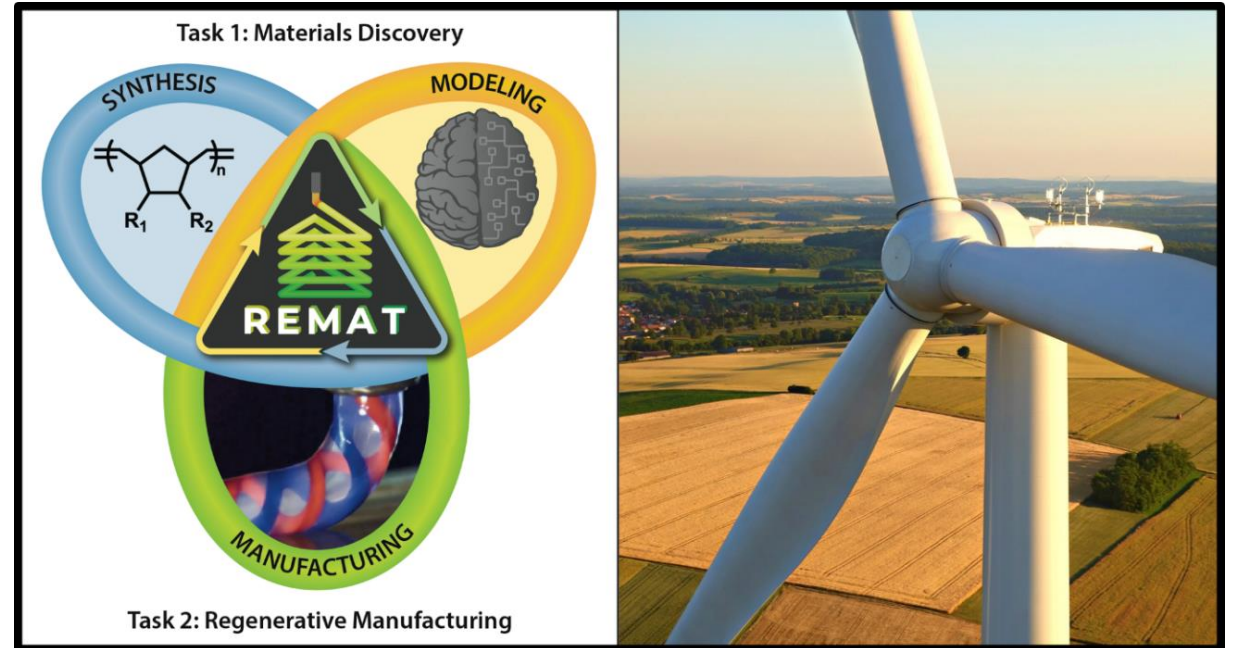


Regenerative Energy-Efficient Manufacturing of Thermoset Polymeric Materials (REMAT)

Nancy Sottos (University of Illinois Urbana-Champaign); Class: 2022-2026

MISSION: To advance the science of thermochemical reaction-diffusion processes in additive and morphogenic manufacturing and accelerate a transformative, circular strategy for thermoset polymeric and composite materials with programmed end-of-life.



RESEARCH PLAN: The Center's goal is to discover thermoset resin formulations that enable (i) closed-loop controlled, energy-efficient additive manufacturing, (ii) nascent morphogenic manufacturing strategies, (iii) programmed end-of-life upcycling, and (iv) precise understanding of the chemistry and physics that control properties, performance and multifunctionality for (re)use in structural materials.

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