

## **Media Alert:**

# **ESI to Showcase the Power and Efficiency of Parallel Computing at NVIDIA GTC Europe 2017**

## **A demonstration of ESI Pro-SiVIC™ and NVIDIA DRIVE PX 2 joint capabilities**

**Who?** [ESI Group](#) is a leading innovator in [Virtual Prototyping](#) software and services for manufacturing industries. Specialist in material physics, ESI has developed a unique proficiency in helping industrial manufacturers replace physical prototypes by virtual prototypes, allowing them to virtually manufacture, assemble, test and pre-certify their future products. At the NVIDIA GPU Technology Conference (GTC) Europe 2017, ESI will showcase the solutions around Autonomous Driving and Artificial Intelligence (AI).

**What?** From October 10 to 12, 2017, ESI will be at [GTC Europe 2017](#), in Munich, Germany. The international event, led by [NVIDIA](#), is the largest and most important conference for GPU developers. It trains users and showcases the most critical work in the computing industry today; from artificial intelligence and deep learning to healthcare, virtual reality, accelerated analytics, and self-driving cars.

The ESI team will take this opportunity to share with users the capabilities of the combination of NVIDIA solutions with ESI's software [Pro-SiVIC™](#), which has the capacity to simulate a real-time physically realistic 3D virtual environment and multi-technology perception sensors. The solution delivers key sensor models based on different technologies: camera, radar, laser scanner, lidar, ultra-sonic, as well as GPS, odometer and communication devices. It also provides a library of roads (urban road, highway, country road), traffic signs, and different lane markings. Parameter management allows quick and numerous changes, giving access to fully parametric scenes and scenarios to test full arrays of situations.

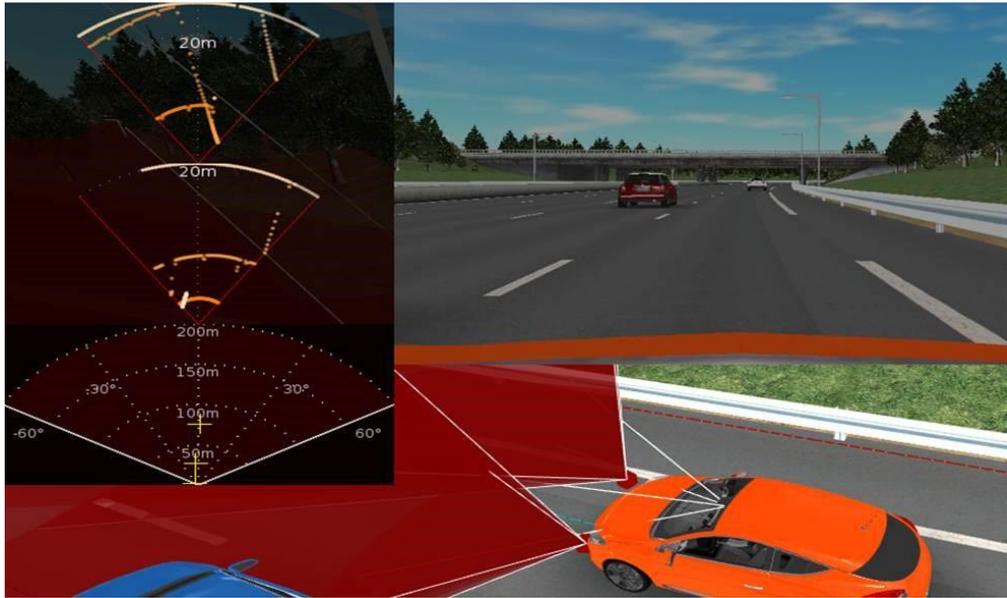


Image: ESI Pro-SiVIC™ produces sensor data for the machine learning and performance verification of neural networks

On the 2<sup>nd</sup> day of the event, **Rodolphe Tchalekian**, EMEA Pre-Sales Engineer at ESI Group will present a paper in the “Deep Learning & AI: Autonomous vehicles” session. His talk on efficient training and testing of Advanced Driver Assistance Systems Artificial Intelligence (ADAS AI) with synthetic data will show the power and efficiency of ESI and NVIDIA technologies. When looking at machine learning, getting massive amounts of labeled and unlabeled training datasets becomes mandatory for preparing autonomous vehicles to analyze complex and unexpected driving scenarios. ESI uses NVIDIA’s newest GPUs which bring the powerful and efficient parallel computing necessary to process data in real-time.

The team will demonstrate how Pro-SiVIC™ creates synthetic data to train and test any machine learning algorithm. Pro-SiVIC™ simulates multi-technology sensor systems data for numerous outdoor scenarios combining vehicles, obstacles, with pedestrians and weather conditions to cover a multitude of road situations and substitute countless hours of painstakingly recorded data. Using the NVIDIA DRIVE PX 2 platform, the ESI team can compare the performance of an already trained lane marking detection algorithm on a 3D Pro-SiVIC™ scene (simulated raw camera data) and a real video recorded from a car in similar conditions.

From now on, with ESI Pro-SiVIC™ and NVIDIA DRIVE PX 2, users can leverage the enormous power of Virtual Prototyping for the rapid scanning of multiple design solution, providing performance, robustness and reliability.

**When?** 10-12 October, 2017

**Where?** Munich, Germany

To register to the event, you can visit: [www.gputechconf.eu](http://www.gputechconf.eu)

For more info, please visit: [www.esi-group.com/company/events/2017/gpu-technology-conference](http://www.esi-group.com/company/events/2017/gpu-technology-conference)



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**About ESI Group**

[ESI Group](#) is a leading innovator in [Virtual Prototyping](#) software and services. Specialist in material physics, [ESI](#) has developed a unique proficiency in helping industrial manufacturers replace physical prototypes by virtual prototypes, allowing them to virtually manufacture, assemble, test and pre-certify their future products. Coupled with the latest technologies, Virtual Prototyping is now anchored in the wider concept of the *Product Performance Lifecycle™*, which addresses the operational performance of a product during its entire lifecycle, from launch to disposal. The creation of a *Hybrid Twin™*, leveraging simulation, physics and data analytics, enables manufacturers to deliver smarter and connected products, to predict product performance and to anticipate maintenance needs.

ESI is a French company listed in compartment B of NYSE Euronext Paris. Present in more than 40 countries, and addressing every major industrial sector, [ESI Group](#) employs about 1200 high-level specialists around the world and reported annual sales of €141 million in 2016. For more information, please visit [www.esi-group.com](http://www.esi-group.com).

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