

Online Workshop on

Food-Energy-Water Nexus: Challenges and Recent Developments

The world may be approaching a critical threshold that will make it difficult to provide adequate food, energy, and water for a human population that is increasing in size and per capita consumption. It is well-known that food, energy, and water (FEW) systems are interconnected. Energy production is often water consumptive (e.g., biofuels, hydropower), while making water available for utilization requires energy. Food adds another layer of complexity with all three dependent on each other.

Indian Institute of Technology Bombay (IITB), University of Illinois, Chicago (UIC), and The Ohio State University (OSU), are jointly organizing a lecture series titled **“Food-Energy-Water Nexus: Challenges and Recent Developments”**. The lecture series will highlight the challenges while dealing with the FEW nexus, including its connection to the larger issue of sustainable development. Subsequently, the lecture series will focus on specific research problems related to FEW nexus. The speakers will provide specific details on the research problems they are working on, and identify future research challenges.

The lectures will be conducted in an interactive manner, intended to promote discussions, debate, and brainstorming. The lecture series will benefit many across various disciplines of science and technology. It is of interest to serving teachers and researchers, UG, PG and doctoral students, and laboratory scientists. Participants from various branches of engineering, including chemical, civil, environmental, mechanical, and industrial, as well as fields such as biotechnology and business administration will find it useful.

The lecture series is organized through the MHRD funded SPARC initiative. Lectures will be conducted using a web-based meeting platform. Participation is free but registration is required. Interested participants can register at:

<https://forms.gle/wVa8ocpsZW4G7nkT8>

Speakers:



Prof. Yogendra Shastri

Department of Chemical Engineering
Indian Institute of Technology Bombay



Prof. Urmila Diwekar

Department of Bioengineering
University of Illinois at Chicago, USA



Prof. Haripriya Gundimeda

Dept. of Humanities and Social Sciences
Indian Institute of Technology Bombay



Prof. Bhavik Bakshi

Department of Chemical and Biomolecular Eng.
The Ohio State University, USA

Lecture Schedule:

Lecture	Date	Topic	Speaker
Lecture 1	7/12/20	FEW nexus: Status, challenges and research needs	Yogendra Shastri (IIT Bombay) (other speakers as panelists)
Lecture 2	9/12/20	Policy alternatives for addressing FEW nexus and case studies	Haripriya Gundimeda (IIT Bombay)
Lecture 3	11/12/20	FEW nexus in sustainability assessment and design	Bhavik Bakshi (OSU)
Lecture 4	14/12/20	Global food-energy-water nexus: System dynamics-based study	Urmila Diwekar (UIC)
Lecture 5	16/12/20	Food-energy-water nexus in the biofuel sector: Case study of India	Yogendra Shastri (IIT Bombay)

Modalities:

- Each session will be 2 hours: 1.5 hours lecture followed by interaction session
- Lectures will involve surveys and opinion polls related to the topic being discussed
- All lectures will be scheduled between 5-7 PM IST
- Attendance will be taken during each lecture
- Participation is free but registration necessary
- E-certificates will be provided subject to approval by MHRD
- All sessions will be recorded

Contact person

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