



MANAV RACHNA
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Declared as State Private University vide Haryana Act 26 of 2014



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DEPARTMENT OF CHEMISTRY

- committed to excellence in education and research.

Short Term Program on Bio privileged and Sustainable Chemistry Jan 17-21, 2022



Title: STP on “Bio privilege and Sustainable Chemistry”

Date: 17th to 22nd January 2022

Venue: Online

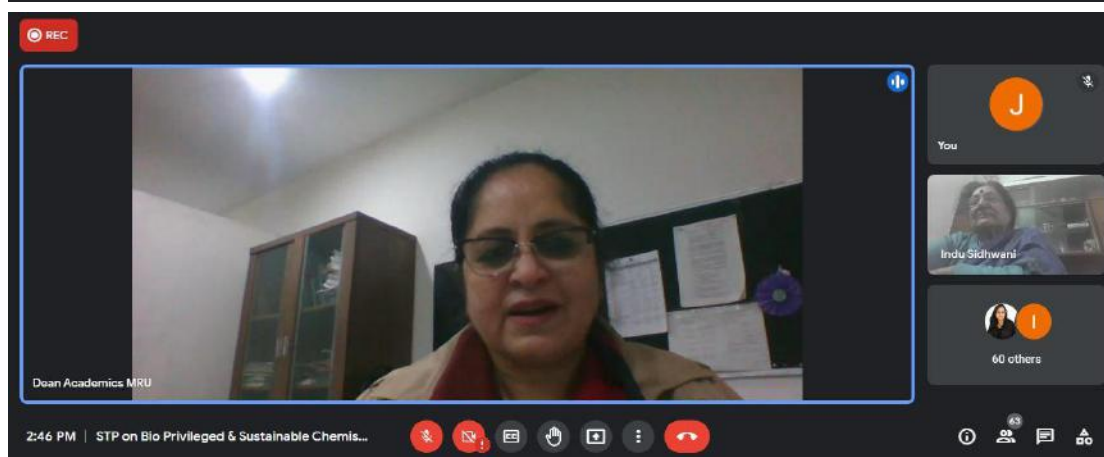
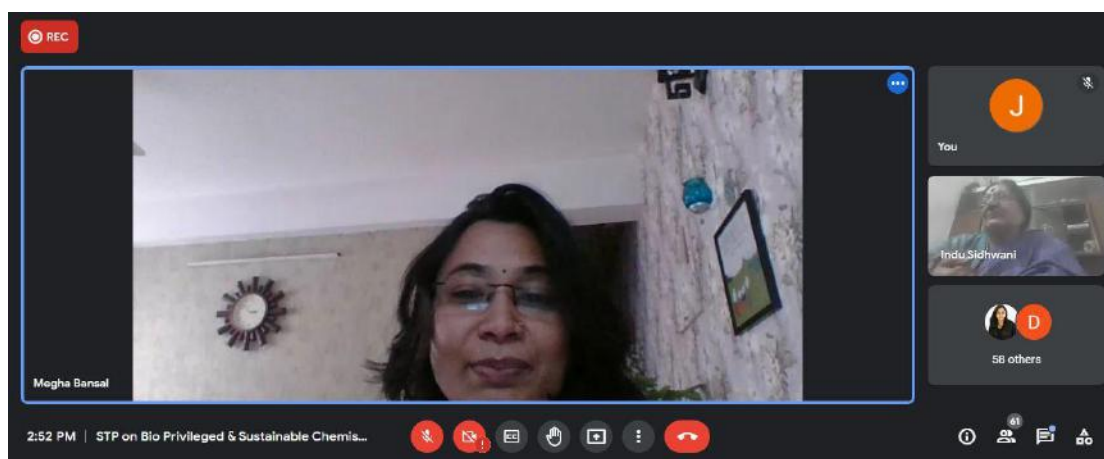
On the occasion of MREI 25 Year - Silver Jubilee Celebration Department of chemistry, MRU organized a 5-days STP on “**Bio privilege and Sustainable Chemistry**” today was the first day. Day 1 of the STP program started with the inauguration ceremony which was hosted by Dr. Jaya Tuteja, Co-convenor of the program, in the presence of Hon’ble Vice Chancellor, MRU Prof. I.K. Bhat, Prof (Dr.) D. S. Senger, PVC, MRU, Prof. Dr. Sangeeta Banga, Dean Academics; Prof. Dr. Pradeep Varshney, Dean Research and Dean Applied sciences; Prof. Dr. Megha Bansal, Head - Department of Chemistry, Prof (Dr.) A. K. Singh, our guest speaker and other esteemed delegates.

ONLINE One Week STP on “Bio privilege and Sustainable Chemistry”

17.01.2022 to 21.01.22

DAYS	FN(10 AM -12 PM)	AN(1:00 PM-2:15 PM) AN (2:15 PM -3:30 PM)
17 Jan	10-10.30 “Inauguration”	<p>Title: Electrospun nanofibrous nonwoven for biomedical applications</p> <p>Speaker: Prof. (Dr). Roli Purwar Delhi Technological University, Delhi, India</p> <p>Title: Membranes as a Sustainable Technology for Water Recovery</p> <p>Speaker: Dr. Noel Jacob Kaleekkal Assistant Professor; Department of Chemical Engineering National Institute of Technology Calicut (NITC), India</p>
	10.30-12.00 Title: Bio privilege chemistry” (Sustainable Chemistry) Speaker: Professor A. K. Singh Department of Chemistry, IIT Bombay	
18 Jan	<p>Title: Unified Laboratory Intelligence System: A sustainable approach for chemical research</p> <p>Speaker: Dr. Ravindra Kumar Indian Oil Corporation R&D Centre Faridabad</p>	<p>Title: Green Fuel for Sustainable Development</p> <p>Speaker: Professor A. K Gupta Ex GM; Indian Oil Corporation R&D Centre Faridabad</p> <p>Title: From conceptual design to a clinical candidate: Hybridization in medicinal chemistry and catalysis</p> <p>Speaker: Professor (Dr.) D. S. Rawat Department of Chemistry; University of Delhi</p>
19 Jan	<p>Title: Sustainable synthesis of single crystalline sulphur-doped graphene quantum dots for bioimaging and beyond</p> <p>Speaker: Dr.Vinod J C Bose University of Science and Technology Faridabad</p>	<p>Title: Sustainability in Chemistry Teaching Laboratories: Innovations and Prudent Practices</p> <p>Speakers: Prof (Dr.) Sangita Pandita Zakir Hussain College; University of Delhi</p> <p>Title: Green Chemistry and Sustainable Development Goals Speaker: Prof. (Dr.) S. K. Sharma, FRSC Dean(Research) JECRC University, Jaipur, India</p>


<p>20 Jan</p>	<p>Title: Carbon Nanomaterials as Nanozyme</p> <p>Speaker: Dr. Lightson NG Scientist C RCCB Bio-Innovation Center Thirunanthapuram, Kerala</p>	<p>Title: Corrosion Inhibition with Sustainable Methods.</p> <p>Speaker: Dr. Bindu Mangla J C Bose University of Science and Technology Faridabad</p> <p>Title: Ionic Liquids for sustainable Chemistry</p> <p>Speaker: Dr. Ravi Tomar Department of Chemistry Faculty of Science; SGT University, Gurugram</p>
<p>21 Jan</p>	<p>Title: Green Chemistry and Catalysis</p> <p>Speaker: Dr. Shikha Gulati Department of Chemistry Sri Venkateswara College University of Delhi</p>	<p>Title : Green and Bio based Chemistry in Theory and Lab practices</p> <p>Speaker: Prof. (Dr.) Indu T Sidhwani Retired Professor from Gargi College University of Delhi</p> <p>“Valedictory and Feedback Session”</p>



REC | Indu Sidhwani is presenting

Chemical Snowfall in Bengaluru, India

- On May 29, 2017, there was froth on Varthur and other lakes in Bengaluru that looked like snow.
- Industrial Effluents such as detergents, oils and grease are thrown in the river.
- As the wind blows, the chemical snow is blown in the air.
- Sometimes, it becomes very difficult to drive or walk as roads are filled with foam.
- Not done anything Petitions have been filled since 2000.



A lot of people are here. The people list shows them all. View all

1:10 PM | STP on Bio Privileged & Sustainable Chemis...

REC | Indu Sidhwani is presenting

Green method




Ag⁺ Silver nitrate + Green tea (Polyphenols) → Ag⁰ NPs

2:25 PM | STP on Bio Privileged & Sustainable Chemis...

REC | Dr. Shikha Gulati is presenting

Advantages of bio-nanocomposites as catalysts



- High thermal strength
- High mechanical strength
- High surface area
- Appropriate pore sizes
- Easy synthesis
- Easy effluents
- Biodegradable

10:45 AM | STP on Bio Privileged & Sustainable Chem...

REC Dr. Shikha Gulati is presenting

10:18 AM | STP on Bio Privileged & Sustainable Chemi...

REC Dr. Ravi Tomar is presenting

2:43 PM | STP on Bio Privileged & Sustainable Chemis...

REC Bindu Mangla is presenting Integrated Webcam (0c45:641d) connected

1:29 PM | STP on Bio Privileged & Sustainable Chemis...

REC Dr. Ravi Tomar is presenting

Ionic Liquids

Why are Ionic Liquids "Liquid"??

- Traditional salts like NaCl pack efficiently to form a crystal lattice

- Ionic Liquids-cations are asymmetrically substituted with different Bulky groups to weaken these ionic interactions.
- Prevents packing of the cations/anions into a crystal lattice.

2:34 PM | STP on Bio Privileged & Sustainable Chemis...

REC J You
Dr. Ravi Tomar
K 46 others

REC Bindu Mangla is presenting

Steel substrate

Physical adsorption scheme of protenated inhibitor in HCl medium on the metal surface

1:25 PM | STP on Bio Privileged & Sustainable Chemis...

REC J You
Bindu Mangla
S T 72 others

REC Dr. Lightson NG is presenting

Green Bio-Analytical Chemistry

Microtechnology

Biosensors

Nanotechnology

Applications of Biosensors

- Biosensors Role in Early Detection of Cancer
- Biosensors Role in Drug Discovery
- Biosensors Role in Plant Studies
- Biosensors Role in Fermentation Industries
- Biosensors Role in Defense and Fighting Bioterrorism
- Biosensors Role in Cell and its Metabolism
- Biosensors Role in Ensuring Quality of Food
- Biosensors Role in Medical Industry

10:29 AM | STP on Bio Privileged & Sustainable Chemis...

REC J You
Dr. Lightson NG
C S 65 others

REC Dr.Lightson NG is presenting

Biosensor Green Bio-Analytical Chemistry

10:15 AM | STP on Bio Privileged & Sustainable Chemi...

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https://meet.google.com/mfn-jkor-ped?pli=1&authuser=2

REC Prof. Sanjay K. Sharma is presenting

2:18 PM | STP on Bio Privileged & Sustainable Che...

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16°C 14:18 19-01-2022

Firefox Authentication Ki... MSN India | Breaking New... Sign in - Google Accounts X Meet - STP on Bio P... Prof S. k. Sharma.pdf x

https://meet.google.com/mfn-jkor-ped?pli=1&authuser=2

REC Prof. Sanjay K. Sharma is presenting

2:35 PM | STP on Bio Privileged & Sustainable Che...

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16°C 14:35 19-01-2022

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REC sangeeta pandita is presenting

1:18 PM | STP on Bio Privileged & Sustainable Che...

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16°C 13:18 19-01-2022

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https://meet.google.com/mfn-jkor-ped?pli=1&authuser=2

REC sangeeta pandita is presenting

1:08 PM | STP on Bio Privileged & Sustainable Che...

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15°C 13:08 19-01-2022

People

- Add people
- Ritika Sharma
- ritu bisht
- Ritu Saharan
- Riyansha v
- Sakshi Sharma
- Sakshi Sheoran
- sangeeta pandita

REC Dr. RAVINDRA KUMAR is presenting

© 00 AM | STP on Bio Privileged & Sustainable Chemistry

REC Dr. RAJIVINDRA KUMAR is presenting

What is Unified Laboratory Intelligence (ULI) ?

The slide illustrates the flow of data in a laboratory setting. On the left, 'Experimental Data' is generated through 'Experiment', 'Analysis', and 'Interpretation' steps, leading to 'Data and Experiments' and 'Clean Data'. This data is then processed into 'Frozen Data' (Library, Metadata for Search, Analysis, Knowledge) and 'User Data' (Metadata, Interrogation, Metadata, Analysis Requests, Accumulated Knowledge, Cross Interrogation and Search Insight). A central arrow indicates that 'There is significant value in storing "live data"'. The bottom text states: 'Unified Laboratory Intelligence (ULI) is a scientific approach to R&D Informatics that collects and unifies chemical, structural, and integrated analytical data.'

10:14 AM | STP on Bio Privileged & Sustainable Chemistry

REC Professor Diwan S. Rawat is presenting

History of Drug Discovery: Indian Vedas

The slide shows a page from the *Sushruta Samhita* with text in Sanskrit. Below the image, it states: '1000-500 BC: The *Sushruta Samhita* is one of the foundational texts of Ayurveda, or Indian traditional medicine. The surviving text contains descriptions of 1,120 illnesses, 700 medicinal plants, including safety, efficacy, dosage and benefit.'

<https://www.artsciencedesign.org/blog/2017/03/10/the-history-of-pharmacy-and-medication>

2:05 PM | STP on Bio Privileged & Sustainable Chemis...

REC Professor Diwan S. Rawat is presenting

Antimalarial drug discovery: Our design

The slide shows the design of a molecular hybrid. It combines 'Chloroquine' (which 'Stops Merozoite formation via n stacking') and 'pfCRT inhibitors' (which 'Inhibits DHFR enzyme essential for thymidine is purine synthesis'). The resulting 'OUR DESIGN' is a 'Molecular hybrids based on heme and DHFR inhibitors'. Specific properties are listed: $IC_{50} = 2.9 \text{ nM}$ (D6-clone) and $IC_{50} = 5.2 \text{ nM}$ (Dd2-clone), with a 'US Patent 7968539 B2, 2011'. Other related molecules like 'Coloeneb' are also shown.

2:15 PM | STP on Bio Privileged & Sustainable Chemis...

chemistry MRU is presenting

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**Short Term Program on
Bio privileged and Sustainable Chemistry**
Jan 17-21, 2022

10:17 AM | mim-kiof-nzz

chemistry MRU is presenting

CERTIFICATE OF APPRECIATION
Prof. Anil Kumar Singh
from Indian Institute of Technology Bombay, India has delivered a talk in the Short Term program on 'Bio privileged and Sustainable Chemistry' organized by the Department of Chemistry, Manav Rachna University, Faridabad, India from January 17-21, 2022, to commemorate 25 years of Transforming Education (Silver Jubilee Celebration).

Dr. Anil Sand
Convener, Associate Professor, Department of Chemistry, MRU

Dr. Jaya Tuteja
Co-Convener, Assistant Professor, Department of Chemistry, MRU

Dr. Megha Bansal
Secretary, Professor & HOD, Department of Chemistry, MRU

Professor (Dr.) I. K. Bhat
Vice-Chancellor, MRU

People

Mute all Add people Host controls

Search for people

In call

- chemistry MRU (You)
- Meeting host
- A. Jayamani
- Aditya Sharma
- Aakshika Nagar
- AMRITA NATEKAR
- Anil K Singh
- Anita Goshal
- anjali sharma
- Ankit Tomar
- Anuradha Raika
- Anvita Naushwar
- Ashvi Mandal

11:54 AM | STP on Bio Privileged & Sustainable Chemistry

Anil K Singh is presenting

Chemicals Export—India context

Group	Share (%)
Dyes & Pigments	32%
Pesticides	24%
Alkali Chemicals	18%
Organics	14%
Inorganics	12%

Share of Groups of under Total Export (Qty) of Major Chemicals during 2017 - 2018

Chemical Industry Statistics, Ministry of Chemicals & Petrochemicals (www.chemicals.nic.in)

10:50 AM | mim-ki-of-nzz

10:00 AM | STP on Bio Privileged & Sustainable Chem...

10:00 AM | STP on Bio Privileged & Sustainable Chem...