Alice M. Agogino

Roscoe and Elizabeth Hughes Professor of Mechanical Engineering
BEST (Berkeley Expert Systems Technology) Design Lab
University of California at Berkeley
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Expertise: community-based design; sustainable engineering, learning systems; digital libraries; data mining; multiobjective and strategic product design; nonlinear optimization; probabilistic modeling; intelligent control and manufacturing; sensor validation, fusion and diagnostics; wireless sensor networks; multimedia and computer-aided design; design databases; design theory and methods; MEMS Synthesis and CAD; artificial intelligence and decision/ expert systems; and gender equity.

Community Assessment of Renewable Energy and Sustainability

Developing open source tools, case studies and infrastructure to enable consumers and companies make informed decisions about sustainability and renewable energy technologies. CARES will:

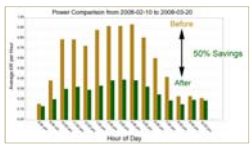
- ❑ Assess current level of sustainability
- ❑ Advise on appropriate solutions
- ❑ Connect with vendors to help implement solutions
- ❑ Measure the improvement in the level of sustainability

Smart Lighting: Improve Quality, Save Energy, Save Money

Key Publications:

"Wireless Networked Lighting Systems for Optimizing Energy Savings and User Satisfaction," (with Y.-J. Wen), *Proceedings of Wireless Hive Networks Conference*, IEEE, 2008.

"Intelligent Office Lighting: Demand-Responsive Conditioning and Increased User Satisfaction", (with J. Granderson). *LEUKOS Journa*l, IESNA (Illuminating Engineering Society of North America) vol. 2 (3), Jan. 2006.

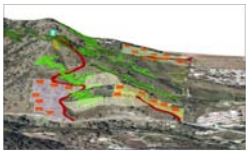


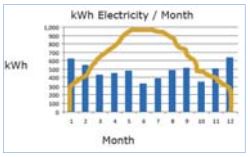
50% energy savings in pilot implementation

Culturally-Sensitive Sustainable Housing for Pinoleville Pomo Nation

- ❑Energy independence
- ❑Culturally-sensitive
- ❑Shared land use
- ❑Educate youth
- ❑Native plants

Demonstration house to be built in Summer 2009





Gender and Sustainability

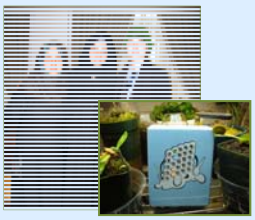


Key Publications:

Educating the Engineer of 2020: Adapting Engineering Education to the New Century , National Academy, 2005.

Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering, National Academy, 2006.

"Designing for Diversity in Engineering Education," (with Lora Oehlberg and Ryan Shelby), *Proceedings of the Mudd Design Conference,* 2009.



Research Partners Needed For:

- ❑Human-centered sustainable product design
- ❑CARES (Community Assessment of Renewable Energy and Sustainability)
- ❑Monitoring indoor air quality
- ❑Gender equity

Research Facilities

- ❑CITRIS (Center for Information Technology in the Interest of Society)
- ❑BID (Berkeley Institute of Design)
- ❑BEST (Berkeley Expert Systems Technology) Design Lab