SWST Newsletter

~ April 2007 ~



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Note from the Editor



The SWST is beginning a search for an <u>Editor for Wood & Fiber Science</u>. There has also been a recent survey of students - the <u>results</u> can be found at the end of this newsletter. Finally, I remind you to consider taking advantage of the SWST Visiting Scientist Program – details are on the <u>website</u>, and the <u>Visiting Scientist</u> <u>List</u> is included in this newsletter.

Please send your comments, and content for future editions of the Newsletter, to me at <u>AdamTaylor@utk.edu</u>. The next edition will come out in June.

SWST ANNUAL MEETING



Advanced Analytical Techniques for Wood and Biomass Knoxville Convention Center, Room 301D Knoxville, Tennessee

June 10, 2007

8:30 AM	Molecular Spectroscopy In the Study of Wood and Biomass	Dr. Steve Kelley	North Carolina State University					
9:10 AM	Laser-Induced Breakdown Spectroscopy: Biomass Applications	Dr. Madhavi Martin	Oak Ridge National Laboratory					
9:50 AM	REFRESHMENT BREAK							
10:10 AM	Extracting Information From Spectral Data	Dr. Nicole Labbé	University of Tennessee					
10:50 AM	Characterization of Biomass Surfaces (QCM, SPR) Dr. Orlando Rojas		North Carolina State University					
11:30 AM	LUNCH							
1:00 PM	Mechanical Evaluation in Multi-Axis States of Strain of Wood Composites	Dr. John Hermanson	Forest Products Laboratory					
1:40 PM	Development of Nanoindentation for Characterizing Wood & Related Systems	Dr. Johannes Konnerth	BOKU University, Vienna, Austria					
2:20 PM	Rheological Characterization of Wood and Composites	Dr. Charles Frazier	Virginia Tech					
3:00 PM	REFRESHMENT BREAK							
3:20 PM	Neutrons and the Characterization of Biological Materials	To Be Named	Oak Ridge National Laboratory					
	Equipment Manufacturers and Distributors Exhibit Forum and Posters Knoxville Convention Center, Room 301E 8:30 am - 6:00 pm							

Society of Wood Science and Technology One Gifford Pinchot Drive Madison, WI 53726 Attn: Victoria Herian, Executive Director PH: 608-231-9347 Fax: 608-231-9592 <u>vherian@fs.fed.us</u> http://www.swst.org/annualMeeting.htm

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W&FS GOES ELECTRONIC

Dear SWST Members:

At the Spring 2007 SWST Board of Directors Meeting, the Board approved a motion to move Wood and Fiber Science (WFS) to a web-based electronic format. We will maintain the paper version of the journal too. The process to move WFS to electronic format is currently underway with a target date of implementation being mid-July 2007. We plan to have a demonstration of the electronic WFS at the Annual Meeting in Knoxville. An important attribute of the electronic WFS will be the ability of SWST members to access all back issues of WFS in pdf format using a password protected website. More details on the electronic WFS will be forthcoming.

Many thanks go to the Publication Policy Committee for pushing this task ahead. We are all looking forward to this exciting development with the Society's premier publication.

Sincerely,

Doug Gardner President

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SEEKING EDITOR FOR WOOD AND FIBER SCIENCE



The Society of Wood Science and Technology is seeking interested applicants for Editor of Wood and Fiber Science (W&FS) journal. The duties of the Editorship of W&FS include all aspects of managing the review process for manuscripts submitted to the journal, such as, identifying reviewers, relaying the reviewer's comments to the authors, and preparing the final recommendations for publication. The Editor will work with the Editorial Assistant and an Editorial Board composed of Associate Editors. Experience in reviewing manuscripts, and editing journals or other publications is preferred. The Editor receives an honorarium of \$5000 and traveling expenses to two board meetings and the Annual Convention. The starting date is flexible; from June 2007 to the following June 2008. Please forward your statement of interest and CV to Victoria Herian at <u>vherian@fs.fed.us</u>.

ASSOCIATE EDITORS FOR WOOD AND FIBER SCIENCE

The SWST Board along with the Wood and Fiber Science (WFS) Editor is considering the addition of an Editorial Advisory Board (EAB) to assist with the review and production of manuscripts being submitted to the WFS Journal. We are envisioning a group of eight Editorial Advisors focused on the following areas.

- 1. Composites (Adhesion, Finishing, Composites, Polymers, Inorganic Bonding)
- 2. Wood Quality (Anatomy, Genetics, Fiber Properties, Pathology, Wood Quality)
- 3. Chemistry (Biotechnology, Chemical Processing, Chemistry, Pulp/Paper)
- 4. Engineering (Engineering, Mechanics, Non-dist. Testing)
- 5. Physics (Drying, Combustion, Physics)
- 6. Modeling (Finite Elements, Numerical Modeling, Computer Tech, Statistics)
- 7. Processing (Furniture, Machining, Harvesting, Scanning, Sawmilling, Preservation)
- 8. General Wood Technology (Education, Marketing, General)

We are still in the process of formalizing a process for the creation of the EAB between the Editor and Board of Directors, but are looking for volunteers who might be interested in serving SWST in this capacity. If you are interested, please <u>contact Vicki</u> about what area you would feel comfortable serving.

Sincerely,

Doug Gardner President

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SWST POSITION STATEMENT ON LIFE CYCLE INVENTORY AND ASSESSMENT

Problem Statement

SWST has an informational position statement on the importance of environmental implications of the use of wood-based products (April 1999). The Society now needs to take an advocacy position in asserting that scientific environmental performance information be included in evaluating the environmental effects of using wood versus other materials.

The Society should take a leadership role in the development of relevant and accurate life cycle inventory data (LCI) to be used by others and ourselves in life cycle assessment (LCA) of wood processes and products, and compare the results to other materials.

Summary

Life Cycle Inventory and Assessment (LCI/LCA) is a relatively new tool which can be used to

analyze the sources and magnitude of environmental burdens and provide a scientific basis for identifying opportunities to reduce burdens. LCI measures all the inputs and outputs of manufacturing and construction processes including raw material extraction, product and building use, maintenance and ultimate disposal. The Assessment process identifies the more serious burdens and is used to guide improvement.

The issue is of major importance: Life Cycle Inventory and Assessment represents one of the more widely used scientific methods available today to measure environmental burdens and identify environmentally preferred products, designs and manufacturing processes. Many wood scientists and research institutions have developed LCI/LCA data in order to establish a better understanding of environmental burdens and opportunities to lower those burdens. LCI/LCA is beginning to have a major impact on the public and our profession and is prominent in international standards (for example, in ISO 14040) and is being considered as a means of improving US building standards.

The issue is within the knowledge and skills of the profession and SWST: Wood scientists have an important role in developing quality LCI data because of their intimate knowledge about the technical processes and products used to produce construction materials, as well as their familiarity with environmental certification and building or product standards. Several environmental criteria developed by advocacy organizations in which wood scientists did not play a role are arbitrary or lacking in a solid scientific foundation. Thus, they have the potential to lead away from rather than toward sustainability.

The issue has broad enough interest to the membership to invest time and money: Many in our profession have already made major investments in developing LCI data and assessment methods. These issues are critical to global and local environmental concerns like climate change, pollution abatement, and resource sustainability. Funds are being raised for LCI/LCA studies both for wood products and competing materials. Wood scientists should lead in bringing peer reviewed scientific information to the forefront and promote discussion of environmental improvement.

Background

This is the time for SWST to respond: In 1996 fifteen wood related research institutions formed a research consortium to study environmental performance of renewable materials. This not-for-profit government research corporation known as the Consortium for Research on Renewable Industrial Materials or CORRIM Inc. has pioneered the development and use of LCI/LCA methods. CORRIM published a research plan in 1998, an interim report on Phase 1 of their research in 2002, and a final 1000 page report on the Phase 1 research in 2004 (www.corrim.org.publications). All materials were reviewed at several stages by international LCI/LCA experts. The 2004 report has been condensed in a special issue of Wood and Fiber Science Volume 37, December 2005; this report represents a first major step in documenting through LCI, needs and opportunities for environmental improvement throughout the wood products, building materials, and residential construction industries. Environmental standards in all of these industries are just now being developed and those that were introduced earlier are under pressure to use better science. Through CORRIM, a solid research foundation on which to

base action now exists.

The Society has the human and financial resources to act responsibly: Many of the institutions contributing to the Society are already immersed in LCI/LCA research and data collection. Other projects for collecting LCI data are being modeled after the CORRIM methods and others are now broadening their research programs to include attention to LCI/LCA. SWST should be on record stressing the importance of LCI/LCA methods and the collection of LCI data, and the benefits of using such data to identify and reduce environmental burdens and to thereby moderate both human and ecological risk. By so doing, SWST will encourage those in the profession to understand both the benefits and weakness of the techniques being used and to improve review processes for future work, and will contribute toward societal change and environmental improvement.

LCI/LCA is not a perfect system from every perspective as noted in ISO14042 and the CORRIM Phase 1 report. Nevertheless this system has been shown to provide information and directions for improvement. An important aspect is to insure that those involved understand its strengths and weaknesses so LCI/LCA can be used most effectively.

POSITION STATEMENT: SWST supports the development and use of Life Cycle Inventory data and Assessment (LCI/LCA) as important tools in identifying environmental impacts and actions that can be taken to improve them. LCI/LCA provides an information base that can be used for selecting designs, products, manufacturing processes and recycling methods that can substantially lower negative environmental impacts contributing to human health and ecological risks. SWST believes that renewable wood resources can contribute in many ways to improve environmental sustainability and supports research and education focused on LCI/LCA to increase the understanding of these methods on the part of the profession as well as the public at large.

Specific actions that need to be supported: While the Society has limited financial resources, there are many ways that it can promote LCI/LCA development and use.

- Extend the research findings by supporting and enabling technology transfer, making it easier for builders, architects, processors, product developers and educators to identify changes that will improve environmental performance.
- Support the development of course materials that can be used for distance learning in support of educating K-12, college, and lay publics on how to improve environmental performance and the opportunities for individual decisions to make a difference.
- Join international consortia efforts to promulgate LCI/LCA findings and highlight regional differences as they are known to be significant.
- Take leadership in promoting development of science-based environmentally friendly purchasing standards.
- Identify opportunities for product and process performance improvements and lead in focusing research and development on these opportunities.
- Support policies that increase the financial resources available for LCI/LCA development.
- Encourage science-based efforts that will be required to compete in an environmentally literate world.

Conclusion: This challenge is large and is critical to the long-term sustainability of our society. It is vitally important that our profession be a leader in understanding the cause and effect relationships governing environmental performance including both the role of science in modeling performance and the role of institutions in promoting improvements. Because wood is a unique and renewable resource for both construction and biofuel applications, it is critical that we use this opportunity to advance sustainability and environmental performance improvement across our global societies.

This position statement should be reviewed in 2 years given the rapid pace of technology.

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PIAO JOINS CALHOUN RESEARCH STATION

The LSU AgCenter's North Central Region is pleased to announce that Dr. Cheng Piao recently joined the Calhoun Research Station as an Assistant Professor. Dr. Piao will conduct research in the area of wood science with an emphasis towards recycling decommissioned preservativetreated wood into structural wood composites that can be widely used in outdoor industrial and residential applications.

Dr. Piao received his master of forestry, master of system science, and doctor of forestry degrees from Louisiana State University. Before attending LSU, he earned bachelor and master degrees in wood science from Northeast Forestry University in Harbin, China. After his doctoral degree, Dr. Piao gained experience working for the LSU AgCenter and with the US Forest Service at labs in Pineville, Louisiana and Madison, Wisconsin in wood engineering research positions.

The Calhoun Research Station is developing a new research effort involved with recycling of decommissioned preservative-treated wood, and Dr. Piao is the first of two new faculty members that will be involved in this program. The focus will be to develop environmentally-friendly and economically viable products and methods to recycle decommissioned preservative-treated wood.

Dr. Piao will be working with all sectors of the forest products industry and invites interested parties to visit with him at his office in Calhoun, e-mail him at <u>cpiao@agacenter.lsu.edu</u>, or call him at (318) 644-2662 ext. 22.

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IUFRO D5.14 EDUCATION & SWST JOINT SESSION

The IUFRO All-Division 5 Forest Products meeting will be held in October 29-Nov 2, 2007 in Taipei, Taiwan. SWST has actively participated in planning and organizing this meeting. SWST will jointly sponsor a technical Session by working with IUFRO's D5.14 Education Research Group. This session is being organized by SWST members Prof. Rupert Wimmer (Boku-Austria, rupert.wimmer@boku.ac.at), Prof. Paul Winistorfer (VaTech), and Jerry Winandy (FPL, jwinandy@fs.fed.us). The Joint SWST-D5.14 Session will include both oral and poster presentations on the topic:

IUFRO D5.14 Education & SWST Joint Session *Education and the Professional Future of 21st Century Wood Science*

Session: Coordinators: Prof. Rupert Wimmer & Jerrold Winandy Session Moderator: Prof. Paul Winistorfer

The joint SWST-D5.14 Session will include papers on education and the future of wood science as a profession from across Europe, Taiwan, Malaysia, and the United States. SWST Executive Director Victoria Herian will also present a poster about SWST's mission, vision and goals:

"Society of Wood Science and Technology: A Bridge Linking Academia, Community, Industry and Government"

To encourage a broad range of participation, SWST has also donated \$3000 to co-sponsor the IUFRO D5 International Young Scientist and Student travel assistance program. For more information on the venue, registration or the overall program of the Oct/Nov 2007 IUFRO All-Division 5 Forest Products meeting in Taiwan go to:

http://www.alldiv5iufro2007.org.tw/page_201.asp

If you are interest in participating with this or any of the many other technical sessions, technical abstracts for papers or posters must be submitted before May 17th, 2007. Abstracts submitted between May 17th, 2007 and July 17th, 2007 are considered as poster presentations ONLY. Note: All abstracts should first be submitted to Dr. Bernard Dawson (bernard.dawson@ensisjv.com).

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CONFERENCE ON NANOTECHNOLOGY FOR THE FOREST PRODUCTS INDUSTRY

TAPPI and the Forest Products Society will host the 2007 International Conference on Nanotechnology for the Forest Products Industry June 13-15, 2007. The conference will be held at the Knoxville Convention Center in Knoxville, Tennessee, USA.

A few years ago, the science of nanotechnology was merely topic for speculation and forecast by researchers and forest products industry analysts. Today, nanotechnology is moving out of the lab in the form of real-world process and product applications in areas such as packaging, coating, and biorefinery.

The TAPPI 2007 International Conference on Nanotechnology for the Forest Products Industry will offer keynote presentations, informative panel discussions, cutting-edge research poster presentations, a peer-reviewed technical program, and an optional tour of the Oak Ridge National Laboratory Nanotechnology User Facilities. The 2007 conference will cover topics such as reinforced and interfacial structures, self-assembly and biomimicry, cell wall nanostructures, nanotechnology-based sensors, and characterization and measurement of nanoscale structures and properties. More information is available online at http://www.tappi.org/07NANO, or by contacting TAPPI Registration at 1.866.850.0999 (toll free US and Canada) or +1.404.760.8177.

Nanotechnology is defined as the manipulation of materials measuring 100 nanometers or less in at least one dimension. A nanometer is a billionth of a meter -- 80,000 times thinner than a human hair. Nanotechnology is based on changing or controlling the properties of nanodimensional particles, which can alter the very basic characteristics and functions of raw materials and finished products. Experts predict that nanotechnology in the forest products industry will lead to the development of revolutionary materials with unique properties, such as finished products with higher strength and lower weight or embedded "smart" sensory capabilities. Other projected benefits include the creation of new jobs, more efficient use and conservation of energy resources, and improved methods for reusing and recycling materials.

Conference Contact: Rich Lapin, TAPPI, 770-209-7290, <u>rlapin@tappi.org</u> Media Contact: Jan Bottiglieri, TAPPI, 847-466-3891, <u>jbottiglieri@tappi.org</u>

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CONFERENCE ON HARDWOOD PROCESSING

Forintek, CTBA (France) and IVALSA (Italy) are pleased to invite you to participate in the First International Scientific Conference on Hardwood Processing (ISCHP) to be held in Québec City, Canada, on September 24-25-26, 2007.

The main objective of this conference is to bring together the scientific and research communities involved in **hardwood processing and products** to share knowledge and ideas. International experts, scientists and hardwood industry representatives are invited to **discuss recent progress and innovative work** in this valuable area. The conference will cover subjects on **temperate** as well as on **tropical hardwood processing**.

This first edition of the ISCHP will cover **product development**, **process optimisation**, **finishing practices**, **supply chain management**, **market review**, **and sustainable business practices**.

Attendees wishing **to submit abstracts for posters or presentations** have to fill out the abstract form available at the following address: <u>http://www.ischp.ca/presentation-request.asp</u> **before April 30th, 2007.**

Registration form to attend the conference will be available shortly.

For additional information, please visit our website <u>www.ischp.ca</u>.

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DOCTORAL FELLOWSHIPS IN ADVANCED FOREST BIOMATERIALS AT NORTH CAROLINA STATE UNIVERSITY

Full financial support is available for several promising US citizens / permanent residents to obtain a Doctoral Degree in the area of *Advanced Forest Biomaterial Products*. This premier support package is funded by the USDA and NCSU and includes a \$25,000 stipend per year, all tuition fees, and health insurance for four years. Travel expenses for a travel abroad research experience is also included.

New forest-based products for society will be a critical research area to support the inevitable need of the United States to develop sustainable and environmentally benign resources for society, to decrease the dependence on nonrenewable, fossil oil, and to improve the economics of the forestry/wood-based industry. This area of expertise is especially important now, due to the increased interest in developing alternate solutions for the replacement of fossil materials with renewable resources. A recent estimate indicates as of November 2005 one-half of the world's total oil reserves will have been extracted and combusted or applied towards industrial uses. There has been an increasing pressure for the U.S. to decrease its foreign-dependence on petroleum-based fuels and products. It has been proposed that natural, renewable materials from

plants can serve as an alternative feedstock to supply products and fuel for society. Exciting careers await people trained to lead research in this field.

Research project examples include the production of nano-composites from wood fibers, gels and absorbent materials from forest-derived polymers, the production of carbon fibers from renewable resources, advanced composites for housing, and many other exciting topics in advanced forest biomaterials.

Candidates should be interested in the science involved in the conversion of natural forest resources to advanced materials to meet societal needs. Appropriate student backgrounds include chemistry, chemical engineering, material science, wood and paper science and others.

Interested applicants should visit <u>www.natural-resources.ncsu.edu/wps</u> and contact Dr. Richard Venditti, Director of Graduate Programs, <u>richard_venditti@ncsu.edu</u> for more program information. For application information, please contact Ms. Melissa Rabil, Graduate Secretary, <u>melissa_rabil@ncsu.edu</u>.

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FULBRIGHT IN FRANCE

Take advantage of this exciting new Fulbright opportunity !

The Aquitaine region is located in sunny, south-western France. With its long coastline opening out towards the rest of the world, Aquitaine lies at a crossroads between the routes linking Paris and Spain, the Atlantic and the Mediterranean. Over 90,000 people study in the Aquitaine region, 70,000 of whom live in Bordeaux. The city of Bordeaux is home to four universities and 14 grandes écoles, including nine engineering schools. Over 8,900 people are involved in research and development, including 4,700 in the private sector. One hundred and thirty research laboratories are located within the four universities and the national research centers of Bordeaux. Over 45% of the Aquitaine region is forested. The region is home to the Gascony forest which covers 1 million hectares and is the largest forested area in the European Union today. The wood industry is the 2nd largest local agricultural sub-sector and the region has one of the world's strongest scientific and technical research capabilities in forest and wood science. Aquitaine has created a cluster* "Industrie et pin maritime du future: technologies et écodéveloppement" called "le Laboratoire de rhéologie des bois". The region is also an active member of Eurosilvasur, the Observatory of the Forest-Wood-Paper Resource of the Southern Atlantic Arc Regions (www.eurosilvasur.net). The region thus highly values its forestry resources and encourages research in such fields as forest conservation, sustainable use and management, forest genetics and wood products.

Eligible candidates: Associate, Assistant and full professors.

Language Requirement: French language ability commensurate with the

requirement of the project.

Participating Institutions: For detailed information on current forest and wood science research in Aquitaine, please consult the following websites:

• Institut national de la recherche agronomique (INRA) or the French National Institute for Agronomical Research has a site in Bordeaux Pierroton that deals specifically with forest and woodland research: <u>http://www.pierroton.inra.fr/</u>.

· Institut du pin: http://www.u-bordeaux1.fr/ipin/

How to apply: The Fulbright-Aquitaine scholarship program functions exactly as the traditional Fulbright scholars' program. U.S. scholars should visit the Council for the International Exchange of Scholars' (CIES) website at <u>http://www.cies.org</u> and contact CIES' program officer for France, Dr. Andy Riess at <u>arises@cies.org</u> or Ms. Jennifer Fox at <u>jfox@cies.iie.org</u>

For further information on Aquitaine or the host institutions, please contact : Dr Amy Tondu, Head of the American Section, France-Americain Commission for Educational Exchange at (33) 1 44 14 53 64 or <u>atondu@fulbright-france.org</u> *For detailed information on clusters in France, please see the following website: <u>http://www.competitivite.gouv.fr/</u>

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MASTERS STUDENT ASSISTANTSHIP FOREST SECTOR DISASTER PLANNING

The Forest Products Marketing Program/Louisiana Forest Products Development Center in the School of Renewable Natural Resources at Louisiana State University is soliciting candidates to pursue a M.S. degree in forestry with an emphasis in forest sector disaster planning. We are seeking to fill one available position for Summer Semester 2007. In addition to a 2-year graduate assistantship, financial assistance for thesis research will be provided to the successful candidate. This two-year project will build on the mission of the Louisiana Forest Recovery Task Force which was to facilitate salvage efforts to maximize the recovery of timber damaged by Hurricanes Katrina and Rita and to begin the process of renewing the forest. This project will create a proactive hurricane disaster plan involving a partnership of public policy, industry, and academic participants in Louisiana and surrounding states. The plan can become a model for other areas that face natural disasters.

Interested parties should email a Letter of Interest, Resume, and 3 letters of reference to Dr. Richard Vlosky, Director and Professor of Forest Products Marketing, Louisiana Forest Products Development Center, email: <u>Vlosky@lsu.edu</u>; phone: (225) 578-4527; fax: (225) 578-4251, 227 School of Renewable Natural Resources, Louisiana State University, Baton Rouge, LA 70803

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POST-DOCTORAL CANDIDATE IN WOOD MACHINING

We are seeking for a highly motivated Post-doctoral candidate to undertake a project on the performance of chipper-canters for processing black spruce and balsam fir logs. The research is part of a larger collaborative project funded by the Fonds de Recherche sur la Nature et les Technologies of the government of Quebec. The project aims to improve the performance of chipper-canters to allow better utilization and maximize potential value-added wood products. The specific objectives are:

- Impact of the frozen conditions on performance of chipper-canters
- Impact of the position of the bottom bedplate supporting the logs (the position through which the knife edge enters the wood will vary with the bottom plate, log diameter, and log taper (through the log).
- Development of a non-destructive technique for evaluating surface quality of cants

The candidate should hold a Ph.D. degree in wood science, mechanical engineering or a closely related discipline with preference to wood processing background. The preferred start date for the project is April 2007 or shortly thereafter.

Location: Centre de Recherche sur le Bois, Pavillon Gene Kruger, Laval University, Quebec, Canada. The study is conducted within a collaborative project with UQAT, Forintek Canada Corp. East Division and two wood machinery companies.

Scholarship: 30 000\$/year (plus welfare benefits).

For more information, please contact: Roger Hernández, Ph.D., Professor Université Laval, Québec Roger.hernandez@sbf.ulaval.ca

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M.S. AND PHD CANDIDATES TIMBER ENGINEERING AND CONSTRUCTION

The Building Materials and Wood Technology program at the University of Massachusetts Amherst is seeking qualified M.S. and PhD candidates for research studies in timber engineering and construction. Graduate assistantships are available (with tuition and associated fee waivers as well as health benefits) commensurate with experience and qualifications. Applicants should have a bachelor's degree in wood technology, building science or engineering and satisfy all requirements of UMass Amherst Graduate School <u>http://www.umass.edu/gradschool/</u>

Please send transcripts, letter of intent and your Curriculum Vitae via email, fax or mail to:
Dr. Peggi Clouston, P.Eng.
Assistant Professor
Building Materials and Wood Technology
160 Holdsworth Way, University of Massachusetts
Amherst, MA, 01003-9285

Tel. (413) 545-1884; Fax (413) 545-4358 <u>clouston@forwild.umass.edu</u> <u>http://www.umass.edu/nrc/faculty/profile.clouston.html</u>

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EXTENSION SPECIALIST/INSTRUCTOR VALUE-ADDED WOOD PRODUCTS

Work location: Louisiana Forest Products Development Center, School of Renewable Natural Resources, Louisiana State University Agricultural Center, Baton Rouge, Louisiana.

Nature of work: The employee will conduct full-time outreach and extension in support of the mission of the Louisiana Forest Products Development Center (LFPDC). Duties include: work with LFPDC researchers and Extension faculty to develop a value-added wood products extension program, lead in technology transfer of research in utilization of wood products and innovative new products and processes to the value-added industry and; organize and conduct workshops, seminars and continuing education programs for value-added wood products industries in Louisiana.

Qualification requirements: The applicant must have earned a master's degree in wood technology, value-added wood products manufacturing or related area. Excellent communications skills, written and oral, and the ability to develop and present educational programs in field and classroom settings in Louisiana are also required.

Salary and benefites: Salary will be commensurate with qualifications and experience. The LSU AgCenter has an attractive benefits package with a wide variety of benefit options. Current benefits offered included retirement, multiple medical insurance options, supplemental insurances (dental, life, long-term disability, accident, vision, long-term care, etc.), Tax Saver Flexible Benefits Plan (saves tax dollars on some child care and medical expenses), university holidays (14 days per year, typically includes a week off at Christmas), generous annual (vacation) and sick leave benefits, Employee Assistance Program, and possible educational leave and tuition exemption for coursework at campuses of the LSU System. Specific benefits depend on job category, percent effort and length of employment.

Date available: May 1, 2007 or upon completion of interview process.

Application deadline: April 15, 2007 or until a suitable candidate is selected.

Application procedure: Submit letter of application, resume, transcripts and a list of three references to:

Dr. Richard Vlosky Search Committee Chair Louisiana Forest Products Development Center Room 227, School of Renewable Natural Resources Louisiana State University Baton Rouge, Louisiana 70803 Phone: (225) 578-4527; Fax: (225) 578-4251; email: <u>rvlosky@agcenter.lsu.edu</u> For more information visit: <u>www.rnr.lsu.edu/lfpdc;</u> <u>www.lsuagcenter.com</u>

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POST-DOCTORAL POSITION ADVANCED PULP PROCESSING

The UBC Pulp and Paper Centre, invites applications for a post-doctoral position in the area of the application of **chemistry/biochemistry to advanced pulp processing.**

We are currently conducting a 5 year, \$2 Million project on Energy Reduction in Mechanical Pulping. This multi-disciplinary research program aims to reduce electrical energy consumption in the mechanical pulping process by 20% through scientific discovery and the development of new technology while maintaining or improving product quality and production. To accomplish this goal, we have developed a range of projects that span the risk-reward spectrum from incremental to transformative. The program supports our shared vision that future mechanical pulp mills will transition to an increased reliance on energy efficient, low consistency (LC) refining and the reduction of high consistency mainline refining. The research will focus on the development of new technologies and understanding that will support our current mills and their transition towards this vision. The research projects include: Novel mechanical pulping, ultra-low intensity LC refining, chemical and biological pre-treatments, reducing LC refining no-load power, improving latency removal, increasing pumping efficiency and system integration and control.

We are looking for an outstanding candidate with a PhD degree in wood and pulping chemistry, organic chemistry, biochemistry or a similar discipline, who can interact with both graduate students and industry. The position is ideally suited for a young scientist interested in building up a broad and multidisciplinary research record. The duties will include the following:

• Conducting fundamental research in the area of the use of chemicals and enzymes to enhance energy savings in low consistency refining of mechanical pulp and novel mechanical pulping processes.

- Working closely with master's and doctoral candidates
- Collaborative work with industrial partners, particularly in planning and execution of mill trials

The position is available immediately. The application material should include:

- Curriculum vitae with a list of publications and the name of three professional references with phone, postal and email addresses.
- A short description of experiences and future professional objectives.

For further inquiries and application, please write to:

Dr. Rodger Beatson (Adjunct Professor) Pulp and Paper Centre, Department of Wood Science University of British Columbia 2385 East Mall Vancouver, BC V6T 1Z4 Canada voice: +1 604 432 8951 e-mail: <u>rbeatson@bcit.ca</u>

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PHD IN WOOD PHYSICS AT UBC

What: full-time financial support for a student pursuing a Ph.D. degree in the area of Wood Physics (heat and mass transfer in wood, sorption thermodynamics).

Where: Department of Wood Science, University of British Columbia, Vancouver, British Columbia, Canada.

When: starting September 1, 2007.

Who: the successful candidate will have B.Sc. and M.Sc. degrees in Wood Science or related engineering/science filed (chemical, materials, physics, etc.) with a good understanding heat and mass transfer in porous hygroscopic materials and strong math/statistics background. We offer a competitive Graduate Research Assistantship for a maximum of 3 years (renewed every year based on progress - extended up to 4 years). More info from:

http://wood.ubc.ca/Programs/GraduateProgram/tabid/954/Default.aspx

Next step: interested persons should contact me by email (include a CV). In the email please explain

why you consider yourself qualified to undertake research in this area. Instructions about the official application process can be found at (pay attention to supporting documents requirement): <u>http://www.forestry.ubc.ca/programs/grad/HowToApply.htm</u>

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ABOUT SWST

The SWST Newsletter is published six times a year by the Society of Wood Science and Technology, One Gifford Pinchot Drive, Madison, WI 53705, USA.

Items for the Newsletter may be sent to Adam Taylor, at: AdamTaylor@utk.edu

The Society of Wood Science and Technology is a technical and professional organization for scientists and engineers working in academia, government, consulting and the forest-products industries and is dedicated to providing education and expertise regarding better ways to use and produce wood products.

Phone: (608) 231-9347 Fax: (608) 231-9592 E-mail: <u>vherian@fs.fed.us</u>

Web site: http://www.swst.org

Society of Wood Science and Technology

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Geza Ifju Audrey Zink-Sharp Carol B. Ovens

Adam Taylor

SWST Newsletter Editor:

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2005-2006

LIST OF POTENTIAL SWST VISITING SCIENTISTS

ANDERSON, MATTHEW., 3700 RT. 44, Suite 102, Millbrook, NY 12545 (845-677-3091) (FAX: 845-677-6547) email: m.anderson@verizon.net

Specialty: Wood science consulting and applied research.

Will Discuss Formally and Informally: Assessment of wood frame buildings (destructive and nondestructive); Evaluations of marine and foundation pilings; Investigation of construction related deficiences; Microbiological evalutions (wood fungi, mold, bacteria).

ARMSTRONG, JAMES P., Associate Professor, West Virginia University, P.O. Box 6125, Morgantown, WV 26506-6125 (304-293-2941, ext. 2486) (FAX: 304-293-2441) email: jarmstro@wvu.edu

Specialty: Wood anatomy and physical properties; Contemporary issues in forest resources and the wood products industry.

Will Discuss Formally: Various topics related to forest resources in U.S. history (see: http://www.wdsc.caf.wvu.edu/otherwebs/WDSC%20100.pdf.); Eco-terrorism--Its causes and impacts. **Will Discuss Informally:** Any of the above; Education in WS&F; The enrollment problem in WS&T.

BABIAK, MARIAN, Professor, Dr.h.c. RNDr. PhD, Technical University in Zvolen, T.G.Masaryka 24, 96053
Zvolen, Slovak republic (+421 45 5206 350) (Fax: +421 45 5330027)
email address babiak@vsld.tuzvo.sk
Specialty: Wood Structure and Properties
Will Discuss Formally: Wood Physics and Mechanics
Will Discuss Informally: Wood – Water Relations; Rheology of Wood; Transport Processes in Wood.

BARNES, H. MICHAEL, Professor, Forest Products Laboratory, Mississippi State University, Box 9820, Mississippi State, MS 39762-9820 (662-325-3056) (FAX: 662-325-8126)
email: mbarnes@cfr.msstate.edu
Specialty: Wood deterioration and preservation.
Will Discuss Formally and Informally: Wood science education; wood preservation.
Will Discuss Informally: Same as above.

BOWYER, JIM L., Professor, Department of Bio-based Products, University of Minnesota, 2004 Folwell Avenue, St. Paul, MN 55108 (612-624-4292) (FAX: 612-625-6286) email: jbowyer@umn.edu **Specialty:** Environmental implications of biomaterials and bioenergy production and use.

Will Discuss Formally: Environmental aspects of forestry, timber harvest and wood use; The role of wood in the growing U.S. bio-energy industry; The Wood Science profession - Past, Present & Future; Environmental life cycle analysis; Life cycle inventory; Environmental education of children; The tropical deforestation problem. **Will Discuss Informally:** Almost anything.

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BUSH, ROBERT, Professor, Dept. of Wood Science and Forest Products, Virginia Tech, Blacksburg, VA 20461-0323 (540-231-8834) (FAX 540-231-8176) email: rbush@vt.edu

Specialty: Forest products marketing and management

Will Discuss Formally: The marketing of forest products; Strategic planning and decision-making in wood-based industries; Forest products marketing research.

Will Discuss Informally: The above topics in addition to research to help improve student recruitment in Wood Science.

Bryant, Ben S., Professor Emeritus, CEO of Appropriate Technolgoy Briquettes, Inc. (ATBI). Seattle WA, (206-522-6273) email: <u>atbi@comcast.net</u>

Specialty: Wood science and physics.

Will Discuss Formally and Informally: Above specialty.

CHEN, ZHANGJING, 506 Alleghany Street, Blacksburg, VA 24060, (540-552-8592) email: <u>chengo@vt.edu</u> Specialty: Wood drying. Will Discuss Formally and Informally: Above specialty.

CHOW, POO, Professor of Wood Science, Department of Forestry, University of Illinois,
W-503 Turner Hall, 1102 South Goodwin, Urbana, IL 61801 (217-333-6670) (FAX: 217-244-3219)
email: p-chow@unic.edu
Specialty: Physical, mechanical and chemical properties of wood-based materials.
Will Discuss Formally: Hardwood composites; Durability of wood for structural uses.
Will Discuss Informally: Durability of wood-base materials; Utilization of non-wood plant fiber.

COOPER, PAUL, Professor, Forestry Department, University of Toronto, 33 Willcocks Street, Toronto, Ontario, CANADA M5S 3B3
email: p.cooper@utoronto.ca
Specialty: Wood deterioration and protection.
Will Discuss Formally: Interaction with chemicals with the wood cell wall; CCA and Copper amine fixation;

Environmental impacts of treated wood over the full life cycle; Recycling/reuse of treated wood. **Will Discuss Informally:** Collaborative research; Graduate student recruitment; Teaching methods.

CUTTER, BRUCE, Professor, University of Missouri, 203 A-BNR, Columbia, MO 65211 (573-882-2744) (FAX: 573-882-1977) email: cutterb@missouri.edu **Specialty:** Tree growth, wood quality.

Will Discuss Formally: General tree growth; Wood quality; Agroforestry; Fuel loading in oak-hickory forests. **Will Discuss Informally:** Eastern red cedar as a biogeochemical monitor; General tree growth; Wood quality; Behavior of wood in fire situations; fire behavior.

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DeBONIS, A. L., President, Wood Advisory Services, Inc., P.O. Box 1322, Millbrook, NY 12545 (914-677-3091) (FAX: 914-677-6547)

Specialty: Wood engineering.

Will Discuss Formally and Informally: Design properties of lumber; Grading of structural lumber (visual and/or MSR); Reliability-based design; The role of consultants in the forest products field; Heavy timbers in residential and commercial construction; Hardwood structural lumber.

Elder, Thomas, Research Forest Products Technologist, USDA-Forest Service, Southern Research Station, 2500, Shreveport Highway, Pineville, Louisiana, 71360 (318-473-7008) (Fax: 318-473-7246) email: telder@fs.fed.us **Specialty:** Wood chemistry.

Will Discuss Formally: Atomic force microscopy of wood and fiber surfaces; time-domain NMR of wood; fiber modification.

Will Discuss Informally: Molecular modeling of the chemical constituents of wood.

FLYNN, KEVIN, University of California Forest Products Lab., 1301 South 46th Street, Richmond, CA 94804 (510-215-4242) (FAX: 510-215-4299) email: <u>kevin.flynn@ucop.edu</u> **Specialty:** Wood performance; Problem analysis. **Will Discuss Formally:** Durability; Degradation; Protection.

Will Discuss Informally: Any related issues.

FUNCK, JAMES W., Associate Professor, Oregon State University, Forest Products Department, 134 Richardson Hall, Corvallis, OR 97331-5751 (541-737-4207) (FAX: 541-737-3385) email: Jim.Funck@orst.edu **Specialty**: Optical and dielectric scanning for surface defects and roughness; Process modeling

and simulation (lumber and plywood); Process control.

Will Discuss Formally: Above listed specialties.

Will Discuss Informally: Above listed specialties; Education - graduate and undergraduate.

GARDNER, DOUGLAS J., University of Maine, Advanced Engineered Wood
Composites Center, Department of Forest Management, 231 AEWC Building, Orono, ME 04469 (207-581-2846) (FAX: 207-581-2074)
email: doug_gardner@umenfa.maine.edu
Specialty: Wood adhesion; Wood composites.
Will Discuss Formally: Wood adhesion; Wood surface chemistry; Wood/plastic
Composites; Wood Science Education.
Will Discuss Informally: Anything.

LACHENBRUCH, BARBARA, Professor, Oregon State University, Dept. of Wood Science and Engineering, 118 Richardson Hall, Corvallis, OR 97331 (541-737-4213) (FAX: 541-737-3385) email: Barbara.Lachenbruch@oregonstate.edu

Specialty: Wood quality/silviculture interactions; Tree physiology.

Will Discuss Formally: Effects of tree biology on wood quality; Tree water relations and biomechanics as related to xylem structure.

Will Discuss Informally: Dual-career, women and family issues in grad school and academics.

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GLASSER, WOLFGANG G., Professor of Wood Chemistry, Virginia Polytechnic Institute and State University, Department of Wood Science & Forest Products, 210 Cheatham Hall, Blacksburg, VA 24061 (540-231-4403) (FAX: 540-231-7664) email: wglasser@vt.edu **Specialty:** Polymer and materials science aspects of forest products; Biobased materials from wood; Steam explosion.

Will Discuss Formally: Structure--property relationships of cellulose, xylan and lignin and their derivatives; Cellulosic thermoplastic polymers and composites; Lignin chemistry. **Will Discuss Informally:** The Carbohydrate Economy: Technical, economic social .

GREEN, DAVID W., Engineer, Forest Products Laboratory, One Gifford Pinchot Drive, Madison, WI 53726 (608-271-9261) (FAX: 608-231-9592) email: dwgreen@fs.fed.us **Specialty:** Engineering properties of wood.

Will Discuss Formally: In-grade testing of lumber; Effect of moisture content on lumber properties; Engineering properties of wood research at the U.S. FPL; Structural properties of hardwoods. **Will Discuss Informally:** Almost anything; The research environment -industry vs.

university vs. government.

GUPTA, RAKESH., Oregon State University, Department of Wood Science & Engineering, 114 RH, Corvallis, OR 97331 (541-737-4223) (FAX: 541-737-3305)
email: rakesh.gupta@oregonstate.edu
Specialty: Wood engineering/Mechanics; Mechanical properties/behavior of wood.
Will Discuss Formally: Above listed specialities.
Will Discuss Informally: Above listed specialities.

HAMMETT, A.L., Associate Professor, Dept. of Wood Science & Forest Products, Virginia Polytechnic and State University, 210 Cheatham Hall, Blacksburg, VA 24061-0323 (540-231-2716) (FAX: 540-231-8176) email: himal@vt.edu
Specialty: Forest products marketing.
Will Discuss Formally: International issues related to forestry and forest products.

JELLISON, JODY, Professor of Biology, University of Maine, 313 Hitchner Hall, Orono, ME 04469 (207-581-2995) email: jellison@umit.maine.edu
Specialty: Biodegradation of wood; Fungal metabolism.
Will Discuss Formally: Biological degradation of wood.
Will Discuss Informally: Interdisciplinary studies.

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KAMKE, FREDERICK A., JELD-WEN Professor of Wood-Based Composite Science, Dept. Wood Science and Engineering, Oregon State University, 104 Richardson Hall (541-737-8422)(FAX: 541-737-3385) email:fred.kamke@oregonstate.edu

Specialty: Wood-based and composites.

Will Discuss Formally: Heat and mass transfer during hot-pressing; adhesive penetration and distribution. **Will Discuss Informally:** Composite processing and performance.

(Newly added) Kasal, Bo, Professor and Hankin Chair, Department of Civil and Environmental Engineering, Department of Architectural Engineering, Director of Research, Pennsylvania Housing Research Center, 219 Sackett Building, University Park, PA 16802 (814 865 2341) (Fax: 814 863 7304) email: <u>buk13@psu.edu</u> Specialty: Residential construction; Wood engineering. **Will Discuss Formally:** Residential structures in natural disasters; in-situ evaluation of historic wood buildings; performance of laminated wood frames in earthquakes.

KIM, MOON J., Department of Forest Products, Mississippi State University, Mississippi State, MS 39762-9820 (662-325-3109) (FAX: 662-325-8126) email: <u>mkim@cfr.msstate.edu</u>
Specialty: Wood Adhesives; UF resins; PF resins, PRF resins.
Will Discuss Formally and Informally: Above specialty.

KODZI Jr, EMMANUEL T., PhD. CANDIDATE, PURDUE UNIVERSITY, 175 MARSTELLAR ST., WEST LAFAYETTE, IN 47907 (765-496-6127) (Fax: 765-496-1344) email: ekodzi@purdue.edu
Specialty: MASS CUSTOMIZATION IN FURNITURE MANUFACTURING COMPANIES.
Will Discuss Formally: Linkages between Mass Customization and Competitiveness.
Will Discuss Informally: Critical Enablers of Mass Customization for Wooden Furniture Manufacturing Scenarios.

LITTLE, ROBERT L., Ph.D., R.F. Senior Project Manager, Weyerhaeuser Company. Wood Science and Engineering R&D Mail Stop: WTC 2B2 P.O. Box 9777 Federal Way, WA 98063-9777 Office: (253)924-4269 Mobile: (336)404-2132

Specialty: Drying of hardwood lumber.

Will Discuss Formally: Automated control of hardwood dry kilns, Control of corrosion in dry kiln buildings, General drying practices for hardwood lumber, and Kiln design considerations. **Will Discuss Informally:** General wood technology.

 LOFERSKI, JOSEPH R., Associate Professor, Virginia Polytechnic Institute and State University, Department of Wood Science and Forest Products, Brooks Forest Products Center, Blacksburg, VA 24061-0503 (540-231-4405) (FAX: 540-231-8868)
 Specialty: Wood engineering, Design of wood structures, Long-term performance of buildings, Historic buildings

Will Discuss Formally or Informally: Preservation of historic wood structures; Long-term performance of wood structures; Building systems; Deterioration of wood building materials.

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MATER, JEAN Dr., Vice President, Forest Products Marketing Division, Mater Engineering, 101 SW Western Blvd., Corvallis, OR 97333 (541-753-7335) (FAX 541-752-2952) email: Mater@mater.com

Specialty: Marketing forest industry policies; Forestry relations to public; Forest industry trends; Coordination of marketing and production; Forest industry and environment; Certification problems and opportunities.

Will Discuss Formally: All of the above.

Will Discuss Informally: Role of women in forest industry; Changing role of NIPFs.

McLAIN, THOMAS E., Professor and Department Head, Department of Wood Science & Engineering, Oregon State University, 119 Richardson Hall, Corvallis, OR 97331-5751 (541-737-4224);

<u>http://woodscience.oregonstate.edu</u> (FAX: 541-737-3385) email: Thomas.McLain@oregonstate.edu
 Specialty: Role of wood in a global economy; SWST Accreditation Standards; strategic planning for forest products/wood science programs; academic, extension and research program administration challenges.
 Will Discuss Formally: Recruiting students into WST programs; Introductory courses in FP/WST; SWST Accreditation Standards; The changing roles of wood in modern society; Integrating extension into a research and teaching program; Pacific Northwest forest conflicts.

Will Discuss Informally: Above topics and most anything else.

MORRELL, JEFFREY J., Professor, Department of Forest Products, 230 Richardson Hall,

Oregon State University, Corvallis, OR 97331-5751 (541-7737-4222) (FAX: 541-737-3385) email: Jeff.Morrell@oregonestate.edu Specialty: Wood microbiology; Biodeterioration; Preservation. Will Discuss Formally: Remedial control of decay in wood structures; Proper use of wood in adverse environments; OSU's cooperative pole research program. Will Discuss Informally: Biodeterioration and biological interactions; Treatability of refractory wood species.

No, Byung Young, PhD, Resin Chemist, Hexion Specialty Chemicals, Inc. R&D lab, 610 south 2nd street, Springfield, OR 97477 (541-741-6663) (Fax: 541-747-3868) email: Byung.YoungNo@hexionchem.com Specialty: UF and MUF resins for wood-based composite.

Will Discuss Formally: Hydrolysis resistant UF and MUF resins for particleboard and medium-density fiberboard. Will Discuss Informally: UF and MUF resins for wood-based composites.

O'HALLORAN, MICHAEL R., President, Western Wood Products Association, 522 SW 5th Street, Suite 500, Portland, OR 97204-2122 (503-224-3930) email: mohalloran@wwpa.org Specialty: Wood engineering, mechanics, wood structures, codes, standards, research management. Will Discuss Formally: Structural panel industry (Plywood, OSB, waferboard) status, markets, uses, standards, engineering design, LRFD design; Glued laminated timber; Structural composite lumber. Will Discuss Informally: Trade associations; Structural panel topics; International markets; above topics.

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PATTERSON, DAVID W., Research Professor, Forest Products Utilization, Arkansas Forest Resources Center, P.O. Box 3468, Monticello, AR 71656 (870-460-1652) (FAX 870-460-1092) email: pattersond@uamont.edu Specialty: Tree weights, Bulk Density, Small Log Utilization Will Discuss Formally: Bulk Density Studies, Weight Scaling Factors, Inside Out Beams, Open Web Beams, Tree Growth and Wood Quality Will Discuss Informally: Trip to Russia, 3 Trips to Guinea in West Africa, Old War Stories

RICE, WILLIAM W., Professor of Wood Science and Technology (retired), 137 Pine Street, Amherst, MA 01002 (413-549-0795) (FAX: 413-549-8010) email: wrice@forwild.umass.edu Specialty: Wood drying; Wood machining.

Will Discuss Formally: Quality control - log to rough mill; Predriers, kiln equipment and operation. Will Discuss Informally: Wood technology program; Extension activities; New England Kiln Drying Association.

ROSS, ROBERT J., Supervisory Research Engineer, Forest Products Laboratory, One Gifford Pinchot Drive, Madison, WI 53726 (608-231-9221) (FAX: 608-231-9592) email: rjross@fs.fed.us Specialty: Wood engineering, nondestructive testing, structural composite Will Discuss Formally: Nondestructive testing; Structural composites; Wood engineering. Will Discuss Informally: Vitality of SWST and wood engineering; Educating wood engineers for the industry.

SHALER, STEPHEN, Professor, University of Maine, 5755 Nutting Hall, Orono, ME 04469-5755 (207-581-2886) (FAX: 207-581-2875) email: Steve.Shaler@umit.maine.edu Specialty: Wood mechanics and composites. Will Discuss Formally: Wood fiber properties; Computer and imaging applications; Experimental mechanics.

Will Discuss Informally: Hybrid wood composites.

SHI, SHELDON QIANG, Assistant Professor, Box 9820, Mississippi State, MS 39762-9820 (662-325-3110)

(FAX: 662-325-8126) email: sshi@cfr.msstate.edu

Specialty: Wood (Wood-plastics) composites, wood adhesion, moisture related properties of wood and wood composites.

Will Discuss Formally: Recycling of polymer fluff in wood composites; Contact angle determination of particles.

Will Discuss Informally: Moisture related properties of wood composites; Student recruitment issue.

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SMITH, BOB, Associate Professor/Extension Specialist, Virginia Tech, 1650 Ramble Road, Mailcode 0503, Blacksburg, VA 24061 (540-231-5876) (FAX 540-231-8868) email: rsmith4@vt.edu
Specialty: Forest products marketing; Professional sales in the forest products industry; Markets for wood in the U.S. infrastructure; Markets and perceptions of timber by engineers.
Will Discuss Formally: Marketing forest products industry.
Will Discuss Informally: Timber bridges; Wood science and forest products at VPI;

The Center for Forest Products Marketing and Management.

SMITH, W. RAMSAY, Global Research Manager, Arch Wood Protection, Inc., 3941 Bonsal Road, Conley, GA 30288 (404-362-3970) (FAX: 404-363-8585) email: <u>wrsmith@archchemicals.com</u>
 Specialty: International trade in forest products; Hardwood exports; Wood quality influences on product acceptance in foreign markets.

Will Discuss Informally: Graduate programs in wood science and in international trade; Views of the future of the forest products industry; other topics as desired.

SMULSKI, STEPHEN, Ph.D., President, Wood Science Specialists, Inc., 453 Wendell Rd., Shutesbury, MA 01072 (413-259-1661) (FAX: 413-259-1610) email: woodsci@crocker.com **Specialty:** In-service performance of wood and wood-base products in residential, commercial and industrial construction; Preventing degradation of wood in service.

Will Discuss Formally: Moisture problems and durability of wood-frame houses; Forensic application of wood science and technology

Will Discuss Informally: Consulting opportunities in wood science and technology; Career opportunities in wood science and technology.

TANG, R. C., Professor, School of Forestry, Auburn University, Auburn, AL 36849-5418 (334-844-1088) (FAX: 334-844-4221) email: tang@forestry.auburn.edu

Specialty: Mechanics and physics of wood and wood composites.

Will Discuss Formally: Long-term performance of wood composite structures; Creep models of wood composites under various environmental conditions; Elastic behavior of wood fibers; Dimensional stability and engineering reliability of wood composite structures; Duration of load behavior of lumber under changing environments; Effect of flake-cutting pattern and resin content on the mechanical and physical properties of flakeboard.

Will Discuss Informally: Undergraduate and graduate programs in forest products and wood science at Auburn; Mathematical models and simulation in forest and wood science.

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TEKLEYOHANNES, Anteneh Tesfaye, University of British Columbia, Dept. of Wood Science, 2424 Main Mall, Vancouver, BC, CANADA V6T 1Z4 (604-822-8203) (FAX: 604-822-9195)

email: anteneht@interchange.ubc.ca

Specialty: Wood products engineering--basic wood processing, Sawmilling; Drying and preservation; Composite materials and furniture.

Will Discuss Formally: Environmental aspects of wood products; Sawmilling; hydrothermal treatment of wood; and

wood composite materials technology.

VLOSKY, RICHARD P., Ph.D., FIWSc., Director, Louisiana Forest Products Development Center and Professor, Forest Products Marketing School of Renewable Natural Resources, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. Phone: (225) 578-4527; Fax: (225) 578-4251; Cell: (225) 223-1931;Email: vlosky@lsu.edu; URL: www.rnr.lsu.edu/lfpdc

Specialty: Marketing; Forest Sector-Based Economic development.

Will Discuss Formally: Marketing Principles, Domestic and international wood products marketing and business development; Technology applications to improve business competitiveness; eBusiness, eCommerce; Marketing applications to economic development; Environmental certification and marketing; Value-added product opportunities.

WANG, XIPING, USDA Forest Service, Forest Products Laboratory, 1 Gifford Pinchot Drive, Madison, WI 53726-2398 (608-231-9461) (FAX: 608-231-9508) email: xwang@fs.fed.us **Specialty:** Nondestructive evaluation (NDE) of wood; NDE of wood structural members/systems; Wood drying.

Will Discuss Formally: NDE of trees, logs, lumber; NDE of structural members/systems. Will Discuss Informally: Dry kiln control.

WIEDENBECK, JANICE K., Project Leader, USDA Forest Service, Northeastern Forest Experiment Station, 241 Mercer Springs Road, Princeton, WV 24740 (304-431-2708)

(FAX: 304-431-2772) email: jwiedenbeck@fs.fed.us

Specialty: Secondary wood products processing; Manufacturing system simulation modeling; Production control.

Will Discuss Formally: Research pursuits and accomplishments of Princeton WV's work unit "Improved Processing Technology for Hardwoods" including gang-rip-first research and application programs; Rough mill simulation models; Yield improvement research; New hardwood lumber processing systems and technologies, etc.

WINANDY, JERROLD, Project Leader-Engineered composites. USDA Forest Service, Forest Products Laboratory, One Gifford Pinchot Dr., Madison, WI 53726-2398 (608-231-9316) (FAX: 608-231-9582) email: jwinandy@wisc.edu
Specialty: Engineered wood composites; Durability; Composites as tool for sustainable forestry.
Will Discuss Formally: Composites; Preservation; Property effects; Enhancing durability.
Will Discuss Informally: Standards; Codes; Physical/mechanical properties.

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Wolcott, Michael P., Professor, Wood Materials and Engineering Lab, Civil and Environmental Engineering, Washington State University, Pullman, WA 99164-1806 (509.335.6392) (Fax: 509.335.5077) Specialty: Wood-based composite materials; viscoelasticity; adhesion.

Will discuss formally: Composites design, manufacture, and application; Bioproducts and Nanotechnolgy in the wood industry.

Will discuss informally: Commercial developments; Building products trends; Adhesion.

Yadama, Vikram, Asst. Professor, Wood Materials and Engineering Lab, Civil and Environmental Engineering, Washington State University, Pullman, WA 99164-1806 (509.335.6261) (Fax: 509.335.5077), vyadama@wsu.edu Specialty: Wood-based composite materials; viscoelasticity; adhesion.

Will discuss formally: Wood engineering and design, composites and their applications.

Will discuss informally: Building developments and construction technology.

YAN, NING., AssistantProfessor, University of Toronto, Faculty of Forestry, 33 Wilcocks St., Toronto, Ontario CANADA M5S 3B3 (416-946-8070) (FAX: 416-978-3834)
email: ning.yan@utoronto.ca
Specialty: Material science.
Will Discuss Formally: Wood composites performance; Adhesive-wood interactions; Wood/natural fiber plastic composites; Pulp and paper.

Will Discuss Informally: Durability and weathering of forest products.

ZERBE, JOHN I., 3310 Heatherdell Lane, Madison, WI 53713 (608-274-0714)

Specialty: Wood as a source of energy and petrochemical substitutes; Use of wood to combat global climate change.

Will Discuss Formally: Conversion of wood to improved fuels; Wood as a raw material for alcohol production; Reduction of atmospheric carbon dioxide through wood utilization by conservation, sequestration and substitution.

Will Discuss Informally: History of the forest resource as a source of fuel; Current thinking on wood as a source of energy; Impact of energy usage on the future of our economy; Impacts of atmospheric carbon dioxide increase.

Zhang, Jilei, Associate Professor, Forest Products Laboratory, Mississippi State University, Box 9820, Mississippi State, MS 39762 (662-325-9413)

(FAX: 662-325-8126) email: jzhang@cfr.msstate.edu

Specialty: Furniture engineering.

Will Discuss Formally: Strength design of furniture; furniture performance tests and standards; evaluation of wood and wood composites as furniture stock; computer-aided to furniture design and structural analysis.

Will Discuss Informally: Computer-aided to furniture design, analysis, and manufacture; furniture package design and testing; nondestructive evaluation of furniture structural performance.

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SWST Student Survey

Summary Report

February 2007

Marybeth T. Smith and Paul M. Smith Pennsylvania State University University Park, PA 16802-4703

Overview

A total of 204 students responded to a web-based SWST Student Survey between January 24th and February 12th, 2007. Email was sent on January 24th to the SWST Education committee requesting committee members to forward survey request via email to all undergraduate and graduate students. A follow-up email to increase response rate was sent January 29th.

Survey results indicate a lack of awareness of the existence and benefits of SWST. <u><Back></u>

Respondent Demographics

Graduate Students: 88 Undergraduate students: 116

Gender: Male: 173 Female: 30

Mean Age: 25 years Median Age: 23 years

Majors:

The majority of respondents (75%) are majoring in Wood Products.

(Respondents)								
Major	Total	%	-	Fresh	Soph	Jr	Sr	Grad
Wood Products	154	75%		10	14	30	34	66
Forestry	29	14%		1	2	9	8	9
Wildlife	2	1%		1	1			
Other	19	9%	1		1	2	2	13
TOTAL	204		1	12	18	41	44	88

MAJOR * YEAR Crosstabulation (Respondents)

(1 unspecified year-in-school)

Other: Construction Mgmt, CE, GIS, Mycology, Materials Engineering, Macromolecular Science

Job Offers

All: 16 of 204 respondents currently have job offers: 11 full time, 5 part-time. **Grad students**: 6 of 39 have full time job offers and 1 has a part time job offer. **Seniors**: 3 have full time job offers.

Participating Universities

University	Undergrad	Grad	Total	Percent
Virginia Tech	15	14	29	14.2%
Université Laval	6	15	21	10.3
Penn State University	11	5	16	7.8
North Carolina State University	11	4	15	7.4
Oregon State University	6	9	15	7.4
West Virginia University	11	3	14	6.9
University of Minnesota	13		13	6.4
Louisiana Tech University	11		11	5.4
Mississippi State University	2	9	11	5.4
Iowa State University	8	1	9	4.4
SUNY ESF	4	3	7	3.4
University of British Columbia	5	1	6	2.9
University of Washington	1	5	6	2.9
Louisiana State University	4	1	5	2.5
University of Idaho	4	1	5	2.5
University of Maine	2	3	5	2.5
Washington State University		5	5	2.5
Purdue University	2	1	3	1.5
University of Tennessee		3	3	1.5
University of Toronto		3	3	1.5
University of Wisconsin Madison		1	1	.5
- not specified -		1	1	.5
Total	116	88	204	100.0

Students from the following universities completed the SWST Student survey.

SWST Membership

SWST Student Membership

		UNDER-		
Membership	GRAD	GRAD	Total	%
Currently a member of SWST	18	1	19	9.3%
Was a member, but is no longer a member	6	1	7	3.4%
Has never been a member, and is interested	56	98	154	75.5%
Has never been a member, and is not interested	7	14	21	10.3%
(missing)	1	2	3	1.5%
TOTAL	88	116	204	1%

- Eighty-six percent of respondents have never been SWST members, but over 75% of respondents are interested in becoming members.
- Nine percent are currently members and 10 percent are not interested in becoming members.

If not interested, or no longer a student member, why not? (n=15)

- Lack of awareness of benefits (5 / 15)
- Not applicable (5 / 15)
- Finances (3 / 15)
- No time (2 / 15)

Are there any changes that SWST could make that would encourage you or others to become student members? (n = 35)

- Promote awareness of SWST (17 / 35)
- Provide employment / job announcements (5 / 35)
- Improve membership options / price for students (4 / 35)

SWST Membership

SWST Full Membership plans

Please select the option that best describes your SWST Full Membership plans:

Full membership Plans	GRAD	UGRAD	Total	%
I am planning to become a full member upon graduation	15	22	37	18.1%
I have not yet decided	64	74	138	67.6%
I am not planning to become a full member upon graduation	9	9	18	8.8%
(missing)		11	11	5.4%
Total	88	105	204	100%

- Eighteen percent of students (n=37) are planning to become full members upon graduation.
- Sixty-eight percent of respondents (138 / 204) have not yet decided whether they will become full SWST members upon graduation.

If not planning to become a full member upon graduation, why not?

Only 10 respondents answered this question:

- Lack of interest or applicability: 60%
- Lack of awareness: 30%
- Financial: 10%

Are there any changes that SWST could make that would encourage you or others to become a full member upon graduation? (n = 16)

- Promote benefits of SWST membership (6 / 16)
- Enhanced industry and business alliances (5 / 16)

Memberships in Other Organizations

Please list any other professional / scientific organizations to which you belong:

Respondents have over 150 memberships in other organizations or professional societies. Forty-one percent of other memberships specified are in *Forest Products Society* and 14% of other memberships are in *Society of American Foresters*.

Note: 30% of 204 respondents specified membership in FPS, but not all respondents answered the question. Approximately 50% of respondents (103 of 204) specified membership in other organizations.

Organization	UGRAD	GRAD	TOTAL
Forest Products Society	27	36	63
Society of American Foresters	17	4	21
Centre de Recherche sur le Bois (CRB)	1	3	4
American Chemical Society		3	3
Forest Products Club	4		4
Ordre des ingénieurs Québec	3		3
Other	22	33	55
TOTAL MEMBERSHIPS	74	79	153

SWST Website

r lease select the tiem that best describes your use of the SWS1 website.					
Website Awareness		UGRAD	Total	% (of 201)	
In the past year, I have used the SWST website once	8	3	11	5.5%	
In the past year, I have used the SWST website 2-5 times	18	4	22	11.0%	
In the past year, I have used the SWST website > 5 times	10	3	13	6.5%	
I am aware of the SWST website but have never used it	18	13	31	15.4%	
I am not aware of the SWST web site	34	90	124	61.7%	
TOTAL	88	113	201	100%	

Please select the item that best describes your use of the SWST website:

Awareness: Unaware

Seventy-seven percent of respondents have never used the SWST web site; the other 33% have used it in the past year. Sixty-one percent are not aware of the SWST web site and 15% are aware of it but have never used it.

now would you rale the overall allractiveness of the website.						
Attractiveness	GRAD	UGRAD	Total	% (of 53)		
Very unattractive	1		1	1.9%		
Somewhat unattractive	6	1	7	13.2%		
Average	23	12	35	66.0%		
Attractive	8	2	10	18.9%		
Very attractive						
TOTAL	38	15	53	100%		

How would you rate the overall attractiveness of the website:

Attractiveness: Average

Of 53 respondents, 66% rate the website attractiveness as Average, 19% as above average and 13% rate it as somewhat unattractive.

				%
Value	GRAD	UGRAD	Total	(of 53)
Not valuable at all				
Of minimal value	6	2	8	15.1%
Neutral value	10	7	17	32.1%
Somewhat valuable	18	6	24	45.3%
Very valuable	4		4	7.5%
TOTAL	38	15	53	100%

How would you rate the overall value of the website to you:

Value: Neutral to Somewhat valuable

Of 53 respondents, 32% rate the website as having Neutral value and 45% rate it as being somewhat valuable. 15% say it is of minimal value and 8% rate it as very valuable.

SWST Annual Meeting

Please specify your SWST annual meeting attendance:		n = 194		
				%
	GRAD	UGRAD	Total	(of 194)
I have attended the SWST annual meeting once	12	1	13	6.7%
I have attended the SWST annual meeting > 1 time	6		6	3.1%
I am aware of the SWST annual meeting but have never attended	26	9	35	18.0%
I am not aware of the SWST annual meeting, and am interested	32	82	114	58.8%
I am not aware of the SWST annual meeting, and am not interested	10	16	26	13.4%
TOTAL	86	108	194	100.00%

Annual Meeting Awareness: Unaware, but interested

- Of 194 respondents, 72% are not aware of the annual meeting.
- Fifty-nine percent are not aware of the SWST annual meeting, and are interested. Eighteen percent are aware of the meeting, but have never attended.
- Only 10% of respondents have attended an annual SWST meeting.
- Thirty-seven percent of graduate students are not aware of the annual meeting.

Ten of 26 respondents who are not interested in the annual meeting cite:

- Lack of awareness of benefits (6 / 10)
- Lack of applicability (2 / 10)
- Lack of time (2 / 10)

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SWST Student Poster Session

Please specify your use of the SWST Student Poster Session:	n = 194			
		UNDER-		%
Student Poster session	GRAD	GRAD	Total	(of 194)
I have presented at the student poster session once	9		9	4.6%
I have presented at the student poster session > 1 time	3		3	1.5%
I am aware of the student poster session, but have never presented	29	9	38	19.6%
I am not aware of the student poster session, and am interested	31	81	112	57.7%
I am aware of the student poster session, and am not interested	11	21	32	16.5%
TOTAL	83	111	194	100%

Student Poster Session Use: Unaware, but interested

Of 194 respondents, 58% are not aware of the student poster session, and are interested.

Nearly 20% are aware of the poster session but have never presented.

Eleven of 32 respondents who are not interested in the student poster session cite:

Lack of awareness of benefits (4 / 11)

- Lack of interest (5 / 11)
- Other (2 / 11)

SWST Publications

Most respondents are not aware of the SWST Newsletter or W&FS Journal.

Please select the option in each section that best describes your use of SWST's Newsletter and its key publication, the Wood & Fiber Science (W&FS) Journal:

SWST Newsletter	GRAD	UGRAD	Total	% (of 199)
I receive the SWST newsletter	19	1	20	10.1%
I don't receive it, but have regular access to the SWST newsletter	16	10	26	13.1%
I do not have regular access, but am aware of the SWST newsletter	10	8	18	9.1%
I am unaware of the SWST newsletter	42	93	135	67.8%
TOTAL	87	112	199	100%

Newsletter: 83% of undergraduate respondents have never heard of the SWST newsletter; 48% of graduate respondents have never heard of the SWST newsletter.

W&FS Subscription	GRAD	UGRAD	Total	% (of 199)
I subscribe to W&FS	10		10	5.0%
I don't subscribe to W&FS, but have regular access to W&FS	43	11	54	27.1%
I do not have regular access, but am aware of W&FS	8	14	22	11.1%
I am not aware of W&FS	27	86	113	56.8%
TOTAL	88	111	199	100%

W&FS: 77% of undergraduate respondents have never heard of W&FS Journal; 31% of graduate student respondents have never heard of W&FS.

W&FS Journal Use	GRAD	UGRAD	Total	% (of 196)
I read each issue of W&FS	3		3	1.5%
I browse W&FS occasionally	31	3	34	17.3%
I use W&FS only for reference	25	9	34	17.3%
I have never used W&FS	27	98	125	63.8%
TOTAL	86	110	196	100%

W&FS Use: 89% of undergraduate respondents have never used W&FS;

31% of graduate student respondents have never used W&FS.

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Issues Facing WS&T Profession

In your opinion, what are the two most important issues facing the profession of Wood Science & Technology today?

Students provided 247 responses (issues). Sixty-three percent of respondents (129 of 204) answered this question. Eleven of those respondents only listed one issue.

ISSUE	n
NEED for INNOVATION / R & D / NEW PRODUCTS	39
ENVIRONMENTAL	33
INTERNATIONAL COMPETITION	33
DECLINING INTEREST IN FIELD	20
UTILIZATION	19
DIMINISHING WOOD SUPPLY	17
MARKETING	10
COMPETITION (non-international)	8
SUSTAINABILITY	8
PUBLIC RELATIONS	7
TECHNOLOGY ADAPTATION	7
EDUCATION	5
EMPLOYMENT	5
BIO-ENERGY	5
INDUSTRY ALLIANCE	4
DURABILITY	3
PINE BEETLE	3
DEMAND FOR WOOD	2
MANAGEMENT	2
REGULATIONS	2
SUBSTITUTES	2
WORKFORCE TRAINING	2
-OTHER-	11
TOTAL	247

Best Things About SWST

In your opinion, what are the two best things about SWST?

Twenty-eight percent of respondents (57 of 204) answered this question. Respondents listed 96 'best things' about SWST. Thirty-nine students listed 2 'best things' and 18 listed one 'best thing'.

Best Things About SWST	Count
Information Dissemination	34
Networking	19
R & D	12
Credential	6
Industry Alliance	5
Academics	4
Website	2
- Other -	20
TOTAL	102