

Forest Products Society 2024 Award Winners Announced

June 7, 2024 – The Forest Products Society, a global network for forest products professionals, announces the winners of its 2023 Annual Excellence Awards. The awards will be presented during the International Conference being held in Knoxville, TN. The winners are:



Fred W. Gottschalk Memorial Award **Joseph Jakes, PhD**

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 2024 Gottschalk Award winner, **Joseph Jakes**, has supported the FPS through leadership roles throughout his career.

Joseph Jakes is a Research Materials Engineer in the Forest Biopolymer Science and Engineering group at the USDA Forest Service, Forest Products Laboratory in Madison, WI, USA. His current research interests include developing fundamental wood cell wall processing-structure-property-performance relationships with an emphasis on mechanical behavior, moisture sorption, and diffusion. This research has required the development of advanced material characterization techniques to probe structures and properties at small length scales, which have led to the development of innovative nanoindentation, X-ray, and neutron characterization techniques. The goal of this fundamental research is to accelerate the development of new and improved forest products. He received a BS in Chemical and Biological Engineering from the University of Wisconsin-Madison in 2005 and a PhD from the Materials Science Program at the University of Wisconsin-Madison in 2010.

Dr. Jakes has been an active member of the FPS since 2007 and has contributed in critical ways including proposal and oversight of efforts to change the procedure for determining the technical sessions for the International Convention (IC) and leading the effort to reinvigorate the Technical Interest Groups (TIGs). For example, prior to 2019 the IC technical sessions were arranged solely based on response to the call for papers with session chairs determined after the fact. Dr. Jakes suggested that sessions be proposed prior the call for papers and organized at that time by a session chair. This was an excellent suggestion, followed up by extraordinary leadership and involvement in the process so that it works today. He has also been strategic in proposing ways to grow membership of the FPS through reinvigorating the TIGs.



Wood Engineering Achievement Award – Engineering Innovation **Mostafa Mohammadabadi, PhD**

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 2024 winner of the Wood Engineering Achievement Award is **Mostafa Mohammadabi**.

Dr. Mostafa Mohammadabadi is an assistant professor in the department of Sustainable Bioproducts at Mississippi State University. He received his B.S. and M.S. degrees in Mechanical Engineering from his home country and his PhD in Materials Science and Engineering from Washington State University. His research focuses on engineered wood products and bio-based composites. To promote sustainability and expand the market for small diameter trees, he studies the utilization of underutilized bio-based materials for development of structural products. His research also covers simulation and modeling methods to accurately design and evaluate such engineered wood products. He is passionate about interdisciplinary research at the intersection of engineering and wood science.

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 2024 winners are:



First Place: Rakibul Hossain

University of Maine

“Cellulose Nanofibrils as a Bio-Based Binder for Wood Fiber Composite Insulation Panels with Enhanced Thermo-Mechanical Properties for Structural Wall Sheathing Applications”

Rakibul Hossain received his BS in Materials Science and Engineering from the University of Rajshahi, Bangladesh, and an MS in Bioproducts Engineering from the University of Maine, USA. He is a Ph.D. candidate in Forest Resources, specializing in Bioproducts Engineering under Dr. Mehdi Tajvidi at the University of Maine. Hossain has multiple publications in leading peer-reviewed journals and has received multiple awards at prestigious conferences organized by the Technical Association of the Pulp and Paper Industry (TAPPI) and the Forest Product Society. His research primarily focuses on the innovative use of renewable nanomaterials, such as cellulose nanofibrils, to develop novel nanocomposites for packaging and building applications, aiming to supplant petrochemical products. This pursuit showcases his commitment to sustainability and positions him at the forefront of advancing eco-friendly materials engineering solutions.



Second Place: Suman Pradhan

Mississippi State University

“The Effects of Densification on Rolling Shear Performance of Southern Yellow Pine Cross-Laminated Timber”

Suman Pradhan is currently pursuing a PhD. in Forest Resources from the Mississippi State University, supervised by Dr. Mostafa Mohammadabadi and is working on the development of hybrid cross-laminated timber by using small-diameter trees as corrugated wood-strand composite panels.



L.J. Markwardt Award Rafael da Rosa Azambuja, PhD

The L.J. Markwardt Award recognizes the author(s) of a *Forest Products Journal* 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 Engineering Practice (Applied Research).

The 2024 winning paper is:

“Cross-Laminated Timber Panels Produced from Low-Grade Yellow-Poplar Sorted by Structural Visual Grade”

Authors: Rafael da Rosa Azambuja; David B. DeVallance; Joseph McNeel; Gregory A. Dahle

The article was published in the *Forest Products Journal*, Vol. 73, Issue 2, 2023.

Rafael da Rosa Azambuja is a Forest Engineer from the Federal University of Santa Maria (UFSM), Brazil, with a Master's degree from the Federal University of Parana (UFPR), Brazil, and a Ph.D. in Forest Resources Science from West Virginia University (WVU), USA. His Ph.D. research focused on developing Cross-Laminated Timber panels produced from low-grade Appalachian hardwood. The study classified yellow-poplar lumber in different non-destructive evaluations, and panel lay-ups were developed and tested to maximize yield and bending resistance. Currently, Dr. Azambuja is sharing his findings in scientific papers and college talks in Brazil.



Distinguished Service Award Christopher Hunt, PhD

The **Distinguished Service Award** is presented to the individual who has demonstrated outstanding dedication to the Forest Products Society and biomaterials industry as a whole. The award recipient will have contributed to the society and the industry throughout their career through research, society leadership positions, and service.

Dr. Chris Hunt has been a research chemist at the USDA Forest Products Laboratory in Madison WI since 2004, where he heads the adhesives work group, specializing in protein adhesives. He has also been active in understanding the material science of wood, particularly diffusion and infiltration of water and chemicals through the wood cell wall, fungal decay mechanisms, and modified wood.

His service to FPS began as part of the organizing committee for the 2009 International Conference on Wood Adhesives. He has since been chair of the organizing committee in 2013, 2017, 2022, and is now again co-chair for the May 2025 meeting. While an active member, he has served on the international nominating committee, Midwest representative on the board, organized and chaired several sessions at FPS conferences, as well as organizing and

participating in several FPS workshops and short courses. He is hoping to see all the adhesives folks at the Wood Adhesive Conference in Vancouver BC in May 2025.

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ABOUT THE FOREST PRODUCTS SOCIETY

The Forest Products Society is an international, not-for-profit technical association founded in 1947 to provide an information network for all segments of the forest products industry. Its mission is to contribute to global stewardship by encouraging the social, economic and environmentally sustainable use of wood and other renewable cellulosic materials.

Membership is open to all interested individuals and organizations. Visit ForestProd.org for more information.