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Department of Mechanical Engineering
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Professional Preparation

Virginia Polytechnic Institute & State University
Virginia Polytechnic Institute & State University
Clemson University

Ph.D. in Mechanical Engineering, 2005
M.S. in Mechanical Engineering, 2002
B.S. in Mechanical Engineering, 2000

Professional Appointments

Associate Professor, July 2013 – Present

Department of Mechanical Engineering, University of Kentucky

Assistant Professor, August 2006 – August 2013

Department of Mechanical Engineering, University of Kentucky

Post-Doctoral Researcher, August 2005 – August 2006

Center for Intelligent Material Systems and Structures

Department of Mechanical Engineering, Virginia Polytechnic Institute & State University

Selected Publications

1. Ghasemi, A. H., Hoagg, J. B., and Seigler, T. M. (2016) Decentralized Vibration and Shape Control of Structures with Colocated Sensors and Actuators. *ASME Journal of Dynamic Systems, Measurement, and Control*, 138(3):031011.
2. Hoagg, J. B. and Seigler, T. M. (2015). Decentralized Filtered Feedback Linearization for Uncertain Nonlinear Systems. *Automatica*, 61:192–200.
3. Seigler, T. M. and Hoagg, J. (2013) Filtered Dynamic Inversion Control for Vibration Control of Structures with Uncertainty. *ASME Journal of Dynamic Systems Measurement and Control*, 135:041017-1–16.
4. Hoagg, J. B. and Seigler, T. M. (2013). Filtered Feedback Linearization for Nonlinear Systems with Unknown Disturbance. *System and Control Letters*, 62:613–625.
5. Hoagg, J. B. and Seigler, T. M. (2012) Filtered Dynamic Inversion Control for Unknown Minimum-Phase Systems with Unknown-and Unmeasured Disturbances. *International Journal of Control*, 86:449–468.
6. Seigler, T.M. and Neil, D.A. (2009). Analysis of Transition Stability for Morphing Aircraft. *AIAA Journal of Guidance, Control and Dynamics*, 32:1947-1954.
7. Seigler, T.M. and Ghasemi, A. H. (2012). Specified Motion of Piezoelectrically Actuated Structures. *Journal of Vibration and Acoustics*, 134:021002.

8. Seigler, T. M., Ghasemi, A. H., and Salehian, A. (2011). Distributed actuation requirements of piezoelectric structures under servoconstraints. *Journal of Intelligent Material Systems and Structures*, 22:1227-1238.
9. Seigler, T. M. and Salehian, A. (2011). Analysis of Friction Controlled Motion. *Journal of Vibration and Control*, 17:1893-1904.
10. Bae, J.S., Kyong, N.-H., Seigler, T. M., Inman, D. J., Lee, I. (2005). Aeroelastic Considerations on Shape Control of an Adaptive Wing. *Journal of Intelligent Material Systems and Structures*, 16:1051-1056.

Synergistic Activities

ASME Adaptive Structures Technical Committee Member

Organizing committee member, ASME Smart Materials, Adaptive Structures and Intelligent Systems Conference SMASIS, 2008-2012

Reviewer for: *IEEE Control Systems Magazine*, *ASME Dynamic Systems Measurement and Control*, *Journal of Systems and Control Engineering*, *AIAA Journal*, *AIAA Journal of Aircraft*, *Journal of Intelligent Material Systems and Structures*, *Journal of Communications in Nonlinear Science and Numerical Simulation*, *Journal of Mechanics of Materials and Structures*, *Smart Materials and Structures*, *Mathematics and Computers in Simulation*

Collaborators and Other Affiliations

(i) Collaborators:

S. C. C. Bailey, University of Kentucky

J. B. Hoagg, University of Kentucky

A. Salehian, University of Ontario

H. Sodano, University of Florida

(ii) Graduate and Postdoctoral Advisors:

Ph.D. and Post-doc Advisor: Daniel J. Inman, University of Michigan

M.S. Advisor: Mehdi Ahmadian, Virginia Tech

(iii) Thesis Advisor and Postgraduate-Scholar Sponsor:

(Ph. D.) Ghasemi, A. H., Mechanical Engineering, University of Kentucky (graduated 2012); (Ph.D.) Wang, S., Mechanical Engineering, University of Kentucky; (Ph.D.) Zahra Abassi, Mechanical Engineering, University of Kentucky; (Ph.D.) Sajad Koushkbaghi, Mechanical Engineering, University of Kentucky; (M.S.) Venkatesan, N., Mechanical Engineering, University of Kentucky (graduated 2009); (M.S.) Parimi, S. Mechanical Engineering, University of Kentucky (graduated 2010); (M.S.) Lubbers, J., Mechanical Engineering, University of Kentucky (graduated 2011); (M.S.) Calhoun, J. C., Mechanical Engineering, University of Kentucky (graduated 2012); (M.S.) Guskey, C. R., Mechanical Engineering, University of Kentucky; (M.S.) Evans, J., Electrical Engineering, University of Kentucky (graduated 2016)