

Contact

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www.linkedin.com/in/
visualnavigation (LinkedIn)
www.ce.cit.tum.de/mvp/
(Company)
www.linkedin.com/company/tum-
machine-vision-and-perception-
group/ (Portfolio)
www.youtube.com/
@DariusBurschka/videos
(Portfolio)

Top Skills

Image Processing
Visual Navigation
Embedded Software

Languages

English (Full Professional)
German (Native or Bilingual)
Russian (Limited Working)

Publications

Spatiotemporal Representation of
Dynamic Environments
Rigid 3D Geometry Matching for
Grasping of Known Objects in
Cluttered Scenes
Adaptive and generic corner
detection based on the accelerated
segment test
Stochastic Global Optimization for
Robust Point Set Registration
European conference on Computer
vision

Darius Burschka

Professor CIT (TUM) - Visual Analysis of Dynamic Scenes
Munich, Bavaria, Germany

Summary

My principle areas of research are sensors for mobile systems and Human Computer Interfaces. The focus of my research is on vision-based navigation and three-dimensional reconstruction from sensor data.

Specialties: image processing for automotive applications, endoscopic navigation for minimally invasive surgery, system design consultant, video-based navigation systems

Experience

Technical University of Munich
20 years 11 months

Head of the Machine Vision and Perception Lab (MVP)
November 2005 - Present (20 years 10 months)
Munich

The Machine Vision and Perception Group@TUM works on the aspects of visual perception and control in medical, mobile, and HCI applications

Professor
November 2005 - Present (20 years 10 months)
Munich, Bavaria, Germany

Telerobotics and Sensor Data Fusion for Medical and Service Robots.

Head of Virtual Institute for "Telerobotics and Sensor Data Fusion" (TUM/DLR)
October 2005 - March 2015 (9 years 6 months)

Joint research collaboration between the Technische Universität München and the Institute for Robotics and Mechatronics at the German Aerospace Agency (DLR) in Oberpfaffenhofen.

Munich Institute of Robotics and Machine Intelligence, Technical University of Munich
Member Scientific Board in the Area of Perception

March 2022 - December 2024 (2 years 10 months)

The Munich School of Robotics and Machine Intelligence (MSRM) at the Technical University of Munich is an integrative research center in the field of machine intelligence. Its purpose is to research the fundamentals of robotics, perception and artificial intelligence in order to develop innovative and sustainable technological solutions for central challenges of our time.

My responsibility is to co-ordinate research projects in the area of perception.

Munich School of Robotics and Machine Intelligence

Member Scientific Board in Area of Robotics

May 2019 - March 2022 (2 years 11 months)

Munich Area, Germany

The Munich School of Robotics and Machine Intelligence (MSRM) at the Technical University of Munich is an integrative research center in the field of machine intelligence. Its purpose is to research the fundamentals of robotics, perception and artificial intelligence in order to develop innovative and sustainable technological solutions for central challenges of our time.

My responsibility is to co-ordinate research projects in the area of Robotics.

Johns Hopkins University

Visiting Professor

October 2012 - March 2022 (9 years 6 months)

Institute for Pure and Applied Mathematics

Senior Long Term Core Participant

September 2020 - December 2020 (4 months)

Los Angeles Metropolitan Area

Long Program: Mathematical Challenges and Opportunities for Autonomous Vehicles

RAS

Co-Chair Technical Committee on Computer & Robot Vision

May 2013 - May 2019 (6 years 1 month)

Cluster of Excellence "Cognition in Technical Systems"

Research Area Coordinator for Perception

November 2006 - April 2010 (3 years 6 months)

The Cluster of Excellence (CoTeSys <http://www.cotesys.org>) coordinated by Technische Universität München, is a close collaboration between scientists from various disciplines connecting neurocognitive and neuro-biological foundations to engineering sciences at leading research institutions in Munich: besides Technische Universität München, scientists from Ludwig-Maximilians-Universität München, Universität der Bundeswehr, Max-Planck Institute of Neurobiology, and German Aerospace Agency DLR are involved.

Johns Hopkins University

6 years

Assistant Research Professor

May 2003 - May 2005 (2 years 1 month)

Developed Human Computer Interfaces and navigation algorithms for mobile and medical devices

Associate Research Scientist

June 1999 - April 2003 (3 years 11 months)

Worked on mobile navigation for mobile robots. Developed one of the first monocular navigation systems VGPS together with G. Hager.

Education

Technical University of Munich

Doctor of Engineering, Electrical and Computer Engineering · (1992 - 1998)

Technische Universität München

MSc, Electrical Engineering · (1987 - 1992)

Yale University

PostDoc, Computer Science · (1999 - 1999)