

JOHNÉ M. PARKER

Department of Mechanical Engineering
University of Kentucky
175 Ralph G. Anderson Building

Lexington, KY 40506-0503
Telephone: 859-257-6336 x80647
Email: jparker@enr.uky.edu

EDUCATION

Georgia Institute of Technology:

1996 Ph.D. Mechanical Engineering
1992 M.S. Mechanical Engineering
1985 B.S. Mechanical Engineering

PROFESSIONAL EMPLOYMENT

Univ. of Kentucky, Mechanical Engineering

2002– Associate Professor
2005-2006 AAAS/ASME Congressional Fellow (Office of Senator Byron Dorgan, D-ND)
1996–2002 Assistant Professor

Georgia Institute of Technology:

Woodruff Teaching Fellow 1996
ASME Graduate Teaching Fellow 1995
Research/Teaching Assistant 1990–95

Mobil Chemical Company

Process/Project Engineer 1987–90

Shell Western Exploration & Production, Inc.

Engineer/Assoc. Production Engineer 1985–97
Summer Professional Engineer 1984
Field Engineer 1983

SELECT PUBLICATIONS (* = STUDENT, † = ADVISOR):

*Gnanaprakasam, P., **Parker, J.**, *Ganapathiraman, S. and *Hou, Z., 2008, "Efficient 3-D Characterization of Raised Topological Defects in smooth Specular Coatings," **Image and Vision Computing**, Volume 27, Issue 4, Pages 319-330.

Hou, Z.*, Li, J.*, and **Parker, J.**, 2005, "Real-Time Automated Visual Inspection of Fabric Inhomogeneities," **Proceedings of the 2005 IEEE/ASME International Conference on Advanced Intelligent Mechatronics** (AIM '05), Monterey, California, July 2005.

Parker, J. M. and *Hou, Z. (2002), A Numerical Investigation of Diffuse Images for Effective Defect Detection, **Proceedings of the Institution of Mechanical Engineers Part B: Journal of Engineering Manufacture**, Vol. 216, No. 7, 1073 - 1079.

Parker, J. M. (2001), A Robust Machine Vision System Design to Facilitate Effective Surface Appearance Automation, Invited Paper on Motion and Imaging, **Proceedings of the 2001 IEEE/ASME International Conference on Advanced Intelligent Mechatronics** (AIM '01), Como, Italy, July, CD Edition, pp. 87-92.

*Lai, T. and Parker, J. M. (2000), "Vision System Design for Automated Quality Control of Specular Painted Surfaces," **Mechatronics and Machine Vision**, John Billingsley, ed., Research Studies Press.

Parker, J. M. and †Lee, K. M. (1999), Physically Accurate Synthetic Images for Machine Vision System Design, **ASME Trans. Journal of Engineering for Industry**, Vol. 121, No. 4, pp. 763-770.

RESEARCH FUNDING

Pending:

Document Security and Document Tracking using Passive RFID, Lexmark International (and UKRF), PI.

UK Power and Energy Education Institute (PE²I), Department of Energy, Co-PI [L. Holloway, PI], \$2,500,000.

CCLI Phase II: Enhancing the Programming Experience of Engineering Students through Hands-on Integrated Computer Experiences, NSF (DUE), Co-PI [S. Canfield, TN Tech, PI], \$600,000.

Recent:

GAANN: Life-Cycle Product Design and Manufacturing, Department of Education, Co-PI [Keith Rouch, PI], \$577,000, 2003-07.

Previous funding as PI:

NSF CAREER: A Robust Low-Cost Vision System for Assessing Surface Appearance, PI, \$209,990, 2000-04.

NSF POWRE: Integration of Human Perception into a Robust On-line Vision System Designed to Assess Surface Appearance, PI, \$74,449, 2000-02.

Toyota: Surface Appearance Research Study: An Assessment of Currently Available Technologies and an Extendable Prototype Design, PI, \$61,050, 2000-02.

COLLABORATORS

University of Kentucky: [Mechanical Engineering] F. Badurdeen, I. S. Jawahir, M. Khraisheh, Keith Rouch, Kozo Saito, L. Scott Stephens; [Civil Engineering] Paul Goodrum. [ECE/CS/Vis Ctr] S. Cheung and M. Carswell.

Tennessee Technological University: [Mechanical Engineering] S. Canfield

THESIS ADVISORS

†Kok-Meng Lee (Georgia Institute of Technology)

Holly E. Rushmeier (Yale University)

THESIS ADVISEES (GRADUATION/*EXPECTED)

M.S.: Ting Lai (1999), N-C Sekhar Melam (1999), Yew-Lim Cheong (2004), Subburengan Ganapathiraman (2005), Pradeep Gnanaprakasam (2004), Joseph Istre (2003), Jinhua Li (2005).

Ph.D.: Zhen Hou (2009), Yishu Zou (2010*)

RESEARCH AREAS

Automation, Imaging and Machine Vision; Sensors, Control and Improvement of Manufacturing Processes; RFID as an Enabling Technology in Sustainable Processes and Systems; S&T Policy and Societal and Policy Issues surrounding the Implementation of Emerging Technologies.

RECENT PROFESSIONAL SERVICE (last 2 years)

- Member, Program Committee, IEEE/ASME International Conferences on Advanced Intelligent Mechatronics
- **ASME:** Member, Nominating Committee (2009-11); Adjunct Member, Board of Government Relations; Member, NSF Task Force (of the Inter-sector Committee on Federal R&D Funding) [2006-present], WISE (Washington Internships for Students of Engineering) Selection Committee (2006-present).
- ABET Program Evaluator for Mechanical Engineering Programs (representing **ASME**) since 2006.
- Member, George W. Woodruff School of Mechanical Engineering External Advisory Board (and Chair Designate), Georgia Institute of Technology.