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Booth No. 2014

SwRI expands automotive research footprint with laboratory in Ann Arbor

Test cells improve support for Detroit-area clients

https://www.swri.org/press-release/swri-expands-automotive-research-footprint-laboratory-ann-arbor

For immediate release

SAN ANTONIO — Oct. 24, 2017 — Southwest Research Institute (SwRI) is expanding its automotive research footprint in Ann Arbor, Michigan, to provide Detroit-area clients more convenient access to SwRI's powertrain engineering services.

SwRI signed an agreement with A&D Technology Inc. to provide client services with powertrain development cells in the Detroit area, augmenting SwRI's more than 200 powertrain dynamometers in San Antonio. This extends SwRI's automotive research and development capacity to conduct high-efficiency powertrain development and emissions research.

"We are excited to announce that SwRI signed a business agreement with A&D Technology to capitalize on the strengths of both of our companies for expansion in the Detroit market," said Daniel Stewart, P.E., vice president of SwRI's Powertrain Engineering Division. "The joint partnership will combine A&D's state-of-the-art data acquisition and calibration tools with SwRI's experience in powertrain controls and automotive product development."

The laboratory space includes three test cells, one of which is equipped with a 275 kW, low-inertia, permanent-magnet dynamometer with maximum speed of 8,000 rpm. The cell is outfitted with SwRI's RPECS® powertrain benchmarking and control system and a suite of A&D's automation system software, including iTest test automotive software, Phoenix combustion analysis SYSTEM, and ORION automated calibration software.

1st Add — SwRI expands automotive research footprint with laboratory in Ann Arbor

"Having a laboratory in Ann Arbor allows us to work more closely with our clients in the region," said Scott Hotz, P.E., who oversees SwRI's Ann Arbor operations. "Working with A&D Technology and its state-of-the-art facilities and equipment will help us meet our clients' needs in a timely and cost-effective manner."

"A&D is elated to host SwRI's premier multidisciplinary services and boundary-defining work to our Ann Arbor facility," said Mike Uhl, CEO of A&D Technology. "Feedback from these advanced R&D programs will add additional insight into A&D's product advancement and will allow A&D to continue to lead in markets related to data acquisition and control, integration, combustion analysis, engine calibration, vehicle dynamics, simulation, emissions, data management, and lab safety."

SwRI has had a presence in Ann Arbor for 15 years, applying custom, prototype powertrain controllers, benchmarking powertrain control systems, and providing on-site support.

"We've searched for laboratory space in the Detroit area for a few years to supplement our extensive automotive research and testing facilities in San Antonio," said SwRI's Dr. Terry Alger. "These facilities are a local projection of what we do in San Antonio. Having a lab in Ann Arbor makes it easier for clients to see how their projects are progressing."

SwRI's automotive engineers already are gearing up to use the laboratory for a U.S. Department of Energy project. The DOE's Advanced Research Projects Agency–Energy (ARPA–E) recently awarded SwRI up to \$2.9 million to develop connected and automated vehicle (CAV) technologies aimed at improving fuel economy by more than 20 percent. Under the three-year project, the team will develop control algorithms to leverage vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I), and vehicle-to-everything (V2X) technologies to optimize a hybrid vehicle's route, speed profile, and power flows. The technology could help define future powertrain performance requirements and enable more efficient control of powertrain and vehicle dynamics. The project is part of ARPA-E's Next-Generation Energy Technologies for Connected and Autonomous On-Road Vehicles (NEXTCAR) program.

For more than 60 years, SwRI has been the world's largest independent research, development, and testing organization for engines, fuels, lubricants, and emission technology.

— more —

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For more information, visit http://www.swri.org/sectors/automotive or stop by SwRI's Booth No. 2014 at the Automotive Testing Expo Oct. 24-26 in Novi, Michigan. To learn more about the CAV funding award, visit http://www.swri.org/press-release/swri-receive-doe-award-connected-and-automated-vehicle-technology.

About SwRI:

SwRI is an independent, nonprofit, applied research and development organization based in San Antonio, Texas, with nearly 2,700 employees and an annual research volume of \$559 million. In 2017, SwRI celebrates 70 years of benefiting government, industry and the public with innovative R&D. Visit newsroom.swri.org for more SwRI developments.

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Credit Line:

Image Courtesy of A&D Technology Inc.

Media Resources Image: Ann Arbor test cell control room



The control center for one of the test cells doubles as a conference room allowing clients to view how their projects are progressing.