

Jasmeet Lamba

Associate Professor
Biosystems Engineering Department
Auburn University, Auburn, AL 36849-5417
Tel- (334) 844-3531; Email- jsl0005@auburn.edu

Education

Ph.D.	Biological Systems Engineering	University of Wisconsin-Madison, WI	2014
M.S.	Civil Engineering	Auburn University, Auburn, AL	2009
B.S.	Agricultural Engineering	Punjab Agricultural University (India)	2007

Professional Experience

Aug. 2021-present	Associate Professor, Biosystems Engineering Department, Auburn University, Auburn, AL
Aug. 2015-July 2020	Assistant Professor, Biosystems Engineering Department, Auburn University, Auburn, AL
Aug. 2014-July 2015	Post-doctoral Scholar, Department of Ecosystem Science and Management, Pennsylvania State University, University Park, PA
Jan. 2010-July 2014	Graduate Research Assistant, Biological Systems Engineering Department, University of Wisconsin-Madison, Madison, WI
Aug. 2007-Dec. 2009	Graduate Research Assistant, Biosystems Engineering Department, Auburn University, Auburn, AL

Journal Articles

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1. Kumar, H., P. Srivastava, **J. Lamba**, B.V. Ortiz, T.R. Way, L. Sangha, B. Takhellambam, G. Morata, and R. Molinari. 2022. Within-field variability in nutrients for site-specific agricultural management in irrigated cornfield. *Journal of the ASABE*. 65(4):865-880. <https://doi.org/10.13031/ja.15042>.
 2. Kumar, H., P. Srivastava, **J. Lamba**, E. Diamantopoulos, B. Ortiz, G. Morata. B. Takhellambam, and L. Bondesan. 2022. Site-Specific Irrigation Scheduling Using One-Layer Soil Hydraulic Properties and Inverse Modeling. *Agricultural Water Management*. 273: 107877. doi:<https://doi.org/10.1016/j.agwat.2022.107877>.
 3. Takhellambam, B.S., P. Srivastava, **J. Lamba**, R.P. McGehee, H. Kumar and D. Tian. 2022. Temporal disaggregation of hourly precipitation under changing climate over the Southeast United States. *Scientific Data* 9: 211. doi:10.1038/s41597-022-01304-7.
 4. Budhathoki, S., **J. Lamba**, P. Srivastava, C. Williams, F. Arriaga and K.G. Karthikeyan. 2022. Impact of land use and tillage practice on soil macropore characteristics inferred from X-ray computed tomography. *CATENA* 210: 105886. doi:<https://doi.org/10.1016/j.catena.2021.105886>.
 5. Budhathoki, S., **J. Lamba**, P. Srivastava, K. Malhotra, T.R. Way, and S. Katuwal. 2022. Temporal and

- Spatial Variability in 3D Soil Macropore Characteristics Determined Using X-ray Computed Tomography. *Journal of Soils and Sediments*. <https://doi.org/10.1007/s11368-022-03150-x>
6. Budhathoki, S., **J. Lamba**, P. Srivastava, K. Malhotra, S. Katuwal, and T. R. Way. 2022. Using X-ray Computed Tomography to Quantify Variability in Soil Macropore Characteristics in Pastures. *Soil and Tillage Research*. 215: 105194. doi:<https://doi.org/10.1016/j.still.2021.105194>.
 7. Singh, R., R. Prasad, B. Guertal, K. Balkcom and **J. Lamba**. 2021. Effects of Broiler Litter Application Rate and Time on Corn Yield and Environmental Nitrogen Loss. *Agronomy Journal*. doi:<https://doi.org/10.1002/agj2.20944>.
 8. Kumar, K., P. Srivastava, B. V. Ortiz, G. Morata, B. S. Takhellambam, **J. Lamba**, and L. Bondesan. 2021. Field-Scale Spatial and Temporal Soil Water Variability in Irrigated Croplands. *Transactions of the ASABE*: 64 (4), 1277-1294. doi: 10.13031/trans.14335
 9. Bhatta, A, R. Prasad, D. Chakraborty, J.N. Shaw, **J. Lamba**, E. Brantley, H.A. Torbert. 2021. Mehlich 3 as a Generic Soil Test Extractant for Environmental Phosphorus Risk Assessment Across Alabama Soil Regions. *Agrosyst Geosci Environ*. 2021; 4:e20187. <https://doi.org/10.1002/agg2.20187>
 10. Sangha, L., **J. Lamba**, and H. Kumar. 2020. Effect of ENSO Based Upstream Water Withdrawals for Irrigation on Downstream Water Withdrawals. *Hydrology Research* 51(4): 602-619. <https://doi.org/10.2166/nh.2020.156>.
 11. Sangha, L., **J. Lamba**, H. Kumar, P. Srivastava, M. Dougherty and R. Prasad. 2020. An Innovative Approach to Rainwater Harvesting for Irrigation Based on ENSO Forecasts. *Journal of Soil and Water Conservation* 75(5): 565-578 doi:10.2489/jswc.2020.00085.
 12. Karki, R., P. Srivastava, D.D. Bosch, L. Kalin, **J. Lamba**, and T.C. Strickland. 2020. Multivariable Sensitivity Analysis, Calibration, and Validation of a Field-scale SWAT Model: Building Stakeholder Trust in Hydrologic/water quality Modeling. *Transactions of the ASABE* 63(2): 523-539. doi: 10.13031/trans.13576 .
 13. Malhotra, K., **J. Lamba** and S. Shepherd. 2020. Sources of Stream Bed Sediment in an Urbanized Watershed. *CATENA* 184, 104228. <https://doi.org/10.101/j.catena.2019.104228>.
 14. **Lamba, J.**, P. Srivastava, T.R. Way and K. Malhotra. 2019. Effect of Broiler Litter Application Method on Metal Runoff from Pastures. *Journal of Environmental Quality* 48 (6), 1856-1862. doi:10.2134/jeq2018.08.0318.
 15. **Lamba, J.**, K.G. Karthikeyan, A.M. Thompson, K. Malhotra, N.L.H. Huisman and G. Peaslee. 2019. Using Atmospheric Fallout Radionuclides ¹³⁷Cs and ²¹⁰Pbxs to Identify Suspended Sediment Sources in an Agricultural Watershed. *Transactions of the ASABE*: 62 (2), 529-538. doi: 10.13031/trans.12976
 16. Good, L., R. Carvin, **J. Lamba** and F. Fitzpatrick. 2019. Seasonal Variation in Sediment and Phosphorus Yields in Four Wisconsin Agricultural Watersheds. *Journal of Environmental Quality* 48(4): 950-958. doi: 10.2134/jeq2019.03.0134.
 17. Arora, P., **J. Lamba**, P. Srivastava and L. Kalin. 2019. Modeling Effectiveness of Broiler Litter Application Method for Reducing Phosphorus and Nitrogen Losses. *Hydrology Research* 50(4): 1047-1061. <https://doi.org/10.2166/nh.2019.017>.
 18. Malhotra, K., **J. Lamba**, P. Srivastava, & S. Shepherd. 2018. Fingerprinting Suspended Sediment Sources in an Urbanized Watershed. *Water*, 10(11), 1573.
 19. **Lamba, J.**, P. Srivastava, S. Mitra and T.R. Way. 2018. Using Soil Phosphorus Measurements to Assess

- the Effectiveness of Subsurface-Band Application of Broiler Litter in Reducing Phosphorus Leaching. *Transactions of the ASABE* 61(1): 133-138.
20. Mitra, S., P. Srivastava, and **J. Lamba**. 2018. Probabilistic assessment of projected climatological drought characteristics over the Southeast USA. *Climatic Change*. 147: 601. <https://doi.org/10.1007/s10584-018-2161-y>.
 21. **Lamba, J.**, A.M. Thompson, K.G. Karthikeyan, J. Panuska, and L. Good. 2016. Effect of best management practice implementation on sediment and phosphorus load reductions at subwatershed and watershed scale using SWAT model. *International Journal of Sediment Research*. DOI: <http://dx.doi.org/10.1016/j.ijsrc.2016.06.004>
 22. **Lamba, J.**, A.M. Thompson, K.G. Karthikeyan, and Faith A. Fitzpatrick. 2015. Sources of Fine Sediment Stored in Agricultural Lowland Streams, Midwest, USA. *Geomorphology*. 236:44-53.
 23. **Lamba, J.**, T.R. Way, P. Srivastava, and D. B. Watts. 2015. A method for Subsurface-Banding Poultry Litter in Plots Not Accessible with Conventional Field Equipment. *Applied Engineering in Agriculture*. 31(4): 555-558.
 24. **Lamba, J.**, K.G. Karthikeyan, and A.M. Thompson. 2015. Apportionment of Suspended Sediment Sources in an Agricultural Watershed Using Sediment Fingerprinting. *Geoderma*. 239–240 :25-33.
 25. **Lamba, J.**, K.G. Karthikeyan, and A.M. Thompson. 2015. Using Radiometric Fingerprinting and Phosphorus to Elucidate Sediment Transport Dynamics in an Agricultural Watershed. *Hydrological Processes*. 29(12): 2681-2693.
 26. **Lamba, J.**, P. Srivastava, T.R. Way, S. Sen, C.W. Wood, and K. Yoo. 2013. Nutrient Loss in Leachate and Surface Runoff from Surface-Broadcast and Subsurface-Banded Broiler Litter. *Journal of Environmental Quality*. 42(5): 1574-1582.
 27. Huisman, N.L.H., K.G. Karthikeyan, **J. Lamba**, A.M. Thompson, and G. Peaslee. 2013. Quantification of Seasonal Sediment and Phosphorus Transport Dynamics in an Agricultural Watershed Using Radiometric Fingerprinting Techniques. *Journal of Soils and Sediments*. 13(10): 1724-1734.
 28. **Lamba, J.**, T.R. Way, P. Srivastava, S. Sen, C.W. Wood, and K. Yoo. 2012. Surface Transport of Nutrients From Surface-Broadcast and Subsurface-Banded Broiler Litter. *Transactions of the ASABE*. 55(3): 995-1002.
 29. Way, T.R., **J. Lamba**, and P. Srivastava. 2011. A method for Installing Zero-Tension Pan and Wick Lysimeters in Soil. *Applied Engineering in Agriculture*. 27(5): 747-755.

Conference Proceedings

1. Takhellambam, B.S., P. Srivastava, **J. Lamba**, R.P. McGehee, H. Kumar and D. Tian. 2022. Projected Rainfall Erosivity Under Climate Change in the Southeastern United States. Paper presented at the 2022 ASABE Annual International Meeting, Houston, TX. Paper No. 2200176, pages 1-9 (doi: 10.13031/aim.202200176).
2. Kumar, H., P. Srivastava, **J. Lamba**, B. Ortiz, T. R. Way, L. Sangha, B. S. Takhellambam, G. Morata, G. 2021. Phosphorus Variability in the Irrigated Cropland During a growing season. Paper presented at the

- 2021 ASABE Annual International Virtual Meeting, St. Joseph, MI.
<https://elibrary.asabe.org/abstract.asp?aid=52646&t=5>
3. Malhotra, K., **J. Lamba**, and S. Shepherd. 2018. Sediment fingerprinting to identify sources of stream bed sediment in an urbanized watershed. 2018 ASABE Annual International Meeting ASABE Paper No. 1801826. doi:10.13031/aim.201801826
 4. **Lamba, J.**, A.M. Thompson, J. Panuska, and K.G. Karthikeyan. 2011. Identifying Sources of Suspended Sediment using Radionuclides in an Agricultural Watershed in South Central Wisconsin. Paper number 11027, International Symposium on Erosion and Landscape Evolution (ISELE), 18-21 September 2011, Anchorage, Alaska. (doi: 10.13031/2013.39227)

Outreach Publications (Extension Timely Information Sheet)

1. Sangha, L., **J. Lamba**, H. Kumar, P. Srivastava, R. Prasad, B. Ortiz, and M. Dougherty and R. Prasad. 2021. ENSO Forecasts to Plan Water Withdrawals for Irrigation (September 2021 ANR-2832).
2. Ortiz, B.V., G.T. Morata, H. Kumar, **J. Lamba**, B.P. Lena, L. Bondesan, L. Sangha, P. Srivastava, L. Duzy, T. Raper, and D. Davis. 2021. . Increasing Adoption of Climate- & Water-Smart Irrigation Practices Among Tennessee Valley Farmers in Alabama & Tennessee: Findings and Lessons Learned (October 2021, ANR-2776).
3. Ortiz, B.V., G.T. Morata, H. Kumar, B.P. Lena, **J. Lamba**, L. Bondesan, L. Sangha, P. Srivastava, L. Duzy, T. Raper, and D. Davis, 2021. Increasing Adoption of Climate- & Water-Smart Irrigation Practices Among Tennessee Valley Farmers in Alabama & Tennessee: Findings and Lessons Learned (2017-2021) (October 2021 ANR-2777).
4. Sen, S., T. Way, P. Srivastava, **J. Lamba**, and M. Kent Stanford. 2010. Water Quality Benefits of Subsurface-Banded Poultry Litter. (September 2010).

Awards and Honors

1. Dean's Grantsmanship Award, College of Agriculture, Auburn University, 2020
2. 2019 Class of New Faces of American Society of Agricultural and Biological Engineers – Professionals
3. Distinguished Young Engineer Award, Alabama (AL) Section American Society of Agricultural and Biological Engineers (ASABE)
4. Dean's Grantsmanship Award, College of Agriculture, Auburn University, 2018
5. Alabama Agricultural Experiment Station Multistate Travel Grant Award (2016 and 2018).
6. ASABE Superior Paper Award, 2013: Journal articles published by the American Society of Agricultural and Biological Engineers (ASABE) in "Transactions of the ASABE" and "Applied Engineering in Agriculture" are eligible for paper awards. Each ASABE division selects up to 5% of the papers for an award.
 - Paper Information: **Lamba, J.**, T. Way, P. Srivastava, S. Sen, C.W. Wood, and K. Yoo. 2012. Surface Transport of Nutrients From Surface-Broadcast and Subsurface-Banded Broiler Litter. *Transactions of the ASABE*. 55(3): 995-1002.
7. Vilas Conference Presentation Award, University of Wisconsin-Madison, 2013
8. Gamma Sigma Delta, The Honor Society of Agriculture
9. Alpha Epsilon, Agricultural Engineering Honor Society