

Diane T. Rover
Iowa State University

A. Professional Preparation

Iowa State University, Ames	Computer Science	BS, 1984
Iowa State University, Ames	Computer Engineering	MS, 1986
Iowa State University, Ames	Computer Engineering	PhD, 1989
Ames Laboratory (US-DOE)	Postdoc, Scalable Computing Laboratory	1989-1991

B. Appointments

2015-present	University Professor, Electrical and Computer Engineering, Iowa State University, Ames
2001-2015	Professor, Dept of Electrical and Computer Engineering, Iowa State University, Ames
2011-present	Faculty Director, SP@ISU Program, Iowa State University, Ames
2011-present	Alliance Director, IINSPIRE LSAMP Alliance, Iowa State University, Ames
2004-2010	Associate Dean for Academic and Student Affairs, College of Engineering, Iowa State University, Ames
2003-2004	Associate Chair for Undergraduate Education, Dept of Electrical and Computer Engineering, Iowa State University, Ames
2000-2001	Interim Chairperson, Dept of Electrical and Computer Engineering, Michigan State University, East Lansing
1997-2001	Associate Professor, Dept of Electrical and Computer Engineering, Michigan State University, East Lansing
1997-2000	Director of Computer Engineering Program, Michigan State University, East Lansing
1991-1997	Assistant Professor, Dept of Electrical Engineering, Michigan State Univ., East Lansing
1987-1987	Summer Intern, Computer Sciences, IBM T.J. Watson Research Center, Hawthorne, NY
1986-1986	Summer Intern, Digital Computer and Software Engineering Dept, McDonnell Douglas Corp., St. Louis, MO

C. Products

Most Relevant to Proposed Project

1. Laugerman M, Mickelson S, Shelley M, Rover D. The engineering admissions partnership program: a navigation strategy for community college students seeking a pathway into engineering. International Journal of Engineering Education. November/December 2013, 29(6).
2. Rover D, Mickelson S, Hartmann B, Rehmann C, Jacobson D, Kaleita A, Shelley M, Ryder A, Laingen M, Bruning M. Engineer of 2020 outcomes and the student experience. Proc. 2013 ASEE/IEEE Frontiers in Education Conference, October 2013.
3. Bruning M, Rover D, Williams A. Developing engineers for 2020 – an innovative curricular and co-curricular approach. Proc. 2011 ASEE/IEEE Frontiers in Education Conference. October 12-15, 2011, p. S4D1-S4D3.
4. Rehmann C, Rover D, Laingen M, Mickelson S, Brumm T. Introducing systems thinking to the engineer of 2020. Proc. 2011 ASEE Annual Conference, June 2011.
5. Rover DT. Engineering identity. Academic Bookshelf, ASEE Journal of Engineering Education. July 2008, 97(3):389-92.

Other Significant Products

1. Laugerman, M., Rover, D., Mickelson, S., Shelley, M., Determining Graduation Rates in Engineering for Community College Transfer Students Using Data Mining, to appear International Journal of Engineering Education. Accepted 2015.
2. Laugerman, M., Rover, D., Mickelson, S., Shelley, M., Survival Rates in Engineering for Community College Transfer Students by Grades in Calculus and Physics, to appear International Journal of Education in Mathematics, Science and Technology. Accepted 2015.

3. Laugerman, M., Rover, D., Mickelson, S., Shelley, M., What Worked: Engaging Community Colleges and Universities in Transfer Partnership in STEM, to appear ASEE Advances in Engineering Education. Accepted 2015.
4. Rover D, Ullerich C, Scheel R, Tillman J, Whipple C. Advantages of Agile Methodologies for Software and Product Development in a Capstone Design Project. IEEE Frontiers in Education Conference, October 2014, Madrid, Spain.
5. Rover DT, Mercado R, Zhang Z, Shelley M, and Helvick D, "Reflections on Teaching and Learning in an Advanced Undergraduate Course in Embedded Systems," *IEEE Transactions on Education*, 51, no. 3, August 2008, pp. 400-412.

D. Synergistic Activities

1. Various activities involving educational innovation, research, and practice; engineering and STEM education partnerships with community colleges (www.eng.iastate.edu/seec/, www.iinspirelamps.iastate.edu); mentoring of students, including undergraduate design teams, graduate students in GAANN and PFF programs, and E2020 Scholars (www.engineering.iastate.edu/e2020).
2. Professional service to conferences and organizations, including ABET, ASEE, and IEEE. ABET EAC Executive Committee (2015-present); EAC Commissioner (IEEE) (2009-2014); IEEE Education Society Board of Governors (2013-present); ASEE ECE Division officer (2009-2013); ASEE Fellow (2012).
3. Various program management involving faculty and student professional development, including SP@ISU program to promote effective broader impacts plans in grants (www.spisu.iastate.edu).
4. International activities related to academic partnerships, international engineering education, and joint workshops.

E. Collaborators & Other Affiliations

Collaborators and Co-Editors (36) (last 48 months)

Yacob Astatke, Morgan State U; Smita Bakshi, Zyante; Bonnie Bowen, ISU; Tom Brumm, ISU; Monica Bruning, U of MN; Mary Darrow, ISU; Sandra Gahn, ISU; Jerry Gannod, Miami U; Beth Hartmann, ISU; Kari Hensen, Des Moines Area Community College; David Holger, ISU; Jane Horwitz, U Penn; Doug Jacobson, ISU; Kemi Jona, Northwestern U; Amy Kaleita, ISU; Raynard Kington, Grinnell College; Frankie Santos Laanan, FAU; Mark Laingen, IL St U; Monica Lamm, ISU; Lisa Larson, ISU; Marcia Laugerman; Kim Linduska, DMACC; Harry McMaken, DMACC; Steve Mickelson, ISU; Mani Mina, ISU; Kevin Niemi, U Wisc; Sarah Nusser, ISU; Fred Ohles, NE Wesleyan U; Chris Rehmann, ISU; Susan Renoe, U Missouri; Derrick Rollins, ISU; Beate Schmittmann, ISU; Mack Shelley, ISU; Soko Starobin, ISU; Frank Vahid, UC-Riverside; Joe Zambreno, ISU.

Graduate and Postdoctoral Advisors (3)

MS Advisor: Paul Basore, Hanwha Solar

PhD Advisor: Charles Wright, deceased

Postdoctoral Advisor: John Gustafson, Ceranovo

Thesis Advisor and Postdoctoral Scholar Sponsor

Graduate students advised (total = 15): Yung-Kang Chu (PhD 1995), AT&T; Abdul Waheed (PhD 1997), NASA Ames; David Pierce (PhD 2001), Smiths Industries; Nayda Santiago (PhD 2003), Univ. PR–Mayaguez; Kuk-Jin Lee (PhD 2005), Microsoft; Ramon Mercado (PhD 2011), U.S. Patent and Trademark Office; Jerry Cao (PhD in progress), Marvell; Mihir Awatramani (PhD in progress); Robert Walstrom (MS 2005), Seagate Technology; Brian Smith (MS 2005), IBM; Ziyu Zhang (MS 2006), Garmin; Joseph Schneider (MS 2007), John Deere; Andrew Riha (MS 2008), Boeing; Daniel Helvick (ME 2011), Garmin; Mengduo Ma (ME 2015).

Past postdoctoral scholars (1): Marcia Laugerman (2015)