THOMAS GEIGER THOMAS JR.
Associate Professor, University of South Alabama Department of Electrical Engineering
Mobile, AL 36688, (251)460-7516, tthomas@southalabama.edu

Professional Preparation

University of South Alabama, Chemistry, B.S., June 1977
University of South Alabama, Electrical Engineering, B.S.E.E., March 1984
University of Alabama at Birmingham, Electrical Engineering, M.S.E.E., August 1987
University of Alabama in Huntsville, Electrical Engineering, Ph.D., December, 1997

Appointments

University of South Alabama, Mobile, Alabama

- x June 2016±present: Associate Dean for und1rr3996 (r)7.g98 (a)22.r02 (m)7.00 fW* n BT /TT1 11.04 TqQn1

, College of Engineering; Graduate Program Director
- x August 1999±August 2004: Assistant Professor of Electrical Engineering
- x August 1998±August 1999: Visiting Assistant Professor of Electrical Engineering

University of Alabama at Birmingham, Birmingham, Alabama

- x March 1998±August 1998: Adjunct Professor

CMS Research Corporation, Birmingham, Alabama

- x June 1986±November 1995: Senior Engineer, DOD secret security clearan /TT2 11.05cTJ ET Q q 0 0 612 79

³Smart Grid Architecture for Unobtrusive Home Health Monitoring´, National Social Science Journal, Volume 44 Number 1, 2015.

- x Clay V. Smith, Michael V. Doran, Roy J. Daigle and Thomas G. Thomas, ³(Q,K D Q F H G 6 L W X D W Awareness in Autonomous Mobile Robots using Context´% D V H G 0 D S S 2L0Q13J IEEE International Multi-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support (CogSIMA 2013), San Diego, CA. February 25-28, 2013.
- x Cade C. Cashen, Samuel H. Russ, Thomas G. Thomas, and Damon A. Edwards, ³0R W L R Q ' H W H F W Usin J 5 6 6 , 9 D U L D Q F H L Q ´ IEEE Transactions on Consumer Electronics, 2012.
- x Thomas, T., Doran, M., Sakalaukus, J., Skinner, T., The Hardware/Software Co-design of an Autonomous Tour Guide Robot Based on a Human Neuroanatomy Model, Proceedings, WORL ' & 2 0 3 ¶ / D V 9 H J D V 16-19, July, 2009.
- x Thomas, T., Doran, M, Robotics to Stimulate Learning Opportunities: A Robot Campus Tour Guide, Proceedings, 7th International Conference on Education and Information Systems, Technologies and

Synergistic Activities

x   S-STEM: Linking Community College Students to Engineering (Fall 2011 – Fall 2015): Scholarship program to transition promising students from Alabama community colleges to the USA Engineering program (Funded by NSF).

x   Freshman Research Experience in Engineering (FREE) program (Summer 2012): Worked with 12 incoming freshman engineering students to provide a week course in LabVIEW and robotics programming using Lego Mindstorm robots. Students learned LabVIEW and critical thinking skills prior to their first semester in engineering (Funded by NSF).

x   Podcast Development for Nanotechnology Education (Fall 2012): Developed a set of podcasts that were integrated into several sophomore, junior and senior level core courses in Electrical & Computer Engineering (Funded by NSF).

x   B.E.A.C.H.E.S Program at USA (Summer 2012): Participated in the Bio-Engineering And Chemical Engineering Summer (BEACHES) program for introducing high school students to engineering principles through hands-on experimentation. (Funded by NASA)

x   JagBot- An Autonomous Robotic Campus Tour Guide (Summer 2008 – Summer 2010). Developed a life-sized robotic tour guide to give on-campus tours to incoming students and families (Funded by NSF)

x   Supervised multidisciplinary undergraduate research projects in robotics, fuel cell modeling, and biological signal processing for NSF CSEM scholarship students. Also collaborated with USA Undergraduate Research Council in summer research opportunities for undergraduates in the areas of robotics and fuel cell smart home applications.

x   Collaborated with USA Department of Surgery and with the USA Department of Chemical and Biomolecular engineering in wavelet based interpretation of magnetic gastroenterological signals to determine intestinal ischemia.

x   Developed an undergraduate class in instrumentation and data acquisition based on National Instruments LabVIEW. The course has been taken by USA Electrical, Mechanical, and Chemical Engineering students as well as students from the USA School of Computing.

x   Collaborated with Radiance Corporation, Mobile, Alabama and the USA Department of Electrical and Computer Engineering in the design, construction and operation of fuel cell operated smart home. Primarily responsible for the instrumentation of the smart home including current monitors, flow sensors, and motion sensors and the operation of a 5kW PEM fuel cell system used to power the smart home.

Collaborators and other Affiliations
Mohammad S. Alam, Professor and Chair, Department of Electrical and Computer Engineering, USA; Michael V. Doran, Professor, School of Computer and Information Sciences, USA; James A. Laier, Associate Dean of Engineering, USA; Silas Leavesley, Assistant Professor, Department of Chemical and Biomolecular Engineering, USA

Graduate Advisors and Postdoctoral Supervisors
Reza Adhami, Professor and Chair, Department of Electrical and Computer Engineering, UAH; Charles Katholi, Professor, Department of Mathematics, UAB; Constantine Katsinis, Professor, Department of Computer and Information Sciences, UAH; Alexander Pa