Christopher E. Rasmussen

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RESEARCH INTERESTS

Computer vision, mobile robotics, and artificial intelligence; particularly problems in tracking, detection, modeling, and sensor fusion as they pertain to autonomous navigation and human-computer interaction.

EDUCATION

Ph.D., Computer Science Yale University, New Haven, CT Thesis: "Integrating Multiple Visual Cues for Robust Tracking" Advisor: Professor Gregory D. Hager	2000
M.S., Computer Science Yale University, New Haven, CT	1995
A.B., Computer Science Harvard College, Cambridge, MA	1993
RESEARCH EXPERIENCE	
Assistant Professor Department of Computer and Information Sciences University of Delaware, Newark, DE	2002-present
National Research Council Postdoctoral Research Associate Perception Systems Group, Intelligent Systems Division National Institute of Standards and Technology (NIST), Gaithersburg, MD	2001-2002
Research Assistant Center for Computational Vision and Control Yale University, New Haven, CT	1994-2000

TEACHING EXPERIENCE

Professor, Department of Computer and Information Sciences University of Delaware, Newark, DE	2002-present
 CIS 489/689 Computer Vision CIS 849 Autonomous Robot Vision 	Spring, 2003 Fall, 2002
Advisor, Summer Undergraduate Research Fellowship NIST, Gaithersburg, MD	Summer, 2001
Teaching Assistant, Department of Computer Science Yale University, New Haven, CT	1994-97
• CS 474 Autonomous Systems	Spring, 1997
• CS 210 A Second Course in Programming (C)	Fall, 1994; Spring, 1996
• CS 112 Introduction to Programming (Java)	Fall, 1995
• CS 112 Introduction to Programming (Pascal)	Spring, 1994; Fall, 1996
• CS 110 Elements of Computing	Spring, 1995; Spring, 1997

PUBLICATIONS

Journal Articles

C. Rasmussen and G. Hager. "Probabilistic Data Association Methods for Tracking Complex Visual Objects." *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 23, No. 6, June, 2001.

Refereed Conference/Workshop Proceedings

C. Rasmussen. "Combining Laser Range, Color, and Texture Cues for Autonomous Road Following." *IEEE International Conference on Robotics and Automation*, ICRA-02, Washington, DC, 2002.

T. Hong, T. Chang, C. Rasmussen, and M. Shneier. "Feature Detection and Tracking for Mobile Robots Using a Combination of Ladar and Color Images." *IEEE International Conference on Robotics and Automation*, ICRA-02, Washington, DC, 2002.

T. Hong, C. Rasmussen, T. Chang, and M. Shneier. "Fusing Ladar and Color Image Information for Mobile Robot Feature Detection and Tracking." *7th International Conference on Intelligent Autonomous Systems*, IAS-7, Marina del Rey, CA, 2002.

C. Rasmussen. "Laser Range-, Color-, and Texture-based Classifiers for Segmenting Marginal Roads." *IEEE Conference on Computer Vision and Pattern Recognition Technical Sketches*, Kauai, HI, 2001.

C. Rasmussen. "Joint Likelihood Methods for Mitigating Visual Tracking Disturbances." *IEEE Workshop on Multi-Object Tracking*, Vancouver, BC, 2001.

C. Rasmussen and G. Hager. "Joint Probabilistic Techniques for Tracking Objects Using Multiple Visual Cues." *IEEE International Conference on Intelligent Robots and Systems*, IROS-98, Victoria, BC, 1998.

C. Rasmussen and G. Hager. "Joint Probabilistic Techniques for Tracking Multi-Part Objects." *IEEE Conference on Computer Vision and Pattern Recognition*, CVPR-98, Santa Barbara, CA, 1998.

G. Hager, D. Kriegman, E. Yeh, and C. Rasmussen. "Image-based Prediction of Landmark Features for Mobile Robot Navigation." *IEEE International Conference on Robotics and Automation*, ICRA-97, Albuquerque, NM, 1997.

C. Rasmussen and G. Hager. "Robot Navigation Using Image Sequences." 13th National Conference on Artificial Intelligence, AAAI-96, Portland, OR, 1996.

Miscellaneous

T. Hong, T. Chang, C. Rasmussen, and M. Shneier. "Road Detection and Tracking for Autonomous Mobile Robots." *SPIE AeroSense: Unmanned Ground Vehicle Technology IV*, Orlando, FL, 2002.

C. Rasmussen. "Visual Learning for Collision Avoidance in a Simulated Environment." DCS-RR-1174, Yale University, New Haven, CT, 1997.

C. Rasmussen, K. Toyama, and G. Hager. "Tracking Objects by Color Alone." DCS-RR-1114, Yale University, New Haven, CT, 1996.

Dissertation

"Integrating Multiple Visual Cues for Robust Tracking." Department of Computer Science, Yale University, New Haven, CT, 2000.

INVITED TALKS

Presentation to Chief of Robotics Program Office, Army Research Laboratory. "Exploiting Visual and Structural Cues for Road Tracking." Fallston, MD, June, 26, 2002.

University of Delaware CIS Colloquium. "Exploiting Diverse Visual Cues for Robust Tracking." Newark, DE, February 27, 2002.

Army Demo III VIP poster session. "Combining Laser Range, Color, and Texture Cues for Autonomous Road Following." Fort Indiantown Gap, PA, November 14, 2001.

NIST Intelligent Systems Division Seminar. "Integrating Multiple Visual Cues for Robust Tracking." Gaithersburg, MD, March 29, 2001.

Microsoft Research. "Integrating Multiple Visual Cues for Robust Tracking." Redmond, WA, June 7, 1999.

AWARDS AND HONORS

NRC Associateship, 2001-present Sterling Prize Fellowship, Yale University, 1993-94, 1994-95 Graduated *Cum Laude* in Computer Science, Harvard College, 1993 Ford Undergraduate Research Grant, Harvard College, 1992 Harvard College Scholarship, 1989-90, 1991-92, 1992-93

PROFESSIONAL

Member, IEEE, IEEE Computer Society Reviewer for CVPR, ICCV, IEEE PAMI, IEEE Transactions on Image Processing University of Delaware CIS Department Graduate Committee, 2002-present