

Audrey Zink-Sharp
Department of Sustainable Biomaterials
Virginia Polytechnic Institute and State University
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1. EDUCATION (degree, year awarded, institution, primary focus/major)

Ph.D. in Wood Products Engineering 1992
State University of New York, Syracuse
M.S. in Wood Anatomy 1986
Colorado State University
B. S. in Forest and Wood Science 1984
Colorado State University

2. EMPLOYMENT EXPERIENCE

Department of Sustainable Materials, VPI & SU
Assistant Professor 1992 – 1998
Associate Professor 1998 – 2005
Professor 2005 – present
Assistant Department Head 2006 – 2008
Graduate Program Director 2006 - present
Associate Department Head 2008 – present
Interim Department Head 2009 – 2011, 2018 – 2020

Sustainable Engineered Materials Institute, VPI & SU
Director 2007 - 2012

3. STUDENTS MENTORED (past four years)

Virginia Polytechnic Institute and State University

Graduate Education:

Graduate Advisory committee chair
Cerv, Sara, non-thesis Master of Forestry Degree; Wykle, Cody, M.S.; Mirabile, Kyle, M.S.
Doctoral dissertation committee member for Ryan Gray and Eky Ristanti
M.S. committee member for Belladini Lovely

Undergraduate:

Research projects supervised last four semesters (spring and fall 2019, spring and fall 2020):
D. Harris, A. Flevarakis, K. Strong, and J.C. Stant
I serve as a mentor to an average of 12 undergraduate students per semester

4. PRIMARY RESEARCH AREA WITH UP TO FOUR CURRENT RESEARCH PROJECTS

Primary research areas: Quantitative Wood Anatomy; Ecological Disturbance and Wood Quality;
Correlated Microscopy

1. Zink-Sharp, A. and R. L. Smith. Increasing awareness and opportunities for women and minority students in sustainable biomaterials education. USDA NIFA WAMS. \$94,388.
2. Zink-Sharp, A. Learning plant anatomy in 3D. VPI&SU CNRE Instructional support fund. \$4,000.

3. Zink-Sharp, A. Adhesion challenges with maple and hickory veneer at low moisture levels. VPI&SU WBC NSF I/UCRC grant. \$79,675.
4. Zink-Sharp, A. Characterization of a Wood Composite Bonded with Soy-based Adhesive. USDA McIntire-Stennis Program. \$120,000.

5. PROFESSIONAL ACTIVITIES AND ACHIEVEMENTS (Memberships, Editorial boards, professional society leadership roles, awards, honors)

President, Society of Wood Science and Technology, 2004-2005

Associate Editor, Wood and Fiber Science, 2005-2007

Elected Fellow, International Academy of Wood Science 2010

Elected Fellow, Society of Wood Science and Technology, 2011

Co-recipient, Marra Award, Society of Wood Science and Technology, 1998

Recipient of first Award for Outreach Excellence, College of Natural Resources, VPI & SU, 2004, for Wood Magic curriculum programming

Recipient, College of Natural Resources and Environment, Certificate of Teaching Excellence, VPI & SU, 2016

6. PUBLICATIONS (3-5 most important contributions (publications, seminars, graduates, etc.))

- Currently leading the development of 3-dimensional, interactive digital models of microscopic cell structure within a wood cube. This model could have a strong impact on instruction of wood anatomy and cell structure in both educational and industrial applications.
- Developed *InsideTREES*, 3-day summer camp on Virginia Tech campus for high school students to experience college life and learn about an interdisciplinary field that promotes a sustainable future. The target audience for InsideTREES is women and minority high school students from rural regions. Held for the first time Summer 2019.
- Provided curriculum in Wood Science for Cooperative Extension 4-H programs and youth education
 - Zink-Sharp, A. and J. Davis. 2008. Wood in our everyday lives: A wood science curriculum for fourteen to eighteen year olds. Virginia Cooperative Extension, VPI & SU, Blacksburg, VA. Publication #388-809.
 - Zink-Sharp, A. and J. Bussey. 2004. Wood Magic: A wood science curriculum for nine to eleven year olds. Virginia Cooperative Extension. VPI & SU, Blacksburg, VA. Publication #388-807.
 - Developed and supervised Wood Magic at Virginia Tech, 3-hour youth educational curriculum delivered on campus and at elementary schools in Virginia annually for 11 years, over 9,800 youth and educators have participated to date.
- Served for 6 years as director of the Sustainable Engineered Materials Institute, a multi-disciplinary college-level research center at Virginia Tech that specialized in integration of research, instruction, and faculty interests from several departments at Virginia Tech. Over \$5,000,000 generated through this research center.
- Leading research efforts that expand understanding of the impact of cellular features on quality, properties, and processing of woody plant materials engineered into wood-based composite products. Sponsored by the Wood-based Composites Center, a National Science Foundation Industry/University Cooperative Research Center. Closely coordinated with forest products and adhesives industrial personnel.