

A.Galip Ulsoy, William Clay Ford Professor of Manufacturing

Department of Mechanical Engineering
2266 G. G. Brown Building
2350 Hayward Street
The University of Michigan
Ann Arbor, MI 48109-2125 USA

Tel: 734.936-0407, Fax: 734.763-5700, E-mail: ulsoy@umich.edu
<http://www.engin.umich.edu/~ulsoy/>

Professional Preparation

B.S., Engineering, Swarthmore College, 1973

M.S., Mechanical Engineering, Cornell University, 1975

Thesis: Optimal Pseudo-Derivative Feedback Control, Advisor: R.M. Phelan

Ph.D., Mechanical Engineering University of California, Berkeley, 1979

Thesis: Vibration and Stability of Bandsaw Blades, Advisor: C.D. Mote, Jr.

Appointments

William Clay Ford Professor of Manufacturing (1996-); Founding Deputy Director, National Science Foundation (NSF) Engineering Research Center for Reconfigurable Machining Systems (1996- 2002); Professor (1992-); Chair (1998-2001); Founding Director (1993-1998), Program in Manufacturing; Director (1992-94), and Founding Associate Director (1990-92), NSF Industry-University Cooperative Research Center for Dimensional Measurement and Control in Manufacturing, Associate Chair (1992-93); Graduate Program Chair (1987-1989); Associate Professor (1986-92); Director (1984-86), Consortium on Diagnostic Sensing and Control for Metal Cutting; Assistant Professor (1980-86), Department of Mechanical Engineering, College of Engineering, University of Michigan, Ann Arbor. Director (2003-2005), Division of Civil and Mechanical Systems, National Science Foundation; Visiting Researcher, Ford Scientific Research Laboratory, 1995 and summers 1992-93. Visiting Associate Professor (1986-87), Department of Mechanical Engineering, Bogazici University, Istanbul, Turkey.

Five Relevant Publications

- [1] "Challenges and Opportunities in the Engineering of Intelligent Systems," S.C. Liu, M. Tomizuka, and A.G. Ulsoy, *Smart Structures and Systems*, Vol. 1, No. 1, Jan. 2005
- [2] "Optimizing Modular Production in a Reconfigurable Manufacturing System," A.S. Yigit, A.G. Ulsoy, and A. Allahverdi, *J. of Intelligent Manufacturing*, Vol. 13, No. 4, Aug. 2002, pp 309-316.
- [3] "Identification of Driver Steering Model, and Model Uncertainty, from Driving Simulator Data," L.K. Chen and A.G. Ulsoy, *ASME J. Dyn. Syst. Meas. Control*, Vol. 123, No. 4, pp 623-629, Dec. 2001. (2001 Best Paper Award for *ASME J. Dynamic Systems, Measurement and Control*)

[4] "An Input-Output Criterion for Linear Model Deduction," D.G. Walker, J.L. Stein, and A.G. Ulsoy, *ASME J. of Dynamic Systems, Measurement, and Control*, Vol. 122, No. 3, Sept. 2000, pp 507-513.

[5] "Coupling Between the Modeling and Controller-Design Problems, Part I: Analysis, Part II: Design" G.A. Brusher, P.T. Kabamba, and A.G. Ulsoy, *ASME Journal of Dynamic Systems, Measurement and Control*, Vol. 119, No. 2 & 3, June & Sept. 1997.

Five Other Publications

[1] "Target Management in Complex System Design Using System Norms," H.A. Mahmoud, P.T. Kabamba, A.G. Ulsoy, and G.A. Brusher, *ASME J. of Mechanical Design* (in press).

[2] "Stochastic Optimal Capacity Management in Reconfigurable Manufacturing Systems" F.M. Asl and A.G. Ulsoy, *CIRP Annals*, Vol. 52, No. 1, 2003, pp 371-374.

[3] "Robust Machining Force Control with Process Compensation," S.I. Kim, R.G. Landers, and A.G. Ulsoy, *ASME J. of Manufacturing Science and Engineering*, Vol. 125, No. 3, Aug. 2003, pp 423-430.

[4] "Reconfigurable Manufacturing Systems," Y. Koren, U. Heisel, F. Jovane, T. Moriwaki, G. Pritchow, A.G. Ulsoy and H. VanBrussel, *CIRP Annals*, Vol. 48, No. 2, 1999 (keynote paper).

[5] "Supervisory Drilling Control," R.J. Furness, A.G. Ulsoy, and C.L. Wu, *ASME Journal of Engineering for Industry*, Vol. 118, No. 1, Feb. 1996, pp 10-19. (1994 O. Hugo Schuck Best Paper Award)

Synergistic Activities

- Co-developed and taught six new courses, and two industry short courses, in the areas of control systems and manufacturing systems.
- Founding Director of the Program in Manufacturing at the University of Michigan, which awards the Master of Engineering and Doctor of Engineering degrees in Manufacturing, both on-campus and via distance learning, to over 100 students per year.
- Editor of the ASME Transactions, Journal of Dynamic Systems, Measurement and Control and member of the editorial board for several international journals.
- Member, U.S. National Academy of Engineering.

PH.D Students Advised

L.K. Lauderbaugh, K. Danai, N.G. Chalhoub, A. Haraldsdottir, R. Katz, K.C. Shin, O. Tekinalp, A. Yigit, Y.C. Pan, J.J. Park, F.L. Hu, R.J. Furness, H. Son, S. Choi, R. Beikmann, A. Aljawi, S.G. Chen, S. Jones, Z. Pasek, G.A. Brusher, D. Rincon, C.F. Lin, T. Pilutti, F. Ben Amara, R. Landers, T. Larsson, C.W. Hsu, C.J. Li, L.K. Chen, F.M. Asl, H. Fathy H. Mahmoud, M. Cakmakci, S. Alyaqout and J. Dhupia.

Research Collaborators During Past 48 Months

D. Hrovat, P.T. Kabamba, R. Landers, P. Papalambros, S.M. Meerkov, W.J. Endres, S.C. Liu and M. Tomizuka.