

**INNOVATION WORKSHOP
STRUCTUREDSPOTLIGHT****INNOVATION WORKSHOP ON
FRAUNHOFER PROJECT:
»SSL - STRUCTUREDSPOTLIGHT«**

Micro-optics enables new solutions for automotive lighting and sensing. We present the results of a Fraunhofer internally funded project, devoted to development of micro-optical headlamps and optical 3D-sensors.

The showcased demonstrators for headlamps (passing beam and segmented driving beam with refractive micro-optical beam shaping) and sensors (3D driver monitoring with structured micro-optical NIR illumination and environmental sensing) illustrate new degrees of freedom for system design not only for automotive applications but also general lighting, surveillance, measurement, image processing, and more.

WORKSHOP AGENDA

- 12:30 Welcome
- 12:45 Project overview
Dr. Peter Schreiber, Fraunhofer IOF

- Technology session**
- 13:00 Intelligent headlamps for intelligent cars
Dr. Masoud Roschani, Fraunhofer IOSB
- 13:30 Concepts for robust 3D sensing for driver observation
Dr. Chengchao Qu, Fraunhofer IOSB
- 14:00 Design concepts for micro-optical light sources
Dr. Peter Schreiber, Fraunhofer IOF
- 14:30 Micro-optics manufacturing
Dr. Robert Leitel, Fraunhofer IOF

- 15:00 Coffee break

- Demonstrator session**
- 15:30 Robust 3D sensor for driver observation
Dr. Chengchao Qu, Fraunhofer IOSB
- 15:50 Structured illumination for 3D incar-sensor
Rohan Kundu, Fraunhofer IOF
- 16:10 Automotive headlamp with intelligent control
*Dr. Peter Schreiber, Fraunhofer IOF and
Dr. Miriam Ruf, Fraunhofer IOSB*

- 16:30 Presentation of demonstrators: Headlamp and sensors

- 17:00 End

**INNOVATION WORKSHOP ON
FRAUNHOFER PROJECT:
»SSL - STRUCTURED SPOTLIGHT«**



Contact

Fraunhofer Institute for Applied
Optics and Precision Engineering IOF
Albert-Einstein-Straße 7
07745 Jena, Germany

www.iof.fraunhofer.de

Contact person

Dr. Peter Schreiber
Phone: +49 3641 807-430
peter.schreiber@iof.fraunhofer.de

INVOLVED INSTITUTES:

Fraunhofer Institute for Applied Optics and Precision
Engineering IOF, Jena

Fraunhofer Institute of Optronics, System Technologies
and Image Exploitation IOSB, Karlsruhe

DATE AND LOCATION

On: 23 September 2019, 13:00 o'clock / 1 pm.

At: Fraunhofer IGD
(in walking distance to ISAL location
»Darmstadtium«)
Fraunhoferstraße 5 (formerly Rundeturmstraße 6)
64283 Darmstadt

**Looking forward to meet you in Darmstadt for an
exciting exchange in photonic solutions for auto-
motive applications.**

