

TechBriefs

Savannah River National Laboratory

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At a glance

- > Provides continuous, non-visual feedback
- > Helps maximize fuel economy
- > Adaptable for many feedback applications
- > Non-distractive
- > U.S. Patent 9,428,124 B2

Contact Information

Partnering Opportunities

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Haptic seat provides feedback to drivers for improved vehicle fuel economy

Engineers at Savannah River National Laboratory (SRNL) are working on development of a new method for providing feedback to drivers of vehicles in order to maximize fuel efficiency through improved driving habits.

Background

Today's vehicles provide feedback to the driver on a wide variety of vehicle or driver characteristics. Some of the information provided includes speed, temperatures, tire pressure, radio, GPS, cell phone controls, trip monitors and fuel consumption. The majority of the current systems are visual, providing data on an already crowded instrument cluster. In order to realize the benefits of this information, drivers have to consciously take their eyes off the road to view the data. The more frequently the data is reviewed, the better drivers can adjust to changing conditions; however, doing so can take a driver's attention away from operating the vehicle in a safe manner. Studies have shown that differences in driving style can cause a 20 percent variation in fuel economy, making improvements in driver feedback an area that can realize significant real world fuel economy gains.

Using a seat equipped to provide non-visual feedback to the driver enables the presentation of continuous, real-time information on fuel economy without having to divert attention from traffic and road conditions.

How it works

This technology is in early stage research and development in collaboration with a major university involved in progressive automotive research and development activities. A patent has been filed on this invention with the U. S. Patent and Trademark Office.



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Technology transfer

The Savannah River National Laboratory (SRNL) is the U.S. Department of Energy's (DOE) applied research and development laboratory at the Savannah River Site (SRS).

With its wide spectrum and expertise in areas such as homeland security, hydrogen technology, materials, sensors, and environmental science, SRNL's cutting edge technology delivers high dividends to its customers.

The management and operating contractor for SRNL is Battelle Savannah River Alliance, LLC. BSRA is responsible for transferring its technologies to the private sector so that these technologies may have the collateral benefit of enhancing U.S. economic competitiveness.

Partnering opportunities

SRNL invites interested companies with proven capabilities in this area of expertise to develop commercial applications for this process or product under a cooperative research and development agreement or licensing agreement. Interested companies will be requested to submit a business plan setting forth company qualifications, strategies, activities, and milestones for commercializing this invention. Qualifications should include past experience at bringing similar products to market, reasonable schedule for product launch, sufficient manufacturing capacity, established distribution networks, and evidence of sufficient financial resources for product development and launch.

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