LiDAR – The enabling Sensor for Autonomous Driving

Key Topics:
- Challenges in building LiDAR Sensors
- How LiDAR Sensors generate their Point Cloud
- Basics of different LiDAR Sensor Designs and their Setups
- The automotive LiDAR Market: Trends & Players
- Fundamentals of Time-of-Flight Signal Processing

++ Live Sensor Demonstrations and Hands-On Sessions

Dates and Venues
- May 19 and 20, 2020
  Munich
- October 19 and 20, 2020
  Hamburg
- April 20 and 21, 2021
  Frankfurt

Workshop Chair
M. Sc. Hanno Holzhüter, Project Manager, Ibeo AS and PhD Student, University Hanover, Germany
General Information

Aims and Objectives

Goal of this interactive workshop is to gain a deep understanding of how automotive LiDAR (Light Detection And Ranging) sensors generate their point cloud, starting from the very beginning. The workshop is designed for those who want to learn about the assets, drawbacks and technical requirements of LiDAR sensors while also getting an overview of the automotive LiDAR market. During discussion rounds and interactive workshop formats participants will understand why LiDARs are a necessity for self-driving cars. Live sensor demonstrations, practical exercises and hands-on examples will highlight the challenges such sensors are facing. The concepts of different LiDAR designs – based on available information – will be explained by investigating various sensor setups, including their optics, light sources, receivers and processing units.

Target Group

This beginners and intermediate level workshop addresses specialists, technologists, engineers and managers from manufacturers, suppliers and solution providers of the automotive industry. Particularly those working in:

- System Engineering
- Software Design/Architecture
- ADAS/Autonomous Driving
- (Optical) Sensors Development/R&D

You are a radar expert and want to get involved with LiDAR? This workshop is also relevant for people from different areas who want to learn more about the LiDAR technology and market.

Workshop Documentation

Participants receive a manual on-site as well as a VDI confirmation of participation.

Workshop Chair

M. Sc. Hanno Holzhüter, Project Manager, Ibeo AS and PhD Student, University Hanover, Germany

Hanno Holzhüter works as a research project manager at Ibeo Automotive Systems and is also PhD student with focus on digital signal processing in LiDAR sensors at Leibniz University Hanover and Ibeo AS. Before joining Ibeo in 2016, Hanno worked as a scientific assistant in the engineering education research group at technical university of Hamburg after finishing his master in astrophysics at the Georg-August University Göttingen.

Workshop Methods

In this workshop the workshop chair provides theoretical input and participants apply their new knowledge in interactive and practical exercises. Various discussion rounds will give plenty of room to exchange experiences. In addition, the workshop will be supported by live demonstrations!

Learn more about our other Workshops:

**Imaging and Optical Sensing Technologies**
March 31 and April 1, 2020, Frankfurt
August 18 and 19, 2020, Berlin

**Modern Leadership Competences**
April 22 and 23, 2020, Frankfurt
August 25 and 26, 2020, Munich

**Leadership: Mastering Influence**
July 7 and 8, 2020, Frankfurt
October 27 and 28, 2020, Dusseldorf
Five Reasons why you should attend

1. Understand how LiDARs generate their point cloud
2. Benefit from an overview of today’s automotive LiDAR market
3. Interactively learn about the different designs of automotive LiDARs including their pros and cons
4. Exchange experiences with your peers
5. Discuss your individual questions with our expert
Please register for (Price per Person plus VAT):

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* For the price category 2, please state your VDI membership number

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Workshop Venues:
Munich: Mercure Hotel München Freising Airport, Dr.-von-Daller-Str. 1-3, 85356 Freising, Germany, Tel.: +49 8161/532-0, Mail: ha0q8-sb@accor.com
Hamburg: Leonardo Hotel Hamburg City Nord, Mexikoring 1, 22297 Hamburg, Tel.: +49 40/63294-0, Mail: info.hamburgcitynord@leonardo-hotels.com
Frankfurt: Relexa Hotel GmbH, Lurgiallee 2, 60329 Frankfurt am Main, Germany, Tel.: +49 69/95778-878, Mail: frankfurt-main@relexa-hotel.de

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