

Shweta Singh
Associate Professor, Agricultural & Biological Engineering; Ecological & Environmental Engineering
PhD 2012, The Ohio State University
MS 2011, The Ohio State University
BS 2006, Indian Institute of Technology
Teaches - ABE 30700

Recent Papers

S Singh. 2022. Networking for food production. Nature Sustainability 5 (9), 731-732.

W Farlessyost, S Singh. 2022. Reduced order dynamical models for complex dynamics in manufacturing and natural systems using machine learning. Nonlinear Dynamics, 110, 1613-1631.

N Mathur, JW Sutherland, S Singh. 2022. A study on end of life photovoltaics as a model for developing industrial synergistic networks. Journal of Remanufacturing, 1-21.

R Subramanian, RR Moar, S Singh. 2021. White-box Machine learning approaches to identify governing equations for overall dynamics of manufacturing systems: A case study on distillation column. Machine Learning with Applications 3, 100014.

S Singh, C Babbitt, G Gaustad, MJ Eckelman, J Gregory, E Ryen, N Mathur, MC Stevens, A Parvatker, R Buch, A Marseille, T Seager. 2021. Thematic exploration of sectoral and cross-cutting challenges to circular economy implementation. Clean Technologies and Environmental Policy, 23, pp 915–936.

VZ Schull, S Mehan, MW Gitau, DR Johnson, S Singh, JP Sesmero, DC Flanagan. 2021. Construction of Critical Periods for Water Resources Management and Their Application in the FEW Nexus. Water 2021, 13, 718.

VSG Vunnava, J Shin, L Zhao, S Singh. 2021. PIOT-Hub-A collaborative cloud tool for generation of physical input—output tables using mechanistic engineering models. *J Ind Ecol* 26:107-120.

VSG Vunnava, S Singh. 2021. Integrated Mechanistic Engineering Models and Macroeconomic Input-Output approach to Model Physical Economy for Evaluating the Impact of transition to Circular Economy. *Energy Environ Sci.*, 14, 5017-5034.

T Maani, N Mathur, S Singh, C Rong, JW Sutherland. 2021. Potential for Nd and Dy Recovery from End-of-Life Products to Meet Future Electric Vehicle Demand in the US. Procedia CIRP 98, 109-114.

F. Faturay, V.S.G Vunnava, M. Lenzen, S. Singh 2020. Using a new USA multi-region input-output (MRIO) model for assessing economic and energy impacts of wind energy expansion in USA, Applied Energy, Vol. 261, 114141

N Mathur, S. Singh, JW Sutherland. 2020. Promoting a circular economy in the solar photovoltaic industry using life cycle symbiosis. Resources Conservation & Recycling, Vol. 155, 104649

V.S.G. Vunnava, S. Singh. 2020 Spatial Life Cycle Analysis of Soybean-Based Biodiesel Production in Indiana, USA using Process Modeling. Processes, 8(4), 392

L Wachs, S Singh. 2020. Projecting the urban energy demand for Indiana, USA, in 2050 and 2080. Climatic Change 163 (4), 1949-1966.

L Raymond, D Gotham, W McClain, S Mukherjee, R Nateghi, PV Preckel, P Schubert, S Singh, E Wachs. 2020. Projected climate change impacts on Indiana's energy demand and supply. Climatic change 163 (4), 1933-1947.

VSG Vunnava, S. Singh. 2019. Entropy generation analysis of sequential Anaerobic Digester Ion-Exchange technology for Phosphorus extraction from waste. Journal of Cleaner Production, 221, pages 55-62