Volkswagen is testing Fraunhofer IIS’s innovative Pick-by-Local-Light order picking system in Dresden

Nürnberg/Dresden: In 2016, the Pick-by-Local-Light (PbLL) system was selected as one of 18 innovations for the Volkswagen Logistics Innovation Day in Wolfsburg. An initial test system has been in operation at Volkswagen’s “Gläserne Manufaktur” assembly and exhibition center in Dresden since March 2018. Its purpose is to evaluate PbLL’s basic functions and the value it adds: quick installation and easy rearrangement of shelving makes order picking flexible and efficient. Results of the first tests indicate that with the new system, orders can be processed twice as fast as before.

To locate the order items, traditional picking systems rely on hand scanners to read barcodes on picking lists and warehouse bays. Pickers have to print these lists out and carry them around throughout the process. Any errors, for instance when the wrong barcode is scanned or when the barcodes themselves are dirty or unreadable, cost time and lead to delays in filling orders.

More efficient order picking processes with PbLL

By way of contrast, the new PbLL system requires human pickers to do far less work. The individual displays at each bay compartment are controlled using Fraunhofer’s s-net® technology. This is tailored to each order, using multicolored LEDs to guide pickers through the picking process. Pickers see the quantity ordered on the compartment displays, confirm picking at the push of a button and move on to the next item. In a direct comparison with traditional systems, it took half the time to fill orders using the new PbLL system. The new system has gone over well within the Volkswagen Group, so much so that plants all over Germany – including the main plant in Wolfsburg – have expressed an interest.
Pick-by-Local-Light at Hannover Messe 2018

From April 23 to 27, 2018, visitors to Hannover Messe can drop by the Fraunhofer IIS booth (Hall 2, Booth C22) and experience the wireless order picking system and the underlying s-net® technology for themselves.

The Fraunhofer-Gesellschaft is the leading organization for applied research in Europe. Its research activities are conducted by 72 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of over 25,000, who work with an annual research budget totaling 2.3 billion euros.

The Fraunhofer Institute for Integrated Circuits IIS in Erlangen is one of the world’s leading application-oriented research institutions for microelectronic and IT system solutions and services. It is the largest of all Fraunhofer Institutes. Research at Fraunhofer IIS revolves around two guiding topics:

In the area of "Audio and Media Technologies," the institute has been shaping the digitalization of media for more than 30 years now. Fraunhofer IIS was instrumental in the development of mp3 and AAC and played a significant role in the digitalization of the cinema. Current developments are opening up whole new sound worlds and are being used in virtual reality, automotive sound systems, mobile telephony, streaming and broadcasting.

In the context of "cognitive sensor technologies," the institute researches technologies for sensor technology, data transmission technology, data analysis methods and the exploitation of data as part of data-driven services and their accompanying business models. This adds a cognitive component to the function of the conventional "smart" sensor.

Some 970 employees conduct contract research for industry, the service sector and public authorities. Founded in 1985, Fraunhofer IIS now has 14 locations in 11 cities: Erlangen (headquarters), Nürnberg, Fürth and Dresden, as well as Bamberg, Waischenfeld, Coburg, Würzburg, Ilmenau, Deggendorf and Passau. The budget of 184 million euros a year is mainly financed by contract research projects; 22 percent of the budget is subsidized by federal and state funds.

For more information visit www.iis.fraunhofer.de