



Serpil Guran

FACULTY TEACHING SEMINAR

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INTEGRATING WASTE AS A “RESOURCE” INTO CIRCULAR ECONOMY

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Wednesday April 16, 2025, 10:00am to 11:00am

Cook Office Building, 55 Dudley Road, Conference Room 118



<https://rutgers.zoom.us/S.Guran>

Meeting ID: 935 7772 1328

Passcode: 646446



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Humanity stands at a historic economic and cultural crossroads. Do we still need to continue our linear model of “take-make-use” or can we pivot to circular economy with fresh tools and systems for a deliverable paradigm shift? The concept of “circular economy” has attracted interest of various stakeholders with varying definitions and achievement goals. Circular economy can promote sustainable development and positively contribute to carbon footprint reduction by revaluing waste as a resource. Emphasizing the transformation of linear make-it/use-it/dispose-it pathway to circular resource recovery pathway can provide better results for economies. Integrating components of waste especially organic waste, plastic waste and electronic waste back into the economy is going to help achieving better economic results and also help reducing carbon emissions. In this presentation, we will explore how organic components of campus waste reutilization options would support circular economy concept. We will also emphasize the important contribution of “Living Laboratory” concept for experimental learning for students when we are revaluing campus organic waste.

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Serpil Guran currently serves as the Director of Rutgers EcoComplex “Clean Energy Innovation Center”. She promotes sustainability, waste reutilization, circular economy and climate change mitigation by reutilizing waste. She is a chemical engineer with masters in chemical engineering and Ph.D. in Fuel and Energy Engineering. Prior to her current position at Rutgers EcoComplex, she served as senior research scientist at New Jersey Department of Environmental Protection. She also served as a post-doc researcher at Mechanical and Aerospace Engineering Department of Princeton University and as a research associate at National Renewable Energy Laboratory (NREL) in Golden, CO. She has numerous publications including peer reviewed journal articles, book chapters and conference presentations.