



Dr. Debalina Sengupta's research focuses on sustainability in process systems engineering, encompassing process design, integration, optimization, life cycle assessment, and sustainable supply chain design for biofuels, natural gas, consumer products, and waste valorization. She has recently expanded her work to include energy transition, sustainable manufacturing, advanced manufacturing, and disaster resilient design, while also developing educational modules for sustainable manufacturing.

Currently serving as Assistant Vice President of the Energy Transition Institute at the University of Houston, Dr. Sengupta previously held leadership roles including Coastal Resilience Program Director for Texas Sea Grant at Texas A&M University, Associate Director of the TEES Gas and Fuels Research Center, and Water, Energy and Food Nexus Coordinator at Texas A&M Energy Institute. Her current research interests center on resilience in the process industrial sector under disaster conditions and energy transition.

Dr. Sengupta has authored two books: "Chemicals from biomass: integrating bioprocesses into chemical production complexes for sustainable development" (CRC Press, 2012) and "Measuring Progress towards Sustainability" (Springer, 2017), along with numerous peer-reviewed publications, book chapters, and conference proceedings. She is passionate about quantifying sustainability into actionable implementation and works with diverse underrepresented communities globally.