

OVERALL REPORT

ONLINE REFRESHER COURSE IN ENVIRONMENTAL SCIENCE

October 5-17, 2020

HRDC, Pt. Ravishankar Shukla University, Raipur

The poster features the following elements:

- Logos:** On the left, the Pt. Ravishankar Shukla University logo. On the right, the UGC logo with the motto 'ज्ञान-विज्ञान विमुक्तये'.
- Text:** 'Human Resource Development Centre' in red, 'GUEST HOUSE' in blue, 'Inaugural Online Ceremony' in large blue letters, and 'Multidisciplinary Refresher Course in Environmental Science (Current Challenges & Opportunities in Teaching and Research in Environmental Science)' in blue.
- Dates:** '05.10.2020 10:30 h' on the left and '05.10.2020 to 17.10.2020' on the right.
- Images:** A central photo of Prof. Keshari Lal Verma, Hon'ble VC, sitting at a desk. Below it, portraits of Prof. A.K. Gupta, Director, and Prof. Manas Kanti Deb, Course Coordinator.
- Address:** 'Pt. Ravishankar Shukla University Raipur - 492 010, Chhattisgarh' at the bottom.

The Online Refresher Course in Environmental Science organised by HRDC, Pt. Ravishankar Shukla University, Raipur was held between October 5, 2020 to October 17, 2020. Total of 39 participants participated from different states of the country including 24 from Chhattisgarh, 03 from Madhya Pradesh, 01 from Maharashtra, 02 from Orissa, 08 from West Bengal and 01 from Uttar Pradesh. Resource persons from various institutes of eminence including IIT Kharagpur, SAL Education Ahmedabad, National Physical Laboratory-New Delhi, CSIR- National Environmental Engineering Research Institute-Nagpur, etc. were present to grace the online refresher course and interact with the participants. Along with the 37 informative lectures, various assessment practices including Microteaching, Seminar and Project Presentation were conducted along with a Multiple Choice Question based Ending Test. The response of the participants was really overwhelming and their performances in the various assessment practices were commendable. Also, their attentiveness during the lectures was appreciable. The interaction sessions between the participants and resource persons were very interesting. Since it was an online practice there were certain drawbacks

which majorly comprise of network connectivity issues on both the organising committee side as well as the participant side. All had to bear with the network connectivity issues which ultimately lead them to get disconnected frequent number of times. I would like to thank secretarial assistance from my research scholars namely Ms Anushree Saha, Ms Bhuneshwari Sahu and Ms. Subhra Sinha for their kind cooperation and sincere assistance. Without them it would not have been an easy go process. Since it was not an offline process having a group photograph session and live interactive sessions, which were otherwise core parts of the usual practice, were deeply missed. Overall, all the lectures including all the assessment practices were conducted successfully and the participants performed very well.

Some glimpses taken through the desktop of the same are appended. As a course coordinator I wish all participants every success in their life. Wish everybody a safe and happy life!

Prof. Manas Kanti Deb
 Course Coordinator
 UGC Online Refresher Course in Environmental Science
 Pt. Ravishankar Shukla University, Raipur

REFRESHER COURSE in ENVIRONMENTAL SCIENCE

Organized by UGC, PUN, Raipur

Objective: The UGC (REFC, PUN), Raipur, Chhattisgarh is organizing an Online Refresher Course in ENVIRONMENTAL SCIENCE: Career Challenge & Opportunities in Teaching and Research in Environmental Science during October 04-15, 2020 between 10:30 to 11:30. The online course has been designed to provide insight into a career of teaching and research which would be useful for teachers of all disciplines irrespective of their organizations.

Course Module: Water, Air and Soil Pollution, Monitoring and Assessment, Chemistry and Physics of the Environment, Environmental Geology, Environmental Biotechnology, Energy and the Environment, Distribution of Species, Habitat and Biome, Aquatic Ecosystems, Inorganic and Organic Geochemistry, Forest and Landscape Conservation, Biogeochemistry, Environmental and Bioremediation, Sustainable Utilization of the Atmosphere, Kinetics of the Environment, Sustainable Energy, Climate, Ecosystems, Environmental Health of Animals, Assessment of Air Quality, Environmental Law, Environmental Health, Environmental Economics etc.

Target Groups: All regular faculty of Universities/Colleges that are included under section 2 (d) of the UGC Act. The teachers of the colleges affiliated to the University for at least five years can participate.

Mode of Delivery: Live with audio, Discussion and Assignment on Google Meet/Zoom.

Requirement for the Course: Desktop/Laptop/Smart phone with good Internet Connectivity (Wi-Fi), Microphone, Headset and Multimedia content.

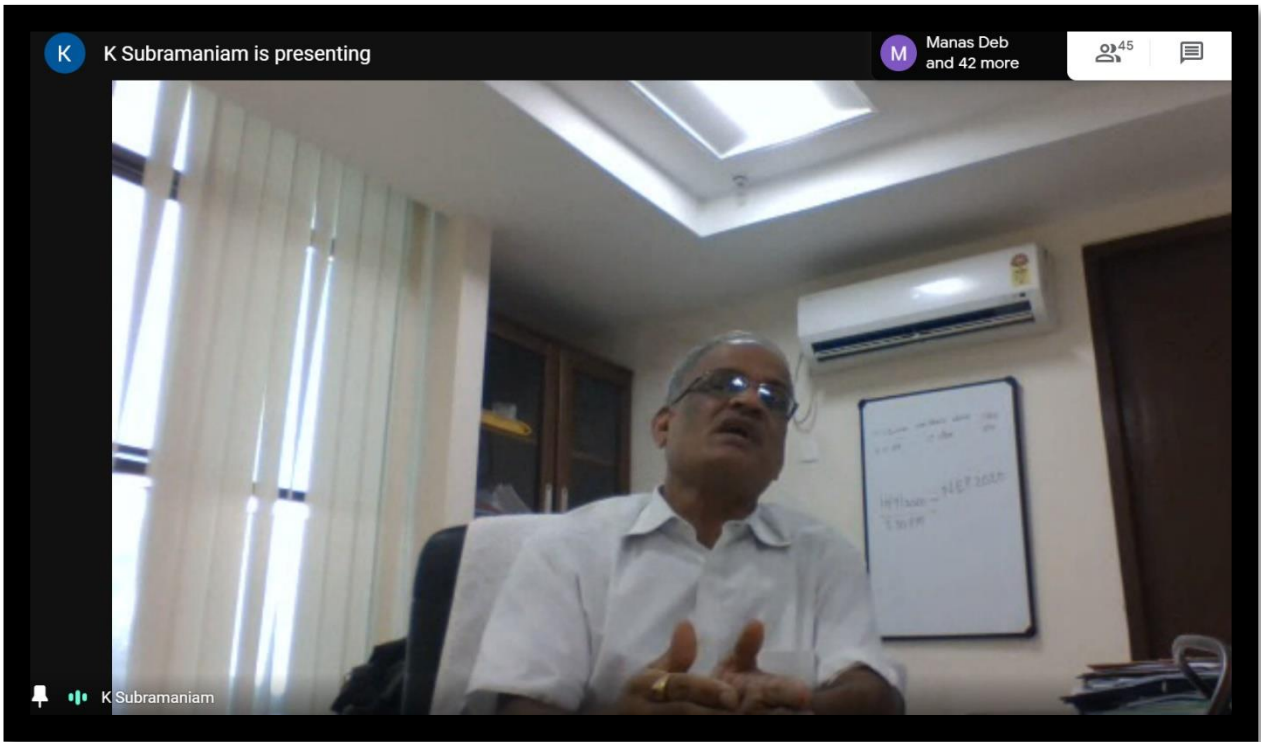
Contact Email: hrdc@pun.ac.in, hrdc@pun.ac.in, hrdc@pun.ac.in

Call: 071-233626, 079221907, 9429807979

Registration Application Link: <https://forms.gle/3333333333333333>

Registration fee: Rs. 10000 (one-time fee) to be paid online at Payment. AEC bank account number - 304407042, IFSC code: SBIN0007170, State Bank of India, PUN, Raipur.

Number of Participants: Minimum 20 and Maximum 60 on first come first serve basis.



Organic Chemistry

Chemistry of

- NH_3
- HCN
- NH_4CN
- NH_4CNO
- $\text{CO}(\text{NH}_2)_2$

Berlin 22nd February 1828
Dear Professor,
While I certainly hope that my letter of 12 January and the postscript of 2 February have arrived, and I live daily, or better hourly, in the eager hope of receiving your reply, still I will not wait for it but rather write already again, because I cannot, so to say, hold my chemical water and must tell you that I can make urea without the help of a kidney or even an animal, neither man nor dog. Ammonium cyanate is urea. Perhaps you still remember the experiment I carried out that fortunate time when I was working with you, in which I found that whenever one tries to react cyanic acid with ammonia a crystalline substance appears which is not a cyanate nor like cyanate nor like ammonium cyanate. I will not trouble you with the details of the experiment. I will only say that I obtained the urea by heating lead cyanate and ammonium chloride. I obtained it in quantity beautifully crystallized and indeed in clear right-angled four-sided prisms. With acids no carbonic acid or cyanic acid was formed and with base no trace of ammonia. But with nitric acid there was formed a compound that crystallized readily in glittering leaves with a very acidic character that I was already inclined to regard as a new acid, since upon heating no saltpeter or nitric acid, but only a good deal of ammonia was formed. When I discovered that upon saturation with bases nitrate salts and the original so-called ammonium cyanate formed again, and could be recovered from alcohol.

I can make urea without the help of a kidney or even an animal, neither man nor dog.

Friedrich Wöhler

Jöns Jacob Berzelius

46

82%

You

sanjib m...

Tarasank...

Tarasank...


Kamlesh Shrivastava is presenting

Harish Kumar S... and 32 more

4:40 PM

Pesticides in Foods

THAT'S THE LIMIT (parts per million)
 A recent study by National Institute of Nutrition on vegetables sold in Hyderabad found pesticides well above permissible limits

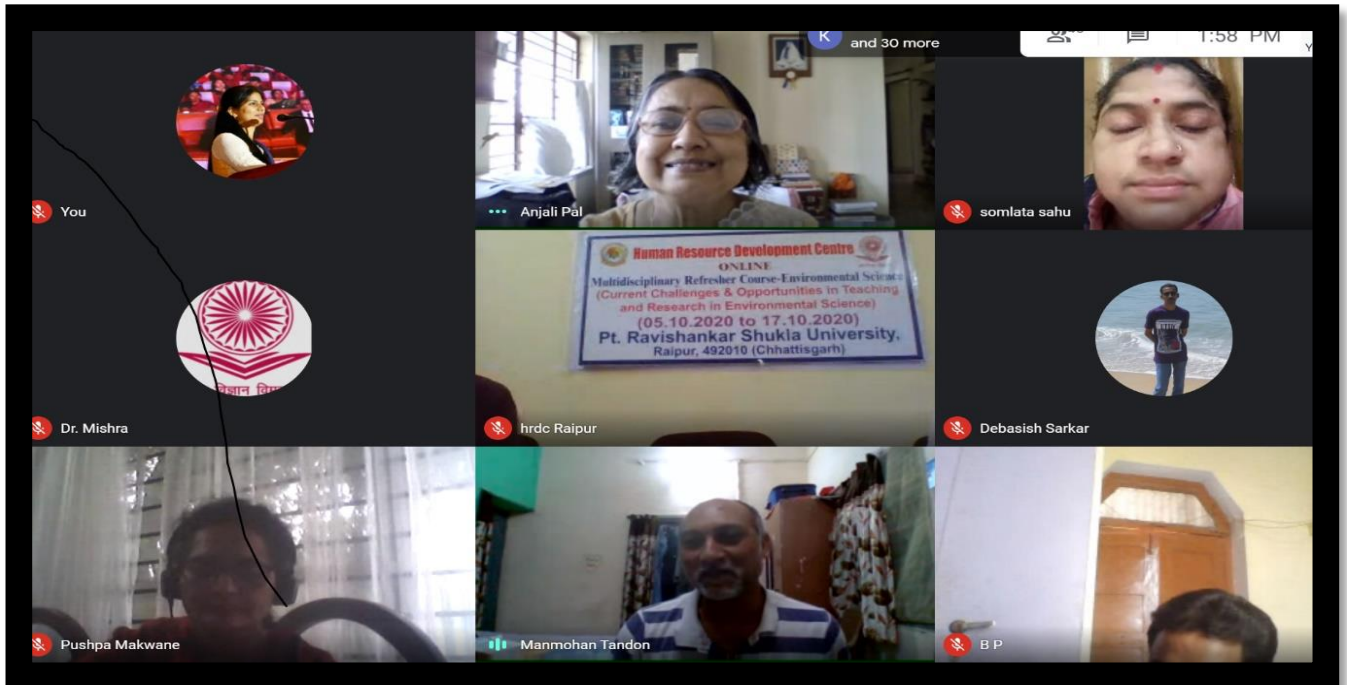
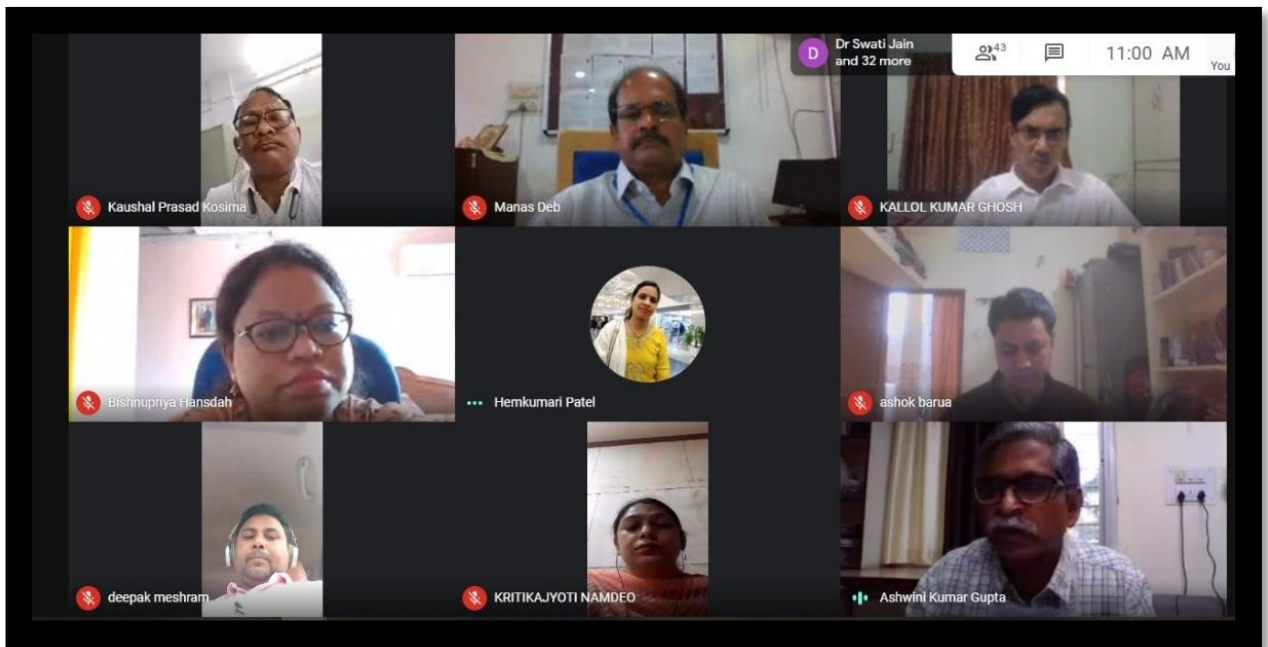


TOMATO	EGGPLANT	LADY'S FINGER	CAULIFLOWER	CABBAGE
Chlorpyrifos: 178.87	Chlorpyrifos: 24.02	Chlorpyrifos: 2.49	Chlorpyrifos: 2.85	Chlorpyrifos: 10.55
Permissible limit: 0.2	Permissible limit: 0.2	Permissible limit: 0.2	Permissible limit: 0.01	Permissible limit: 0.01

Participants: You, Kamlesh Shrivastava, Deepa Chaturvedi, Bishnupriya Hansd..., simanchal dash, Rajendra Jangde, Animesh bose, Kavshal Deepak K...

1:43 PM

Participants: You, hrdc Raipur, simanchal dash, RESHAM PRADHAN, Pushpa Makwane, Manas Deb, Animesh bose, sandeep gohar, Lakhapati Patel





UGC - HRDC, PRSU, Raipur

Tentative Time Table: Refresher Course in ENVIRONMENTAL SCIENCE (October 5-17, 2020)

	Session -I (10:30 to 12:00)		Session -II (12:15 to 13:45)		Session -III (14:15 to 15:45)		Session -IV (16:00 to 17:30)
First Week							
5th October Monday	Registration, Inauguration & Induction	Break	Dr. K. Subramaniam Lecture 1	Lunch Break	Dr. Rupesh Vasani Lecture 2	Break	Prof. KK Ghosh Lecture 3
6th October Tuesday	Prof. KK Ghosh Lecture 4		Dr. S.G. Agarwal Lecture 5		Dr. S.G. Agarwal Lecture 6		Prof. K.S. Patel Lecture 7
7th October Wednesday	Dr. Kamlesh Shrivastava Lecture 8		Prof. K.S. Patel Lecture 9		Prof. D.P. Bisen Lecture 10		Prof. D.P. Kuity Lecture 11
8th October Thursday	Prof. ML Naik Lecture 12		Prof. N. Bodhankar Lecture 13		Prof. ML Naik Lecture 14		Prof. KR Hari Lecture 15
9th October Friday	Prof. SK Jadhav Lecture 16		Prof. Sanjay Tiwari Lecture 17		Prof. T. Pal Lecture 18		Micro Teaching (Sr. No. 01-10)
10th October Saturday	Prof. T. Pal Lecture 19		Prof. Sanjay Tiwari Lecture 20		Prof. S.K Jadhav Lecture 21		Micro Teaching (Sr. No. 11-20)
Second Week							
12th October Monday	Micro Teaching (Sr. No. 21-30)		Prof. Shamsh Pervez Lecture 22		Dr. Noor Afshan Lecture 23		Prof. Sanjat Sahu Lecture 24
13th October Tuesday	Prof. Sanjat Sahu Lecture 25		Prof. Shamsh Pervez Lecture 26		Dr. Yogesh Gokhale Lecture 27		Micro Teaching (Sr. No. 31-40)
14th October Wednesday	Prof. Vinayak Sinha Lecture 28		Prof. Bhuminath Tripathi Lecture 29		SEMINAR (1) (Sr. No. 01-20)		SEMINAR (2) (Sr. No. 21-40)
15th October Thursday	Prof. Bhuminath Tripathi Lecture 30		Prof. Tarun Thakur Lecture 31		Prof. Vinayak Sinha Lecture 32		ENDING TEST
16th October Friday	Prof. Tarun Thakur Lecture 33		Prof. Anjali Pal Lecture 34		PROJECT Presentation (1) (Gr. 1-5)		PROJECT Presentation (2) (Gr. 6-10)
17th October Saturday	Prof. A.S. Aswar Lecture 35		Prof. Anjali Pal Lecture 36		Dr. DP Kuity Lecture 37		Valedictory & Concluding Session

Prof. M.K. Deb
Course Coordinator
UGC Online Refresher Course in Environmental Science
Pt. Ravishankar Shukla University, Raipur

Refresher Course – Environmental Science
(05.10.2020 to 17.10.2020)

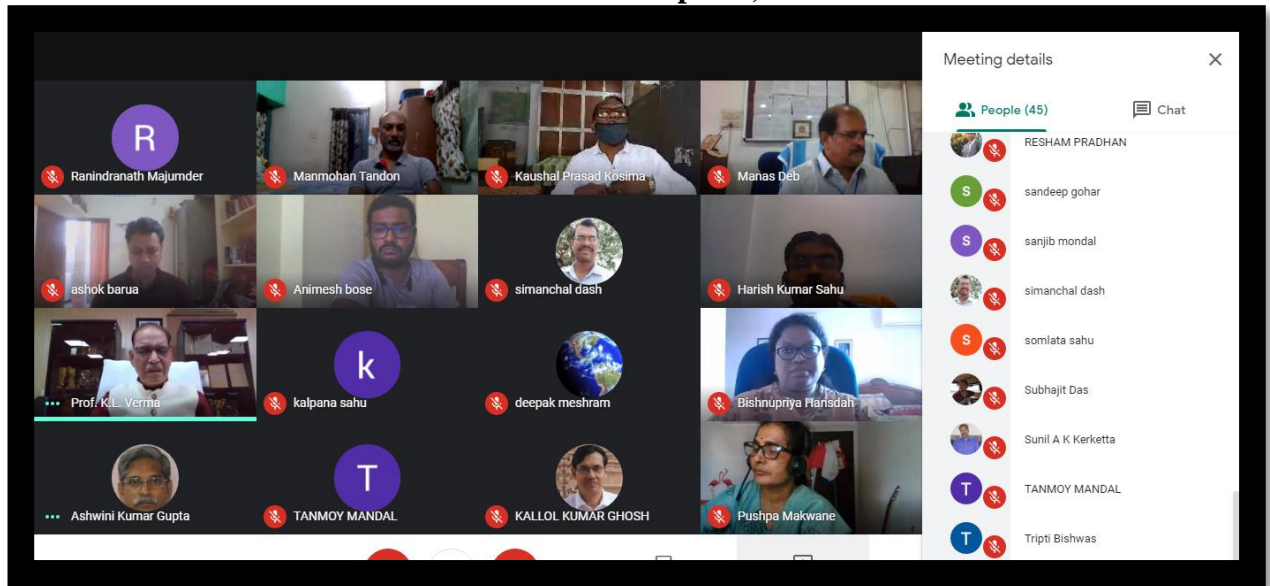
Participants List

Sr. No	Name of Participant	College	Mobil No.	email
1	Dr. Nidhi Mishra	Govind Sarang Govt Law College, Bhatapara (C.G.)	8815017150, 9425549057	redsonja2580@gmail.com
2	Dr Swati Jain	Government J. Yoganandam Chhattisgarh College, Raipur (C.G.)	9407677567	sjcscghed@gmail.com
3	Dr. Mahendra Kumar Maurya	Rajeev Gandhi Govt. PG College, Ambikapur (C.G.)	9452565194	mahendrabhu@gmail.com
4	Mr. Sunil AK Kerketta	Rajeev Gandhi Govt. PG College, Ambikapur (C.G.)	8770308905	sakkerketta71@gmail.com
5	Dr. Animesh Bose	Vidyasagar College, Kolkata (W.B.)	08017171847/0 9038329227	animeshbose24@gmail.com
6	Dr. Debasish Sarkar	Rani Dhanya Kumari College, Jiaganj, Murshidabad (W.B.)	7001092937, 9851445748	dsarkar02@gmail.com
7	Mr. Subhajit Das	Rani Dhanya Kumari College, Jiaganj, Murshidabad (W.B.)	03483267288, 9732750422	subhajit.eng.rdkc1@gmail.com
8	Ms. Anindita Saha	Rani Dhanya Kumari College, Jiaganj, Murshidabad (W.B.)	9749155736, 8250793848	aninditariki@gmail.com
9	Dr. Prasenjit Saha	Suri Vidyasagar College, Birbhum (W.B.)	9800170118	sahaprasenjit123@gmail.com
10	Dr. Tanmoy Mandal	Suri Vidyasagar College, Birbhum (W.B.)	9474533476	tanmoymandal22@gmail.com
11	Dr. Tripti Biswas	Rajeev Gandhi Govt. PG College, Ambikapur (C.G.)	9826350690	tbishwas22@gmail.com
12	Dr. Aslam Yakub Suriya	Janata Mahavidyalaya, Chandrapur, (M.S.)	9422839975	aslamsuriya@gmail.com
13	Dr. Kaushilya Sahu	SRP Govt. College, Bhatagaon (C.G.)	9425516481	kalpanasahu63@gmail.com
14	Mr. Lakhapati Patel	Govt. K.L. Arts, Commerce and Science College, Bagbahara (C.G.)	8889826761, 9340800000	lakhapatipatel@gmail.com
15	Dr. Rajendra Kumar Jangde	University Institute of Pharmacy, Pt. Ravishankar Shukla University, Raipur (C.G.)	9691409181	rjangdepy@gmail.com
16	Dr. Ashok Barua	Government Holkar Science College, Indore (M.P.)	9329437018	ashokbarua15@gmail.com
17	Dr. Sandeep Kumar Gohar	Government Holkar Science College, Indore (M.P.)	9893428546	sandeep.gohar@gmail.com
18	Dr. Pushpa Makwane	Government Holkar Science College, Indore (M.P.)	9425919663	pmakwane17@gmail.com
19	Mr. Bed Prakash Singh	Dr. BR Ambedkar Govt. Degree College, Mainpuri (U.P.)	9411452789	govbed1983@gmail.com
20	Mr. Sanjib Mondal	Suri Vidyasagar College, Birbhum (W.B.)	9733886778	sanjibmondal220@gmail.com
21	Ms. Hemkumari Patel	Govt. Paluram Dhanania Commerce and Arts College, Raigarh (C.G.)	8462055077	hemkpatel.raigarh@gmail.com
22	Dr. Harish Kumar Sahu	S. o. S. in Library and Information Science, Pt. Ravishankar Shukla University, Raipur (C.G.)	9977889006	hari197479@yahoo.in
23	Dr. Kajal Kiran Gulhare	Govt. ERRPG Science College, Bilaspur (C.G.)	9827957283	kajalgulhare@gmail.com
24	Dr. Deepa Pandey Chaturvedi	Govt. K. H. College, Abhanpur, Raipur (C.G.)	8819930256	chaturvedideepa1@gmail.com
25	Mr. Kaushal Prasad Kosima	Govt BCS PG College, Dhamtari (C.G.)	7898208696	yogitakosima@gmail.com
26	Dr. Yashwant Das Vaishnav	Maharishi Vedvyas Govt. PG College, Bhakhara (C.G.)	9009396256	yvaishnavmaths@gmail.com
27	Dr. Kritika Jyoti	Govt K.H College, Abhanpur (C.G.)	7000642001	kritikajyotinamdeo@gmail.com

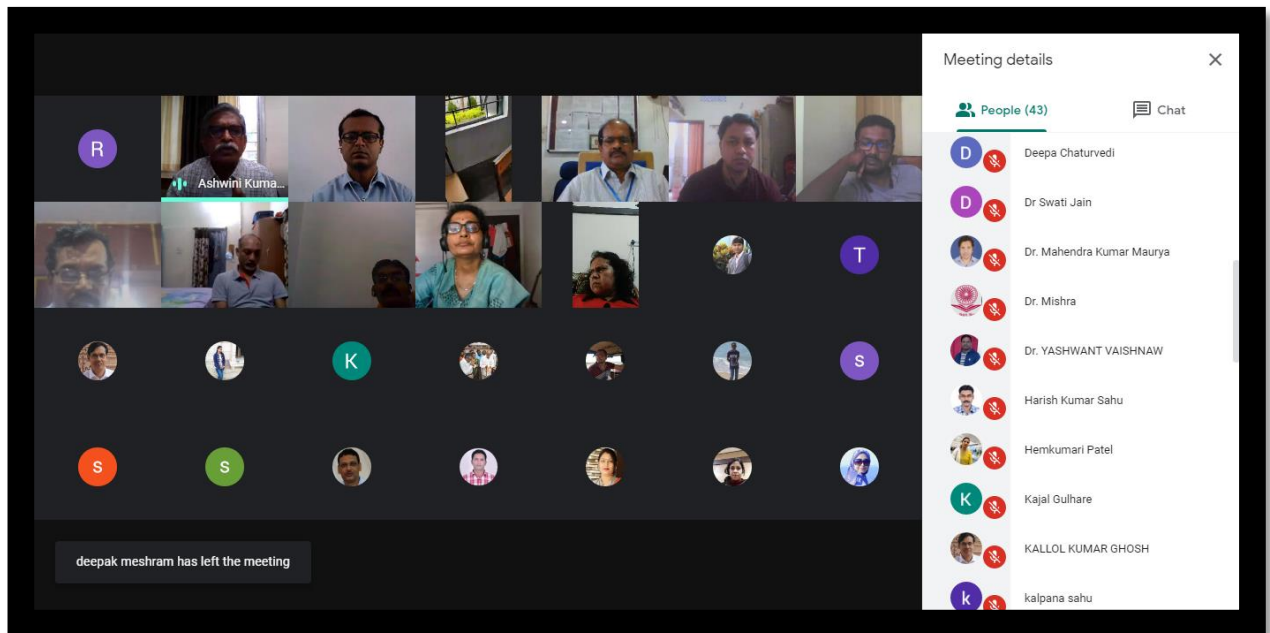
	Namdeo			m
28	Mr. Reshamlal Pradhan	Pt. Sunderlal Sharma Open University, Bilaspur (C.G.)	7024383191	reshamlalpradhan6602@gmail.com
29	Mrs. Somlata	M.L.J (Mohan Bhaiya) Govt. College, Khursipar, Bhilai (C.G.)	9827924032	som.lata10@gmail.com
30	Dr.Simanchal Das	Roland Institute of Technology, Berhampur, (Odisha)	8249444504	dash.simanchal73@gmail.com
31	Dr. Pankaj Soni	Govt. Danveer Tularam P.G. College Utai, Durg (C.G.)	9893180683	pankajsscet@gmail.com
32	Dr. Manmohan Lal Satnami	School of Studies in Chemistry Pt. Ravishankar Shukla University, Raipur (C.G.)	7999509271	manmohanchem@gmail.com
33	Mr. Deepak Kumar Meshram	Govt Kangla Manjhi College, Dondi, Dist. Balod (C.G.)	9893191297	deepakmeshram025@gmail.com
34	Ms. Radheshwari Deshmukh	Govt KM College, Doundi (C.G.)	8720833514	deshmukhradheshwari@gmail.com
35	Mr. Yogeshwar Sahu	Govt. K M College Dondi, Distt-Balod(C.G.)	9407905002	profdryogeshwar@gmail.com
36	Dr. Yasmeen Fatima Pervez	Government Eklavya College, Dondi-Lohara, Balod (C.G.)	9425564220	dr.ypervez@gmail.com
37	Dr Ravi Kumar Banjare	Govt. NPG College of Science, Raipur (C.G.)	9993850620	ravibanjare110@gmail.com
38	DR Bishnupriya Hansdah	North Orissa University, Baripada (Odisha)	9437321734	bhansdah2020@gmail.com, bpriya123_bot@yahoo.com
39	Mr. Rabindranath Majumder	Tamralipta Mahavidyalaya, East Medinipur (W.B.)	8777318240	dr.rabindranath.majumder@gmail.com

05.10.2020 (1st Session) Inauguration

(Vice Chancellor of Pt. RSU – Prof. K.L. Verma, Director of HRDC – Prof. A.K. Gupta, Course Coordinator – Prof. M.K. Deb and Participants)

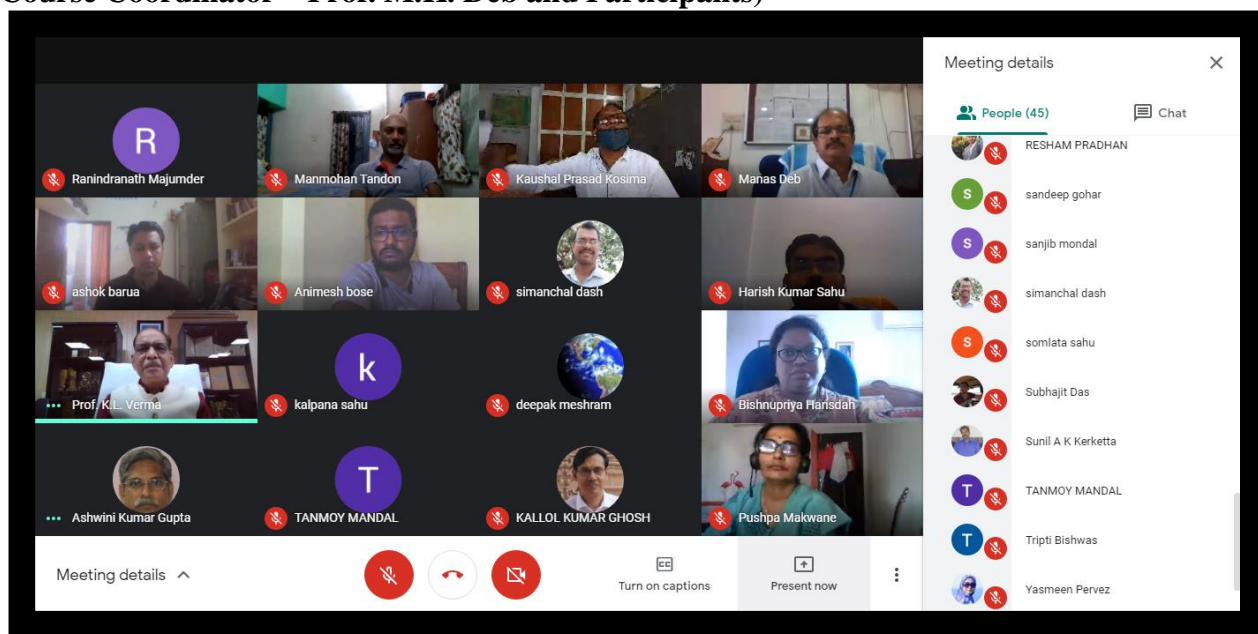


Inauguration

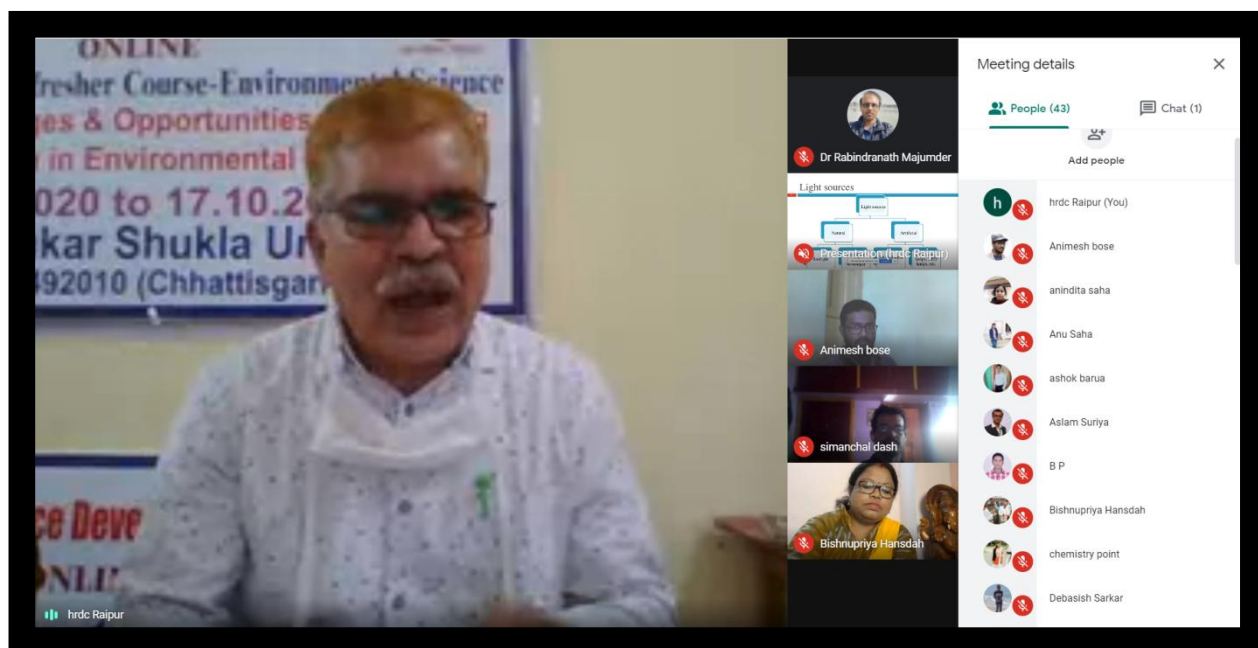


(Vice Chancellor of Pt. RSU – Prof. K.L. Verma, Director of HRDC – Prof. A.K. Gupta, Course Coordinator – Prof. M.K. Deb and Participants)

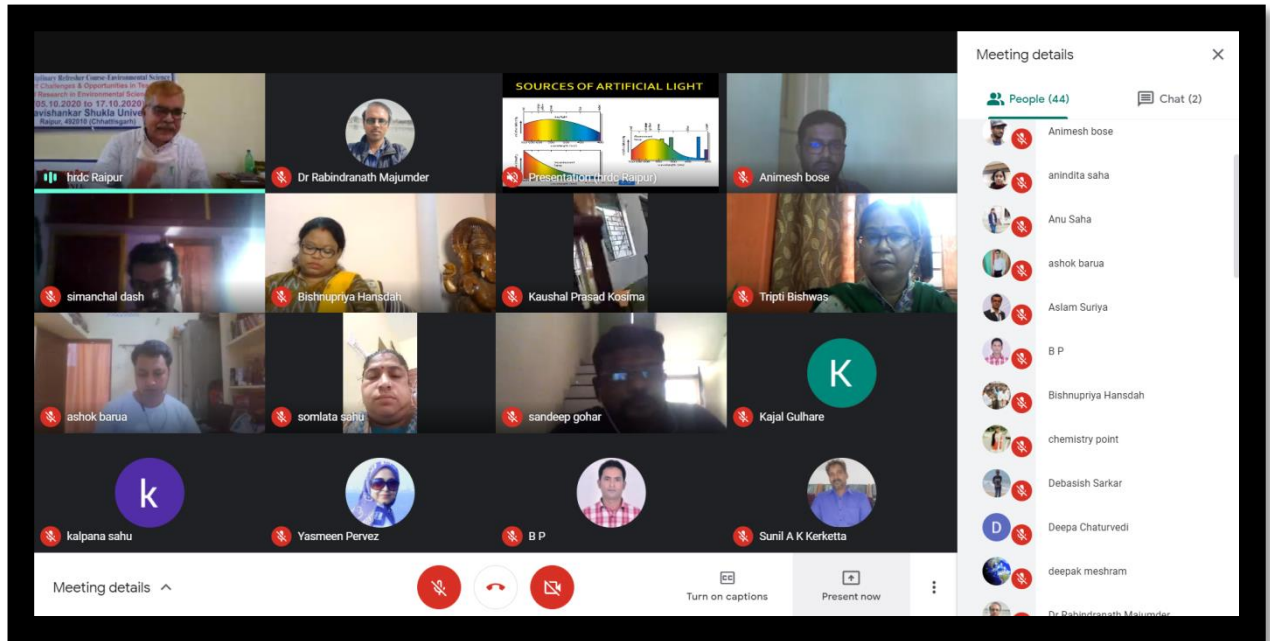
(Vice Chancellor of Pt. RSU – Prof. K.L. Verma, Director of HRDC – Prof. A.K. Gupta, Course Coordinator – Prof. M.K. Deb and Participants)



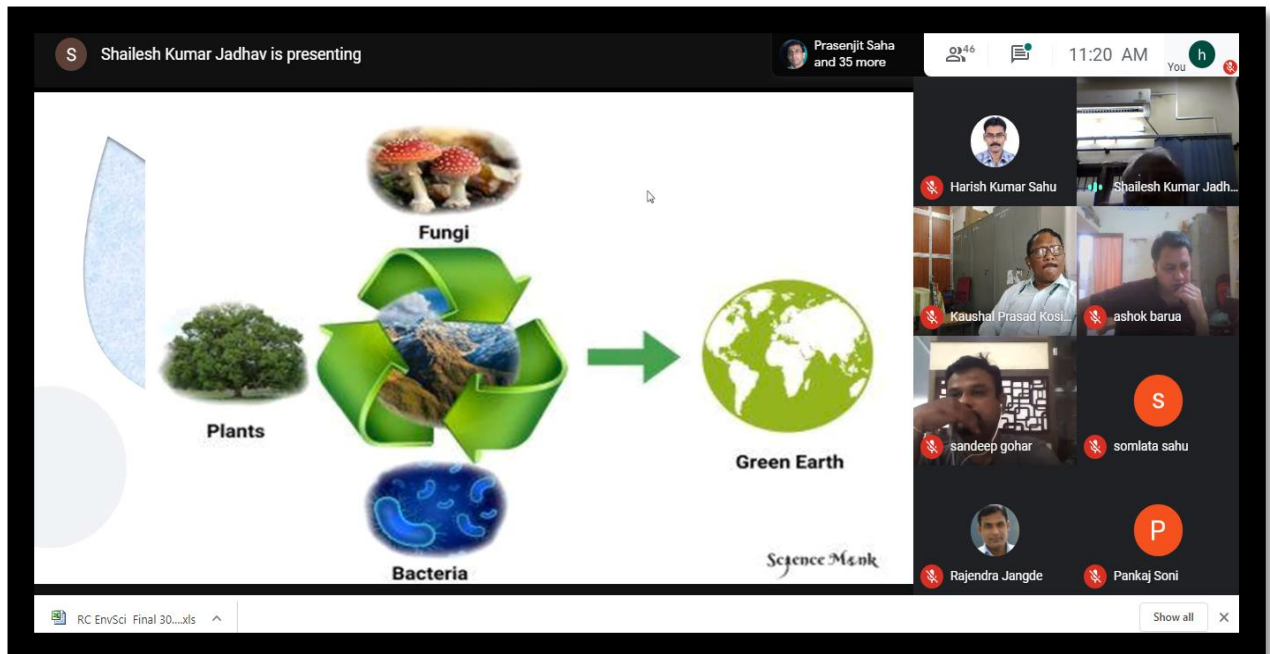
05.10.2020 (1st Session) Prof. D.P. Bisen



05.10.2020 (1st Session) Prof. D.P. Bisen



09.10.2020 (1st Session) Prof. SK Jadhav



09.10.2020 (2nd Session) Prof. Sanjay Tiwari

The screenshot shows a Zoom meeting interface. The main window displays a presentation slide titled "Solar Energy Spectrum". The slide features a line graph of "Solar Energy Intensity [W m⁻² micrometer⁻¹]" versus "Wavelength [micrometer]". The graph is divided into three regions: UV (5%), Visible (46%), and Near Infrared (49%). The visible spectrum is shown as a rainbow bar. The graph shows a peak in the visible region and a broader peak in the near-infrared region. The title "Spectrum of Solar Radiance" is written in red on the graph.

Meeting details:

- DrSanjay Tiwari is presenting
- Participants: somlata sahu and 34 more
- Time: 1:43 PM
- Participants in grid: sanjib mondal, DrSanjay Tiwari, simanchal dash, ashok barua, Pushpa Makwane, sandeep gohar, Lakhpati Patel, Harish Kumar Sahu

09.10.2020 (3rd Session) Prof. Tarasankar Pal

The screenshot shows a Zoom meeting interface. The main window displays a presentation slide about LPG. The slide includes an image of two red Indane gas cylinders. The text on the slide reads: "LPG is composed hydrocarbons containing three or four carbon atoms. The normal components of LPG thus, are propane (C₃H₈) and butane (C₄H₁₀). Small concentrations of other hydrocarbons may also be present. LPG burns readily in air and has an energy content similar to petrol and twice the heat energy of natural gas". Below the text, it says "Petrol, Diesel & Kerosene" in red.

Meeting details:

- Tarasankar Pal is presenting
- Participants: Animesh bose, Tarasankar Pal, ashok barua, Prasenjit Saha
- Meeting details panel: People (44), Chat
- Participant list: Ravi Banjare, RESHAM PRADHAN, sandeep gohar, sanjib mondal, Shubhra Sinha, simanchal dash, somlata sahu, Subhajt Das, Sunil A K Kerketta

10.10.2020 (1st Session) Prof. Tarasankar Pal

Tarasankar Pal is presenting

Subhajit Das and 25 more

10:36 AM

Periodic Table

"No law of nature, however general, has been established all at once; its recognition has always been preceded by many presentiments."
Dmitri Mendeleev

The image shows a standard periodic table of elements with various groups and periods labeled. A quote by Dmitri Mendeleev is displayed above the table. The meeting interface includes a gallery view of participants on the right and a top bar with the presenter's name, time, and participant count.

10.10.2020 (2nd Session) Prof. Sanjay Tiwari

DrSanjay Tiwari is presenting

Meeting details

People (44) Chat

Prof. Bharat Sonkamble 12:22 PM
Good afternoon everyone..... Mr. Bharat Chandoba Sonkamble (Sr. No.11)
Bhagwantrao Arts & Science College Etapalli Dist. Gadchiroli (MS)
Refresher Course in Chemistry (14/09/2020-26/09/2020)

Tripti Bishwas 12:23 PM
Good afternoon Sir plz adjust your monitor

Aslam Suriya 12:24 PM
Bharat sir, this is RC in environment science

Prof. Bharat Sonkamble 12:25 PM
yes mam but in previous RC iam unable to attend some lectures,so Agrawal sir said to attend this lectures,,, this is my last lecture

Aslam Suriya 12:26 PM
ok

Send a message to everyone

When the electron falls down from conduction band and fills in a hole in valence band, there is an obvious loss of energy.

The diagram illustrates the energy levels of electrons in a material. It shows a valence band (VB) at the bottom and a conduction band (CB) at the top. An electron is shown falling from the conduction band to a hole in the valence band, with a downward arrow indicating the direction of movement. The text explains that this process results in a loss of energy.

Aslam Suriya sandeep gohar Debashish Sark... Prof. Bharat S... Dr. Mahendra ... DrSanjay Tiwari ashok barua

10.10.2020 (3rd Session) Prof. Sanjay Tiwari

DrSanjay Tiwari is presenting

B P and 28 more

43 1:43 PM You

Final thoughts

- We have to solve the energy problem.
- Any technology that has good potential to cut carbon emissions by > 10 % needs to be explored aggressively.
- To further increase the photocurrent in a particular cell design typically requires better management of light in order to reduce reflection, reduce parasitic absorption, and enhance light trapping in the active area of the cell
- The realization of high-quality PV materials that enable low-cost manufacturing of solar cells with efficiencies approaching the S-Q limit will require a coordinated international materials science and engineering approach.
- Someone needs to invest in scaling up promising solar cell technologies.

Slide 150 of 150 ENGLISH (HINDI)

Meeting participants: R, B P, and 28 others.

12.10.2020 (1st Session) Deepa Chaturvedi

Deepa Chaturvedi is presenting

Interaction of EMR with matter

The interaction of radiation with matter.

Large number of available energy states, strongly absorbed.

Small number of available energy states, almost transparent.

Ionization energy

2 eV

0.5 eV

0.001 eV

Visible

Infrared

Microwaves

Photoionization

Ionization

Electron level changes

Molecular vibration

Molecular rotation and torsion

X-ray

X-ray

Compton Scattering

Longer wavelength X-ray

Meeting details

People (44) Chat

Add people

Participants: hrdc Raipur (You), Animesh bose, Anu Saha, ashok barua, Aslam Suriya, B P, Bishnupriya Hansdah, chemistry point, somlata sahu, Manish Rai, B P, ashok barua, simanchal dash, Manas Deb, Pushpa Makw...

12.10.2020 (3rd Session) Dr. Noor Afshan

Noor fatima Khan is presenting

Bishnupriya Han... and 30 more

45 2:31 PM You

WATER


What is drinking water...?????

- Also called as potable water... which is fit for consumption by human and other animals.
- Also called as drinking water in reference to its use.
- It may be naturally potable as in the case with pristine spring.
- Or it may need to be treated in order to be safe

Types of drinking water available

- Tap water
- Distilled water
- Bottled water/ Mineral water
- Spring water/ Mountain water
- Carbonated Water

Purification at consumer end



Meeting details

Turn on captions

Noor fatima Khan is presenting

12.10.2020 (4th Session) Prof. Sanjat Sahu

Sanjat Sahu is presenting

Bishnupriya Han... and 28 more

43 4:27 PM You

The main greenhouse gases

Name	Pre-industrial concentration (ppmv *)	Concentration in 1995 (ppmv *)	Atmospheric lifetime (years)	Main human activity source	GWP **
Water vapour	1 to 3	1 to 3	a few days	-	-
Carbon dioxide (CO ₂)	280	365	variable	fossil fuels, cement production, land use change	1
Methane (CH ₄)	0.7	1.75	12	fossil fuels, rice paddies, waste dumps, livestock	23
Nitrous oxide (N ₂ O)	0.27	0.31	114	fertilizers, combustion	296
HFC 23 (CHF ₃)	0	0.000014	260	electronics, refrigerants	12 000
HFC 134 a (CF ₃ CH ₂ F)	0	0.0000075	13.8	refrigerants	1 300
HFC 152 a (CH ₂ CHF ₂)	0	0.0000005	1.4	industrial processes	120
Perfluoromethane (CF ₄)	0.00004	0.00008	> 50 000	aluminium production	5 700
Perfluoroethane (C ₂ F ₆)	0	0.000003	10 000	aluminium production	11 900
Sulphur hexafluoride (SF ₆)	0	0.0000042	3 200	dielectric fluid	22 200

* ppmv = parts per million by volume
** GWP = Global Warming Potential (for 100 year time horizon).

Meeting details

Turn on captions

Sanjat Sahu is presenting

13.10.2020 (1st Session) Prof. Sanjat Sahu

Sanjat Sahu is presenting

Yasmeen Pervez and 26 more

41 10:43 AM You

Fundamental Ecology Terms

- Species may be -
- Indigenous** species: found in the area where they evolved
- Exotic** species: brought into an area or a region by humans, purposely or accidentally
 - E.g., acacia trees: imported from Australia to arid regions as windbreaks
- Invasive** species: exotic species compete with indigenous species and may displace them

Meeting details ^

Turn on captions Sanjat Sahu is presenting

Participants: Sanjat Sahu, Kaushal Prasad Kos..., Tripti Bishwas, simanchal dash, sanjib mondal, ashok barua, Hemkumari Patel, Debasish Sarkar, Harish Kumar Sahu, Dr Rabindranath Maj..., somlata sahu, Prasenjit Saha

13.10.2020 (2nd Session) Prof. Shamsh Pervez

Shamsh Pervez is presenting

somlata sahu and 24 more

39 12:27 PM You

Air Pollution Studies: Designing the Studies, Sampling Plan, Sample Handling, Analysis, Outcome

- Designing the Study:
 - Figure out the research question from the literature survey and field observation
 - Hypothesis to be tested to address the research questions
 - Goal and Objectives as per the research questions and hypothesis
 - Identifying the parameters of air pollution to address the objectives
- Designing the Sampling Plan:
 - Air Pollution Monitoring/measurement Site selection
 - Selection of sampling instruments and accessories along with collection systems
 - Sampling Frequency and sampling period
- Sample Handling:
 - Issues of sample collection, Transportation and preservation
 - Calibration issues of sample handling
- Sample analysis:
 - Selection of physico-chemical/biological parameters to be analysed and related standard procedures
 - Calculations and data documentation alongwith mathematical/statistical approaches to address the research questions
- Outcome analysis:
 - data validation and comparison with reported outcomes, if required

Meeting details ^

Turn on captions Shamsh Pervez is presenting

Participants: Shamsh Pervez, Harish Kumar Sahu, Tripti Bishwas, Debasish Sarkar, Animesh bose, deepak meshram, sandeep gohar, Aslam Suriya, Kaushal Prasad Kos..., B P, Pushpa Makwane, TANMOY MANDAL

13.10.2020 (3rd Session) Dr. Yogesh Gokhale

Yogesh Gokhale is presenting

Dr Swati Jain and 26 more

41 2:28 PM You

Status of Forests and Biodiversity

- Stabilized forest and tree cover covering 24% of India
- One of the 17 megadiverse countries with 4 Global Biodiversity Hotspots
- About 855 Protected Areas with poor corridor connectivity
- About 200,000 Sacred groves and more than 100,000 Joint Forest Management Committees
- More than 30 crore people directly dependent on forest resources for subsistence
- Extensive and consistent forest degradation and fragmentation
- Continued pressure of economic development at the cost of natural resources

Meeting details

Turn on captions

Yogesh Gokhale is presenting

Participants: Yogesh Gokhale, Pankaj Soni, Manas Deb, ashok barua, Radheshwari Desh..., Debasish Sarkar, Tripti Bishwas, simanchal dash, Aslam Suriya, Deepa, Remove from meeting, Dr. YASHWANT VAL..., somlata sahu

13.10.2020 (4th Session) Micro - Teaching

YOGESHWAR SAHU is presenting

kalpana sahu and 26 more

41 4:47 PM You

Article 21

“No person shall be deprived of his life or personal liberty except according to procedure established by the law.”

Some of the implementations:-

- ❖ Illegal Mining;
- ❖ Right to live in Pollution free environment;

Dr Rabindranath Majumder has left the meeting

Participants: kalpana sahu, P, M, and others

14.10.2020 (1st Session) Prof. Vinayak Sinha

Vinayak Sinha is presenting

Harish Kumar S... and 28 more

43 10:41 AM You

UGC Lecture series

Stratospheric Ozone Depletion and Photochemical Smog

Oct 14 2020

Vinayak Sinha
vsinha@iisermohali.ac.in
Department of Earth and Environmental Sciences
IISER Mohali

Reuse Slides

Meeting details

Meeting controls: Mute, Video, Chat, etc.

Participants: Vinayak Sinha, Manas Deb, Rishit Jangde, somlata sahu, B P, ashok barua, simanchal dash, Sunil A K Kerketta, sandeep gohar, Aslam Sunya, TANMOY MANDAL.

15.10.2020 (1st Session) Prof. Bhuminath Tripathi

Bhuminath Tripathi is presenting

Manmohan Tan... and 34 more

45 11:04 AM You

Similarities

- Presence of cell wall—mostly cellulosic.
- Autotrophs/Primary producers—carry out photosynthesis

10

Final RC Report 26....pdf

Meeting controls: Mute, Video, Chat, etc.

Participants: Bhuminath Tripathi, KRITIKAJYOTI NAMD..., Manas Deb, Debasish Sarkar, Bishnupriya Hansdah, sandeep gohar, Tripti Bishwas, somlata sahu.

15.10.2020 (2nd Session) Prof. Tarun Thakur

The screenshot shows a Zoom meeting in progress. The main content area displays a slide titled "Geographical Data" with the following text:

Geographical Data

- Types of data available
 - Topographic maps
 - Satellite images and photographs
 - Administrative data
 - Census data
 - Statistical data on people, land cover and land use at a wide range of levels
 - Data from marketing surveys
 - Data on utilities (gas, water, electricity) and their locations
 - Data on rocks, water, soil, atmosphere, biological activity, natural disaster and hazards collected for a wide range of spatial and temporal resolutions

The meeting interface includes a top bar with the presenter's name "Dr. Tarun Thakur Associate Professor is presenting", a participant list showing 42 people, and a time of 1:22 PM. A grid of 12 participant avatars is visible on the right. The bottom bar shows meeting controls and a list of shared documents: "Final Time Table...docx", "Final RC Report 2...docx", and "Final RC Report 26...pdf".

16.10.2020 (1st Session) Prof. Tarun Thakur

The screenshot shows a Zoom meeting in progress. The main content area displays a slide titled "Environmental Degradation" with the following table:

Causes	Effects	Solutions
<ul style="list-style-type: none">• Overpopulation• Deforestation• Landfills• Consumption behavior• Waste production• Lack of education• Illegal dumping• Agricultural pollution• Littering• Mining• Plastic pollution• Resource depletion	<ul style="list-style-type: none">• Acid rain• Biodiversity loss• Floods• Landslides• Soil erosion• Endangerment of species• Natural disasters• Global warming• Public health problems• Loss of livelihood for many people• Famine• Wars• Spread of diseases• Loss in tourism• Economic effects	<ul style="list-style-type: none">• Stop deforestation• High fines for illegal dumping• Stricter government regulations• Nature reserves and biotopes• Reduce consumption levels• Reduce waste production• Refrain from plastic packaging and disposable cups• Education• Convince others

The meeting interface includes a top bar with the presenter's name "Dr. Tarun Thakur Associate Professor is presenting", a participant list showing 44 people, and a time of 10:56 AM. A grid of 12 participant avatars is visible on the right. The bottom bar shows meeting controls and a list of shared documents: "Final Time Table...docx", "Final RC Report 2...docx", and "Final RC Report 26...pdf".

16.10.2020 (2nd Session) Prof. Anjali Pal

A Anjali Pal is presenting

Dr. Mahendra Kumar Ma... and 27 more

42 1:16 PM You

Surfactant, Micelles and their Formation

Hydrophilic
G = NH₃⁺
COO⁻ etc

n x
Hydrophobic

SURFACTANT

MICELLE

Surfactant in hydrophilic solvent
CMC

Aggregation of surfactants is called micelle

Meeting details

Turn on captions

Anjali Pal is presenting

16.10.2020 (3rd Session) Seminar

Sunil A K Kerketta is presenting

Pushpa Makwane and 24 more

39 2:20 PM You

What is a Waste?

Waste is any item beyond use in its current form and discarded as unwanted. It can be solid or liquid with respective management methods.

Type 1: SOLID WASTE

Solid Waste In rural areas, examples of solid waste include wastes from kitchens, gardens, cattle sheds, agriculture, and materials such as metal, paper, plastic, cloth, and so on. They are organic and inorganic materials with no remaining economic value to the owner produced by homes, commercial and industrial establishments.

Most household waste in rural areas is organic, with little inorganic material, and is non-toxic. Because of its environment-friendliness, composting is a highly suitable method in rural areas.

Meeting details

Turn on captions

Sunil A K Kerketta is presenting

16.10.2020 (4th Session) Seminar

RESHAM PRADHAN is presenting

Hemkumari Patel and 27 more

42 4:54 PM You

Reports

1. All India Survey on Higher Education.
2. National Education Policy 2020. Ministry of Human Resource Development. Government of India.
3. National Policy on Education 1986. Ministry of Human Resource Development. Government of India.
4. National Policy on Education 1968. Ministry of Human Resource Development. Government of India.
5. University Grants Commission. (2008). Higher Education in India. Issues Related to Expansion, Inclusiveness, Quality and Finance.

Meeting details

Turn on captions

RESHAM PRADHAN is presenting

17.10.2020 (1st Session) Prof. A.S. Aswar

Anand Aswar is presenting

Kaushal Prasad Ko... and 25 more

40 11:05 AM You

From cave-man to modern-man

13

Meeting details

Turn on captions

Anand Aswar is presenting

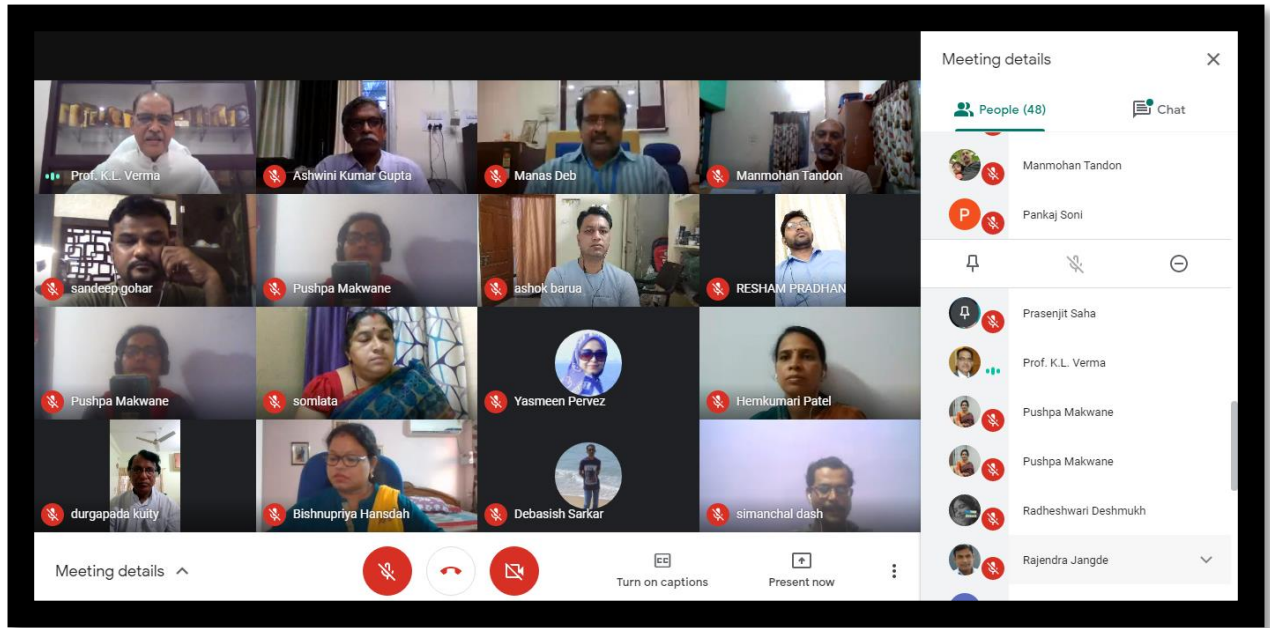
17.10.2020 (2nd Session) Prof. Anjali Pal

The screenshot shows a Zoom meeting interface. At the top left, it says "Anjali Pal is presenting". At the top right, it shows "Dr Swati Jain and 28 more", a group icon with 43 people, a chat icon, and the time "12:39 PM". The main content area displays a presentation slide titled "Some diseases due to Arsenic poisoning". The slide features six photographs: a person with skin lesions, a hand with a dark stain, a person holding their head in pain, a pair of hands with dark staining, a person's feet with lesions, and a person's leg with a lesion. To the right of the slide is a grid of 12 participant video thumbnails. The participants are: Yasmeen Pervez, Anjali Pal (the presenter), Bishnupriya Hansdah, ashok barua, Debasish Sarkar, Pushpa Makwane, Animesh bose, Bishnupriya Hansdah, Manas Deb, B P, Aslam Suriya, and Manmohan Tandon. At the bottom, there are meeting controls including "Meeting details", mute, video, and chat icons, and a status bar indicating "Anjali Pal is presenting".

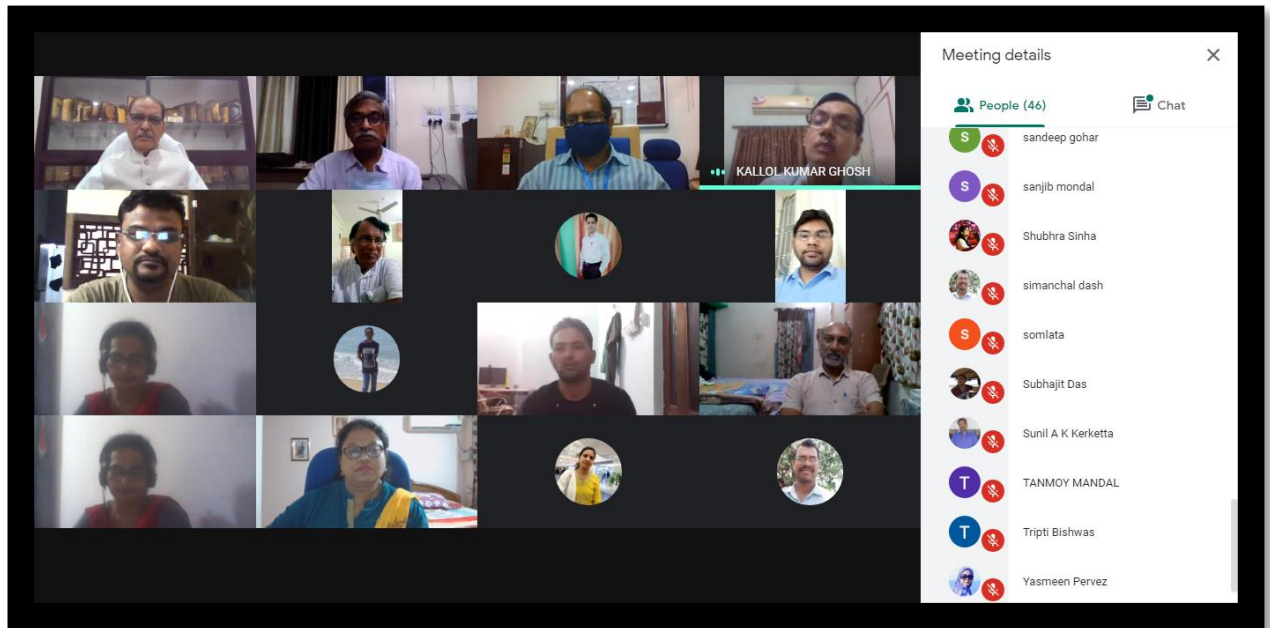
17.10.2020 (3rd Session) Dr. D.P. Kuity

The screenshot shows a Zoom meeting interface. At the top left, it says "durgapada kuity is presenting". At the top right, it shows "chemistry point and 27 more", a group icon with 42 people, a chat icon, and the time "3:50 PM". The main content area displays a presentation slide from Microsoft PowerPoint. The slide features a photograph of a beach with palm trees and the text "THAWKS" in yellow and "Phuket, Bangkok" in yellow. The PowerPoint interface is visible, including the ribbon and slide thumbnails. To the right of the slide is a grid of 12 participant video thumbnails. The participants are: durgapada kuity (the presenter), Deepa Chaturvedi, Tripti Bishwas, sandeep gohar, ashok barua, Debasish Sarkar, somlata, Manas Deb, Pushpa Makwane, Dr. Mishra, simanchal dash, and Animesh bose. At the bottom, there are meeting controls including "Meeting details", mute, video, and chat icons, and a status bar indicating "durgapada kuity is presenting".

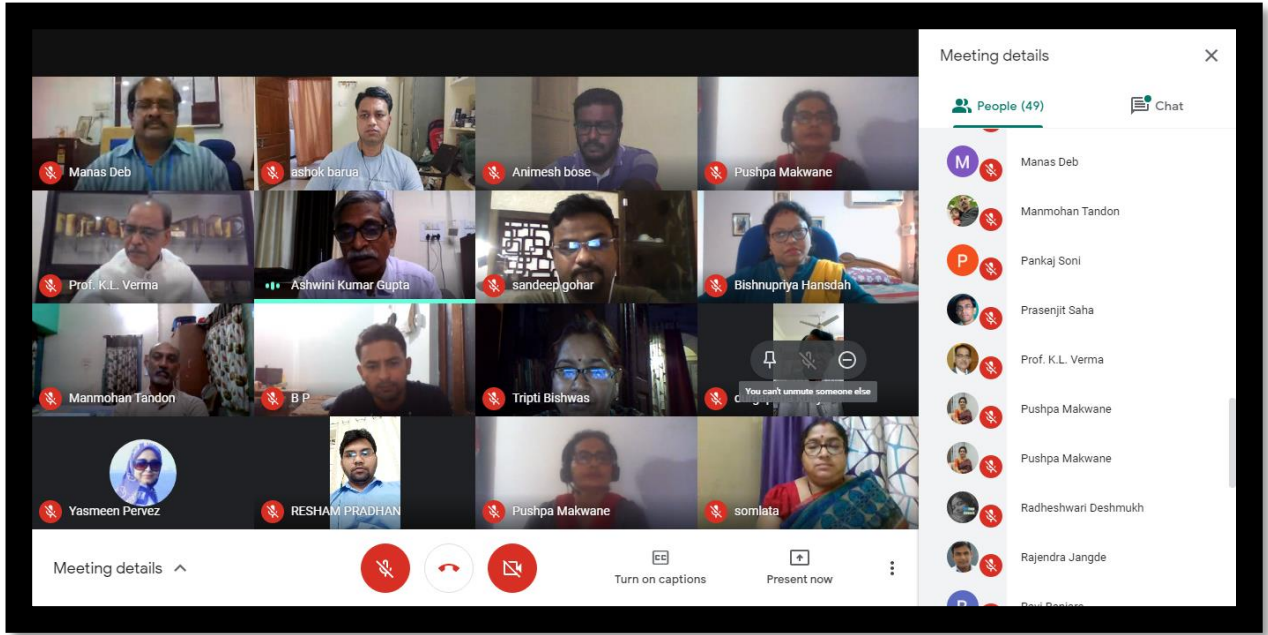
17.10.2020 (Valedictory)



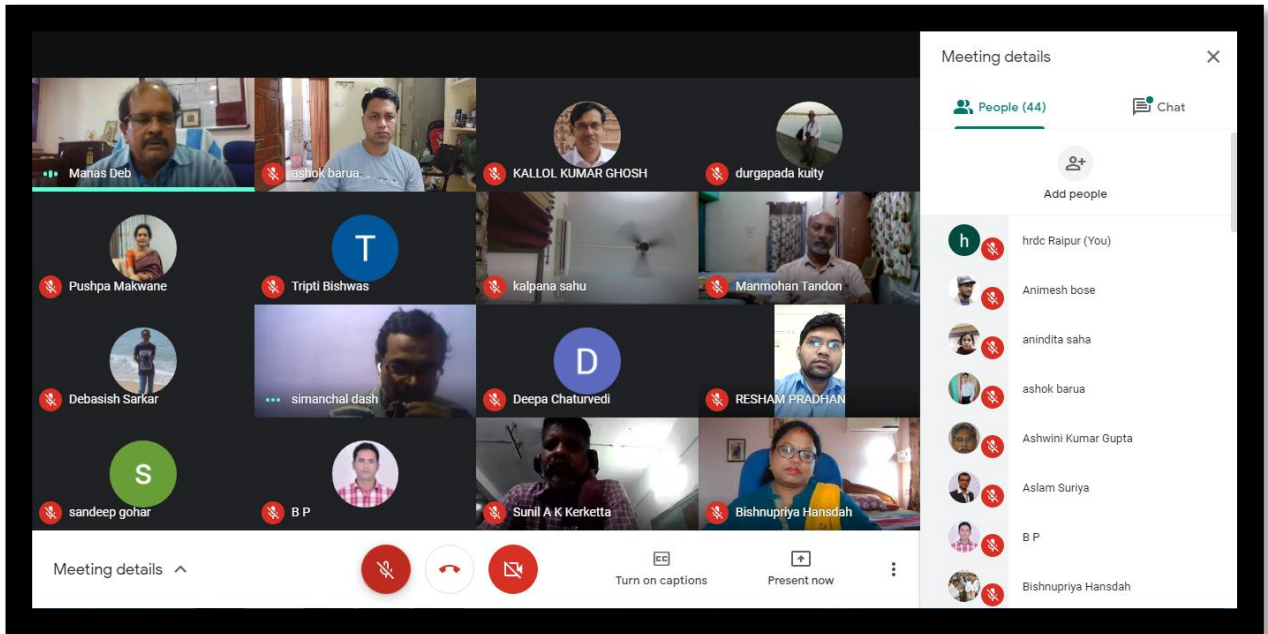
(Valedictory)



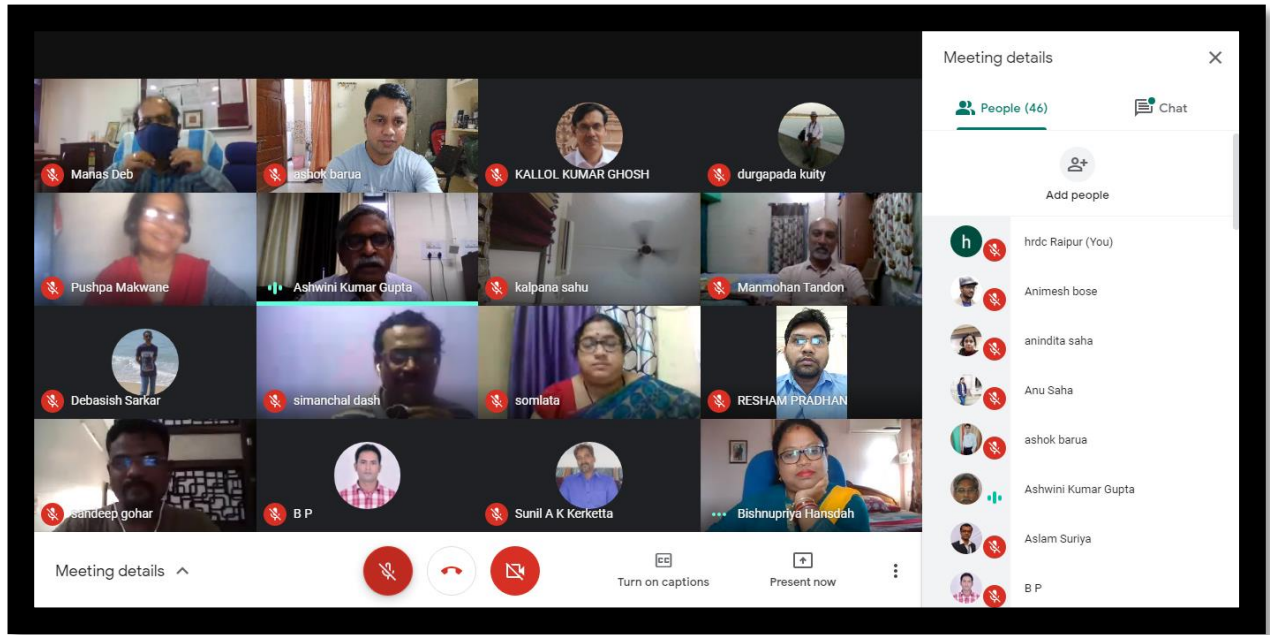
(Valedictory)



(Valedictory)



(Valedictory)



(Valedictory)

