FOREST PRODUCTS SOCIETY

Innovation & Change in the Global Forest Products Industry

73rd International Convention

In conjunction with the
Southern Forest Products Association's
Forestry Machinery & Equipment Expo

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June 25-28, 2019

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Forest Products Society

73rd International Convention

WELCOME

Welcome to the 2019 Forest Products Society (FPS) International Convention, this year held in Atlanta, Georgia, USA from June 25-28, 2019. The goal of this meeting is to bring together industry, government, and academia to discuss the latest developments in wood science and forest products. To facilitate these interactions, this year's conference is co-located with the Forest Products Machinery & Equipment Expo.

Each day of this three-day event will begin with a plenary session, during which time global leaders in industry and academia will present on topics ranging from innovation in the engineered lumber industry, industry insights, and preparing future leaders. The remainder of each day will consist of concurrent breakout sessions covering cross-laminated timber, the circular bioeconomy, new applications, adhesives, markets and perspectives, treated wood products, and others. The awards lunch on Thursday will be a time to recognize contributors to the FPS and the forest products industry, as well as learn about recent activities at the FPS. Lunch on Friday will be a time to hear from the Society of American Foresters and FP Innovations how we as members, and as a society, can work together to provide benefit to the entire forest products sector. There are also several opportunities to interact with students including a student poster competition and the wood bowl on Wednesday. Finally, don't miss networking opportunities during the Paul Bunyan reception held Thursday afternoon on the Expo Floor.

High-profile plenary sessions, networking opportunities, and focused break-out sessions will allow you to share and learn about the state-of the art, trends, and perspectives on what the future holds in this dynamic field. Enjoy your time, and we look forward to seeing you again in Portland, OR in 2020.

Sincerely,

Nicole M. Stark
Technical Program Chair

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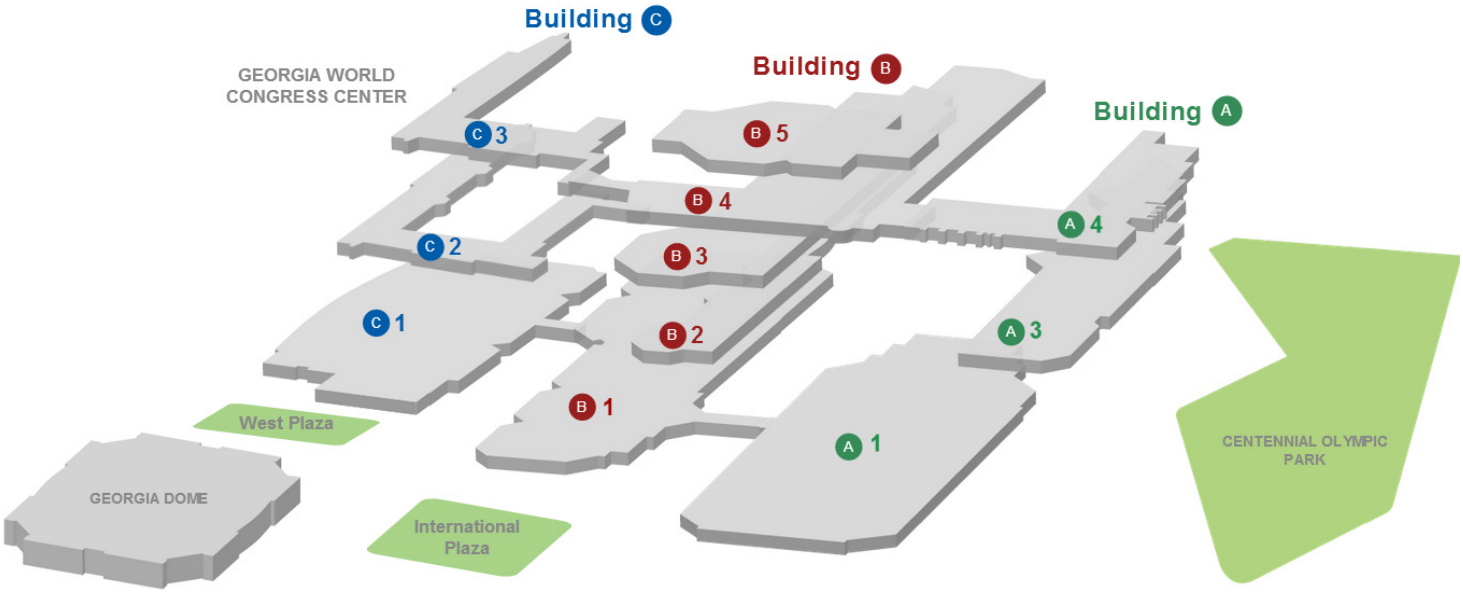

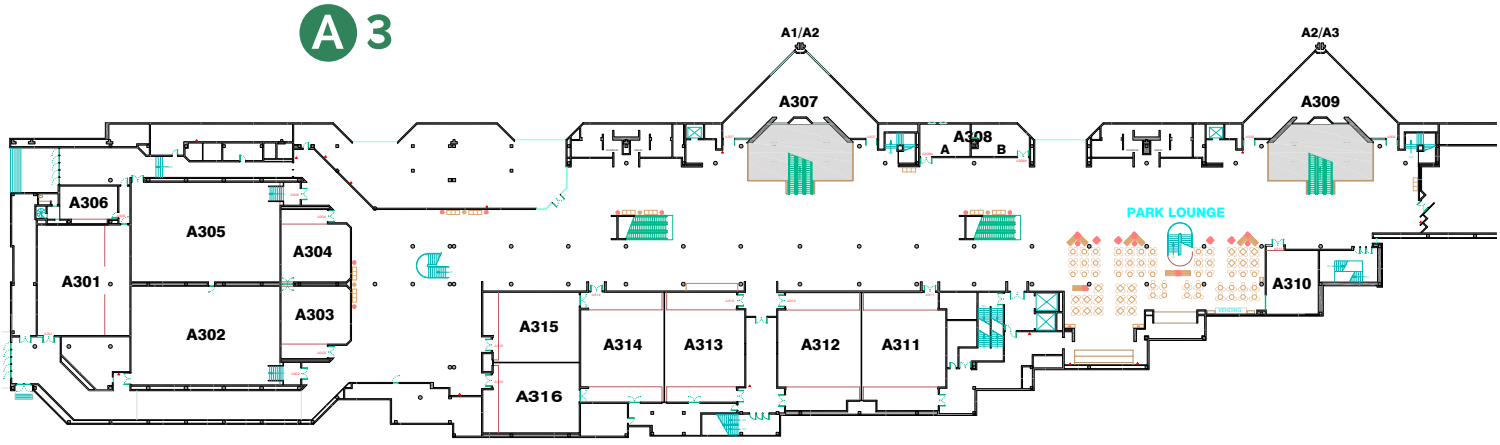

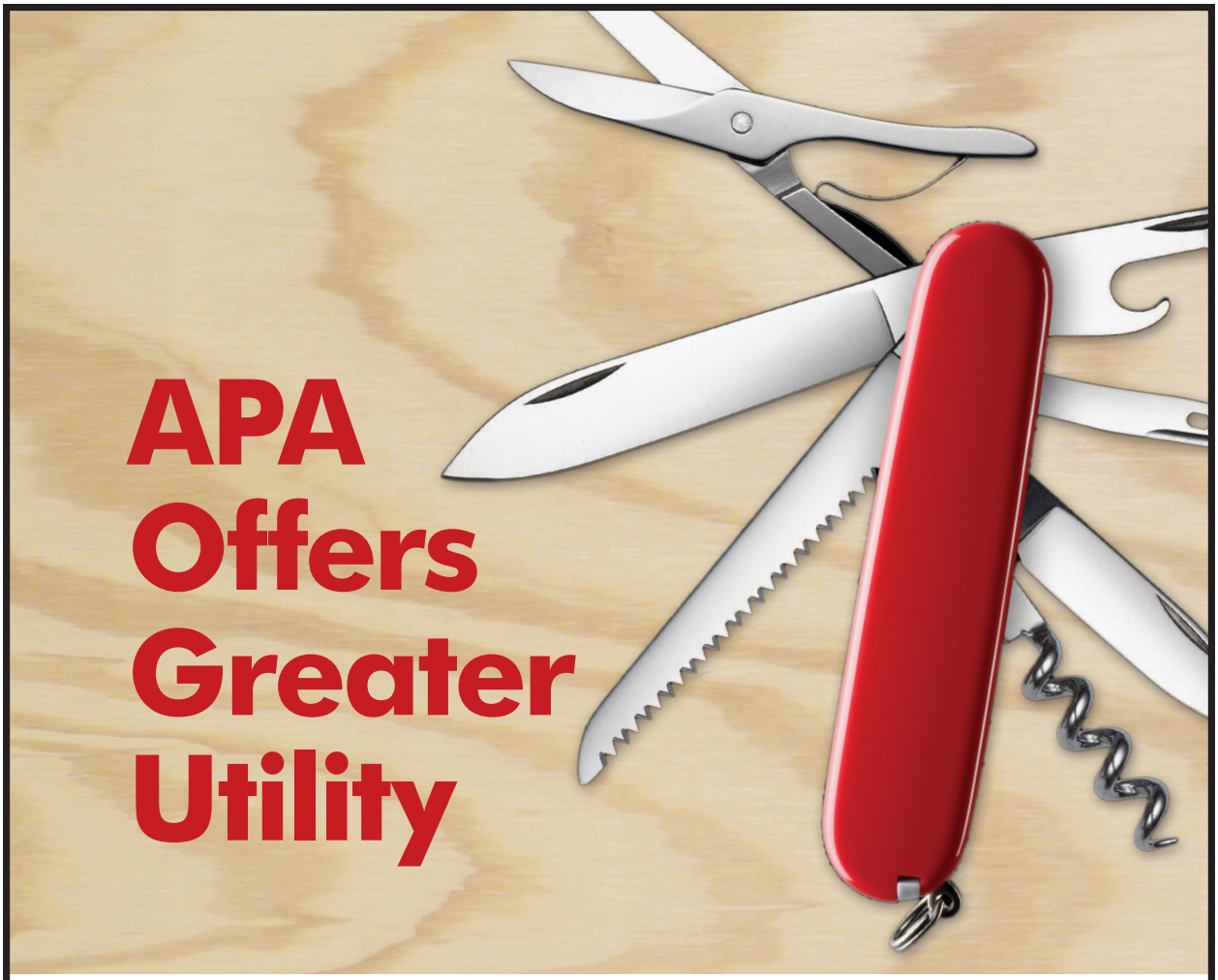

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ORGANIZATION MEMBERS

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Auburn University Forest Products Development Center

Bright Wood Corp

Coastal Forest Resources Company

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Evertree North America, Inc.

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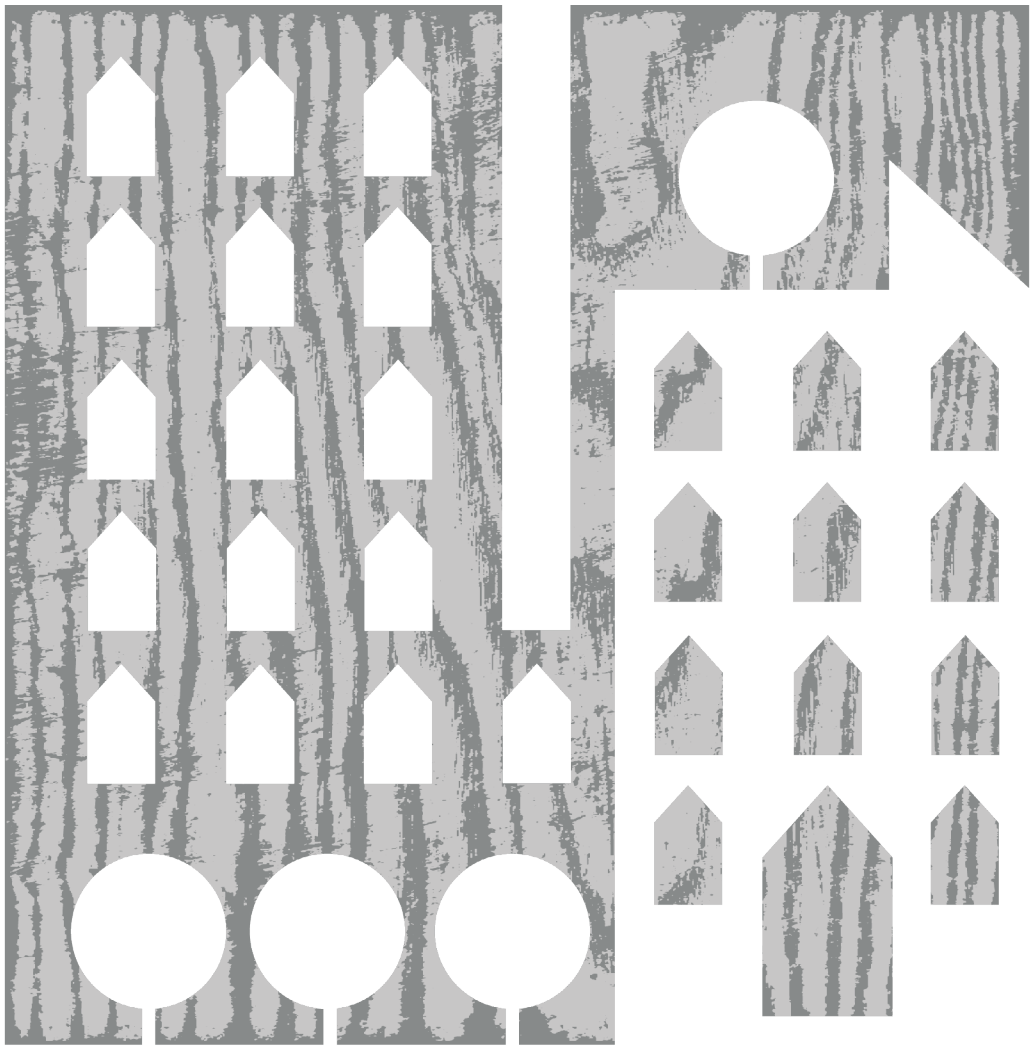

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SCHEDULE AT A GLANCE

Tuesday, June 25		
Time	Event	Room
1:00pm - 5:00pm	Registration	Level 3 Foyer
5:00pm - 6:30pm	Welcome Reception Co-Sponsored by Chinese National Forest Products Industry Association	A311-3212

Wednesday, June 26		
7:30am - 5:00pm	Registration	Level 3 Foyer
8:30am - 10:30am	Plenary Session	A315-316
10:30am - 11:00am	Break & Exhibits	A311-312
11:00am - 12:20pm	1.1 Cross Laminated Timber	A315-316
	1.2 Circular Bioeconomy	A313
	1.3 New Applications	A314
12:20pm - 2:20pm	Lunch and Wood Science Bowl	A410
2:20pm - 3:40pm	2.1 Markets and Perspectives	A315-316
	2.2 Temperature Effects	A313
	2.3 Fundamental Wood Properties	A314
3:40pm - 4:10pm	Break & Exhibits	A311-312
4:10pm - 5:30pm	3.1 Cross Laminated Timber 2	A315-316
	3.2 Cellulose Nanomaterials	A313
	3.3 Student Poster Presentations	A314
5:30pm - 7:30pm	Poster Reception SFPA Safety Awards Presentation	A311-312

Thursday, June 27		
Time	Event	Room
7:30am - 5:00pm	Registration	Level 3 Foyer
8:30am - 10:00am	Plenary Session	A315-316
10:00am - 10:30am	Break & Exhibits	A311-312
10:30am - 11:50am	4.1 Resins and Adhesives	A315-316
	4.2 Processing Considerations	A313
	4.3 Solid Wood Properties	A314
11:50am - 1:50pm	Awards Lunch	A410
1:50pm - 2:50pm	5.1 Adhesives 2	A315-316
	5.2 New Technologies	A313
	5.3 Treated Wood Products	A314
3:00pm - 5:00pm	Reception and Forest Products Machinery and Equipment EXPO	Expo Floor

continued

Friday, June 28		
Time	Event	Room
7:30am - 12:00pm	Registration	Level 3 Foyer
8:30am - 10:00am	Plenary Session	A315-316
10:00am - 10:30am	Break & Exhibits	A311-312
10:30am - 11:30am	6.1 Case Studies	A315-316
	6.2 Education and Sustainability	A313
	6.3 Wood Assemblies	A314
11:45am - 1:15pm	Lunch & Learn Society of American Foresters Panel FPInnovations Update	A410

Wednesday, June 26 Session

Fred Kurpiel has a long career, including President IMEAS SrL for North America; Vice President with Siempelkamp GmbH for North America Sales and marketing; Director with APA-The Engineered Wood Association.

President, GRI and associates, conducting Marketing, Finance Studies for midcap, high cap brown and green field production plants in the wood industry; Forensic Research.

Adjunct Assistant professor at U of Georgia and Kasetsart University,

Author of over 100 peer and non review, mostly industry related, articles.

Fred has 3 children and 4 grandchildren… and loves fishing!

Richard Vlosky is Director of the Louisiana Forest Products Development Center and Crosby Land and Resources Endowed Professor in Forest Sector Business Development at the Louisiana State University Agricultural Center in Baton Rouge. He received his Ph.D. in Wood Products Marketing at Penn State University, an M.S. in International Forest Products Trade from the University of Washington and a B.S. in Natural Resources and Forest Management from Colorado State University. His areas of research and consulting include: Mass Timber adoption, wood-based bioenergy, and forest products marketing and business development, He has authored or co-authored over 155 refereed publications, 19 book chapters and 4 books, and has made over 400 presentations on a variety of topics in the U.S. and 31 countries.

Roy O. Martin III is president, CEO and CFO of Martin Sustainable Resources L.L.C., Martin Timberlands L.L.C., and Martco L.L.C. He is also director and co-founder of Indigo Minerals, LLC, a Houston-based oil and natural gas exploration company.

Born in Alexandria, Louisiana, Mr. Martin is a 1978 graduate of Bolton High School. He graduated from Louisiana State University (LSU) in 1982 after receiving a Bachelor of Science Degree in Mechanical Engineering (Tau Beta Pi). He continued his education at LSU, obtaining his MBA in 1985. Mr. Martin was inducted into LSU's Halls of Distinction of Alumni, School of Business, School of Engineering, as well as Tiger Athletic Foundation. He is currently on the Business School's Dean's Advisory Council and the LSU Flagship Coalition.

Throughout the years, Mr. Martin has volunteered his time and served in various board and chair capacities for companies and organizations such as Lions Club, United Way of Central Louisiana (Volunteer of the Year in 1995), Habitat

continued

for Humanity (Golden Hammer Award), American Red Cross, Rapides Regional Medical Center, First Commerce Corporation, Rapides Bank/Bank One, CENLA Advantage Partnership, Salvation Army (Dorcas Award in 1992), LSU-Alexandria Advisory Board, Committee of 100/chair of SECURE, chair of Governor-Elect Jindal's Economic Growth Transition Advisory Council, Louisiana Forestry Association, American Heart Association in CENLA, Chamber of Commerce of Central Louisiana, and Calvary Baptist Church building committee.

Mr. Martin also served on the Louisiana Recovery Authority, Greater Alexandria Economic Development Authority (GAEDA), LSU Health Sciences Foundation, Louisiana Commission on Streamlining Government, and Workers' Compensation Advisory Council. He and Jonathan Martin were presented with the Ernst & Young Entrepreneur of the Year Award for the Southern District in 2004 and 2016 Manufacturer of the Year for Louisiana by the Louisiana Association of Business & Industry. Mr. Martin was selected by Governor Bobby Jindal to fill the member-at-large position on the Louisiana Board of Regents in January 2012, and was elected chair in 2015.

Paul Coats, PE, CBO, is the Southeast Regional Manager for the American Wood Council (AWC), which represents over 80 percent of the North American wood products manufacturing industry and produces recognized design standards such as the National Design Specification for Wood Construction (ANSI/AWC NDS). Paul has over 25 years of experience in building inspection, plan review, engineering, and consulting. He routinely assists code officials and designer professionals while being active in national and state-level code development activities. Prior to joining AWC, Paul was on the Code Development Staff of BOCA International, a legacy organization of the International Code Council.

Simon Siegert comes to IB-XLAM USA after 15 years of working as a lead designer and project manager of Architectural projects. With experience on a range of projects from residential, commercial, civic, religious and specializing on building envelope systems, Simon has carried this knowledge over to help with the development of the first southern yellow pine cross-laminated-timber (CLT) manufacturer in the US. With a Bachelor of Architecture from the University of Louisiana at Lafayette, and as a LEED AP Simon is looking forward to continue to expand the use of mass-timber as a more sustainable method of construction for generations to come.

continued

PLENARY SPEAKERS

Thursday, June 27 Session

R.F. (Dick) Baldwin, Ph.D., CF. A native of Oregon, Dr. Baldwin draws upon more than five decades of executive, supervisory, and hourly experience across the forest products industry in North America and offshore. Currently, Dick is the Managing Partner of Oak Creek Investments, a firm involved in a variety of plywood and veneer based investments and projects.

Dr. Baldwin holds a B.S. in Operations Management from the University of Oregon, a M.S. in Forestry from Stephen F. Austin State University, and a Ph.D. from the University of Texas/Dallas School of Economic, Political, and Policy Sciences.

Dick will Welcome, Introduce the speakers, and Moderate the Session. He will also present a brief talk to 'set the stage' for the speakers that follow.

Kyle Freres is the Vice President of Operations for Freres Lumber Co., Inc. Since 2001, he has managed and supervised a variety of areas including environmental health and safety, cogeneration, information technology, plant upgrades and maintenance. As a member of the executive team, Kyle is actively involved in long-term strategic planning for the company. Kyle attended Southern Methodist University (SMU) in Dallas, Texas where he earned a B.S. in Industrial Engineering, a B.A. in Mathematics and minored in Russian Area Studies. Kyle has managed some of the company's largest capital projects including the Evergreen BioPower cogeneration facility constructed in 2007 and the new Mass Plywood Panel (MPP) facility, which came online in December of 2017. He is an advocate for innovative new production technologies as well as product innovation. Kyle is motivated by the heritage built by three generations of the Freres family, and the dedication of employees over almost 100 years of operation.

Richie LeBlanc is the President and CEO of Hunt Forest Products, L.L.C., based in Ruston, Louisiana and the President of LaSalle Lumber Company, Hunt's partnership with Tolko Industries.

Richie has been in the forest products industry for 19 years, beginning with Willamette Industries in Ruston as the Administrative Manager of the Southern Building Materials Group. Shortly after joining Willamette the company merged with Weyerhaeuser. Richie initially served on the integration team charged with merging the cultures of Willamette and Weyerhaeuser, and then became the Land Adjustment Program Manager, embedded in Weyerhaeuser's North Louisiana timberlands organization.

Promoted steadily through the ranks, Richie was named the Director of U.S. Real Estate Operations for Weyerhaeuser in 2015, and moved to the company's headquarters in Seattle, WA.

In early 2016, Richie returned home to Louisiana to join Hunt Forest Products,

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where he oversees approximately 400 employees who produce plywood, veneer and hardwood lumber at two mills in central Louisiana. He is also responsible for the company's newest project, construction of a state-of-the-art dimensional lumber sawmill in Urania, LA. LaSalle Lumber Company started producing finished lumber in February 2019.

A graduate of Louisiana Tech University with a degree in business administration and management, Richie began his career as a professional baseball player, pitching for the Kansas City Royals organization. After "retiring" from baseball, Richie served as Vice President of McIntyre & Associates, a family-owned general insurance agency in Ruston, LA.

Richie met his wife of 30 years, Holly, while attending Louisiana Tech University, and they have two children, Mary Lloyd and Ben.

Friday, June 28 Session

Dr. Brian Via is Regions Bank Professor of Forest Products and is currently the Director of the Forest Products Development Center in the School of Forestry and Wildlife Sciences (SFWS) at Auburn University. He recently took on the challenge of Editor in Chief of the Forest Products Journal and is also on the Editorial Board for the Journal of Analytical Methods in Chemistry. Recently, Dr. Via worked with the faculty and Dean to start a new undergraduate curriculum Sustainable Biomaterials and Packaging. This curriculum is a unique model in which we have participation from 5 Colleges/Schools and is housed in SFWS. Dr. Via has worked at International Paper and Louisiana Pacific Corporations in the area of wood quality and wood composites respectively. As Director, he works closely with industry for economic development and commercialization and has a current patent that is now in the early stages of approval. In his role as Director, he also works with the Development Officer to secure philanthropic gifts for Center improvement. In a research capacity, he has worked to secure over $24 million in interdisciplinary team secured external grants & contracts.

Professor Qian Xiaoyu is currently the vice president of the China Forest Products Industry Association and the executive chairman of the China Household Industry Green Supply Chain Alliance.

She is also the deputy Director of the Expert Advisory Committee of China Forestry Industry Association, Deputy Director of the Standards Committee; Vice President of the Wood-based Panel Research Association of the China Forestry Society; Deputy Director of the Raw Materials Committee of the China Furniture Association; Deputy Director of the Expert Committee of the China Timber Distribution Association; Development Bank Forestry Project Evaluation Expert; State Forestry Administration Forestry Industry Market Analysis Expert.

Ms. Qian has worked in the forest product this area for more than 40 years, majoring in wood processing (Central South University of Forestry and Technology), minor in law (China Women's College), company management and management (Beijing Normal University), engaged in forestry project investment, business management and industry. For many years, she has served as a director of several wood processing companies. In October 2013, she participated in the training of the Shanghai Stock Exchange and obtained the independent director certificate. she is currently a Hong Kong listed company Hongwei (Asia) Holdings Co., Ltd., Xiamen Gold Brand Cabinet Co., Ltd. and Shanghai Film Independent

continued

director of Golmud Co., Ltd.; participated in the forestry large and medium-sized project investment demonstration review, familiar with the development of the national forestry industry, participated in the formulation of relevant national standards and forestry industry related policies; participated in the establishment of Chinese furniture raw and auxiliary materials brand enterprise strategy Alliance, China Forestry Equipment Industry Technology Innovation Strategic Alliance and China Home Furnishing Industry Green Supply Chain Alliance; has presided over the forest industry industry conferences, participated in Chinese and foreign forestry technology exchange activities, and represented China in the world's wood-based panel conference.

Ms. Qian won the "2010 China Forestry Industry Person of the Year", 2012-2013 "China Forestry Industry Outstanding Contribution Award", 2014 "China Forest Industry Lifetime Honor Award", 2015 "China Wood Industry 30 Years Meritorious Person" and 2017 Years of "Beijing Environmental Protection Pioneer" and other honors.

David DeVallance is the Research Group Leader in Renewable Materials Composites at InnoRenew CoE and an Associate Professor at the University of Primorska. David received a BS Degree in Wood Products Processing and Manufacturing from the Pennsylvania State University and his MS and PhD Degree in Wood Science from Oregon State University. In addition to his academic career, he has worked for PFS Corporation in Madison, Wisconsin as a Staff Engineer researching engineered wood studs/joists and for TECO in Eugene, Oregon as a staff scientist performing wood products research testing and analysis, field claim inspections, and a variety of technical duties.

David is also an Adjunct Associate Professor within the Wood Science and Technology Program in the Division of Forestry and Natural Resources at West Virginia University (WVU). Additionally, he is the current Past-President of the Forest Products Society.

His research focuses areas include: development of bio-based composite materials; biomass pre-processing and pelletizing; non-destructive material evaluation; and adhesion and structural properties of cross laminated timbers. He teaches courses in Sustainable Construction, Quantitative Decision Making, Residential Building Materials, Senior Project Research, and Renewable Materials Marketing.

Dale Greene became Dean of the Warnell School of Forestry & Natural Resources in June 2015. He joined the faculty in 1986 and is known for his research and teaching that focused on improving the economic and environmental performance of the wood supply chain. He was twice appointed by Georgia Governors to the Georgia State Board of Registration for Foresters and has been active throughout his career in the Georgia Forestry Association and the Georgia Forestry Foundation. His recognitions include all three teaching awards given by the Warnell School, the Outstanding Research Award from the Southeastern Society of American Foresters, and the Wise Owl Award from the Georgia Forestry Association. The Society of American Foresters named him to the Georgia Forester's Hall of Fame in 2007. Greene and his graduate students are three-time recipients of the National Technical Writing Award from the Forest Resources Association. In 2017, he was awarded the International Forest Engineering Achievement Award by the Council on Forest Engineering.

Greene holds a Ph.D. from Auburn University. He received his bachelor's degree from Louisiana State University and his Master's from Virginia Tech. He and his wife Jeanna are forest landowners in Georgia and Arkansas.

21st INTERNATIONAL Nondestructive Testing and Evaluation of Wood SYMPOSIUM

https://ndtesymposium.org/

Freiburg, Germany, September 24-27, 2019

Hosted by: Forest Research Institute Baden-Württemberg (FVA)

Co-sponsored by:

USDA Forest Service Products Laboratory (FPL),
Forest Products Society (FPS), and
International Union of Forestry Research Organizations (IUFRO).

The conference will be held at Katholische Akademie Freiburg, which is situated close to the city center of Freiburg.

Registration Open Now

This Symposium is a forum for those involved in nondestructive testing and evaluation of wood, wood-based products, and structures. It will bring together the international nondestructive testing and evaluation research community, users of various nondestructive testing technologies, equipment development and manufacturing professionals, representatives from various government agencies, and other groups to share research findings and new nondestructive testing products and technologies. Networking among participants will foster new collaborative efforts, with an emphasis on implementation of nondestructive testing technologies around the globe.

FULL AGENDA

Tuesday, June 25				
1:00 - 5:00pm	**Registration**			
5:00 - 6:30pm		Welcome Reception Co-Sponsored by Chinese National Forest Products Industry Association		

Wednesday, June 26				
7:30am - 5:00pm	**Registration**			
8:30 - 10:30am		Plenary Session - Change and Innovation in the Sawmill & Engineered Lumber (Session Chair: Fred Kurpiel)		
	Speaker 1	Rich Vlosky - Louisiana State Univeristy - ***Influencer Perceptions, Use, and Understanding of Cross-Laminated Timber in the U.S. South***		
	Speaker 2	Roy O. Martin - Martin Sustainable Resources - ***Taking the Leap: What Would It Take to Manufacture CLT in the U.S. South***		
	Speaker 3	Paul Coats - American Wood Council - ***Big Changes for Mass Timber in the Building Codes***		
	Speaker 4	Simon Siegert - International Beams - ***Case Study on IB as a Pioneer in the Southern US CLT Market Space***		
10:30 - 11:00am	**Break**			
11:00am-12:20pm		Session 1.1 - ***CLT 1*** (Session Chair: Rich Vlosky)	Session 1.2 - ***Circular Bioeconomy*** (Session Chair: Sydney Lindquist)	Session 1.3 - ***New Applications*** (Session Chair: Dave DeVallance)
	11:00	Laura Hollier - ***An Architect's Perspective on CLT***	Hui Wan - Mississippi State University - ***An Overview of the Circular Forest Products Concept***	Robert Narron - LignoTech - ***Commercial Lignin Expansion by Borregaard in the Southest US and Implications for the Wood Panel Industry***
	11:20	Wei Chiang Pang - ***Utilization of Mass Timber Products in Low and Mid-Rise Buildings for High Wind Areas***	Wang Yi - ***Wan Hua's Experience of Circular Forest Products***	Min Lee - National Institute of Forest Science - ***Fire Resistance Performance of Wood-Fiber Insulation Board Prepared with Four Different Adhesives***
	11:40	Steve Zylkowski - APA	Sydney Lindquist - ***Circular Bioeconomy***	David DeVallance - InnoRenew CoE - ***Energy Efficient Thermal Insulating Materials from Bio-Based Resources***
	12:00	Paul Coats - AWC - ***Building Codes, Opportunities for Wood***	Alan Potter - FPInnovations - ***Canadian Perspectives on the Circular Economy***	Oginni Oluwatosin - ***Effect of Activating Agent Type and Impregnation Route on Activated Carbon Characteristics***

continued

12:20 - 2:20pm	**Lunch and Wood Bowl**			
2:20 - 3:40pm		Session 2.1 - ***Markets and Perspectives*** (Session Chair: Andrew Copley)	Session 2.2 - ***Temperature Effects*** (Session Chair: Paige McKinley)	Session 2.3 - ***Fundamental Wood Properties*** (Session Chair: Joseph Jakes)
	2:20	Andrew Copley - Forisk Consulting - ***North American Pellet Capacity: How Will It Develop Over the Next Ten Years?***	Juan Gonzalez - Virginia Tech - ***Variability of Commercially Available Thermally Modified Lumber***	Zhongqi He - USDA ARS - ***Molecular Level Comparison of Water Extractives of Maple and Oak***
	2:40	Iris Beatriz Vega Erramuspe - Auburn University - ***Pulp Fiber Engineering, A Key Factor for the Development of Modern Forest Industries***	Byrne Miyamoto - Oregon State Univeristy - ***Understandng the Performance of Wood Composites in an Elevated Temperature Schenario***	Joseph Jakes - ***USDA FS - Anisotropic Hygromechanical Properties of Wood Cell Walls***
	3:00	Anna Pitti - University of Minnesota - ***Marketing of Urban and Reclaimed Wood Products***	Arijit Sinha - Oregon State University - ***Effect of Elevated Temperature Exposure to Shear Properties of Typical Sheathing Panels***	Joseph Dahlen - University of Georgia - ***Quantifying Knots by Image Analysis and Modeling their Effect on Mechanical Properties of Loblolly Pine Lumber***
	3:20		Emmanuel Uchechuk Opara - ***Effect of Low Pressure Steam Pre-Conditioning Treatment on Physico-Mechanical Properties of Acetylated Hevea brasiliensis and Mitragyna ciliate Wood***	Islam Elsayed - ***Hydrogen Free Catalytic Hydrogenation of Biomass-Derived 5-Hydroxymethulfurfural into 2,5-Bis (hydroxymethyl) furan using Copper-iron/CC Bimetallic Catalyst***
3:40-4:10pm	**Break**			
4:10-5:30pm		Session 3.1 - ***CLT 2*** (Session Chair: Michaela Harms)	Session 3.2 - ***Cellulose Nanomaterials*** (Session Chair: Nicole Stark)	Session 3.3 - ***Student Poster Presentations*** (Session Chair: Joseph Jakes)
	4:10	Michaela Harms - PFS Teco - ***Bringing Mass Timber to Market***	Nicole Stark - USDA FS - ***Effect of Cellulose Nanomaterial (CN) Type on the Properties of PLA/ CN Films for Packaging Applications***	
	4:30	Sailesh Adhikari - Virginia Polytechnic Institute - ***Opportunity for the Hardwood Industry to Get Into the Cross-Laminated Market: A CLT Manufacturer Perspective***	Hak Lae Lee - Seoul National University - ***Effect of Carboxymethylation on the Morphology of Cellulose Nanofibrils and Recycling is Isopropanol for Environmentally Production of CM-CNF***	

continued

	4:50	Sachin Tripathi - Mississippi State University - ***Evaluation of Rolling Shear Strength and Modulus of Micronized Copper Azole Type C (MCA-C) Treated Cross-Laminated Timber***	Gulbahar Bahsi Kaya - Mississippi State Univeristy - ***Synthesis of Cellulose Nanofiber Based Microcapsules Containing a Phase Change Material for Thermal Energy Management***	
	5:10	Alireza Bahmanzad - U Mass-Amherst - ***Improving the Mechanical Properties of Cross Laminated Timber (CLT) Panels Using Asymmetric Laminate Fiber Orientation***	Gloria Oporto - West Virginia Univeristy - ***Effectiveness of Combining Carboxymelthyl Cellulose and Nanofibrillated Cellulose in Combination with Naltrexone for Extended Release Opioid Treatments***	
5:30-7:30pm	**Poster Session and Student Poster Competition**			

Thursday, June 27

7:30am - 5:00pm	**Registration**			
8:30 - 10:00am		Plenary Session - Industry Insights (Session Chair: Dick Baldwin)		
	Speaker 1	Dick Baldwin - Oak Creek Investments - ***Innovation and Technology Transfer within the Forest Products Industry***		
	Speaker 2	Kyle Freres - Freres Lumber Company - ***Commercial Development of a Mass Plywood Panel***		
	Speaker 3	Richie LeBlanc - Hunt Forest Products - ***Lessons from Opening a New Sawmill***		
10:00 - 10:30am	**Break**			
10:30 - 11:50am		Session 4.1 - ***Resins and Adhesives 1*** (Session Chair: Fred Kurpiel)	Session 4.2 - ***Processing Considerations*** (Session Chair: Terry Liles)	Session 4.3 - ***Solid Wood Properties*** (Session Chair: Tom Eberhardt)
	10:30	Steve Ashley - G-P Chemical -***Addressing Consumer Needs to Effect Transformation***	Terry Liles - Huber Engineered Woods - ***Application of Evolutionary Operation (EVOP) for the Forest Products Industry***	Joseph Dahlen - University of Georgia - ***Exploiting Spatial and Spectral Features in Hyperspectral Images Collected from Douglas-Fir Lumber***

continued

	11:00	Joe Lynch - Evertree North America, Inc. – ***Plant-based Products in Wood Composite Panel Production***	WeiLong Chen - Chaoyang University of Technology - ***Structural Resonance Analysis of Muli-Piece Rip Saw***	Thomas Eberhardt - USDA FS - ***Comparisons of Juvenile Wood Depictions to Southern Pine Wood Property Maps***
			Frank Owens - Mississippi State University - ***Modeling Statistical Distributions for MOE and MOR in Eight Mill Run Lumber Populations***	Bonnie Yang - ***The Mechanical Impacts of Checks and Splits in Timber Columns***
			Guangmei Anderson - Mississippi State Univeristy - ***Mean and Variance Comparisons of MOE and MOR Between Summer and Winter Samples of Mill Run Lumber From Four Sawmills***	Christopher Anderson - ***Testing Doug Fir Crossarms for Use in Electricity Infrastructure***
11:50am-1:50pm	**Awards Lunch**			
1:50-2:50pm		Session 5.1 - ***Adhesives 2*** (Session Chair: TBD)	Session 5.2 - ***New Technolgies*** (Session Chair: Hui Wan)	Session 5.3 - ***Treated Wood Products*** (Session Chair: Fred Kurpiel)
	1:50	Joseph Marcinko - Polymer Synergies, LLC - ***Engineered PolySaccharides: Alpha-1,3-Glucan Polymer as Performance Enhancing Additive for Latex Wood Adhesives***	Yu Wenjie - ***Environmental Friendly and High Performance Bamboo Fiber Reinforced Composites (BFRC)***	Fred Kurpiel - American Wood Preservers Association ***Wood Preservation Overview***
	2:10	Osei Asafu-Adjaye - Auburn Univeristy - ***Utilization and Characterization of Epoxy/Pyrolysis Bio-Oil Binder in Oriented Strandboard Production***	Futong Cui - ***Fire Retardant Chemical Technologies***	Mike Eckhoff - Hoover Treated Wood Products - ***Keeping the Home Fires from Burning: The Latest on Fire-Retardant-Treated Wood and Model Codes***
	2:30	Abiodun Alawode - Stellenbosch University - ***Natural Wood Adhesives from Irvinga Wood***	Ajayi Babatunde - ***WPCs from Delonix Regia Pods and Nylon***	James Hurley - Lonza - ***TGA Kinetic Analysis of Commercial FR-Treated Wood Products: New Methodologies and Insights***
3:00-5:00pm	**Reception and Forest Products Machinery and Equipment EXPO**			

continued

Friday, June 28				
7:30am - 12:00pm	**Registration**			
8:30 - 10:00am		Plenary Session - Preparing Industry Leaders of the Future (Session Chair: Brian Via)		
	Speaker 1	Brian Via - Auburn University - ***A New and Exciting Model for Undergraduate Education in Sustainable Biomaterials at Auburn University***		
	Speaker 2	Xiaoyu Qian - China Forest Products Industry Association - ***Analysis of Chinese Forest Products Industry Development***		
	Speaker 3	Dave DeVallance - InnoRenew- ***European Wood Products Industry***		
	Speaker 4	Dale Greene - Warnell School of Forestry & Natural Resources - ***Recent Changes and the Near-Term Outlook for the Forestry Sector in the US South***		
10:00 - 10:30am	**Break**			
10:30 - 11:30am		Session 6.1 - Case Study - ***Using Annuals for Production*** (Session Chairs: Fred Kurpiel and Richard Baldwin)	Session 6.2 - ***Education and Sustainability*** (Session Chair: Rich Vlosky)	Session 6.3 - ***Wood Assemblies*** (Session Chair: Yali Li)
	10:30	Fred Kurpiel - GRI and Associates - ***The Global Demand for Rice Straw as a Material Balance for High Quality Large Scale MDF-HDF Plants Globally***	Rich Vlosky - Louisiana State Univeristy - ***Forest Products University Graduates: What Does the Industry Need?***	Laurice M Spinelli Correa - Mississippi State Univeristy - ***Staircase Post Connection Preliminary Analysis: Structural Performance Under Monotonic and Reversed Cyclic Loads***
	10:50	Richard Baldwin - OC Invest- ***The World's First Large Scale High Quality MDF-HDF Plant in the World is Being Built in Willows, California USA***	Vincent Leung - Univeristy of Britich Columbia - ***Pedagogical Approaches for Teaching Wood Processing Courses***	Yali Li - Mississippi State University - ***Development of Three-dimensional Finite Element Model for a Staircase Post System***
	11:10	Avery Chua - Dasso USA - ***21st Century Bamboo Innovations and Applications***	Annika Hyytia - University of Helsinki - ***Sustainable Development, International Framework, Overview and Analysis in the Context of Forest Products, Policy, Trade and Markets***	
11:45am-1:15pm	**Lunch & Learn - Society of American Foresters Panel & FPInnovations**			

6th Biennial

Process Technologies for the Forest & Biobased Products Industries

PTF BPI Conference 2020
November 16-18, 2020

PTF BPI 2020 is dedicated to the exchange of information and ideas about research on process technologies, quality control, and process improvement. Academic scholars will overview the latest research in forest and bio-based materials including nanotechnology and solid wood. Leading manufacturers will highlight advancements in chemical technologies, supplier audits, product innovation and continuous improvement.

The Conference provides a forum for discussions among researchers, producers, and consumers of forest and bio-based products and acts as a catalyst for new research and development, and applications for manufacturing industries. The conference will be of direct benefit to researchers, operations managers, technical managers, and business managers. The conference offers a forum for exchange of technical and research discussions. We hope you will consider joining us again (or for the first time) at the 2020 PTF BPI at St. Simons Island, GA.

Location: The King and Prince Beach & Golf Resort
St. Simons Island, GA

Website coming soon at: http://www.forestprod.org/technology/

FOREST PRODUCTS SOCIETY AWARD WINNERS

Fred W. Gottschalk Memorial Award
Richard Vlosky, Ph.D.

The prestigious **Fred W. Gottschalk Memorial Award,** named for the first President of the Society, recognizes exceptional service to FPS by an individual member. The 2019 Gottschalk Award winner, **Dr. Richard Vlosky**, has exhibited consistent commitment in serving the Forest Products Society since becoming a member 27 years ago. He has been involved in a number of strategic leadership roles at the National and Section levels.

Vlosky's activities have strengthened FPS through the common goal of advancing wood through science, technology and most importantly active communication of wood's wonderful characteristics. He has proven to be a strong ambassador for forestry products and fostering the goals of FPS and aligning with FPS's mission.

Vlosky previously served as FPS President in 2016 after being President-Elect (2015) and Vice President (2014). He is currently the chair of the 2019 International Nominating Committee, chair of the Mid-South Section Communications Committee and a member of the FPS National Communications Team.

In his FPS career, Vlosky has been a member of the International Nominating Committee (2018), member of the Executive Committee (2018), member of the Strategic Planning Committee (2018), Plenary Session Committee Member (2018), and Session Chair, Program Committee Member, and Conference Planning Committee Member for the 72nd Forest Products Society International Convention (2018). In 2016, he was the Awards Chair for the 70th Forest Products Society International Convention and in 2015, he coordinated the Technical Session Program. He also chaired the 2013 67th International Convention Coordinating Committee.

Shortly after the 2012 International Convention in Washington, DC, Vlosky developed and executed an evaluation survey to all FPS members focusing on those that attended as a tool to improve the convention in 2013.

His additional current and past contributions to the Society are:

- 2011-present: Chair of the Internationalization Task Group in which he took the initiative to bring to the Board for approval to create
- 1998-present: Membership Chair of Mid-South Section
- 2009: Member of the National Research Needs Assessment Committee, jointly sponsored by US Forest Service, Forest Products Society and Society of Wood Science & Technology
- 2008: Member of the International Nominating Committee
- 2007: Chair of Website Development & Improvement Committee
- 2006: Member of the Membership Recruitment/Branding Committee
- 2005: Member of the Student-Full Member Conversion Committee
- 2002: At the request of the FPS Board of Directors, Rich coordinated and analyzed a Membership needs assessment survey. He developed the survey, executed it for all FPS members, analyzed the results and disseminated the assessment report to FPS members and the Board
- 2002: Key member of the International Cooperation Committee
- 2001-2003: Chair of the Marketing Technical Interest Group and Vice-Chair of this TIG from 1998-2000
- 1997-1998: Member of the National Membership Committee and Chair of the ad-hoc Electronic Publication Task Group
- 1995-1998: Co-Chair of the Electronic Information Technology Sub-Committee
- 1995-present: Reviewer for the Forest Products Journal

2019 Bio Fiber-Polymer Composites Symposium

A Premiere conference in North America covering topics related to wood-plastic composites, an important and growing segment of the forest products industry.

September 4 – 5, 2019 in Madison, Wisconsin

Madison Concourse Hotel
One West Dayton Street, Madison, WI 53703

Register Online by August 20, 2019.

(Registration after August 20 must be completed onsite and will incur a $50 late fee.)

This symposium provides a forum for experts from scientific, technical, and industrial communications to exchange and disseminate information on the latest advances and future opportunities for fiber-polymer composites. Presentations covering wood fibers, natural fibers, and nanocellulose composites will be featured.

Forest Products Society

Forest Products Laboratory

Wood Engineering Achievement Award
Taysuya Shibusawa, Ph.D.

The Wood Engineering Achievement Award recognizes accomplishments and innovations in the discipline of wood engineering including structures, structural elements, building codes, consensus standards, design procedures and education.

The 2019 winner of the Wood Engineering Achievement Award is Dr. Tatsuya Shibusawa. Dr. Shibusawa was hired by the Forestry and Forest Products Research Institute in 1994 and his passion to be scientist has been evident throughout the years. Scientific Integrity is essential to promoting science that benefits human and the quality of Dr. Shibusawa's work is extremely reliable. His work is based on unprecedented collection of data and repeated experiments. He is a walking "research integrity". Dr. Shibusawa organized BIOCOMP2012 "11th Pacific Rim Bio-Based Composites Symposium" in cooperation with IUFRO. He was a deputy coordinator of IUFRO Division 5.05.00.

Dr. Shibusawa has served as a chief editor of scientific wood engineering journals. He was awarded by the Japan Timber Engineering Society for his contribution to the study of wood engineering and for organizing associated standards.

Dr. Shibusawa has shown such excellent service to Japan's wood engineering society and FPS stands to benefit from Dr. Shibusawa's outstanding knowledge and learn from his attitude toward science.

L.J. Markwardt Award

The L.J. Markwardt Award recognizes the author(s) of a Forest Products Journal or Wood and Fiber Science technical paper published during the previous two years that has the most outstanding merit in the field of wood as an engineering material. This award encourages research and promotes knowledge of wood in the engineering field to enhance the efficient utilization of wood. This year, the selection was focused on Applied Engineering. The 2019 winning paper is:

"Fire Design of CLT in Europe"

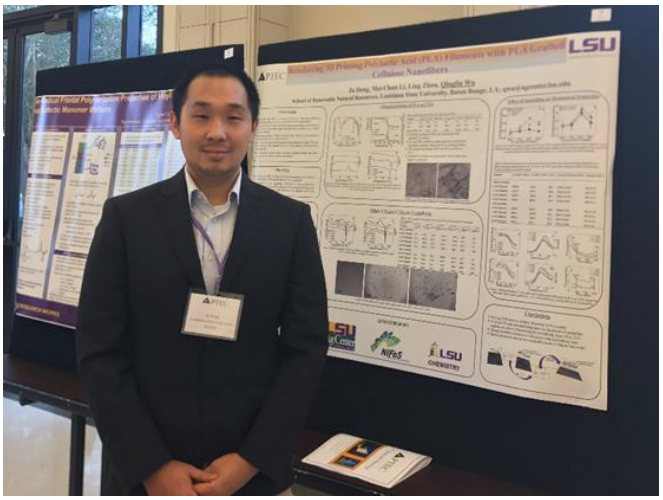
Authors: Birgit Anna-Lisa Östman, Joachim Schmid, Michael Klippel, Alar Just, Norman Werther, Daniel Brandon

The article was published in the ***Wood and Fiber Science,*** Vol. 50, Special edition on CLT, 2018.

Thanks to the 2019 Markwardt Award judges: **Mohammad Mohammad**, FPInnovations; **Thomas Lim**, Mississippi State University; **Jay Pu**, Huber Engineered Woods.

Wood Award

The Wood Award recognizes the most outstanding graduate student research conducted in the field of wood and wood products. Wood Award papers describe original research on a wide range of topics, including but not limited to harvesting and forest operations, product development and manufacture, fundamental properties, end-use applications, and distribution and marketing. The 2019 winners are:



First Place: Ju Dong

Louisiana State University-Baton Rouge

"3D printed conductive polycaprolactone composites integrated with carbonized cellulose nanofibers: toward the applications for electromagnetic interference (EMI) shielding and deformation sensing"

Mr. Ju Dong is a Ph.D candidate at Louisiana State University-Baton Rouge. He received his B.E. in Chemical Engineering from Jiangnan University, China in 2012, and his M.S. in Textile Chemistry from North Carolina State University in 2014.

In this paper, Mr. Dong developed a solvent drying approach to acquire dry cellulose nanofiber precursors. For the first time, carbonized solvent dried cellulose nanofibers was produced without loss of fibrous morphology. He also investigated the fundamentals of carbonized cellulose nanofibers, and explored its prospect to serve as a multifunctional filler for thermoplastic polycaprolactone composites. Demonstrated applications included reinforcing PCL composite films for improved tensile performances, combining with carbon black (CB) for producing a highly electrically conductive hybrid, and 3D printing electromagnetic interference shielding device and deformation sensor.

He is currently pursuing his Ph.D degree in Renewable Natural Resources under the guidance of Prof. Qinglin Wu. His research topic is "the use of cellulose nanofibers in polymer matrix composites via 3D printing". In particular, his research lies in synthesizing functional cellulose nanofibers through polymer grafting or continuous carbonization, and integrating them into thermoplastic composites via 3D printing. Such composites possess enhanced thermal, mechanical, electrical, and dielectric performances, and may find applications for reinforcing, deformation sensing, electromagnetic interference (EMI) shielding.

Second Place: Oluwatosin Oginni, Ph.D.

School of Natural Resources, West Virginia University

"Pyrolysis of dedicated bioenergy crops grown on reclaimed mine land in West Virginia"

Dr. Oluwatosin Oginni recently completed a doctoral degree in Forest Resources Science at the School of Natural Resources, West Virginia University, Morgantown, West Virginia, USA. During his doctoral program, Oginni was engaged in various research work related to forest products. He had successfully synthesized microporous carbons from Norway Spruce and Pine needle biomass and used them for adsorption applications and for making electrodes for supercapacitors. His dissertation research was focused on characteristics of activated carbons from herbaceous biomass and their use for water treatment. He has also assisted in an undergraduate research focused on "Thermal Treatment of Yellow-Poplar to Improve its Mechanical and Fungal Decay Characteristics" being conducted by two undergraduate students of Wood Science and Technology. Oginni has published two peer-reviewed articles and he is expected to submit three more journal articles. His research has been lauded by peers through a best paper award, American Chemical Society Certificate of Merit, and two presentation awards.

Thanks to the 2019 Wood Award Judges: **Jesse Paris**, Ph.D. (Willamette Valley Company), **Todd Miller**, Ph.D. (Hexion), and **Dr. Dan Hindman** (Virginia Tech).

POSTER SESSION

#	Abstract Title	Name - Company or University
1	Bending Properties of Multi-ply CLT Floor Panel Composed of Small Square Timber Core and Plywood Crossband	**Sang Sik Jang** - Chungnam National University
2	Evaluation of Impact Sound and Vibration of CLT Floor Panels Composed of Larch Square Timber Core and Plywood Cross Band	**Chun Won Kang** - Chonbuk National University
3	Comparison of Drying Stress in Lumber to Drying Stress in Solid Flooring	**Lyle Kindig** - Virginia Tech
4	Feasibility Study of Using Larix CLT for Shear Wall of Tall Wooden Building	**Keonho Kim** - National institute of Forest Science
5	Evaluation of Impact Sound Reduction of Floor Covering and Air-gap on CLT Floor Panels Composed of Larch Square Timber Core and Plywood Cross Band	**Chun Won Kang** - Chonbuk National University
6	Synthesis Development of Diethylene Tricarbamde as Monomer for Low Formaldehyde Emitting DF Resins and copolymer resins	**Moon Kim** - MIssissippi State University - Retired
7	Application of a Thermal Treatment on Yellow-Poplar to Promote its Outdoor Applications	**Connor Crowley** - West Virginia University
8	Safety Gluing for Areca Trunk Material Reuse	**Fang Lin Chao** - Department of Industrial Design, Chaoyang University of Technology
9	Microstructured Bio-based Composites for Higher Fire Resistant Properties	**Ganesh Sedhain** - Mississippi State University

#	Abstract Title	Name - Company or University
10	Product Form Deduction Based on Tenon and Mortise Joint Elements in Ancient Chinese Wooden Buildings	**Fang Lin Chao** - Department of Industrial Design, Chaoyang University of Technology
11	Factors Behind Construction Company's Purchasing Decisions of Wood Products and Insight into how Local Wood Product Suppliers can have a Bigger Market Impact	**Joseph Pomponi** - Virginia Tech
12	Evaluation of Mechanical Properties for Cross-laminated Timber with Different Lay-ups Using Japanese Larch	**Yingchun Gong** - Research Institute of Wood Industry, Chinese Academy of Forestry
13	The Use of Soy for Particleboard in OSB	**Alejandro Cardozo** - Auburn University
14	A Study on the Relationship Between Compressive Strength and Bending Strength to Predict the Strength Properties of Ply-lam CLT and CLT	**Seung Min Yang** - Chungnam National University
15	Compression Properties of a Wood-Based Sandwich Panel with Taiji Honeycomb Core	**Gloria Oporto** - West Virginia University
16	Woven Wood Veneer Strips for Enhancing the Impact Resistance of Plywood Panels	**Robert Scaplehorn** - West Virginia University
17	Mechanical and Morphological Properties of 3D Printed WF/EPDM-g-MA/PLA Composites Fabricated by Fused Deposition Modeling (FDM)	**Birm-June Kim** - Kookmin University
18	A Comparative Cradle-to-Gate Life Cycle Assessment of Cross Laminated Timber Made of Northern Hardwoods and Two Adhesives	**Munkaila Musah** - Michigan Technology University

#	Abstract Title	Name - Company or University
19	Preliminary Characterization of Physical Properties Species Used in Staircase Manufactures with Non-Destructive Test Results	**Cristian Grecca Turkot** - Mississippi State Univeristy
20	MWCNTs-COOH/cotton Flexible Supercapacitor Electrode Prepared by Improvement One-time Dipping and Carbonization Method	**Tianqi Hao** - Georgia Tech
21	Atomic Layer Deposition to Alter the Wetting and Thermal Properties of Lumber	**Jamie Wooding** - Georgia Tech
22	Association of Cellulose Nanomaterials with Polyelectrolyte Complex Coacervates	**Nasreen Khan** - Georgia Tech
23	Improving the Wet Strength of Nanopaper with Atomic Layer Deposited (ALD) Subnanometer Metal Oxide Coatings	**Yi Li** - Georgia Tech
24	Improving Manufacturing Data Quality with Data Fusion and Advanced Algorithms for Improved Data Quality Management	**David Christoph Juriga** - University of Tennessee

INTERNATIONAL CONFERENCE ON WOOD ADHESIVES

September 30 – October 2, 2020

PORTLAND, OREGON

The 12th International Conference on Wood Adhesives will be held Sept. 30 – Oct. 2, 2020 at the Portland Hilton Downtown hotel in Portland, Oregon, USA. This is one year earlier than originally planned, based on the strong interest and activity in bio-based adhesives.

The International Conference on Wood Adhesives is the premier technical conference on advances in adhesion of wood and biomass. Industry representatives were the majority of the 241 attendees in 2017, evenly split between the US and the rest of the world.

Whether you are an adhesive supplier or user or user of the downstream product; from industry, academia, government, or NGO, this conference provides a unique opportunity. Don't wait another 3-4 years.

If your business depends on having solid technical knowledge about glued wood products, this meeting is for you. We recruit the best technical thinking in the field of wood adhesives so you get the most value for your time invested and will have access to the proceedings.

Important Dates:

Call for Technical Symposia
Deadline August 5, 2019

Call for Abstracts
Opens December 1, 2019
Closes February 15, 2020

Notification of Acceptance
April 1, 2020

Registration
Opens April 15, 2020

Mark your calendar
for the next
International Convention

June 2020

Portland, Oregon