

The **Department of Microbiology** has organized a webinar on “**Advancements In The Development Of Second-Generation Biofuels**” on **11<sup>th</sup> October, 2021** at 4:00 pm on Google meet. The lecture in this webinar was given by **Dr. Syed Shams Yazdani**, Group Leader, Microbial Engineering International Centre For Genetic Engineering And Biotechnology (Icgeb), New Delhi.

Dr. Syed Shams Yazdani is Group Leader of the Microbial Engineering group and Coordinator of DBT-ICGEB Centre for Advanced Bioenergy Research at the International Centre for Genetic Engineering and Biotechnology in New Delhi, India. His research Interests are in metabolic engineering, synthetic biology, cellulolytic enzymes, and biofuels. He holds a BSc (Hons) degree in Chemistry from Aligarh Muslim University and MSc and PhD degree in Biotechnology from Jawaharlal Nehru University. His group is currently involved in development of technologies for fungal enzymes, C5/C6 sugar fermentation and advanced biofuels production, such as butanol, fatty alcohols and alkanes.



REC Shams Yazdani is presenting

## First Generation Biofuels are not Sustainable

The diagram illustrates the sustainability of first-generation biofuels. It is divided into two main categories: **Conventional biofuels** and **Advanced biofuels**. The process is shown across three generations:

- 1st generation:**
  - Conventional:** Edible biomass (corn, sugarcane) is used for Bioethanol. Starch and sugars are used for Biodiesel.
  - Advanced:** Edible biomass (vegetable oil) is used for Biodiesel.
- 2nd generation:** Non-edible biomass (cellulose, hemicellulose, lignin, and pectin) is used for both Bioethanol and Biodiesel.
- 3rd generation:** Algal biomass is used for carbohydrates and algal lipids.

4:28 PM | fum-zvqr-xvd

Participant grid (top right):

- Nitin Chauhan
- Shams Yazdani (Presenting)
- Anjana Kapoor
- Dr. A. Archana
- Sunil Srivastava
- 5028Aman Rai
- lakshna mahajan
- 40 others
- You

REC

Participant grid (bottom):

- 4615\_Vanshik...
- sweta yadav
- Dr. A. Archana
- Shams Yazd...
- Nitin Chauhan
- Sunil Srivasta...
- 4608 Abhika...
- lakshna mah...
- Dr. Ashima Vo...
- Jatin Kumar
- Achintya Tiwari
- 4416, Shakti ...
- 4611 Simar Ch...
- 5023 Kashish ...
- parvinder kaur
- 5028Aman Rai
- 4622 Pulkit G...
- Trishna Rai
- 4601 Anshita Mehra has left the meeting
- Amisha Bhati...
- 4609 vishal p...
- Hrutik Bhorka...
- 5003 Simran ...
- 4619 Shivangi...
- 11 others
- You



**SWAMI SHRADDHANAND COLLEGE  
(UNIVERSITY OF DELHI)  
DEPARTMENT OF MICROBIOLOGY**



*INVITES YOU TO JOIN A WEBINAR ON*  
**ADVANCEMENTS IN THE  
DEVELOPMENT OF SECOND-GENERATION  
BIOFUELS**  
*ON*

*11 October, 2021 at 4:00 pm on Google meet*  
<http://meet.google.com/fum-zvqr-xvd>



**SPEAKER**  
**DR. SYED SHAMS YAZDANI**  
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**PATRON AND PRINCIPAL**  
**PROF. PARVEEN GARG**



**DR. ANJANA KAPOOR**  
CONVENOR AND TIC

**DR. SWETA YADAV**  
CO-CONVENOR

**DR. NITIN CHAUHAN**  
CO-CONVENOR