**hyundai-Kia America technical center, Inc. partners with the university of michigan on advanced distracted driving and powertrain PRojects**

***Partnership places University of Michigan graduate students and professors alongside Hyundai-Kia America Technical Center, Inc. engineers on two separate, advanced vehicle technology projects***

* Driver brainwave study measures driver awareness and alertness in an effort to prevent “highway hypnosis,” an element of distracted driving
* Powertrain technology enhancements known as Lean Burn Combustion being developed in an effort to help improve fuel efficiency in Hyundai-Kia products

**SUPERIOR Twp., Mich., August 22, 2013** – As an automotive leader and technology innovator, the Hyundai-Kia America Technical Center, Inc. (HATCI) has partnered with the University of Michigan on two advanced automotive engineering projects focused on distracted driving and fuel economy. As a world-renowned university with a main campus located near HATCI’s Superior Twp., Mich., location, the University of Michigan provides a deep pool of top-tier scholastic talent and is a logical partner for HATCI. The new projects will pair graduate students and professors from the University’s College of Engineering and School of Kinesiology with HATCI vehicle engineers to work alongside each other to produce unique solutions to ever-changing customer needs and technology challenges.

“While we’ve had many collaborative efforts in the past, this partnership marks the beginning of a much longer-term and more focused relationship that will continue to grow in the coming years,” said Dr. Sung Hwan Cho, president, HATCI. “Combining the unbridled enthusiasm and free-spirited thinking of graduate students from a world-class university with the talented technical minds found within HATCI, we can explore new ways in which to approach significant technological hurdles in the automotive industry.”

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The partnership is beneficial to both parties as, in addition to collaborative research, it provides an engineering recruiting opportunity for HATCI, targeting University of Michigan graduates, and will help retain engineering talent in the local area.

“These new research collaborations with the Hyundai-Kia America Technical Center demonstrate the multi-disciplinary nature of automotive research and have the potential to catalyze further research at the University of Michigan as well as to inform our educational mission," said Umesh Patel, senior director at U-M's Business Engagement Center. "We look forward to the opportunity to strengthen and expand our partnership.”

As Kia Motors America (KMA) continues to launch new vehicles in the U.S. market, innovative technologies are finding their way into products that customers can drive today. The 2014 Kia Cadenza is KMA’s most technologically advanced vehicle on the road with available features such as lane departure warning, adaptive headlights, adaptive cruise control and blind-spot detection systems.

“KMA puts strong emphasis on incorporating useful advanced technology and innovative safety features into all of our vehicles, and it’s projects like this collaboration with the University of Michigan that allow us to differentiate our brand and continue to bring safe, high-quality products to market,” said Orth Hedrick, executive director, product planning, KMA. “Utilizing our relationship with the University of Michigan also will allow Kia to capture young and well-educated engineering talent that spawns new ideas and professional execution.”

**Highway Hypnosis**

Highway hypnosis is a mental state in which a person can drive great distances without recollection of having consciously done so. According to the National Highway Traffic Safety Administration (NHTSA), 3,331 people were killed in distracted driving-related accidents in 2011, and NHTSA estimates another 387,000 more were injured. The team of engineers and students will conduct a way to measure driver brainwaves using Electroencephalograph (EEG) sensors. Utilization of this brainwave activity information has the potential to detect the early onset of driver drowsiness, which would then result in a tactile and audible alert to the driver. Current methods of detecting driver drowsiness are noting changes in head position and eyelid activity, both of which require a longer time to determine potential danger; whereas EEG sensors may detect driver drowsiness prior to the driver’s behavioral change taking place.

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**Dual Pre-Chamber Lean-Burn Combustion**

The second project coming out of the partnership involves an emphasis on improved fuel economy using a Dual Pre-Chamber (DPC) lean-burn combustion system. This study focuses on combustion chamber and piston dome geometry development to support lean-burn combustion. Initial studies will examine in-cylinder flows using advanced computational fluid dynamics tools to optimize flow. Subsequent work will be carried out using a single cylinder optical engine to visualize the flow and perform further optimization studies. The graduate students will support the single cell optical study while HATCI engineers develop the cylinder hardware. Together, HATCI and University of Michigan engineers will develop and test this new DPC lean-burn combustion system on HATCI’s dynamometer.

**Kia: One of the World’s Fastest Moving Global Automotive Brands**

Kia Motors America is one of only three auto brands to increase U.S. sales in each of the past four years, and in 2012 the company surpassed the 500,000 unit mark for the first time. With a full line of fun-to-drive cars and CUVs, Kia is advancing value to new levels of sophistication by combining European-influenced styling – under the guidance of chief design officer Peter Schreyer – with cutting-edge technologies, premium amenities, affordable pricing and the lowest cost of ownership in the industry. Kia recently joined the exclusive ranks of Interbrand’s “Top 100 Best Global Brands,” and is poised to continue its momentum with seven all-new or significantly redesigned vehicles scheduled to arrive in showrooms in 2013. Over the past decade Kia Motors has invested more than $1.4 billion in the U.S., including the company’s first U.S. assembly plant in West Point, Georgia – Kia Motors Manufacturing Georgia – which is responsible for the creation of more than 11,000 plant and supplier jobs. The success of the U.S.-built\* Optima and Sorento in two of the industry’s largest segments has fueled Kia’s rapid growth and is complemented by Kia’s comprehensive lineup which includes the Cadenza flagship sedan, Soul urban passenger vehicle, Sportage compact CUV, Optima Hybrid, the Forte sedan, Forte5, and Forte Koup compacts, Rio and Rio 5-door sub-compacts and the Sedona minivan.

**\* The Sorento and Optima GDI (EX Trims and certain LX Trims only) and GDI Turbo are built in the United States from U.S. and globally sourced parts.**

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**About Kia Motors America**

Kia Motors America is the marketing and distribution arm of Kia Motors Corporation based in Seoul, South Korea. KMA offers a complete line of vehicles through more than 765 dealers throughout the United States and serves as the "Official Automotive Partner" of the NBA. In 2012, KMA recorded its best-ever annual sales total and gained U.S. market share for the 18th consecutive year. Kia is poised to continue its momentum and will continue to build the brand through design innovation, quality, value, advanced safety features and new technologies.

Information about Kia Motors America and its full vehicle line-up is available at its website – www.kia.com. For media information, including photography, visit www.kiamedia.com. To receive custom email notifications for press releases the moment they are published, subscribe at http://www.kiamedia.com/us/en/newsalert.

**About Hyundai-Kia America Technical Center, Inc.**Hyundai-Kia  America Technical Center, Inc. (HATCI), is the design, technology and engineering arm for all North American models of the Korean-based Hyundai-KIA Motor Group.

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