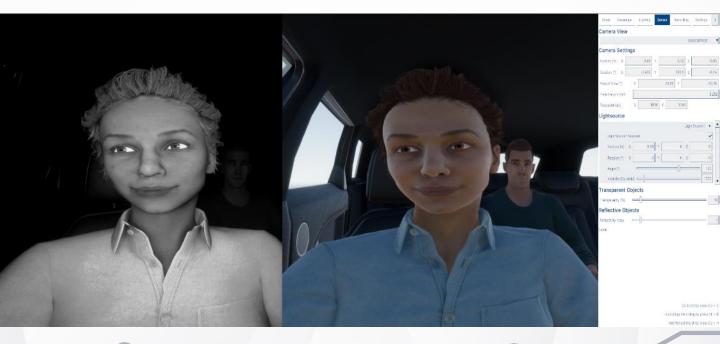
# DRIVER MONITORING SYSTEM

### HIL - INTEGRATION



The unlimited number and complexity of driving situations requires new simulation technology that starts at the sensor. Together with our customers, we develop tailor-made simulation solutions and safeguard sensor technology in realistic 3D environments.

## THE CHALLENGES IN THE CURRENT SCENARIO:

- Time-consuming training, verification and validation due to iterative simulation of realistic human behavior
- Immense amount of labeled data sets required
- Comprehensive coverage of all possible cases
- Execution in real time

### **OUR IVESS SOLUTIONS - YOUR INDIVIDUALIZATION**

The iVESS framework enables you to realize any scenario.

- Our approach is not product-based, but can be customized and integrated into the existing workflow of your toolchain.
- You receive a customized simulation, even as a whitebox solution on request.
- From simulation and HiL applications to the classic validation of test scenarios: the potential of our iVESS framework adapts to your individual needs!



ITK Engineering GmbH Headquarters Ruelzheim Im Speyerer Tal 6 76761 Rülzheim, Germany

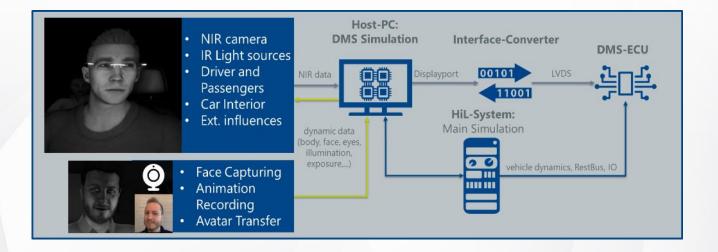
Tel.: +49 (0)72727703-0 ivess@itk-engineering.de

www.itk-engineering.com

Follow us on: f in 🕮 🖈

# **DRIVER MONITORING SYSTEM**

### HIL - INTEGRATION





#### SOLUTION

Our solution includes an environment simulation with visualization of the interior view of vehicles. This is complemented by complex avatars equipped with multiple materials and precise body/face animations. This is complemented by a sensor simulation that uses a physical infrared sensor model to enable realistic and accurate data capture.



#### BENEFITS

Our solution significantly optimizes the development and testing process. It provides valuable basic information for algorithm evaluation so that developers can make well-founded decisions. Thanks to the transferable facial animations, it is possible to use different avatars flexibly and efficiently. In addition, integration with Hardware-in-the-Loop (HiL), Software-in-the-Loop (SiL) and Model-in-the-Loop (MiL) enables a seamless connection between development and testing, significantly improving the validation of algorithms under realistic conditions.



### WHAT MAKES US SPECIAL

We act as a reliable and long-term partner by creating customized system and software solutions in accordance with legal requirements. We fully transfer IP rights and source codes to our customers. We are platform-independent and use state-of-the-art technologies and development methods.





ITK Engineering GmbH Headquarters Ruelzheim Im Speyerer Tal 6 76761 Rülzheim, Germany

Tel.: +49 (0)72727703-0 ivess@itk-engineering.de

www.itk-engineering.com