



Indian Institute of Technology Indore

10th Anniversary Celebration of IIT Indore

Special Lecture

By

Professor Ganti S. Murthy

Oregon State University

"Systems Approach for a Resource Constrained World"

Abstract:

It is evident that we live in a growing world with limited water, land and nutrient resources subjected to uncertain climate variations and increasing demands for these resources. Long term viability and resilience of our agricultural and food systems is an imperative that needs to be addressed using systems approaches. Bioprocessing and systems analysis research will play a critical role as a bridge between the fundamental and applied research in various disciplines to bring solutions that ensure the long-term sustainability of our production systems and the natural environment. We must address challenges in the context of food-energy-water nexus to develop sustainable technologies and resilient strategies. It is essential to understand the linkages from a systems perspective to enable integrated analysis to facilitate the development of sustainable and resilient technologies and policies. Any solution must be technically feasible, economically viable, environmentally beneficial, resource sustainable and societally acceptable.

Schedule & Venue

11:00 AM, FEBRUARY 1st, 2019

SB 309, Helium Building

IIT Indore, Simrol, Khandwa Road, Indore



About the Speaker: Ganti S. Murthy is a Professor in Biological and Ecological Engineering Dept. at Oregon State University. He is a co-founder of EarthWISE Engineering LLC, a resource recovery company focusing on recovering fertilizers, metals and organics from landfill leachate. His research is broadly focused on sustainable bioprocessing. For any proposed technology or policy, Murthy group seeks to answer the question: "Is this approach technically feasible, economically viable, resource sustainable and has lower environmental impacts compared to alternatives? If not, how can we make it so?" His group employs a combination of experimental and theoretical approaches to conduct molecular, cellular, industrial scale and systems level analyses of technologies to establish a sustainable bioeconomy. His group is researching the nutrient-energy-water nexus at regional and global scale with focus on building resilience of agro-ecological systems to pulse and pressure disturbances.