

CURRICULUM VITAE

Dr. Thomas Streubel



2018-11-27

Current position

since 08/2017

Chalmers University of Technology, Gothenburg, Sweden
Dept. Mechanics and Maritime Sciences / Division Vehicle Safety
Postdoctoral Researcher
Human Factors and impact assessment for automated driving
EU project L3Pilot

Post-doc

02/2016 – 08/2017

INRIA, Paris, France
Team RITS (Robotics and Intelligent Transportation Systems)
Research Engineer
Risk assessment and decision making in complex urban traffic environments for automated vehicle development

PhD

11/2015 – 01/2016

Chemnitz University of Technology, Chemnitz, Germany
Institute of Physics / Division Computational Physics
Research Assistant

02/2012 – 10/2015

Adam Opel AG, Ruesselsheim, Germany
Dept. Advanced Technology in cooperation with TU Chemnitz
PhD candidate
Advisor: Prof. Dr. K. H. Hoffmann (Computational Physics)

Title:

Situation Assessment at Intersections for
Driver Assistance and Automated Vehicle Control

Special Efforts

Feb 2014

Best Paper Award
Automotive meets Electronics, conference

Oct 2013

Auto-Electronics Excellence Award
VDI Electronics in Vehicles, conference

2013 & 2014

Spokesman of the “Opel-PhDs”
Representative in the Automotive PhD Network

Higher Education

- 10/2009 – 11/2011 **Chemnitz University of Technology**, Chemnitz, Germany
Master Computational Science
- 04/2011 – 09/2011 **Adam Opel AG**, Ruesselsheim, Germany
Dept. Active Safety Technology
Master thesis
- Title master thesis: Artificial Potential Fields as a Concept of Environment Modeling
for Forward Directed Driver Assistance Systems
- 10/2005 – 09/2009 **Chemnitz University of Technology**, Chemnitz, Germany
Bachelor Computational Science
- 10/2008 – 06/2009 **Volkswagen AG**, Wolfsburg, Germany
R&D / Dept. Integrated Safety and Light
Internship followed by *Bachelor thesis*
Software development for light applications
- Title bachelor thesis: Realization of an active and preventive brake light
for passenger cars (thesis in German)

Publications

Reports

D. Hibberd, T. Louw, E. Aittoniemi, R. Brouwer, M. Dotzauer, F. Fahrenkrog, S. Innamaa, S. Kuisma, N. Merat, B. Metz, N. Neila, M. Penttinen, P. Guillen, C. Rösener, A. Silla, **T. Streubel**, F. Tango, B. v. d. Boom, H. Weber, J. Woerle, A. Zerbe, “From Research Questions to Logging Requirements,” L3Pilot project, Deliverable D3.2, Mar. 2018.

Patents

T. Streubel and R. Zarife, *Verfahren für einen adaptiven Rechtsabbiegeassistenten*, German (Eng: Procedure for an adaptive right turning driving assistant), Gebrauchsmuster (utility patent), Jan. 2013.

T. Streubel, „Fahrassistenzsystem, Fahrzeug mit einem Fahrassistenzsystem und Verfahren zum Betrieb eines Fahrerassistenzsystems.“ (Eng: same title as U.S. Patent listed below) Patent DE102013013747 A1, Aug. 2013.

T. Streubel, “Driver assistance system, motor vehicle having a driver assistance system, and a method for operating a driver assistance system.” U.S. Patent US20150057835 A1, Aug. 2014.

Journal articles

T. Streubel, „Fahrverhaltenanalyse zur besseren Fahrerassistenz,“ (Eng: “Driving behavior analysis for a better driver assistance”) Fachmagazin Mechatronik (professional journal on mechatronics), I.G.T. Verlag, Munich, Germany, Jun. 2014. [invited article]

T. Streubel, K. H. Hoffmann and J. F. Krems, “Naturalistic driving study: Approaching behavior at inner-city intersections,” unpublished manuscript, 2018.

P. de Beaucorps, **T. Streubel**, A. Verroust-Blondet and F. Nashashibi, “Decision-making for Automated Vehicles in Semi-constrained Road Topologies by Speed Adaptation,” [under review], 2018.

Conference proceedings

T. Streubel, M. Moebus and K. H. Hoffmann, „Generische Umfeldmodellierung - Autonome Fahrzeugsteuerung durch eine Risikokarte,“ (Eng: “Generic environment modeling - autonomous driving control through a risk map”) in Proc. of *VDI - Electronics in vehicles (ELIV)*, Baden-Baden, Germany, Oct. 2013. (Auto-Electronic Excellence Award)

T. Streubel and K. H. Hoffmann, „Fahrverhaltenanalyse an Kreuzungen auf Basis von Fahrzeugdaten,“ (Eng: “Driving behavior analysis at intersections based on driving data”) in Proc. of *Automotive meets Electronics 2014*, Dortmund, Germany, Feb. 2014. (Best Paper Award)

T. Streubel and K. H. Hoffmann, “Prediction of Driver Intended Path at Intersections,” in Proc. of *IEEE Intelligent Vehicles Symposium (IV'14)*, Dearborn, USA, Jun. 2014.

T. Streubel and K. H. Hoffmann, „Realisierung eines Fahrtrichtungsprädiktors für Kreuzungen,“ (Eng: “Realization of a driving prediction for intersections”) in Proc. of *Automotive meets Electronics 2015*, Dortmund, Germany, Feb. 2015.

T. Streubel, L. Rittger, K. H. Hoffmann and J. F. Krems, “Naturalistic driving behavior at inner-city intersections,” in Proc. of *ITS World Congress*, Bordeaux, France, Oct. 2015.

P. de Beaucorps, **T. Streubel**, A. Verroust-Blondet, F. Nashashibi, B. Bradai and P. Resende, “Decision-making for automated vehicles at intersections adapting human-like behavior,” in Proc. of *IEEE Intelligent Vehicles Symposium (IV’17)*, Redondo Beach, USA, Jun. 2017.

T. Streubel and P. de Beaucorps, F. Nashashibi, “Evaluation of automated vehicle behavior in intersection scenarios,” in Proc. of *Road Safety and Simulation (RSS’17)*, The Hague, Netherlands, Oct. 2017.

Conference presentation

T. Streubel and K. H. Hoffmann, “Autonomous Vehicle Control through Dynamic Traffic Scenarios Based on Artificial Potential Fields,” presentation at *DPG Spring Meeting*, Dresden, Germany, Apr. 2014.

Theses

T. Streubel, „Realisierung einer aktiven, präventiven Bremsleuchte für Personenkraftwagen,” (Eng: “Realization of an active and preventive brake light for passenger cars”) bachelor thesis, TU Chemnitz, Jun. 2009.

T. Streubel, “Artificial Potential Fields as a Concept of Environment Modeling for Forward Directed Driver Assistance Systems,” master thesis, TU Chemnitz, Oct. 2011.

T. Streubel, “Situation Assessment at Intersections for Driver Assistance and Automated Vehicle Control,” PhD dissertation, TU Chemnitz, Jan. 2016.

Teaching and extra activities

Teaching and extracurricular activities at Chemnitz University of Technology

2006 / 2007 (2 semesters)	Faculty of Natural Sciences / Institute of Physics Tutoring first semester students
2010 – 2011 (5 month)	Faculty of Mechanical Engineering Implementing user specific interfaces for machine tools in LabVIEW
May 2013	Center for Young Scientists attending class “successful in negotiations”
2013 - 2015 (3 semesters)	Faculty of Natural Sciences / Institute of Physics assisting teaching in class “Simulation of natural scientific processes”

Supervision

PhD mentoring	1 active (TU Munich)
Master thesis	2 completed (Darmstadt University of Applied Sciences, Chalmers)
Bachelor thesis	1 completed (RheinMain University of Applied Sciences)

Reviewing activities

IEEE Transactions on Intelligent Transportation Systems, IEEE Transactions on Intelligent Vehicles

Specific skills

Languages: German (native proficiency), English (full professional proficiency), French (limited working proficiency), Swedish (elementary proficiency)

Software: MS Office, Vector Products (CANalyzer, CANape), CarMaker

Programming: Matlab/Simulink, C++, Java, LabVIEW