

Smartron announces research collaboration with University of Southern California's Center for Human Applied Reasoning & IoT (CHARIOT)

Bold attempt at transforming education with the applications of machine learning and wearable technologies

New Delhi, Sept 22, 2017: As a first Indian original equipment manufacturer (OEM) and Internet of Things (IoT) brand, Smartron is collaborating with University of Southern California's (USC) Center for Human Applied Reasoning & the Internet of Things (CHARIOT) to conduct research on personalized education using wearables and machine learning technologies. The CHARIOT-Smartron initiative focuses on building the framework for creating an effective, classroom-based system for measuring the cognitive and affective influences on learning using smartphones and a range of sensors.

CHARIOT is a collaboration between the USC Rossier School of Education and USC Viterbi School of Engineering to combine cutting-edge cognitive science and education research with emerging IoT technologies to revolutionize personalized learning. Applying IoT as an element of the active learning and real-time feedback is the next step in the evolution of education. CHARIOT visualizes that shifting the focus of instruction to incorporate IoT will result in a paradigm shift in understanding the cognitive and emotional processes in the learning sciences and create products that are practical, accessible and scalable.

Smartron, India's first global technology OEM and IoT brand, recently unveiled tronX™, a first of its kind in the world, an intelligent ecosystem that connects a range of devices, sensors & systems to tronX™ core, offering highly intelligent, always evolving experiences and services targeting verticals such as health, home, education, infra and agriculture verticals. This intuitive and assistive platform sits at the centre of the entire product ecosystem at Smartron which includes the soon to be launched tBand. With tronX™ integration, the tBand can be used to manage health, education and things around you smartly. Smartron's tBand will be able to log the user's BP, stress levels, daily activity metrics as well as ECG and Heart Rate and present it in the form of an easy-to-understand Health Dashboard on a smartphone or any tronX™ device screen. Analyzing this data can add to a teacher's contextual understanding of students' cognitive processes to ensure that the appropriate instructional methods are implemented.

"We are extremely pleased to be the first Indian product brand to partner with USC's CHARIOT to collaborate on creating this new and hugely immersive and personalized learning program based on IoT," said **Smartron founder Mahesh Lingareddy**. "Real personalized learning is about understanding the students' cognitive readiness to learn combined with environmental factors. With our wearables powered by $tronX^{TM}$, we will be able to gather and analyze the data to help create the most effective learning interventions for students who may need it, but may not necessarily ask for it. Hardware and software innovation spurred by IoT and AI is the next big wave in technology and with $tronX^{TM}$, we are ready to ride this wave and create highly intelligent and customized experiences in the field of education."

"Incorporating wearable devices and artificial intelligence into the daily curriculum and teaching methodologies could help teachers to effectively map students' learning curve and administer tailored interventions at the right time", added **CHARIOT Co-Director, Kenneth Yates**. "Over the course of the next 2 years, we anticipate the collaboration of CHARIOT and Smartron will result in cutting edge, innovative solutions for education."

For more information on Smartron and tronX[™], please visit: http://www.smartron.com/

ABOUT SMARTRON

Smartron was founded in August 2014 with a vision to build India's first true global technology OEM brand that is 'designed and engineered' in India for India and the world. Smartron developed and introduced tronxTM, an AI powered IoT platform offering devices, sensors, services, community and care delivering seamless and intelligent experience targeting consumer, enterprise, industrial and infrastructure markets.

With more than 50 patents already filed, Smartron is innovating and investing in variety of smart, sensor, robotics, big data, artificial intelligence and UI/UX technologies.

ABOUT USC

The University of Southern California is a leading private research university located in Los Angeles — a global center for arts, technology and international business. It is home to the College of Letters, Arts and Sciences and 21 exceptional academic schools and units. USC's Health Sciences campus houses renowned specialized care and research in cancer, stem cell and regenerative medicine, orthopedics and sports medicine. The university is the largest private sector employer in the city of Los Angeles, responsible for \$8 billion annually in economic activity in the region.

ABOUT CHARIOT

The Center for Human-Applied Reasoning and the Internet of Things, or CHARIOT, is a new partnership between the USC Rossier School of Education and the USC Viterbi School of Engineering. It is established to bring education and engineering together in a way that will help educators gather real-time data about how students are learning and how teachers should personalize instruction for each student.

Watch the vision video here: https://vimeo.com/233026429

ABOUT THE USC ROSSIER SCHOOL OF EDUCATION: The mission of the USC Rossier School of Education is to improve learning in urban education locally, nationally and globally. Rossier leads the field in innovative, collaborative solutions to improve education outcomes.

ABOUT THE USC VITERBI OF ENGINEERING: Engineering Studies began at the University of Southern California in 1905. Nearly a century later, the Viterbi School of Engineering received a naming gift in 2004 from alumnus Andrew J. Viterbi, inventor of the Viterbi algorithm that is now key to cell phone technology and numerous data applications. One of the school's guiding principles is engineering +, a term coined by current Dean Yannis C. Yortsos, to use the power of engineering to address the world's greatest challenges. USC Viterbi is ranked among the top graduate programs in the world and enrolls more than 6,500 undergraduate and graduate students taught by 185 tenured and tenure-track faculty, with 73 endowed chairs and professorships. https://viterbi.usc.edu/

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