

## Curriculum Vitae

### Dr.-Ing. Sören Kerner



With an academic background in Computer Science, Sören Kerner works as head of the department of Automation & Embedded Systems since the beginning of 2014. Prior to this, he was for the development and automation of control systems for semiautonomous hydraulic mining shovels at Caterpillar Global Mining HMS. His PhD he did on the research of sensor applications for autonomous mobile robots at the Robotics Research Institute of the TU Dortmund.

He has profound knowledge in the following areas:

- Internet of Things
- Embedded Systems
- Cyber-physical Systems
- Machine Learning
- Communication Technologies
- Control Theory
- Automation
- Robotics
- Automated Guided Vehicles
- Autonomous Decision Making
- Sensors
- Software development.
- Electrical Systems
- Hydraulic Systems

#### Career

- Head of Department since 2014
- Development Engineer at Caterpillar Global Mining HMS since 2011
- PhD Studies in Electrical Engineering at the Robotics Research Institute since 2005
- Studies at the Faculty of Computer Science at TU Dortmund since 1999

#### Research & development projects

- Design and development of multiple embedded IoT devices, such as the BWS Label, the iDisplay, and iBin
- Development of the universal Logistic Smart Device "Coaster"
- Coordination of the IMLs Internet of Things effort
- Development of the IML Multi-Agent-System for decentralized coordination of autonomous entities
- Integration of the Testbed for Cellular Transport Systems in the national SmartFace project
- Project lead of the EU project SafeLog

#### Kontakt

Fraunhofer IML  
Head of Department Automation and Embedded  
Systems  
Dr.-Ing. Sören Kerner  
Joseph-von-Fraunhofer-Straße 2-4  
44227 Dortmund

Telefon +49(0)231 97 43-170  
Fax +49(0)231 97 43-77 170  
soeren.kerner@iml.fraunhofer.de