.edu/spotlight/celebrating-student-innovation-and-entrepreneurship/**

## About Zetron, Inc.

Zetron has been designing and manufacturing integrated mission-critical communications systems since 1980. Its offerings include NG9-1-1 call-taking, CAD, mapping, dispatch, voice logging, fire station alerting, and location service systems. They are expandable, interoperable, and able to support geo-diverse operations. What's more, Zetron backs its products with technical support, training, and project management services known for their skill and responsiveness. With offices in the United States, the United Kingdom, and Australia, and a global network of partners, resellers, and system integrators, Zetron has installed thousands of systems and tens of thousands of console positions worldwide. Zetron is a wholly owned subsidiary of JVCKENWOOD Corporation. For more information, visit: **www.zetron.com**.