

Andreas Huster, Ph.D., P.Eng.

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Education

- ◇ **Stanford University**, Ph.D. in Electrical Engineering, Sep 2003
Dissertation: *Relative Position Sensing by Fusing Monocular Vision and Inertial Rate Sensors*
available at <http://www.huster.ca/dissertation/>
Concentration in *control systems, nonlinear estimation, autonomous field robots, underwater robotics, vision-based sensing, robot manipulator control and embedded real-time control systems.*
- ◇ **Stanford University**, Master of Science in Electrical Engineering, Jun 1997
Course work in *control systems, linear systems, linear estimation, digital signal processing, random processes, information theory, robotics, computer vision, path planning and energy processes.*
- ◇ **Simon Fraser University**, Bachelor of Applied Science in **Engineering Science**, Jun 1995
Engineering Physics option. First Class Honours. Course work and projects in *signal processing, communication systems, high-frequency electronics, control systems, physics and autonomous mobile robotics.*

Employment

- ◇ Control Systems Engineer, **OceanWorks International Corp.**, Burnaby, BC (Jul 2004-present).
NSERC Industrial Research Fellowship. Development of control systems and electrical systems for subsea equipment. Concept design, system engineering, analysis, detail design, manufacturing support, testing, and documentation.
- ◇ Research Associate, **Simon Fraser University**, Burnaby, BC (Oct-Dec 2003)
Joint project with the **National Research Council** Institute for Fuel Cell Innovation to develop agent-based distributed coordination for distributed energy systems.
- ◇ Research Assistant, Stanford **Aerospace Robotics Lab**, Stanford, CA (Sep 1995-Jun 2003)
 - Developed novel control, estimation and sensing capabilities for various robotic vehicles, including an operational underwater vehicle, a 7-DOF kinematically-redundant manipulator arm, and a 6-DOF gantry system.
 - Server/network administration and procurement/installation/maintenance for a network of 20 Unix/Linux workstations and several VME/VxWorks control systems.
- ◇ Research Assistant, SFU **Underwater Research Lab**, Burnaby, BC, and **International Submarine Engineering**, Port Coquitlam, BC (Jun-Aug 1996)
- ◇ DSP Software Development Engineer, **Spectrum Signal Processing**, Burnaby, BC (Feb-Aug 1995)
- ◇ Internship, Siemens Corporate Research & Development, Intelligent Systems, Munich, Germany (May-Dec 1992, May-Aug 1994)

- ◇ Internship, VTech Engineering Canada Ltd., Telecommunications Engineering R&D Lab, Richmond, BC (Jan-Apr 1991)
- ◇ Internship, Newnes Automation, Salmon Arm, BC (May-Aug 1990)

Skills

- ◇ Control systems, electrical systems, marine systems, heave compensation systems
- ◇ All aspects of engineering design, including requirements specifications, concept reviews, analysis, design reviews, configuration management, engineering change orders
- ◇ All aspects of research, including proposals, literature review, analysis, reporting, publishing, and presenting
- ◇ System integration, troubleshooting and proof-of-concept demonstrations
- ◇ Computer-based analysis using Matlab and other tools
- ◇ Fluent spoken/written English and German

Scholarships & Fellowships

- ◇ Natural Sciences and Engineering Research Council (NSERC), Industrial Research Fellowship, (2004-2006)
- ◇ Natural Sciences and Engineering Research Council (NSERC), Postgraduate Scholarship (1995-1999)
- ◇ Canadian Space Agency Fellowship (1997-1999)
- ◇ W. Noel Eldred Fellowship (1995-1996), Stanford University
- ◇ The Simon Fraser Entrance Scholarship (1989 - 1993)

Awards

- ◇ Governor General's Silver Medal awarded to the top candidate for a Bachelor's degree at Simon Fraser University in 1995
- ◇ Governor General's Bronze Medal awarded to the top high school graduate of British Columbia in 1989

Publications

- ◇ Available at <http://www.huster.ca/research/>

References

Available on request.