

Dr. André Treptow

Background

- 1994 - 2000 studied computer science at the University of Siegen
- June 1998 - September 1998: Internship at DaimlerChrysler Research Department "Driver Assisting Systems"
- September 2000: Diploma thesis "Software-Agenten zur verteilten evolutionären Optimierung"
- September 2000 - February 2001: Dept. of Structural Optimization of the University of Siegen: Research in evolutionary optimization of laminate structures
- since February 2001: Research assistant at the Dept. of Computer Architecture of the University of Tübingen



Research Interests

- Evolutionary Algorithms
- Computervision, real-time object detection and tracking
- Biologically inspired vision systems for robots

Publications

Journal Articles

Real-Time Object Tracking for Soccer-Robots without Color Information

André Treptow and Andreas Zell

Robotics and Autonomous Systems, Volume 48, Issue 1, 31 August 2004, pp. 41-48

A heuristic and a genetic topology optimization algorithm for weight-minimal laminate structures.

Wilfried Hansel, André Treptow, Wilfried Becker and Bernd Freisleben

Composite Structures 58 (2002), 287-294

Conference Proceedings

Robot Guidance Navigation with Stereo-Vision and a Limited Field of View

André Treptow, Benjamin Huhle and Andreas Zell

accepted at the 19th Autonomous Mobile Systems (AMS), Stuttgart, Germany, 2005.

Comparing Measurement Models for Tracking People in Thermal Images on a Mobile Robot

André Treptow, Grzegorz Cielniak and Tom Duckett

accepted at the 2005 European Conference on Mobile Robots (ECMR05), Ancona, Italy.

Quantitative Performance Evaluation of A People Tracking System on a Mobile Robot

Grzegorz Cielniak, André Treptow and Tom Duckett

accepted at the 2005 European Conference on Mobile Robots (ECMR05), Ancona, Italy.

Localization of Mobile Robots with Omnidirectional Vision using Particle Filter and Iterative SIFT

Hashem Tamimi, Henrik Andreasson, André Treptow, Tom Duckett and Andreas Zell

accepted at the 2005 European Conference on Mobile Robots (ECMR05), Ancona, Italy.

Active People Recognition Using Thermal and Grey Images on a Mobile Security Robot

André Treptow, Grzegorz Cielniak and Tom Duckett

accepted at the 2005 IEEE International Conference on Intelligent Robots and Systems

(IROS), Edmonton, Canada.

Localization for Mobile Robots using Panoramic Vision, Local Features and Particle Filter

Henrik Andreasson, André Treptow and Tom Duckett

IEEE International Conference on Robotics and Automation in Barcelona (ICRA), Spain, 2005.

Combining Adaboost Learning and Evolutionary Search to select Features for Real-Time Object Detection

André Treptow and Andreas Zell

IEEE Congress on Evolutionary Computation in Portland (CEC 2004), Oregon, Proceedings, vol. 2, pp. 2107-2113, IEEE Press, 2004.

Tracking Dynamic Objects in a RoboCup Environment - The Attempto Tübingen Robot Soccer Team

P. Heinemann, M. Plagge, A. Treptow, A. Zell

In D. Polani, B. Browning, A. Bonarini, and K. Yoshida, editors,

RoboCup-2003: Robot Soccer World Cup VII,

Lecture Notes in Computer Science, (CD-Supplement).

Springer-Verlag, 2003.

Real-Time Object Tracking for Soccer-Robots without Color Information

André Treptow, Andreas Masselli and Andreas Zell

European Conference on Mobile Robotics (ECMR 2003), Radziejowice, Poland, Proceedings pp. 33-38, 2003.



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