Sandun D. Fernando, PE, professor and associate department head for graduate programs in the biological and agricultural engineering department at Texas A&M University, is being honored for his pioneering contributions to biomolecular engineering, sustainable bioenergy, and agricultural biotechnology, including innovations in therapeutic peptide design, antiviral compounds, and advanced biosensor technologies.

Fernando specializes in biomolecular engineering, focusing on nanoscale molecular constructs to regulate catalysis in biological processes. His research integrates nanotechnology, modeling, and simulations to develop solutions that leverage interfacial phenomena and enzyme catalysis to improve agricultural productivity, energy sustainability, and human health. A key aspect of his work is designing molecules with novel catalytic properties. His team develops metal complexes, peptides, and polynucleotides for diverse applications in agriculture, bioenergy, and health-related fields.

Fernando has made significant contributions to biomolecular engineering through his patents and scientific research. His patented method for deoxygenation of biomass oxygenates to advances sustainable fuel production. He also developed a moisture displacement and algae surface-functionalization, an extraction technique for biofuel applications. In agricultural biotechnology, his specifically targeted binders and antimicrobial peptides (STAMPs) provisional patent addresses citrus crop pathogens. His recent disclosure on metal nucleobase coordination compounds as broad-spectrum antiviral therapeutics introduces novel antiviral compounds. Fernando has also led the development of the Highly Optimized Peptide Engineering (HOPE) algorithm, a state-of-the-art platform for generating highly selective therapeutic peptides against challenging disease targets.

Fernando is a 26-year member of ASABE. He has served as an associate editor for the *Transactions of ASABE and Applied Engineering in Agriculture* since 2006, receiving service recognition for his work with the Processing Systems and Energy Systems Technical Communities. He also chaired and served as past-chair of the Biobased Energy, Fuels, and Products committee.

Fernando has an extensive record of scientific contributions, marked by over 100 peer-reviewed publications in high-impact journals, which have garnered nearly 10,000 citations, earning him recognition as a highly cited researcher by Thomson Reuters in 2014 and placement among the 150 most-cited scholars in energy research by Elsevier Scopus in 2016. His significant contributions to biomolecular engineering are further evidenced by his receipt of the Dow Professorship in Bioprocess Engineering at TAMU in 2022, the faculty fellow designation from Texas AgriLife Research & Texas A&M University System in 2019, the Texas A&M University Association of Former Students Distinguished Teaching award in 2014, and the Vice Chancellor's Award for Teaching Excellence in 2015.