

Report of International Webinar on
'Sustainable Circular Economy-A Solution to Global Issues'

This is hereby reported that an International Webinar on '**Sustainable Circular Economy-A Solution to Global Issues**' was organized by Shyam Lal College, University of Delhi under the aegis of DBT Star College Scheme in collaboration with IQAC on **23rd July 2021** using Zoom as an online platform (**Annexure 1**). **Dr. Ashish Pandey**, Principal Chemist at CalAgua Innovations Corporation at University of Calgary in Canada, was the keynote speaker of the day. He talked about the growing concerns of global warming, depletion of natural resources and shared a plethora of sustainable areas in which he is working in order to create a circular economy such as CO₂ storage, its utilization, biomass valorisation and use of other green and sustainable technologies. More than 150 participants, including students from various disciplines, teachers, some retired faculty members and even the alumni students of the college attended the webinar with great enthusiasm. The feedback forms reflected that a majority of participants found the webinar to be very useful and informative and were highly satisfied with the ideas and concepts so presented (**Annexure 2**). For this overwhelming success, the organizers are very thankful to **Prof. Rabi Narayan Kar** (Principal, SLC) and **Dr. Kusha Tiwari** (Coordinator IQAC) for their support and guidance throughout the organization of this event. Glimpses of the event and attendance of those submitted the feedback forms is attached herewith as **Annexure 3** and **4**, respectively.

Annexure 1



SLC (University of Delhi)
SHYAM LAL COLLEGE



Department of
BioTechnology,
Government
of India

सत्यमेव जयते

*under the aegis of DBT Star College Scheme
in collaboration with IQAC*

Organizes

International Webinar

on

Sustainable Circular Economy: A Solution to Global Issues



**23rd July
2021
10 00 IST**

**By Dr. Ashish Pandey
Principal Chemist, CalAgua
Innovations Corp.
University of Calgary, Canada**

Organizing platform



**e-certificates
will be given!**



**REGISTER FREE !
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Or click on**

[https://forms.gle/9Qc9j
W4kRTHRtypU7](https://forms.gle/9Qc9jW4kRTHRtypU7)

ORGANIZING MEMBERS

Dr. Ashu Gupta
Overall Coordinator DBT,
Department of Chemistry

Dr. Kusha Tiwari
Coordinator IQAC

Prof. Rabi Narayan Kar
Principal, SLC

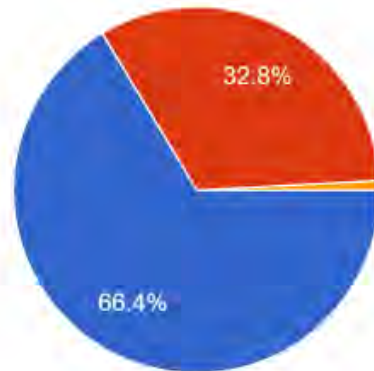
Ms. Radhika Gupta
Teacher Coordinator
Department of Chemistry

**Aviral, Vansh, Niharika,
Muskan, Aakash & Ayushi**
Student Coordinators

Annexure 2

How informative did you find the webinar?

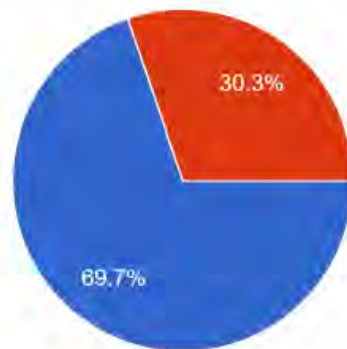
119 responses



- Extremely informative
- Very informative
- Moderately informative
- Not informative

Overall how satisfied were you with this webinar?

119 responses



- Very satisfied
- Satisfied
- Neither satisfied nor unsatisfied
- Unsatisfied

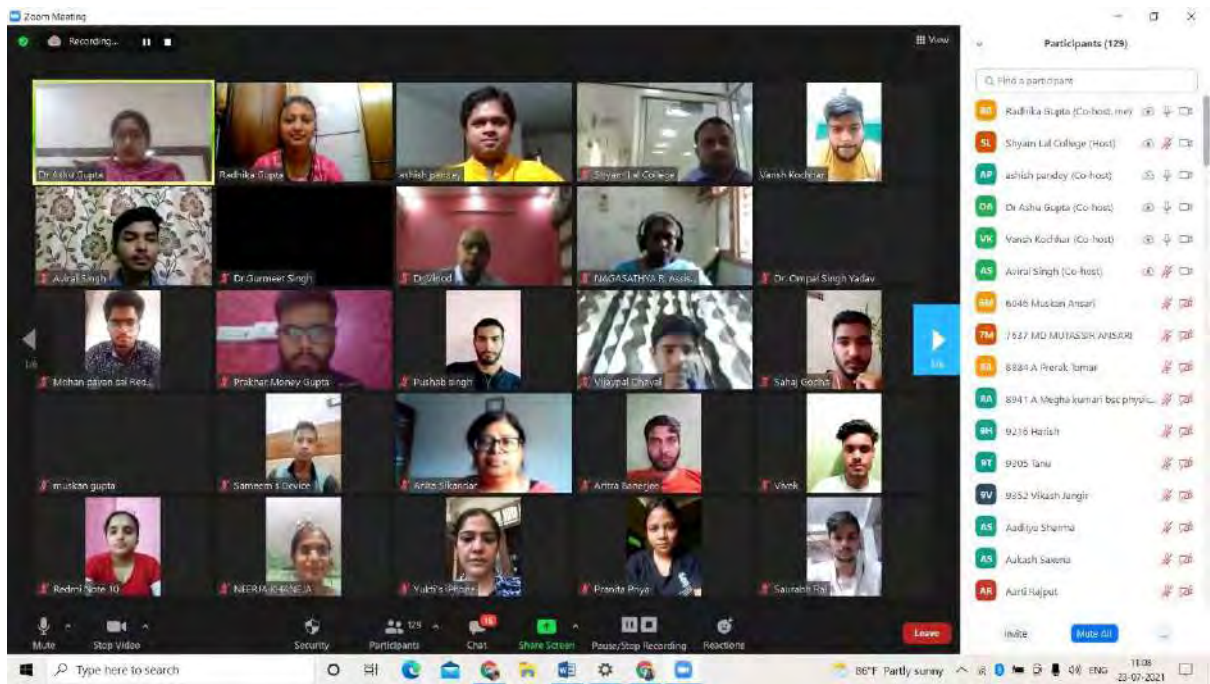
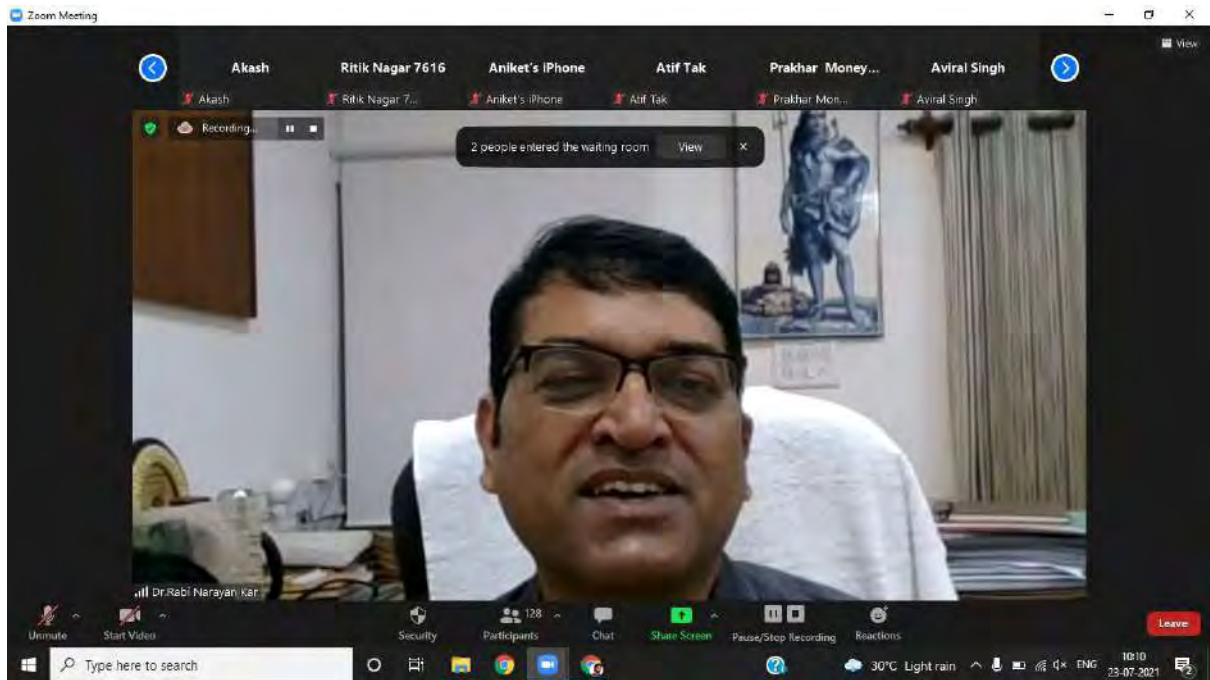
How clear were ideas and concept we presented?

119 responses



- Extremely clear
- Moderately clear
- Not clear

Annexure 3



Global Issues

Population vs Energy Demand

- World population will grow from 7.7 billion to ~10 billion by 2040
- Energy demands will grow exponentially by 20%
- The greatest demand for natural gas will come from India and Asia
- By 2040, renewable energy sources are expected to supply 8% of total global energy demand.

Big Question
How to manage this energy deficit without affecting our environment?????

Dr Ashu Gupta	muskan gupta	
Shyam Lal College	Dr.Rabi Narayan...	Radhika Gupta
Mukesh	Tushar chaudhary	Akash
Ritik Nagar 7616	Vansh Kochhar	Atif Tak
Aniket's iPhone	Aviral Singh	Prakhar Money...

Circular economy

- 1. REDUCE RESOURCE CONSUMPTION AND WASTE IN THE ECONOMIC SYSTEMS**
 - Eco-design
 - Responsible Consumption and Production
 - Optimization of operations
- 2. REUSE**
- 3. REPAIR**
- 4. RECYCLE**
- 5. RECOVER**

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Shyam Lal College	Dr.Rabi Narayan...	Radhika Gupta
	Mukesh	Akash
Ritik Nagar 7616	Vansh Kochhar	Atif Tak
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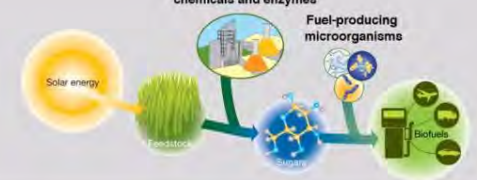
CARBON CAPTURE & STORAGE/UTILIZATION

- Atm. CO₂ can be captured, stored and converted into valuable products.
- Conversion is possible using catalysts (photo, photoelectro, electrochemical, ionic liquids, etc.)
- Carbon Neutral Cycle is maintained.

Dr Ashu Gupta	muskan gupta	
Shyam Lal College	Dr.Rabi Narayan...	Radhika Gupta
Deeksha arora	Sushma Joon	Mukesh
Akash	Ritik Nagar 7616	Vansh Kochhar
Atif Tak	Aniket's iPhone	Aviral Singh

Biomass Valorisation

- Conversion of biomass to biofuels and various other added value chemicals
- Unlike other renewable energy sources, biomass can be converted directly into liquid fuels, called "biofuels," to help meet transportation fuel needs.
- Major boosts given by governments worldwide
- Potential solution for Delhi Smog by converting agricultural residue to fuels




The diagram illustrates the biomass valorisation process. It starts with 'Solar energy' (represented by a sun icon) and 'Feedstock' (represented by a green plant icon). These feed into 'Physical pre-treatment, chemicals and enzymes' (represented by a factory icon). This step leads to 'Fuel-producing microorganisms' (represented by a blue globe icon). Finally, the process results in 'Biofuels' (represented by a green fuel pump icon).

Dr Ashu Gupta	muskan gupta	
Shyam Lal College	Dr.Rabi Narayan...	Radhika Gupta
Deeksha arora	Sushma Joon	Akash
Ritik Nagar 7616	Vansh Kochhar	Atif Tak
Aniket's iPhone	Aviral Singh	Prakhar Money...

Zoom Meeting | You are viewing ashish pandey's screen | View Options

Participants (156)

- Radhika Gupta (Co-host)
- Shyam Lal College (Host)
- ashish pandey (Co-host)
- Aviral Singh (Co-host)
- Dr. Ashu Gupta (Co-host)
- Dr.Rabi Narayan Kar (Co-host)
- Vansh Kochhar (Co-host)
- 6046 Muskan Amari
- 7587 MU MUASSIR ANSARI
- 8885 A Parak Jomai
- 8841 A Megha Komari Bscpt...
- 9216 karish
- 9305 tanu
- 9522 Vikash Janghi
- 9527 Jain Kamal
- Naksh Saxena



SAVE THE EARTH
MAKE EVERYDAY EARTH DAY

The Earth is what We all have in Common

Conclusions/Take Away

- Do a workshop in college on circular economy. May be a small project on waste valorisation.
- Take certificates/courses on environmental sustainability/climate change/waste2wealth in your college
- Go to "coursera" to get certificate course or complete course in these areas. Future is sustainability, circular economy. So better get equipped now with basic knowledge and expertise.
- Go for higher studies in chemistry (catalysis), environmental technology, climate modelling. Several jobs are available across the world, especially in developed nations
- Aware your friends, families about keeping the environment clean, safe and healthy.
- **We are all in this TOGETHER!!!!**

Zoom Meeting controls: Mute, Start Video, Security, Participants, Chat, Share Screen, Pause/Stop Recording, Reactions, Leave




Windows taskbar: Type here to search, 10:51, 23-07-2021

Acknowledgements

Prof. Rabi Narayan Kar, Principal SLC
 Dr. Ashu Gupta, Overall Coordinator DBT
 Dr. Kusha Tiwari, Coordinator IQAC
 Ms. Radhika Gupta, Teacher Coordinator
 All student coordinators
 Students and Staff of Shyam Lal College

Thank You

Queries - ashishpandey.iitd@gmail.com

	muskan gupta
	Shyam Lal College
Dr.Rabi Narayan...	
	Deeksha arora
Sushma Joon	Akash

Annexure 4

Timestamp	Name	Institute	Designation
23/07/2021 10:50:04	DEEPANSHU ARORA	Shyam Lal College	Student
23/07/2021 10:50:07	Tanu	Shyam Lal college day	Student
23/07/2021 10:50:09	ananth preveen	Shyam Lal College(M)	Student
23/07/2021 10:50:18	Sakshi Kumari	Shyam lal college	Student
23/07/2021 10:50:20	Prachi Gupta	Shyam lal college	Student
23/07/2021 10:50:20	Dr.Jasvir singh	Shyam lal college	Faculty
23/07/2021 10:50:23	Shilpa Mehta	Ramjas College, Universii	Faculty
23/07/2021 10:50:30	Harsh Verma	ShayamLal College, Delh	Student
23/07/2021 10:50:32	Abhishek Kumar Pandey	Shyam Lal College(Day)	Student
23/07/2021 10:50:33	Aastha Jaiswal	Shyam Lal College	Student
23/07/2021 10:50:41	Faizan	Shyاملal college	Student
23/07/2021 10:50:42	Gurmeet Singh	Shyam Lal College	Faculty
23/07/2021 10:50:43	Saurabh Rai	Shyam Lal College	Student
23/07/2021 10:50:46	Payal	Shyاملal college	Student
23/07/2021 10:50:47	Anshika Singh	Shyam lal college	Student
23/07/2021 10:50:52	Khemchand Matlani	Shyam Lal College, Unive	Student
23/07/2021 10:50:56	Pritam Pal	College	Student
23/07/2021 10:50:59	Deepak Kumar Singh	Shyamal College, Univers	Student
23/07/2021 10:51:01	Anuradha Singh	Shyاملal College College	Student
23/07/2021 10:51:09	Farhan Siddiqui	Shyam Lal college	Student
23/07/2021 10:51:10	Megha Kumari	Shyam Lal college	Student
23/07/2021 10:51:11	Prakhar Money Gupta	Delhi University	Student
23/07/2021 10:51:13	Tushar chaudhary	Delhi university	Student
23/07/2021 10:51:16	Vikas Chaurasiya	Shyاملal college Delhi Ur	Student
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23/07/2021 10:51:23	Shainty Kumar	Shyam lal college	Student
23/07/2021 10:51:25	RITIK ROSHAN	Shyam Lal College	Student
23/07/2021 10:51:28	Fazil khan	Shyاملal college	Student
23/07/2021 10:51:33	Muskan	Shyamal college	Student
23/07/2021 10:51:35	Pushab singh	shyam lal college	Student
23/07/2021 10:51:36	Ujjawal kumar	Delhu University	Student
23/07/2021 10:51:37	Pranita Priya	Shyam Lal college	Student
23/07/2021 10:51:43	Prince kumar Agrahari	Shyam lal college	Student
23/07/2021 10:51:43	Dr REETA SHARMA	Shyam Lal College	Faculty
23/07/2021 10:51:46	Nishant Nagar	Shyam Lal College	Student
23/07/2021 10:51:47	muskan gupta	shyam lal college	Student
23/07/2021 10:51:48	Sahil	Educational	Student

23/07/2021 10:51:50	Vivek	Shyam lal college	Student
23/07/2021 10:51:55	Niharika Singh	Shyamlal College, Univer	Student
23/07/2021 10:52:02	Suman Rani	Shyam Lal College	Faculty
23/07/2021 10:52:06	Ritik Gupta	Shyam lal college	Student
23/07/2021 10:52:08	Ayshee Banik	Shyam Lal college	Student
23/07/2021 10:52:19	Bhawna	Shyam lal college	Student
23/07/2021 10:52:24	Poonam yadav	Shyam lal college	Student
23/07/2021 10:52:26	Vikash jangir	Shyam Lal College	Student
23/07/2021 10:52:32	Sumita Banik Saha	St. John College,Dimapur	Faculty
23/07/2021 10:52:43	DR RESHU CHAUDHAR	SHYAM LAL COLLEGE	Faculty
23/07/2021 10:52:57	Abhay singh	Shyam lal college	Student
23/07/2021 10:53:00	Tripti yadav	University of delhi	Student
23/07/2021 10:53:04	Mohak Krishna	Delhi university	Student

23/07/2021 10:53:06	SANJANA GROVER	DELHI UNIVERSITY	Student
23/07/2021 10:53:07	Mahika Sharma	Shyam Lal college	Student
23/07/2021 10:53:10	Md Mutassir Ansari	Shyam lal college, delhi	Student
23/07/2021 10:53:12	Anju Grewal	Shyam Lal College	Student
23/07/2021 10:53:13	Pushpendra singh dhakar	No	Faculty
23/07/2021 10:53:29	Sushma Joon	Shyam Lal college	Student
23/07/2021 10:53:35	Nisha	Shyam lal college	Student
23/07/2021 10:53:46	Ayushi jain	Shyam lal college	Student
23/07/2021 10:53:48	Sneha Chaudhary	Shyam lal college	Student
23/07/2021 10:53:53	Shivangi mishra	Shyam lal college	Student
23/07/2021 10:53:55	Rahul Singh Tomar	NDRI, Karnal	Faculty
23/07/2021 10:54:02	Fahad Ansari	Shyam lal college	Student
23/07/2021 10:54:09	Fazia	Shyam Lal college	Student

23/07/2021 10:54:27	Pankaj	Ba program eco +political	Student
23/07/2021 10:54:29	Harish	Shyam lal college	Student
23/07/2021 10:54:35	Nibedita Rajkumari	Shyam Lal College, Shah	Student
23/07/2021 10:54:49	Shruti Joshi	Shyam lal college	Student
23/07/2021 10:54:50	Lipika Sehgal	Amity University, Noida	Student
23/07/2021 10:54:55	Ritik Nagar	Shyam lal college	Student
23/07/2021 10:54:55	Tushar Gupta	Shyam Lal college	Student
23/07/2021 10:54:58	Aarya Ganotra	Shyam Lal College, DU	Student
23/07/2021 10:55:03	HASAN	SHYAM LAL COLLEGE (C	Student
23/07/2021 10:55:13	Yogita Verma	Shyam lal college, Univer	Student
23/07/2021 10:55:14	Anjali	Shyam Lal College	Student
23/07/2021 10:55:55	Rashmeet Kaur	Keshav Mahavidyalaya, U	Faculty
23/07/2021 10:56:04	Dr.Deepmala Pareek	Shyamlal college,delhi un	Faculty

23/07/2021 10:56:49	Marshitet	St John College, Dimapur	Faculty
23/07/2021 10:56:53	Shaily	Shyam lal college	Student
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23/07/2021 10:58:41	Manpreet Kaur	Amity Institute Of Applied	Student
23/07/2021 10:58:44	Vijaypal Dhayal	Shyam Lal College	Student
23/07/2021 10:59:10	Sunny panchal	Shyamlal college	Student
23/07/2021 10:59:13	Dr. Ompal Singh Yadav	Shyamlal College Univers	Faculty
23/07/2021 11:00:17	Balram Kindra	Shyam Lal College, Unive	Faculty
23/07/2021 11:00:35	Nikita	Shyam lal college	Student
23/07/2021 11:01:12	Aakash Saxena	Shyam Lal College	Student
23/07/2021 11:01:16	Aritra Banerjee	Krishna Chandra college	Student
23/07/2021 11:01:42	Fazia	Shyam Lal college	Student
23/07/2021 11:01:59	Pranita Priya	Shyam Lal college	Student

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23/07/2021 11:03:02	Ajay Pratap Singh	Shyam Lal College Unive	Faculty
23/07/2021 11:03:25	NAGASATHYA R	V.V.Vanniaperumal Colleg	Faculty
23/07/2021 11:03:32	Aarti Devi	Shyamlal college	Student
23/07/2021 11:04:10	Dr.Vinod Kumar	Shyamlal College	Faculty
23/07/2021 11:04:16	Neha Sharma	Shyam Lal college	Student
23/07/2021 11:04:24	Dr Shyam Mamud Barbhu	Jagannath Singh College,	Faculty
23/07/2021 11:05:08	Dr. Sunaina Zutshi	Shyam Lal college	Faculty
23/07/2021 11:05:47	Neha Sharma	Shyam Lal college	Student

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23/07/2021 11:06:00	Tanisha Maheshwari	Shyam Lal College	Student
23/07/2021 11:06:07	Vinod Kumar	Shyam Lal College	Faculty
23/07/2021 11:06:19	Dr. R. Arul Priya	Vellalar College for Wome	Faculty
23/07/2021 11:06:39	Sakeena khan	Shyam lal college	Student
23/07/2021 11:07:16	Aniket Singh	Shyam Lal College (Day)	Student
23/07/2021 11:07:56	Dr. R. Arul Priya	Vellalar College for Wome	Faculty
23/07/2021 11:09:33	Anuj Godara	Shyam Lal College	Student
23/07/2021 11:09:38	Atul Rawat	Shyam lal college	Student
23/07/2021 11:10:10	Deeksha arora	Shyma lal college	Student
23/07/2021 11:10:24	Aaditya Sharma	Shyam lal college Delhi U	Student
23/07/2021 11:10:30	Amit kuma	shyamlal college du	Student
23/07/2021 11:10:41	Mohd sameem sheikh	Shyamlal college	Student

23/07/2021 11:10:41	Aviral Singh	Shyam Lal College	Student
23/07/2021 11:15:25	VANSH KOCHHAR	Shyam lal college	Student
23/07/2021 11:19:47	Dr.Harinderjitkaur Chawla	Sri Guru Gobind Singh Co	Faculty
23/07/2021 11:26:34	Radhika Gupta	Shyam Lal College	Faculty