

Programme Report

Seventh Faculty Induction Program (FIP-07)

Conducted by

Human Resource Development Centre

University of North Bengal

(05 January 2022 to 09 February 2022)



Consolidated Report of the Faculty Induction Programme (FIP 7), 2021-2022

Organized by the UGC-HRDC of North Bengal University, Siliguri, West Bengal

From January 5 to February 9, 2022.

(Based on the daily reports prepared by *all the teacher-participants* by rotation)*

Compiled, edited and consolidated by

Shamba Dutta (FIP7 Roll no 09)

Librarian, Maharaja Manindra Chandra College, Kolkata.

The 7th Faculty Induction programme, organized online due to the ongoing Covid pandemic in tune with the UGC mandate, by the HRDC of the University of North Bengal, West Bengal started on 05 January 2022 and ended on 09 February 2022.

Fifty participants were selected from different Colleges and Universities and HEIs across India, according to seniority.

Everyday excepting the Opening and the Closing day, the programme started at 10:30 am and ended at 5:30 pm with one hour's lunch break from 1:30 pm to 2:30 pm. There were two one-and a half hours' lecture sessions in each halves, i.e. four lecture sessions a day. Teacher participants used to join by 10:15 am and 2:15 pm every day.

Inauguration of the 7th Faculty Induction Programme (FIP-07) at University of North Bengal (NBU) on 5 January 2022.

The link and other information had already been shared to all on the day before the opening day.

The participants started joining from half an hour before on the first day of the programme and the coordinator of this programme Dr.Sanjib Bhattacharya initiated an informal conversation with the teacher-participants.

Also, participants recorded their attendance cum registration through Google form. The Inaugural programme started at 12 noon with the brief introduction of the FIP-07 programme and University of North Bengal and its various dimensions in teaching and research. The following dignitaries marked their gracious presence in the inauguration of FIP-07:

Dr. Pranab Ghosh (Registrar, officiating) inaugurated the programme with his words of wisdom and highly motivating speech.

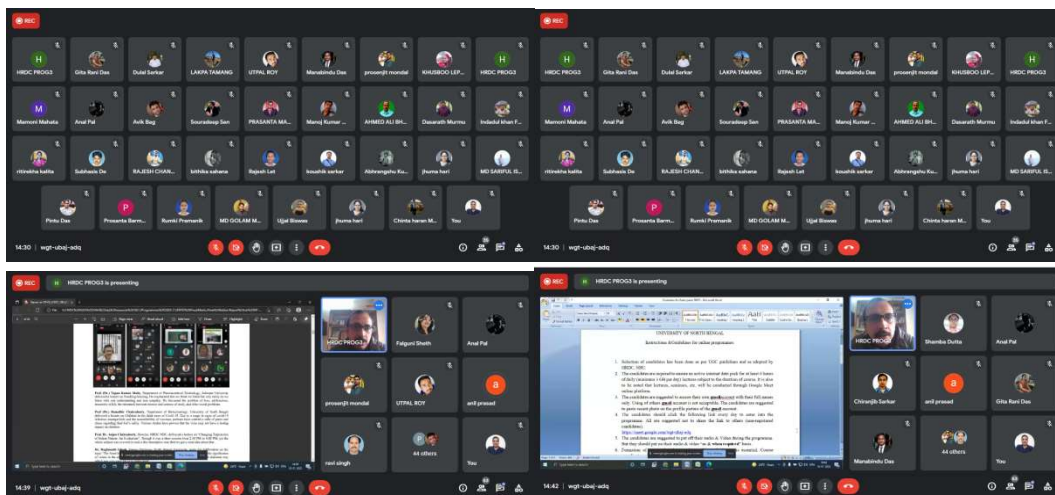
Dr. Rathin Bandyopadhyay, Dean (Arts, Commerce and Law)

Dr. Subhash Chandra Ray Dean (Science)

Dr. Hossain, Assistant Director, NBU

The inaugural programme ends by a valedictory speech and vote of thanks by Dr. Sanjib Bhattacharjee, co-ordinator and Deputy Director UGC-HRDC NBU.

*Google document was created by **Dr. Kishor Kumar** for daily report submission.



Snapshot of the opening programme

In the post-lunch session, Dr. Sanjib Bhattacharya, coordinator of this program gave a brief idea of activities and lectures to be organized. He also emphasized on the evaluation of all the teachers-participants. He first mentioned forming an unofficial group on whatsapp for planning and discussing the task/activities that will be given in the training. He read out the guideline of the FIP-07 and explained each point in detail. He also explained that each candidate will be evaluated on the basis of a presentation (30 marks), microteaching (20 marks), Multiple-choice test (30 marks) and holistic response including interaction, report writing, group photographs and attendance (20 marks).

The first formal lecture of the FIP was delivered by Dr. Asish Kumar Chattopadhyay, Pro-Vice Chancellor-Academic of University of Calcutta. It started at 4 pm and continued up to 5:30 pm.

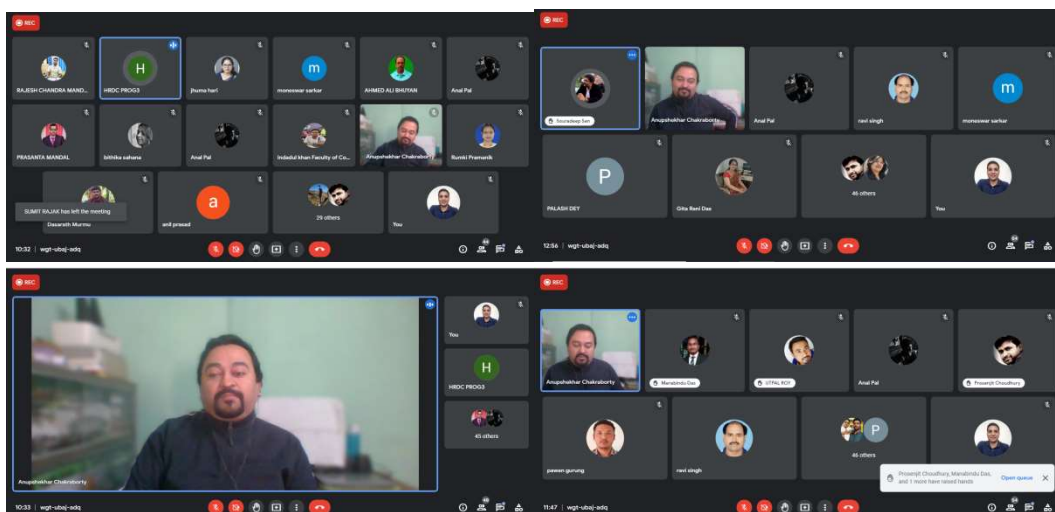
Prof. Chattopadhyay said, a plethora of data is accumulated in the public domain everyday. The precise processing and analysis of these data and drawing the inference out of this is very important. Here lies the importance of Big Data analysis and Multivariate analysis. In his lecture Prof. Chattopadhyay discussed various areas relating to this particularly highlighting Dimension Reduction mentioning 3 techniques of dimensionality reduction: 1) Principal Component Analysis, 2) Factor Analysis, and 3) Independent Component Analysis.

After his lecture, Prof. Chattopadhyay answered a number of questions of the teacher-participants on his lecture.



Day 2 programme started on 6 January 2022 at 10: 30 am according to schedule. In the first lecture, the speaker was Professor Anup Sekhar Chakraborty of the Department of Political Science and Political Studies, Netaji Institute of Asian Studies, Kolkata. He discussed on the ***Virtualisation of the Public Sphere***. Public interaction and public opinions in the modern digital world is mostly communicated and shared on the digital platforms, esp. social media. This virtualisation create many problems also, like dissemination of disinformation, public shaming, distorted and doctored videos and facts and they cast mostly negative influences in the society.

He also talked about how from 2018-2019 onwards memes became important in electoral Politics. He described the effect of these memes sometimes leading to community violence, creating false narrative, amplification of the false narrative thus leading to false communication.



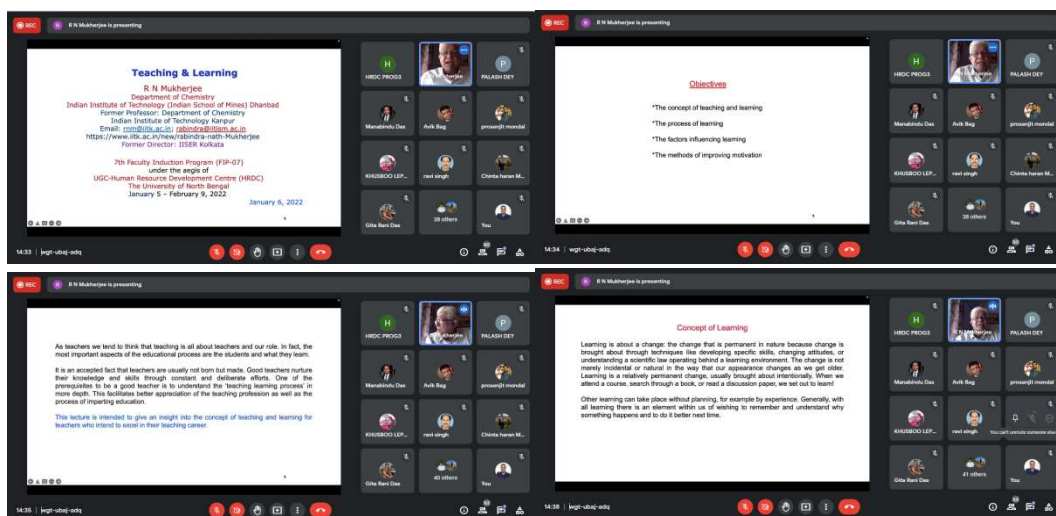
The second lecture of the day too was delivered by Dr. Chakraborty.

At the outset he makes it clear that Men studies is not a competitor or has nothing against Woman studies. He explained the importance of this subject in society with suitable examples. He also highlighted some key points including the roles and responsibilities of men in our society. He talked about how the society has traditionally constructed the idea of a 'man' and his various aspects. It is important to explore the sociological role of masculinity in the society because like women men too face many problems in life. But if they share it with their colleagues, it always becomes a joke. For example, issues of domestic violence against men, their sex life, sperm count male harassment and male abuse etc. are not so openly discussed in the society and according to the social construct men are all believed to be strong enough and to suffer silently.



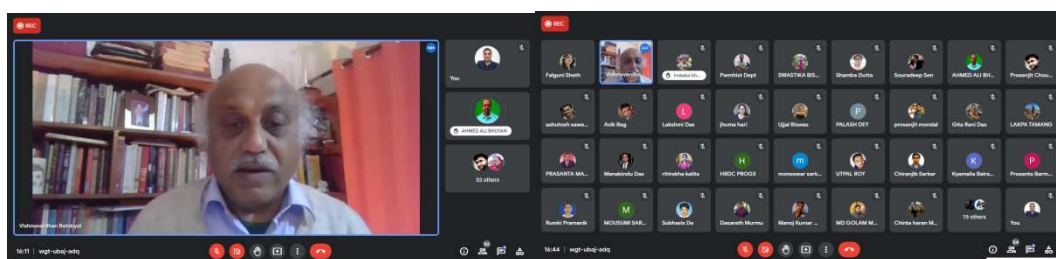
After this lecture lunch break was declared.

The post lunch session started at 02.30. In the session the first lecture delivered by Prof Rabindra Nath Mukherjee Visiting Professor, IIT (ISM) Dhanbad . Teaching-Learning process has a two way character, it is never one sided. Both the teachers and students have roles to bring out the best potentials of each other. He discussed on the many aspects of how teaching –learning and the whole process of knowledge dissemination including class room teaching and evaluation can be made more effective. He in course of his lecture compared the IIT & IISER system with the University system.



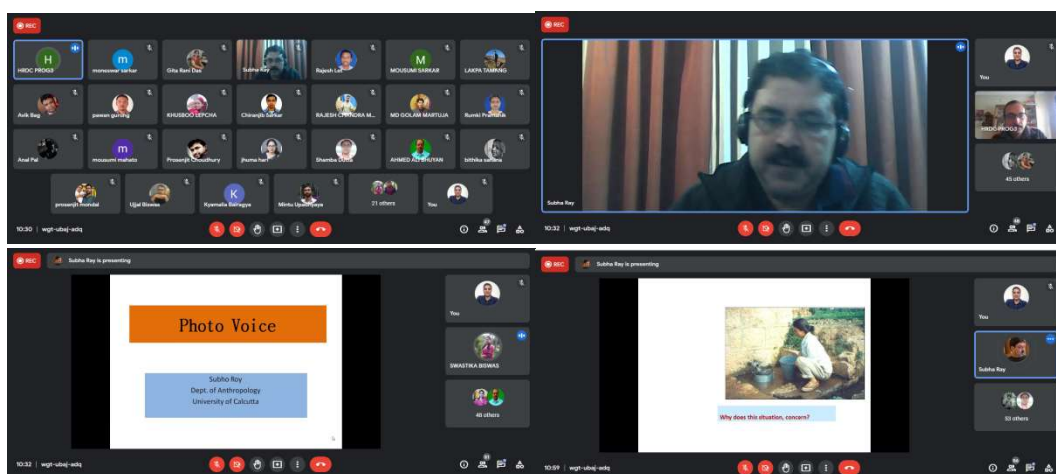
Lecture IV of the day was delivered by Professor Rakesh Batabyal, Professor, Centre for Media Studies Jawaharlal Nehru University titled *the ideas of institutions: some theoretical considerations*. It was the first lecture under the same title which was a throughout interactive session highlighting various ideas of institutions, their limitations, asymmetries in the idea and inequalities among the institutions across India. The speaker emphasized on the need of self and internal critique and internal dialogue in the institutions.

With Professor Batabyal's lecture, the day's session ended at 5: 45 pm.

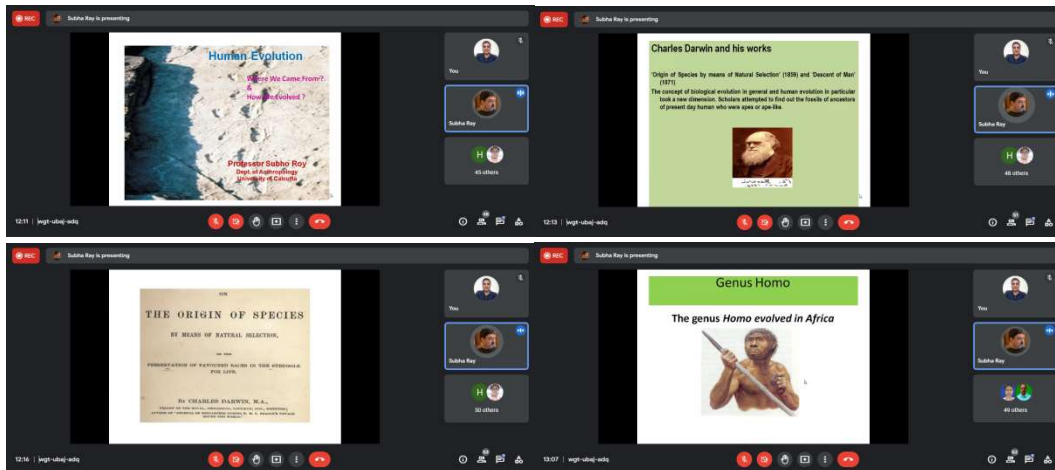


On February 07, the first lecture of the day started at 10:30 am as usual. It was a lecture by Dr. Subha Ray, Professor, Department of anthropology, University of Calcutta, Kolkata. His topic was *Photo-voice: A qualitative action research*. Photo-voice is a new ethnographic research method with a participatory nature. It is conducted by the content analysis of photographs taken of different events and activities. As the name suggests this research method deals with the voice or story that a photo has to tell. Analysing those photographs researchers can make inferences on the motives, aspirations, problems etc. and it

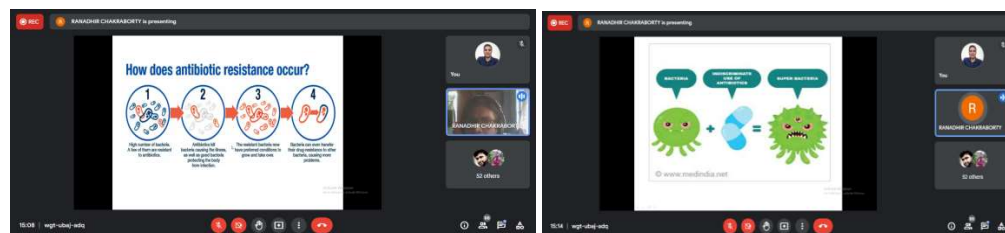
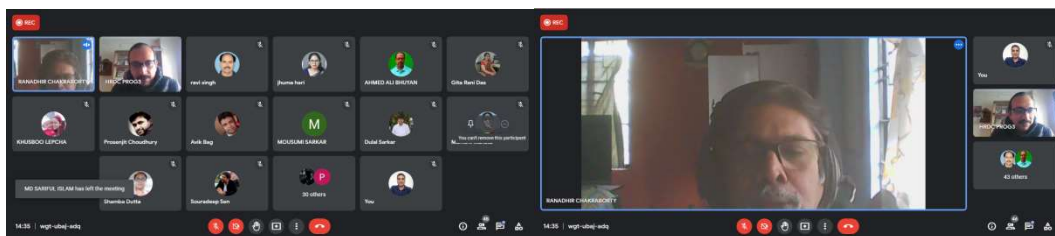
helps make proper study and policy decisions. Photo-voice is effectively used as a method to reveal real life experiences and empower marginalized individuals from all spheres of life. The three essential components of the photo-voice projects are Researcher (who seeks to gain information from the particular community), Photo-voice participants (members representing a marginal group who agree to take photos) and Target audience members (who are selected based on their ability or power to influence decisions or policy changes). Photo-voice has the advantages that images are understood regardless of language, culture, or other factors and it also provides a means for empowerment of the participants without requiring people to stand up and speak in public. The limitation of photo-voice lies in the prolonged time commitment and expenses required for carrying out this project. Moreover ethical concerns and biases in inclusion or exclusion of photographs might influence the research findings.



Lecture-II of the day was titled ***Human Evaluation: Where we came from and how we evolved delivered*** by Dr.Subho Roy once again. The lecture provided outline idea on the sequence of events that lead to the evolution of modern man. The lecture began with an introduction on the contribution of Charles Darwin in setting the foundation for evolutionary studies. The evolutionary path to humans started with the advent of primates which took place in the Cenozoic era. Amongst the seven epochs of the Cenozoic era, early humans (Australopithecus) diversified in the Pliocene epoch and early Homo (Homo sapiens) developed in the Pleistocene epoch. These hominids (Australopithecus and Homo) are characterized by bipedal locomotion, erect posture, reduced teeth size-especially canine and increased brain volume. In hominid evolution, upright walking preceded large brains and evolution of bipedalism also led to the evolution of culture, and development of both these events led to a biocultural evolution of human beings. The lecture ended with the speaker concluding that microevolution is constantly taking place in humans even today and it is these micro evolutions that will finally add up and cause a macroevolution in the future.

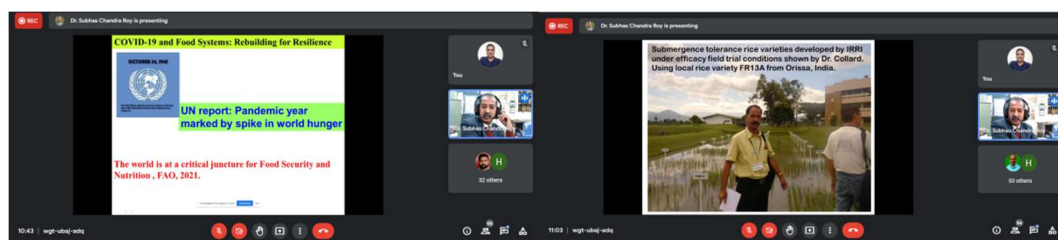
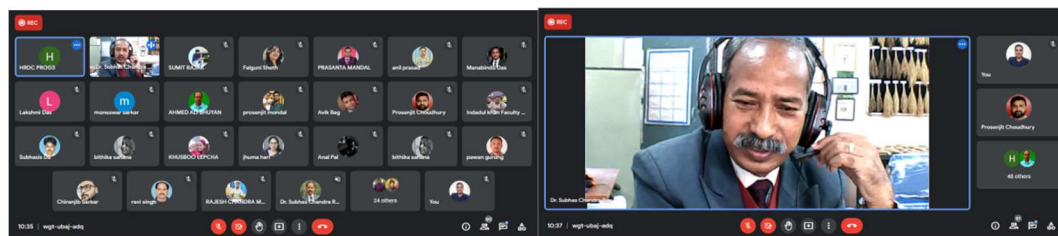


After the vibrant first session of the day teacher-participants joined the second session after the break. Lecture-III and IV were also equally engaging. The joint session was titled as **Silent Tsunami** delivered by Dr. Randhir Chakraborty, Professor, Department of Biotechnology, University of North Bengal. Overuse and indiscriminate use of antibiotics is becoming an increasing threat to human health causing antibiotic resistance. It leads to the resurgence of resistant microbes. Additionally, the human gut is host to many useful microbes which help us in several ways such as digestion, metabolic activity, immunity etc. They are also affected, thus resulting in severe water- or food-borne diseases like diarrhoea etc. Therefore, it is an urgent need to discover new antibiotics that have potential to treat the newly emerged antibiotic microbial resistance. Other than human intake, there are several sources of antibiotics which deliberately and non-deliberately cause the emergence of new resistance and affecting our daily life such as medicine plants waste, industrial waste, agricultural waste, animal husbandry, sewage water treatment plants, and waste from hospitals. Better management of wastes can be one of the ways to reduce the emergence of new antibiotic microbial resistance.



Day 4 (8 January) begins at 10: 30 am as usual. Lecture-I of the day was on **Rice is Super Food for Good Health and Well Being** and the speaker was Dr. Subhash Chandra Roy, Professor, Department of Botany of the University of North Bengal.

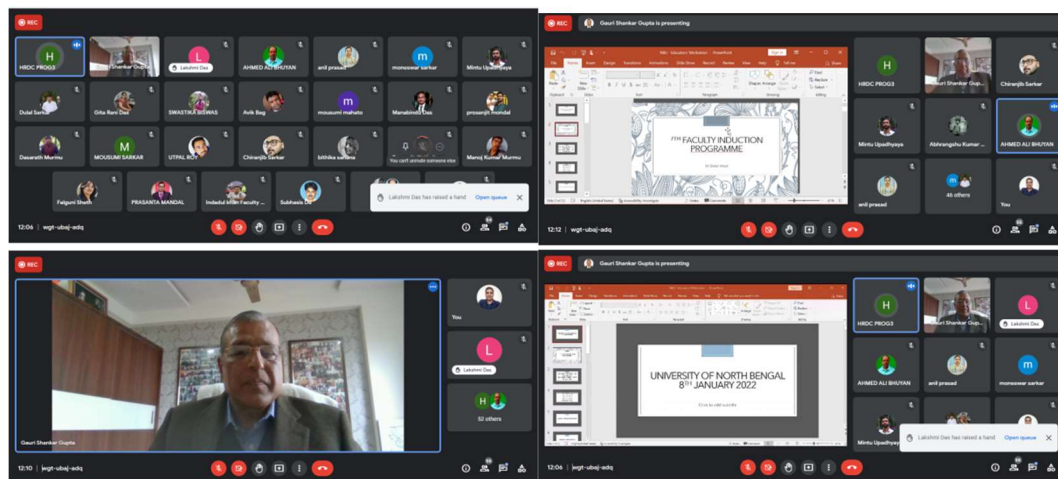
The world population is increasing at an alarming rate. Approximately 40% more food grain is required to feed the 9.7 billion populations by 2050. The field potential of producing major crops stagnated after the green revolution. So, there is an urgent need to incorporate the natural genetic variations from diverse rice germplasms. In this lecture, Prof. S. C. Roy described the utilization of various germplasms to increase the yielding potential of rice. He also focused on the improvement of antioxidants, Vitamin B and E content etc. using the local landraces and varieties available in Eastern India. India is a rich reservoir for many valuable rice germplasm carrying useful traits. One of them is fragrant non-basmati rice especially available in West Bengal. But they are obsolete due to lower yield. The cultivation of such fragrant rice is limited to a few districts of West Bengal. Prof. Roy started rejuvenating them by crossing locally available fragrant rice with high yielding rice cultivars. Around 500 germplasms have been developed at the department of Botany, University of North Bengal and currently these are tested under replicated yield trials for nation-wide release. Additionally, Prof. Roy also identified accessions of wild rice, *Oryza rufipogon*, which carry very useful agronomic traits. He hypothesized that this species could be an immediate progenitor of black rice found in India.



Lecture-II and III of the day were on Philosophy of life and Heritage of India delivered by Dr. Gauri Sankar Gupta, Former India's Ambassador to Mongolia, Hungary and Bosnia & Herzegovina. Dr.Gupta started his speech regarding the philosophy of life with a Sanskrit verse praising the importance of teachers. He narrated that the place of teachers is always supreme. They are the creators of next-generation of India. He gave the five mantras of good life namely (1) eat moderately, (2)

exercise, (3) good sleep, (4) healthy mind and (5) cleanliness. He cited a phrase of *Bhagavat Geeta* that our act is decided by many factors which are beyond our control. So, we have to focus on our act, not the result. Desires are infinite and they grow in geometric progression. Infinite desire may be harmful. Therefore we should control and confine our desire to a limit.

He also stressed on the different heritage of India like its ancient emergence of knowledge in different fields like philosophy science art culture literature medicine and surgery and way of life.



After Dr. Gupta's lecture there was an interactive session conducted by Dr. Sanjib Bhattacharya, Associate Professor cum Deputy Director of HRDC, NBU which ended at 5:30 pm.

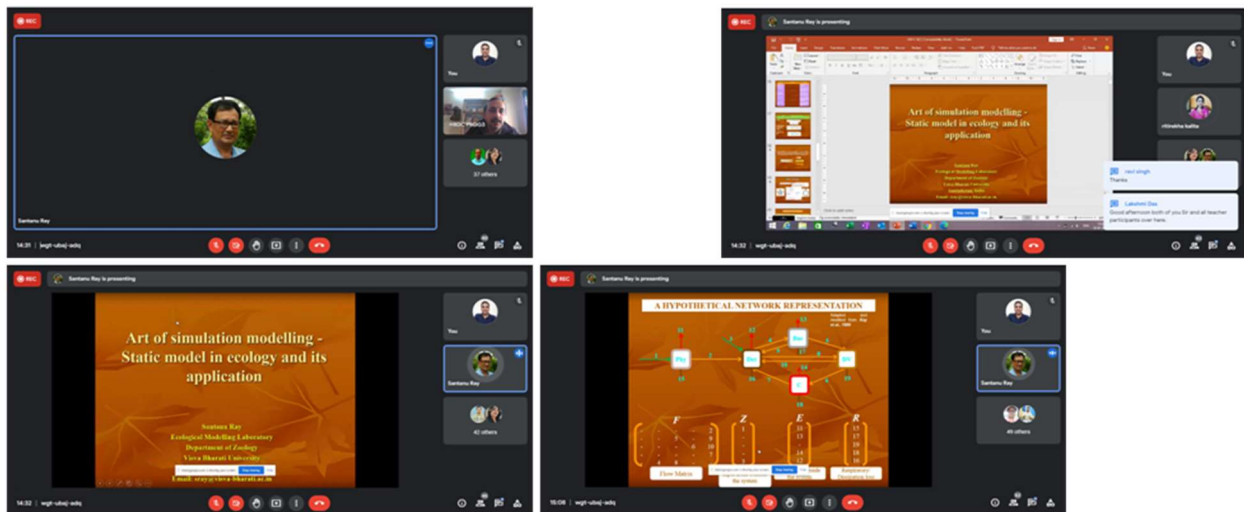
Day 5 of FIP-07 started at the scheduled time, on 10 January, the previous day being a Sunday. The first speaker was Dr. Santanu Ray, Professor, Department of Zoology of Visva-Bharati. Dr. Ray's topic was ***System Ecology: On the Perspective of Dynamic Modelling***. He discussed on the role of 'chaos' for biological systems as self organizing systems. He tried to explain why it is impossible to predict the actual behaviour of all biological systems and also explained how these biological systems are exemplified by patterns of complexity and regularity. He demonstrated, with the help of differential equations, the rise of chaotic nature in some biological systems. Dr. Ray also provided some examples to better understand the topic. At the end of his presentation, he conducted an interactive session with us and also addressed all the queries of all the participants satisfactorily.

Lecture-II was by Dr. Gorky Chakraborty who is an **Associate Professor, Institute of Development Studies Kolkata**. His topic was 'Citizenship in India'. According to him, 'citizenry' has been defined by the Citizenship Act, 1955 and subsequent amendments to it. Colonialism, migration and partition overwhelmingly contributed to this process. The then leadership, although fighting for its inclusion in

Pakistan, remained a mute spectator to the loss of Sylhet, a Bengali speaking district. According to his lecture it became clear that the perception generated that the NRC is a part of the Assam Accord (1985) is highly misleading. It is a pleasure to hear a discussion regarding such a burning issue. During the course of lecture, the issues of migration and partition cropped up several times, naturally.

Lecture-III of the day was also by Prof. Santanu Ray.

In continuation with his first lecture Prof. Santanu Ray has presented his second lecture on **Art of Simulation Modelling - Static Model in Ecology and its Application**. He took the help of 'Network Analysis' for explaining thermodynamics, Statistical Mechanics, input-output (I-O) analysis and Ataxonomic aggregation, as a part of Industrial ecology. A suitable framework is furnished by structural economics, which situates the economy within the physical world. He has presented a hypothetical representation of flow matrix and explained four major tasks performed by network analysis. Prof. Ray has demonstrated some work with different software. His lecture was really has showed the path to explain different phenomenon in Ecological Network Analysis (ENA).



The final lecture of the day was delivered by Dr. Ujjal Marjit System in Charge, CIRM, University of Kalyani. It was about **MOOCs and LMS**

Online education is the need of the current time. It is a flexible instructional delivery system operated by the internet and allows the learner and educators to reach beyond the limitations of geographical distance, time constraints etc. It has flexibility over the traditional classes. In this connection he discussed extensively on *Learning Management System* and *Massive Open Online Courses*.

For creating MOOCs, the idea of Open Education Resources (OER) is a vital one. They are basically the learning material in any form either digital or otherwise which remains freely available for the further use without any restrictions or minimal restrictions and available as an easy access. OER forms a part of

open solutions and available with the help of some free and open source softwares for open access. The speaker said that the basic philosophy of MOOC is 3As: anytime, anyone, anywhere.

He drew the attention of the teachers-learners to certain MOOC initiatives, especially MHRD (Ministry of Education) such as *E PG Pathshala and SWAYAM*.

He particularly focused on SWAYAM (Study Webs of Active–Learning for Young Aspiring Minds) which is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. Nearly 22000+ modules on different courses / disciplines are available.

He discussed how SWAYAM modules can be prepared by following the prescribed four quadrant model.

Day 6 (11 January) started with two consecutive Lectures titled ***Open Access to Research: A Journey (Lecture I & II)*** by Professor Parthasarathi Mukhopadhyay, Department of Library and Information Science of University of Kalyani.

In lecture I Professor Mukhopadhyay discussed on Open Access and Research Support Tools, Open Source and Open Data. He discussed the four fundamental facets of open access. Now-a days information has become overloaded and too much information is as bad as too little. Under such a situation fragmentation of the information becomes crucial. He pointed out that the researchers spend a huge time searching for information especially in Google. He illustrated through his web page how one can save time by using certain *advanced search keywords* and reduce recall and increase precision. He discussed on the different kinds of Web Search Tools and the problems faced by the researchers. The session helped us be acquainted with the new search tools which would make research less time consuming.

In Lecture-II Professor Mukhopadhyay continued his lecture on Open Access to knowledge with the Neo Conventional Model. Open access means free and online access to scholarly literature that can be freely disseminated further with proper author attribution. The speaker narrated to the participants the advantages, positive sides and the ultimate necessity of open access in higher education or in research. During the session he discussed the issue of Journal Acquisition and accession, one of the reasons being its price. He explained what is Open Knowledge and Open Access Initiatives and how the open knowledge movement can be an weapon to fight the issue. He discussed Golden Path and Green Path and Open Access Publishing and Open Access Repositories and about Sherpa/Romeo and Sherpa/Juliet which provides policies regarding open access. He said that there are 50+ open access repositories in India for e.g., Indian Institute of Science, E- Sangraha, Indian Institute of Astrophysics Repository, etc. He illustrated through his web page how to use search engines like SCI-HUB, DOAJ, OpenDOAR, zenodo.org, etc.

After the lunch break all met for attending the Lecture III, delivered by Prof.(Dr.) Rakesh Batabyal of JawaharLal Nehru University again. The topic was a continuation of the earlier talk of the idea of ***Institutions: Some Theoretical Consideration.***

Again in his characteristically interactive manner he continued to shed light on various aspects of the idea of Institution. This time he stressed upon the ideas of nationalism, fascism democracy, and several value systems and paradigms. The questions of non inclusion of India as depicted in Rabindranath Tagore's Song '*Jana Gana Mana*', Geographical territory of both British India and India after Independence, Gandhiji's principle i.e *nastik* (non believer), *harijan and dalit*(socially down trodden and untouched by higher classes) identity, disabled people etc cropped up from the different participants' queries. Institution as understood is in deep crisis in political and historical perspectives, and concerns of economic development taking note of the past and degradation in the present age was discussed in the similar manner in its due course. Institutions in pre-independence period, colonial period and post-independence period the emergence of institutions during the national freedom movement and how they built or added to the ethos were discussed too. Institutional profile during Nehruvian period i.e. 1950 to 1960 and new Institutions in the era of global economy and new liberalism was also not beyond the scope of this interactive session. He described the role of the University system as the chief nation builder where the soul of Institution which at many times are found fragmented or missing must be restored.

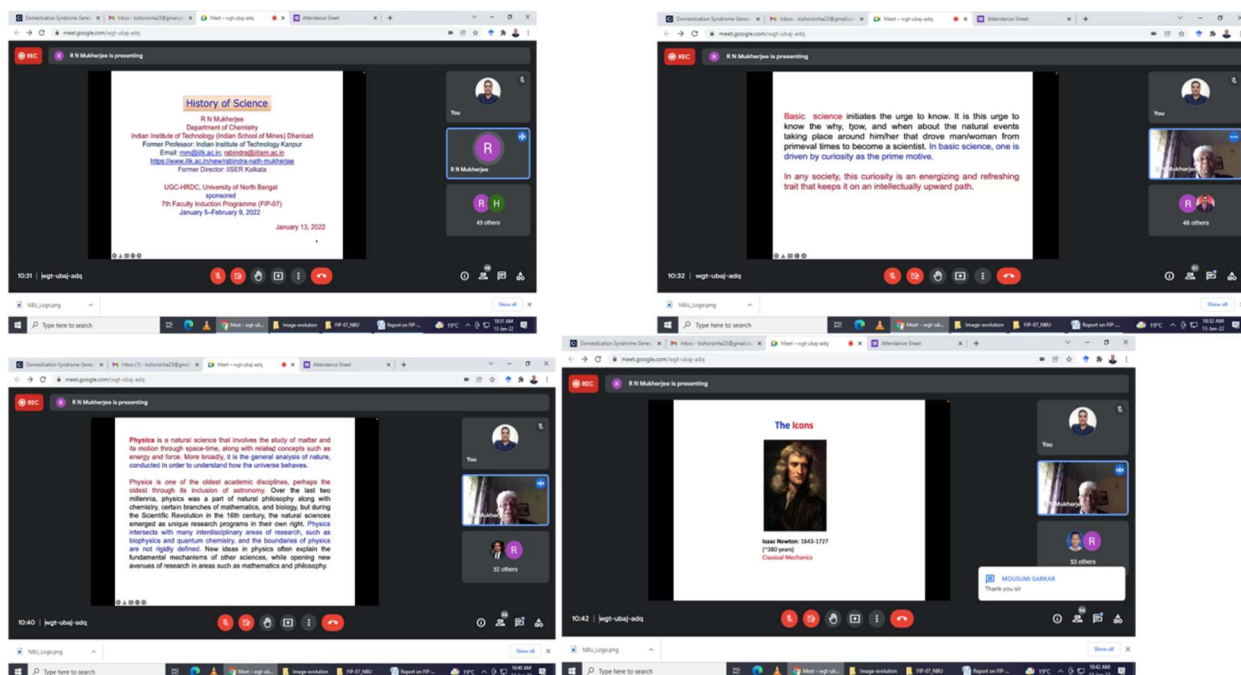
The Speaker of the next session was Dr. Sujit Kumar Biswas, Associate Professor, Department of Law, NBU. His talk was on Right to Information Act 2005.

He covered the history of freedom of information and in Indian context from the Freedom of Information Act, 2002 to the present *Right to Information Act, 2005* to its latest amendment up to 2019. He also covered the area of freedom of speech and expression under Article 19 of the Indian Constitution. He stressed upon the preamble and the bare provision of the Act and its schedule. Highlighting upon the keywords like citizen, public authority, information etc. he comments on section 6, 7, 8, 9, of the Right to Information Act. The speaker also discussed at length the process of seeking Information under this Act. He discussed the roles of such authorities as the SIC(State Information Commission), CIC(Central Information Commission) and the PIO (Public Information Officer).

Day 7 programme was held on 13 Jan 2022, as 12 January was the birthday of Swami Vivekananda and a holiday.

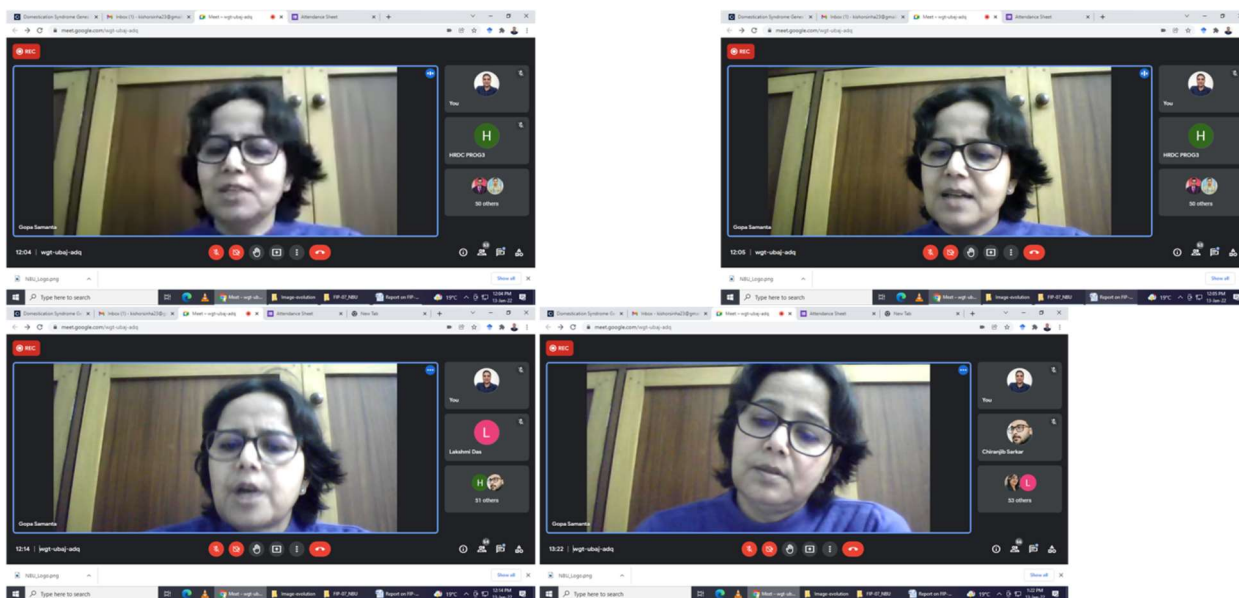
Lecture-I was on the topic of ***History of Science.*** The lecture was given by Prof. R. N. Mukherjee, Visiting Professor of IIT Dhanbad. In this lecture the veteran speaker narrated beautifully the scientific method and how science works and what it aspires to know. He made some quick comments on the differences

between basic and applied sciences, and then went on to say that basic sciences urge humans to know what why and how of the natural phenomenon and this urge is felt in all ages and all societies. Curiosity is the main driving force in basic science. Dr. Mukherjee then described physics as the natural science that concerns itself with matter and energy and their movements and relations. It is one of the oldest disciplines too. But the paradigms of physics changed several times through ages. The speaker presented in an outlined manner the major changes that helped in this shifting of dimensions in physics. He also discussed in brief the need of interdisciplinary nature of investigation and changes occurred in the scientific quest and temperament from time to time and how the problems before the scientific community change along with time in spite of the quest for truth remaining as the basic guiding principle.



The next Lecture of the day was titled as **Gender Issues** delivered from 12.00 noon - 1.30 pm by the speaker Dr. Gopa Samanta of the Department of Geography, University of Burdwan. The topic is a very widely discussed topic of the day. Gender discrimination is very common in the male dominated society. It might have started from the concept of division of labour in the ancient societies, but became a source of discriminating forces mainly against women. Society has tagged certain images to one gender or the other as a staple idea. But it does not necessarily mean that men are not victims of discrimination. By discriminating women knowingly and unknowingly, they also discriminate themselves. Another issue is the gender other than men and women i.e. the third gender. Social acceptance of such people is becoming wider day by day.

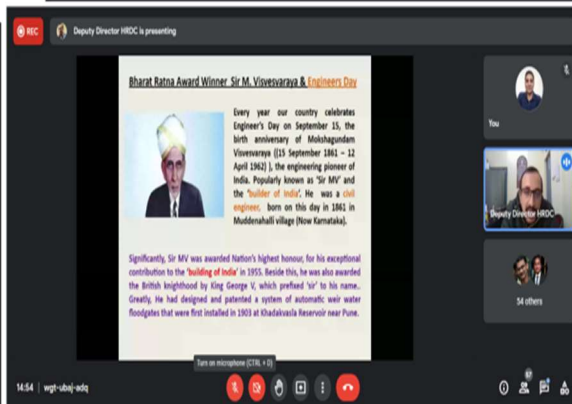
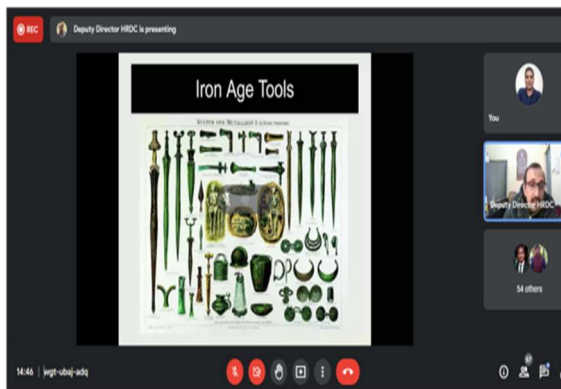
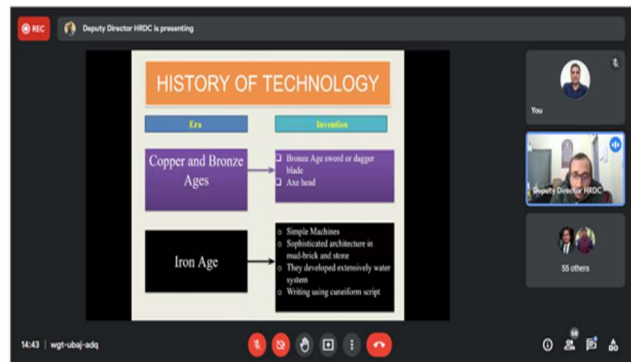
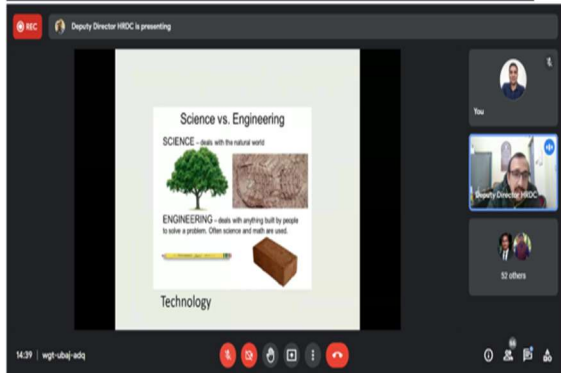
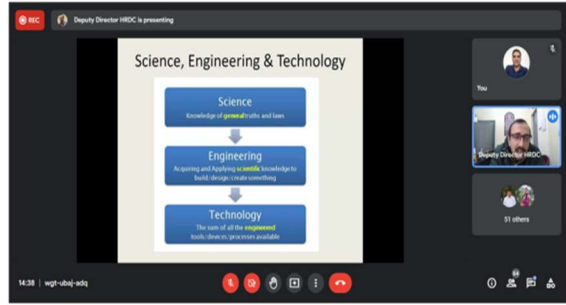
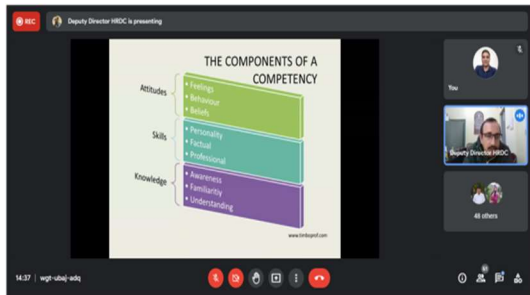
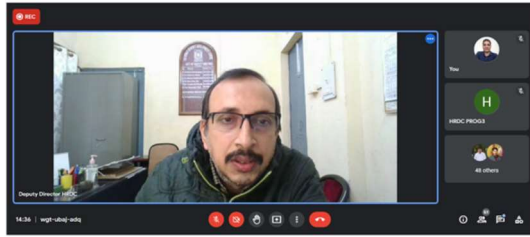
After Dr. Samanta's lecture lunch break was declared.



In the Post –lunch session all teacher-participants met once again to attend Lecture-III and IV. Lecture III was delivered by Dr. Sanjib Bhattacharya, Associate Professor cum Deputy Director of the HRDC, the University of North Bengal. His lecture was titled as ***Recent Advances in Science, Technology and Innovation.***

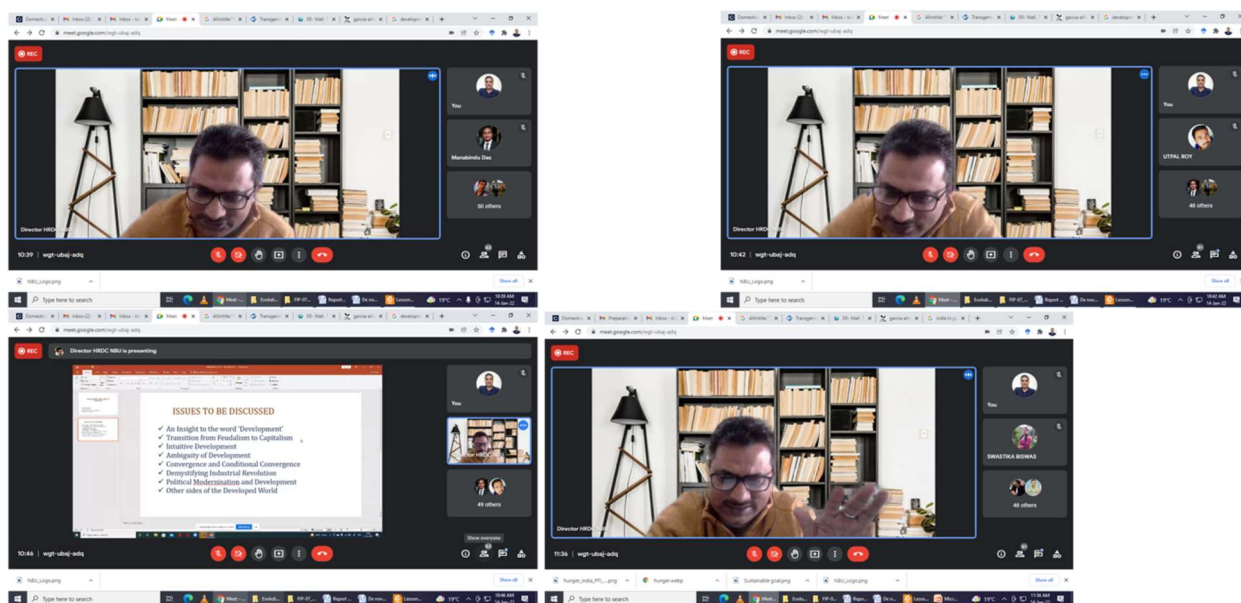
The speaker drew distinctions between science and technology and explained precisely what innovation is, and described their relationship. He depicted the innovations and use of technology at a very early period of human history-from stone- age to the copper and bronze age and to the iron- age. There were technological innovations all throughout. He gave some example of the iron-age tools. He then tried to establish a interdependent relationship between science engineering and technology and said that while science is the basic knowledge of things, engineering is its application and technology is the outcome, these three have never left each other. Then he mentioned some landmarks in the history of science and engineering in India especially in the 19th and 20th century and reminded us of the achievement of M. Visvesvaraya (whose birthday is held as engineers' day in India) and Dr. Mahendralal Sarkar(the founder of the Indian Association for the Cultivation of Science, Kolkata) among others.

The lecture continued from 2:30 pm to 4 pm.



Lecture-IV was an Interactive session. The speaker Dr. Mossaraf Hossain, Assistant Professor cum Assistant Director, HRDC of the NBU made the teacher-participants aware of various pros and cons of seminar presentation and micro teaching and explained the rules of both. He also informed us about the schedule of the presentation and micro-teaching and took many questions from the participants and answered them.

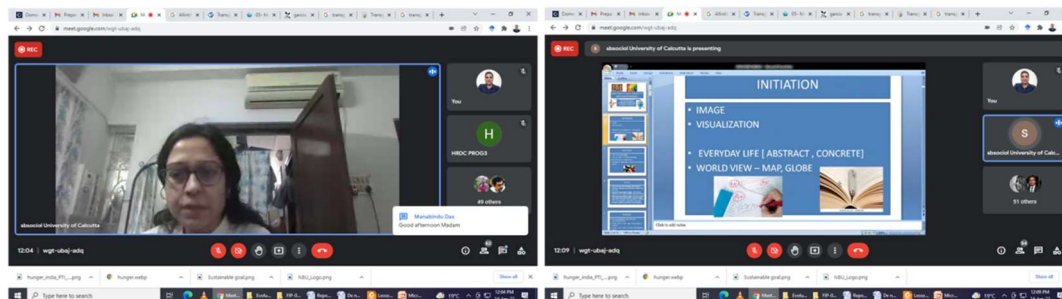
Lecture-I of 14 January was delivered by Dr. Anjan Chakraborty, Professor-Director, UGC-HRDC, NBU. His topic of deliberation was Sustainable Development. He describes in detail a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The desired result is a state of society where living conditions and resources are used to continue to meet human needs without undermining the integrity and stability of the natural system. Some of the internal factors that led to the collapse of feudalism include internal wars, rebellions by the common folk and inefficiency of the system as a whole. The feudal system placed heads of groups between the monarch and the inhabitants, thereby increasing tension between the common folk and the monarch. He also discussed convergence is when two or more distinct things come together. Technology convergence is when different forms of technologies cohabitate in a single device, sharing resources and interacting, creating new technology and convenience. This simplistic definition is only the tip of the iceberg however, because technology convergence is technical and functional.



The title of Lecture-II was **Analyzing Visuals: Creativity and Understanding**.

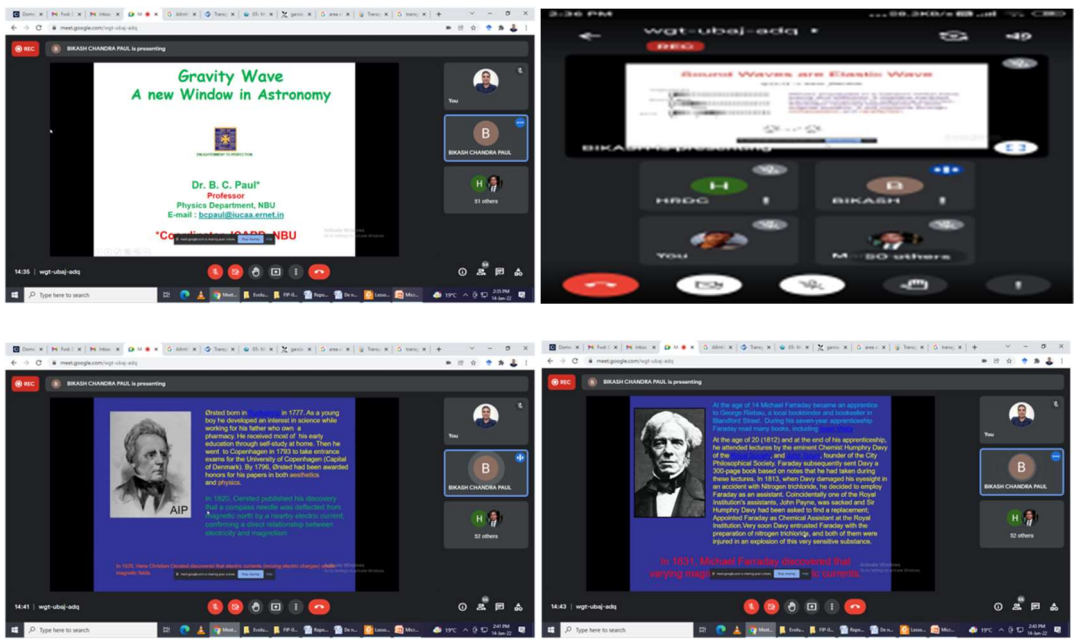
Speaker Dr. Susmita Bhattacharyya, Assistant Professor, Department of Sociology, University of Calcutta, spoke on **Analyzing Visuals: Creativity and Understanding**. He discussed Creativity: developing, implementing and communicating new ideas and being open and responsive to new perspectives. Using systems, thinking to analyze the interactions of parts in a whole are important. Students analyzed the pieces of an image and used their ideas to interpret. One student noticed a gray sky and determined a

storm was coming. She described different methods and types of Creativity. Visual researchers have worked hard to overcome a pervasive textual bias and the argument that the social sciences are a discipline of words, in which there is no room for pictures, except as supporting illustrations. The special Art on Graphics article explores the potential of data comics and their unique ability to communicate both data and context via compelling visual storytelling.



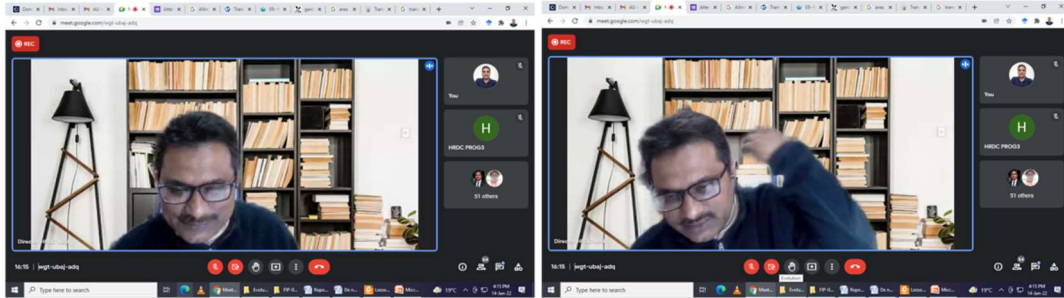
The topic of Lecture-III was ***Gravity Wave: A new window in Astronomy***

The speaker Dr. Bikash Chandra Paul of the Department of Physics, University of North Bengal enlightened us on the discovery of gravitational waves as opening a new window in our understanding of the Universe. Long predicted by Einstein's theory of General Relativity, have already impacted several areas of astrophysics, from cosmology to high-energy astrophysics and nuclear physics. "General relativity is our best theory of gravity. In general relativity, gravity can be thought of as the effect of the curvature of spacetime. Massive objects bend space and time; the curvature in spacetime changes how things move." Gravitational waves are ripples in spacetime. When objects move, the curvature of spacetime changes and these changes move outwards (like ripples on a pond) as gravitational waves. A gravitational wave is a stretch and squash of space and so can be found by measuring the change in length between two objects. He also elaborated that the Waves generally transfer energy from one place to another. Some waves need a medium to transfer energy from one place to another, whereas other kinds of waves don't need a medium like Electro-Magnetic waves. Elastic waves always need a medium to travel. We need to have knowledge about different waves that collectively make electromagnetic waves which are transverse in nature and don't require a medium to travel. Compare each option to check which category they belong to and find out which one is elastic.



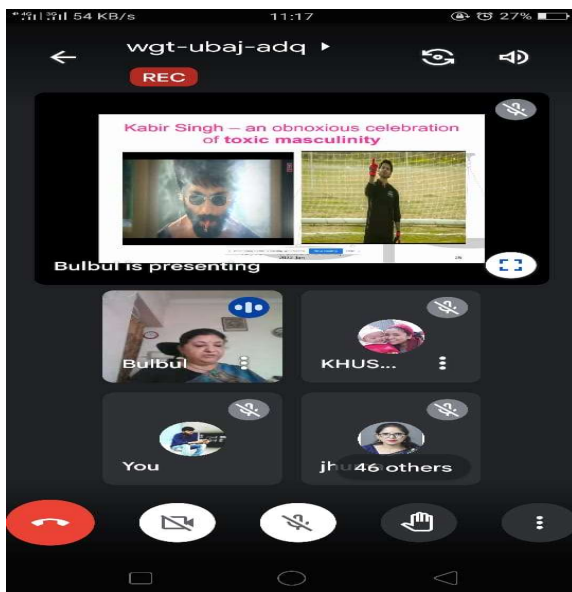
Lecture-IV was delivered by Dr. Anjan Chakraborty again, titled as **Sustainable Development-II**.

Dr. Anjan Chakraborty continued his lecture on **“Sustainable Development”**. During the session he discussed how digital transformation is in full swing and fundamentally changes how we live, work, and communicate with each other. From retail to finance, many industries see an inflow of new technologies, disruption through innovative platform business models, and employees struggling to cope with the significant shifts occurring. This Fourth Industrial Revolution is predicted to also transform Logistics and Supply Chain Management, with delivery systems becoming automated, smart networks created everywhere, and data being collected and analyzed universally. The Digital Transformation of Logistics: Demystifying Impacts of the Fourth Industrial Revolution provides a holistic overview of this vital subject clouded by buzz, hype, and misinformation. He also discussed the issue of Political modernization, it refers to the change in the political culture and political institutions, as a result of the process of modernization. It is the change in political culture and political institutions that combine together and leads to the acceleration of a process through which the performance standard and achievement can be obtained by the less developed societies.



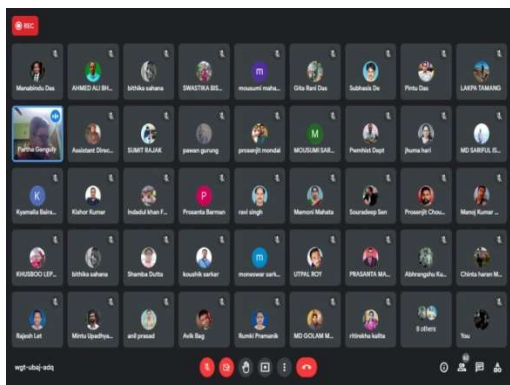
On 15 January the first session started at 10:30.

In Lecture I the topic was **Gender Studies** and the Speaker was Prof. Bulbul Dhar James of the Department of Political Science, Jamia Millia Islamia University. She pointed out a bunch of very significant points about gender studies and how Gender is defined mostly by the culture and society around us. She talked about Constitutional acts, related to gender explaining her thoughts vividly by citing examples from various Bollywood films and advertisements. The lecture became interesting with a vibrant question-answer session.



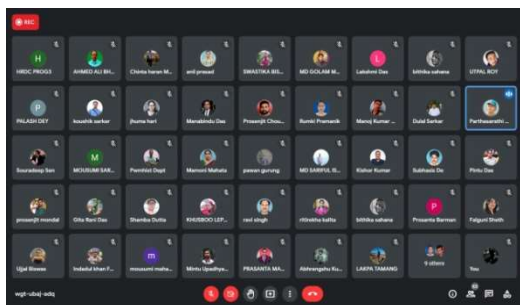
Lecture: II & III of the first Session absorbed the participant's mind as it evoked a completely different mood. The lectures were on CAS rules for college and university teachers. Prof. Partho Gangopadhyay, Joint Director of Public Instruction, Government of West Bengal. It continued from 12:00 noon to 4:00 pm including an hour's lunch break. The speaker discussed about different issues related to Revised Career Advancement Scheme (CAS). He has suggested reading the CAS Rules and other Govt. orders carefully. He clarified various topics of CAS like division of marks in different academic sections as well as extra-curricular activities and how to obtain required marks for CAS in every scales of pay. The lecture

ended with very helpful series of question and answer. In the second lecture he highlighted different aspects of Revised CAS in some more details, mentioning the differences in category I for Librarians and Assistant Professors as well as Associate Professors of other disciplines. The lecture ended with an interactive session.



The final lecture of the day was by Professor Partha Sarathi Mukhopaddhay Professor DLIS, University of Kalyani, on *Open Educational Resources*.

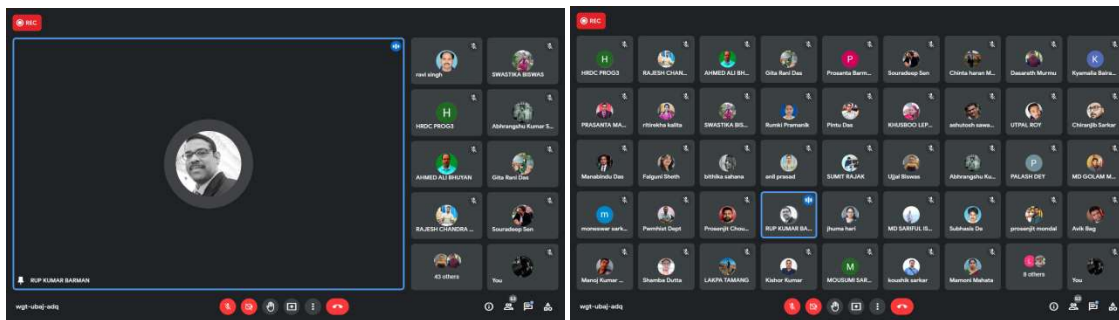
Commercial bibliographic Databases like Scopus and other full text databases are high-priced and can be accessed in India by a handful of institutions only. In this session the speaker highlighted on several free websites like lens.org; semanticscholar.org; app.dimension.ai; feedreader.com etc which can be perfect equivalent for those commercial ones. He also described the bronze path, gold path and green path of open access. Finally, Assistant Director, HRDC, University of North Bengal declared end of the session-II.



Since 16 January was a Sunday the teacher participants met online again on 17 January, Monday.

The first lecture of 17 January was delivered by Prof. Rup Kumar Barman, Professor, Department of History, Jadavpur University, Kolkata. His topic was ***History & Identity: Case Study of Bengal.***

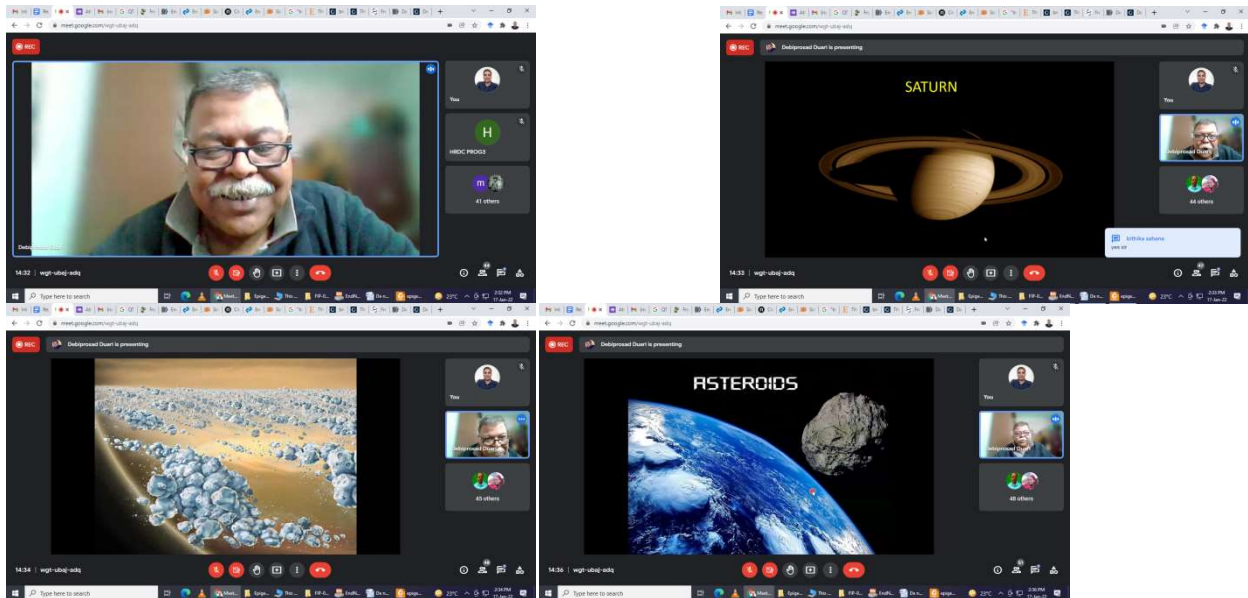
He discussed about the concept *Identity* and its various shades and saw identity in terms of 'National', 'Linguistic', Cultural and other aspects. Parameters like food habit, dresses, festivals etc. are essential criteria for discovering identity of one's self. He referred to the theory of Benedict Anderson (1936-2015). The concept of 'Imagined Community' was developed in his book *Imagined Communities* (1983). He also cited the example of the identity based on the language as the mother tongue movement (Bhasa Andolon) which is obviously a part of a cultural movement in a broader sense led to the creation of a new country called Bangladesh. Prof. Barman mentioned Bangladeshi author Akhtaruzzaman Elias's novel **চিলেকোঠার সেনাই** which was written in the background of 'mukhtijuddha' (freedom struggle for Bangladesh) to depict the scenario (freedom movement of 1971). The lecture ended with question-answer session.



The second and the third lectures were titled ***Cosmic Voyage -II & III***, delivered by Dr. Debiprosad Duari, Director, Research & Academics, M. P. Birla Inst. of Fundamental Research, Kolkata. As evident from the titles this couple of the lectures was on Astronomy and Astrophysics. In the pre-launch session he discussed about Cosmology, Astronomy and Astrophysics and also some predictions made by the General Theory of Relativity. He also mentioned that this scientific area is very attractive to all researchers though it is highly expensive too and involve much time and space. So, only a small number of countries can actually afford to conduct research in this field, like U.S.A, U.K, China, Russia, Japan, and also India. In course of discussion he emphasized in an outlined manner the theory of Gravity and the theory of Relativity by Albert Einstein. He explained how the Solar system protects our existence from the dangerous particles and cosmic rays and also discussed on the origin of the Moon, Space Weather, and various stellar systems. He also discussed in brief India's Indigo Project, Indian Mission to Mars and other space research initiatives including the contributions of NASA and ISRO.

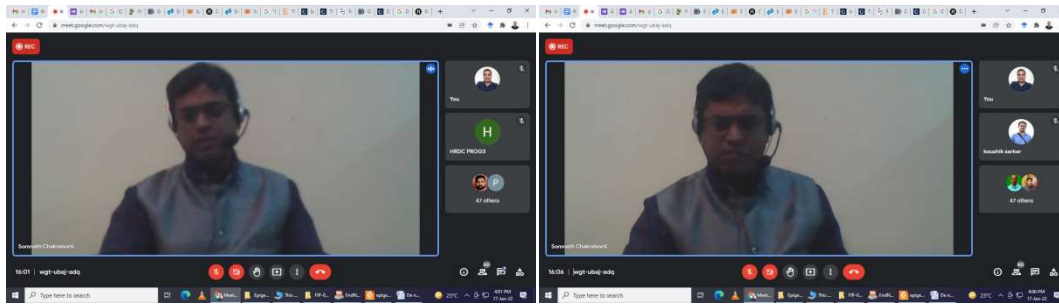
In the Post lunch session he went on to discuss the properties of the celestial bodies like Asteroids, Comets etc. and planets like Uranus, Neptune, Pluto(dwarf planet) and recently discovered planet like ERIS. He mentioned *Visva Parichay* by Rabindra Nath as a good primer to introduce astronomy to young

pupils. He said that creation of scientific temper in school students is necessary. He emphasized the need to create awareness about Space Astronomy, Astrophysics etc. in people of the whole world. He also discussed about the birth and death of stars, periodic charts, black holes etc.



The Final lecture of the day was on **Literature through North Indian Classical Music**, delivered by Dr. Somnath Chakraborti, Head of Department of English of Lalgola College.

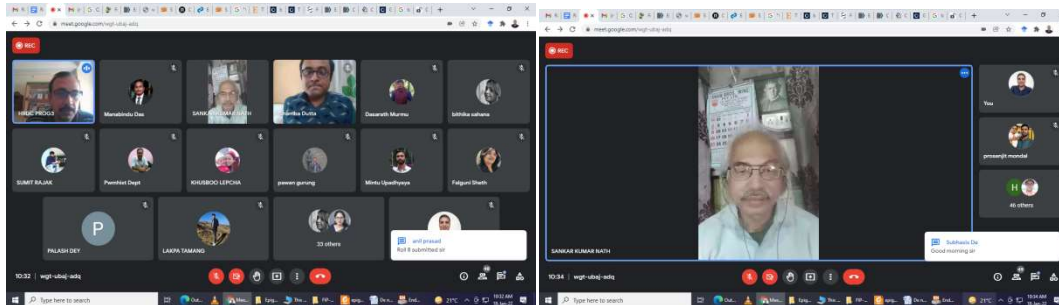
Dr. Chakraborti's lecture drifted the participants' hearts on to the soaring height of musicality art and Literature. It was very refreshing as well as soothing to the ears also as he played his violin to make his points of comparison clearly understood. He discussed specially Raga *Basant* and related musical pieces. He has mentioned *Avigyan Sakuntalam*, a Kavya by Kalidasa, Tagore's poem **নির্ব্বরের স্বপ্নভঙ্গ** (Breaking of the Dream of the Spring), and **বিসর্জন** (Immersion), a drama by Tagore and so many songs of Tagore or *Rabindra sangeet*. He also mentioned Milton's epic *Paradise Lost*. He touched upon different perceptions of music from diverse points of view such as phenomenology, the stylistic, syntactic, lexical and rhetorical. He also explained rise and fall of the notes or *swaras*. He said that by the help of musicality we can express our emotions such as joy, grief, desire, happiness etc. about different things. In this way we can reconsider our literature work. He also observed that form makes emotion and emotion is form in itself. He also sang to our pleasure excerpts from many famous songs of Tagore.



On 18 January the programme started at 10:30 am like every day. Dr Sankar Nath, the renowned Oncologist was the first speaker who delivered two consecutive lectures on **Food Habit and Cancer**, describing the damages done by various carcinogenic foods and various treatments of cancer. According to him, cancer can be treated either by therapy or by taking preventive measures. He talked about Dr Pandit Madhusudan Gupta (1806-1856), who was the first surgeon to dissect a human body in Asian continent on 10th January 1836 at Calcutta Medical College. Dr Nath was fondly displayed the oil paintings of Dr. Gupta, which he painted himself and gifted to Calcutta Medical College. He informed that human being can suffer from over 200 types of cancer classifying them into three groups containing more or less 70 types each. Among them, 2/3rds of the cancers can be cured and controlled completely. Later he described the substances which are responsible for cancer, called 'Carcinogen' and explained why humans should keep harmony with nature as most of the time we invite cancer due to our lifestyle. He briefly narrated the types of cancers on the basis of their associations with job/occupation; habit induced cancer, radiation-induced cancer, infections and cancer, hormones and cancer, tobacco and cancer etc. and suggested that daily exercise can cut the rate of prostate cancer, breast cancer, pancreas cancer, colon cancer and lung cancer. He also highlighted the role of a healthy and balanced diet, distinguishing between cancer causing diet and cancer preventing diet. Usually, 500 calories per day or 1/5th of the total calories per day is adequate for a normal diet. The consumption of red meat He advised to take red meat not more than once in a month and white meat once in a week. He suggested avoiding fast food which contains no fibres, little minerals, and results in developing colon cancer and rectum cancer etc. Later he drew our attention to the danger of using preservatives and additives in food at home or restaurants which often results in stomach cancer. At home and restaurants different non FSSAI approved artificial colours are used. Excessive use of Ajinomoto- (Monosodiumglutamate) may turn carcinogenic for health.

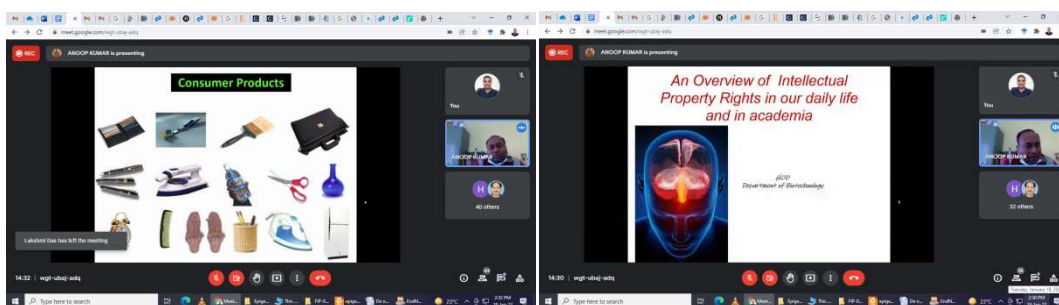
Dr. Sankar Nath also pointed out food which can prevent cancer. He emphasized that the consumption of vitamin C (Citrus fruits, tomatoes, berries, green vegetables, potatoes, Guava etc.) in a diet is one of the best remedies to prevent any type of cancer. The daily requirement of vitamin C is 30-50 mg. Along with vitamin C, vitamin A (Tomato, milk egg, kidney, leafy vegetables, yellow vegetables (Carrot, ripe mango), radish, papaya etc.) is necessary, having daily requirement 5000IU, vitamin E is also important

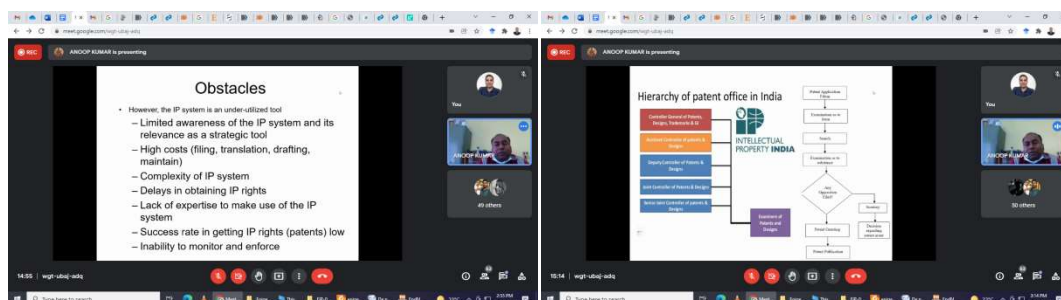
which can be easily available in corn, nuts, olives, green leafy vegetables, vegetable oils etc. Likewise, garlic and onion content **allicin**, an anticancer agent, preferred to eat red onion in the diet. He gave many such other examples of a healthy diet.



Lecture-III was delivered by Dr. Anoop Kumar, Department of Biotechnology, NBU on ***An Overview of Intellectual Property Rights in our daily life and in academia.***

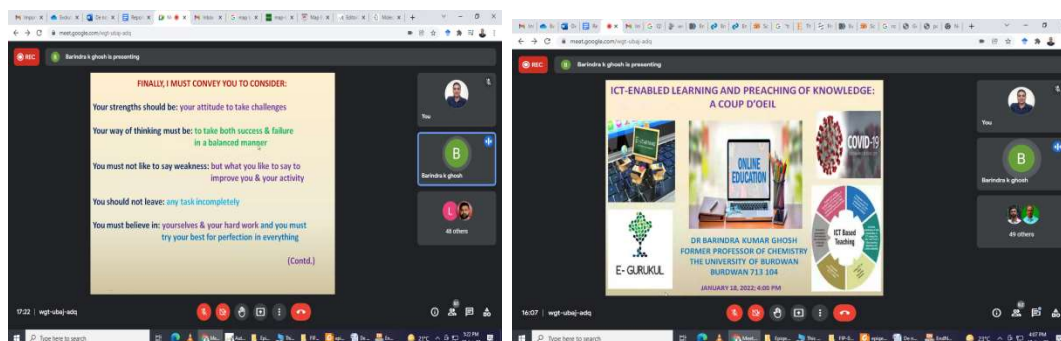
Prof. Kumar demonstrates Intellectual Property (IP) and Intellectual Rights by stating that Intellectual Property is nothing but a creation of mind in the form of new innovations, literary and artistic types of works, creating new designs and developing new symbols, names and images that can be used in commerce. He talked about various IPs namely- patent, copyright, trademarks, trade secrets, individual designs, geographical indicators, confidential information, and layout design and integrated circuit. He pointed out that through the copyright act original literary works, dramatic musicals and artistic works and cinematograph/films and sound recordings etc. can be protected from unauthorized uses. Patents act gives the right to an inventor to produce, use and sell his/her own invention to the market for a certain period when no other person can do the same. IP is an intangible type of asset of human that needs to be protected from unauthorized users.





The topic of lecture Lecture-IV had ***been ICT-Enabled Learning and Preaching of Knowledge : A Coup D’Oeil*** by Dr. Barindra Kumar Ghosh, Former Professor of Chemistry, The University of Burdwan.

Prof. Ghosh emphasized on the ICT based learning system, pointing out the importance of online education in terms of zero transportation and its accessibility from anywhere. It can also save our time, decrease pollution, can be beneficial for physically challenged students and help a lot of other ways. In the word *EDUCATION*, he said, we can have meanings for the letters such as E means Enlightenment, D means Development, C means Creativity, A means Attention, T means Talent, I means Innovation, O means Outstanding, N means Nationality. He shared Swami Vivekananda’s thought about education- “Real education is that which prepares a man for the struggle of existence. It prepares a man for social service, develops his character & finally ambushes with the spirit & courage of lion.’ He shared the view of Gandhiji regarding education- ‘By education I mean drawing out the best in a child or human- body, mind & spirit.” He also defined education according to Kabiguru Rabindranath Tagore- ‘The highest education is that which does not merely gives us information but makes our life in harmony with all existence’. He spoke about the difference between hyperlink and hypertext and he mentioned that hyperlink involves text, media, audio, video, images & graphics but hypertext involves only text. He demonstrated MOOC i.e., Massive Open Online Course and shared the basic philosophy of MOOC that is anytime, anyone, and anywhere. He spoke on ‘E-Gurukul’ as well as ‘SWAYAM’.



On 19 January, the programme started at the same time as every day i.e. at 10:30 am.

Prof. Manishankar Mishra of the Department of History, Tripura Central University delivered the first lecture of the day. The title of his deliberation was ***History of Flood***. Dr. Mishra in his deliberation first described what flood is and what the reasons of flood are. He also mentioned the potential harms this natural calamity causes. Description: In this lecture, the speaker discusses about the history of flood. In his lecture, he also made distinction between natural History and human history and launched a comparative discussion about history of India and the West. This set the background for a targeted discussion on ecology and climate change, which have their bearing on flood. Then Dr. Mishra explained the reasons possibilities and history of flood in Tripura and how in the distant and the recent past the state managed flood. He also stressed on the importance of different movements of saving the environment. As an example he cited the well known *Chipko* (embrace) movement of Dr. Sundarlal Bahuguna.

Lecture II of the day was delivered by the Professor-Director of the HRDC of NBU, Dr. Anjan Chakrabarti. The title of his deliberation was ***Sustainable Development***. The speaker first tried to explain the concept of sustainable development and the goal of sustainable development. In his lecture, he explains the various issues pertaining to sustainable development such as – private and common property, economic condition & environmental policy at National and International levels, different economic and developmental models etc. He referred to the increasing interest of humanity in the sustainable development in order to save the civilization from the hazards of development. He cited the speech of the president of the USA about the sustainable development and goal of the sustainable development for the better sustainability present and future generation. The discussion ended with a question and answer session.

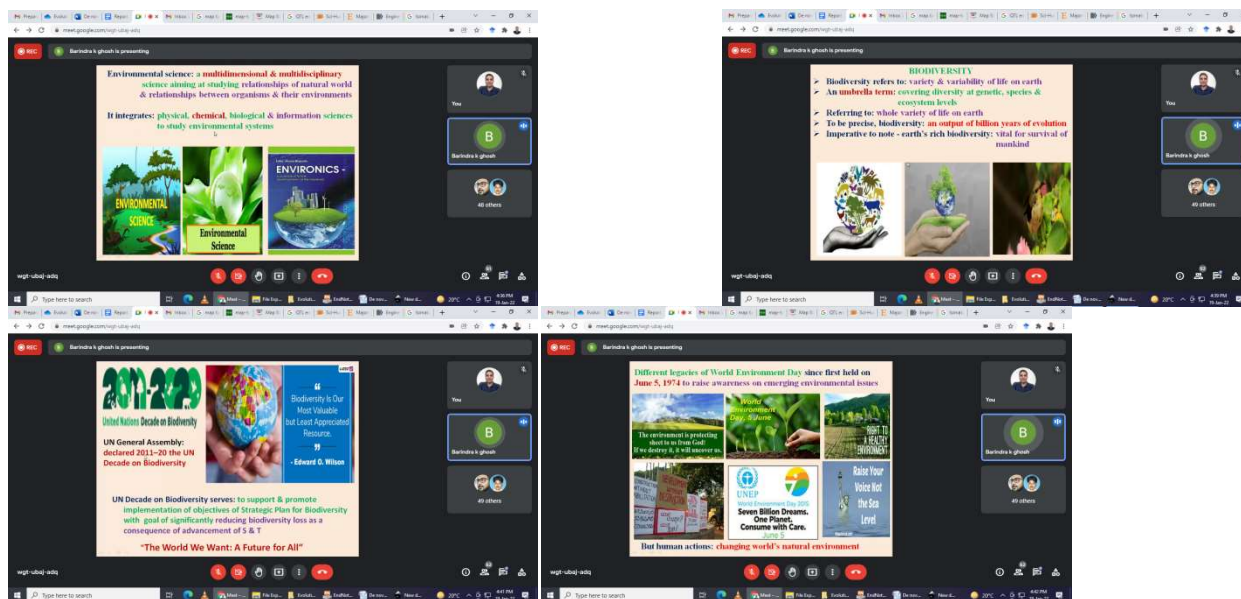
The post lunch session started with Lecture-III delivered by Dr. B. C. Paul, Professor, Department of Physics of the University of North Bengal.

He presented the topic entitled ***Astronomy in India – Glimpse to the past and present*** in a lucid and popular manner which enriched the participants by providing knowledge at a basic level about the celestial bodies. He elaborately discussed the ancient astronomical pathfinders of India with special references to Aryabhata. He also described the role and importance of the ancient observatories like Jantar Mantar. In his lecture he introduced us with information of the various elements present in the Sun and the earth, about the electromagnetic wave, spectra of stars, Doppler effect, Black hole, optical window, Radio-astronomy, about NCRA at Pune, Binary stars in a vivid and comprehensible way. In a nutshell, he presented to us very nicely how astronomical culture goes in India with the changing ages. This session ends with a very interesting interaction with the teacher participants.

The fourth and the final lecture of the day was titled ***Global Studies: Understanding of Climate Change*** by Professor Barendra K. Ghosh again.

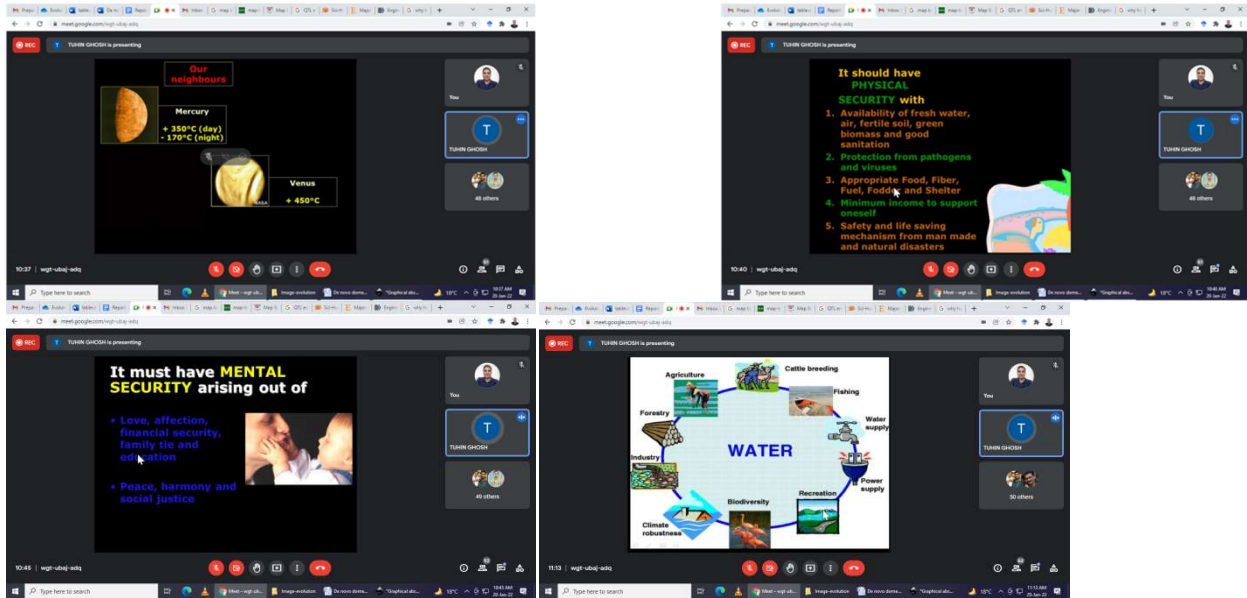
He threw light on one of the burning issues of the day. He started with the climatic scenario of the 21st century and moved on into the subject step by step revealing the bright and dark side of science and

technology simultaneously. He brought into the body of his discussion the roles of different vital gifts of science and technology as well as the massive spread of different deadly diseases; modern facilities like electricity, internet, etc. vis-a-vis the threats like loss of biodiversity and ecosystem etc. He also explained how climatic changes and their effects i.e. ocean acidity, lowering of groundwater tables, global warming, rise in the sea level etc. can affect the total health of the animals and humans and at the same time the entire environment. The deliberation emphasized on the 17 goals of sustainable development and taking care of the earth as an urgent step for survival of mankind.



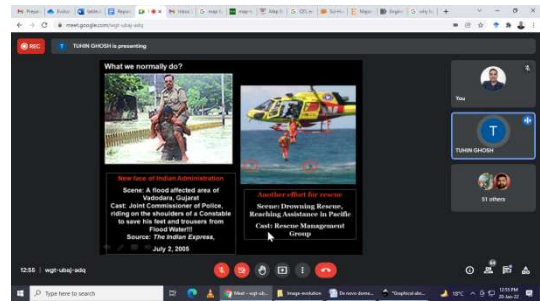
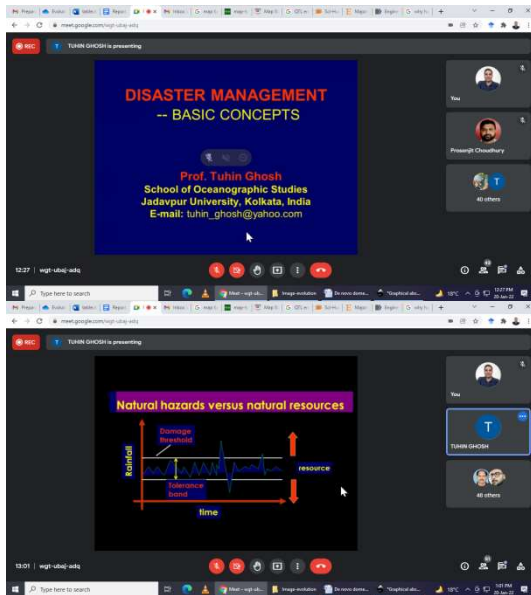
The Day 13 i.e. 20 January Programme seemed to open from where it was left the day before, as the Lecture-I of the day was again on a topic like **Environment, Society and Ecological Footprint**. The speaker was Dr. Tuhin Ghosh, Professor in the Department of Oceanography, Jadavpur University, Kolkata. Prof. Ghosh discussed in his deliberation on various components of environments and their interaction with humans and other life forms on the earth. He started his talk with five security requirements such as physical, environmental, political, mental and cultural for sustainability. Physical factors cover availability of freshwater, soil and air, pathogen free foods fibres etc. Environmental security comprises earth free from floods, pollution and epidemics. Political security includes a living condition free from inflation, hoarding, insurgency, terrorism and having good governance. Mental and cultural security means a life blessed with love, affection, religious leaning and tolerance etc. He focused on seven types of wellness viz. emotional, cultural, occupational, physical, environmental, social etc. as primary requirements for sound and harmonious living with others. Environment is made of various biotic and *abiotic*, natural and artificial factors etc. Environment provides habitation to several marine, estuarine, freshwater and terrestrial organisms. They make communities and their interactions with

each other make a biome and niche etc. Species extinction is one of the common phenomena observed in the era of climate change. Consumers at different levels depend on producers. Reduction in the population at any level affects the other level and leads to gradual extinction of species. For example, if the numbers of bees and butterflies are apparently reduced, it affects the human population and crop productivity. He emphasized on ecological footprints. Natural resources are limited and we have to use them judiciously. Other animals and organisms have their rights on it. He pointed to the strategies by which we can reduce the ecological footprint such as recycling, energy efficient appliances, healthy eating habits etc.



Lecture-II of the day was on Disaster management: Basic concept and the speaker was Dr.Tuhin Ghosh again.

Disaster is defined as an event that affects the life, property, livelihood and economy to a considerable extent. The word disaster originated from the Greek meaning 'Bad Star'. They cause permanent changes in society, ecosystem and environment. There is natural disaster which is the consequences of natural phenomenon and hazardous human intervention. He emphasized that nothing is natural in the natural disaster, it's all human intervention. Social disruption occurs at individual, community, state and global level. Disaster occurs in predictable and unpredictable ways. For example, hurricanes and cyclones are mostly predictable but earthquakes and volcanic eruptions are mostly unpredictable. These disasters occur consciously and unconsciously. Rainfall and wind are the most common natural disasters. Therefore, most universities included disaster management as a subject at different levels.

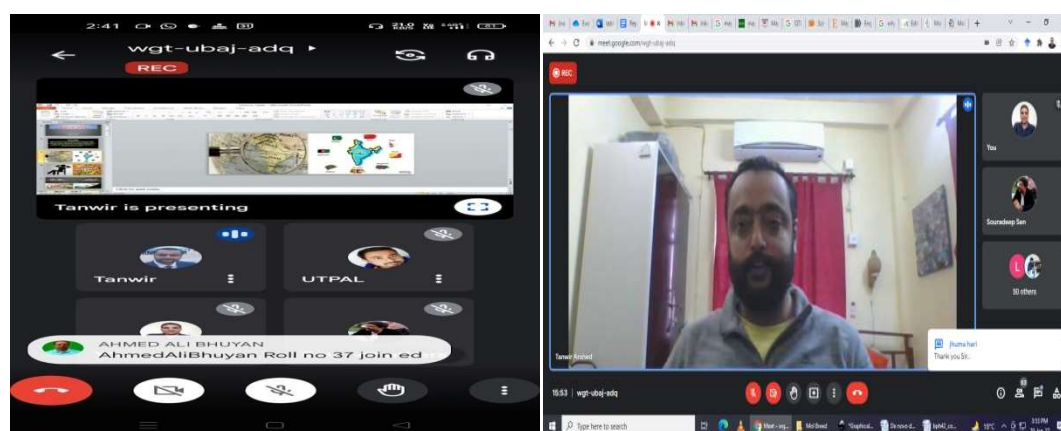


Lectures-III and IV were delivered by Dr Tanwir Arshed, Assistant Professor, Department of Political Science, Presidency University, Kolkata. The topic of his first lecture was ***Revisiting India's Neighbourhood Policy.***

In this lecture, the speaker used Classical Liberal Paradigm methodology to analyse Macro-level dynamics of India's Neighbourhood Policy. According to the speaker, Neighbourhood Policy should be the core of foreign policy if a country wants to pursue its development policy. There is a need for reshaping India's foreign policy as India is aspiring for a greater power in the new world order. He divided India's 'Politics of Policies and Policies of Politics' into three phases: (1) Phase of pre-eminent Indo-Centric muscular policy (1947-1980), (2) Phase of regional entente cordiale and policy of inclusivity (1980-2014) and (3) Phase of camaraderie and collaboration (2014-). In the first phase Nehru tried to bring India where it was before the occupancy of the British. In this regard he pointed out Panchsheel Policy of 1955 and Non-Aligned Policy during cold-war. After Nehru, Indira Gandhi took India to the exclusive sphere of intervention in the sub-continent policies. At the end of cold-war, a new market-based foreign policy emerged and a need for new foreign policy was felt. The policy of inclusivity gained pace at the time of Dr Manmohan Singh when India rebranded itself as a trusted neighbour and maintained a low-profile attitude. When Narendra Modi came into power, he launched 'Sabka Saath Sabka Vikas' as a foreign policy. Body language diplomacy, strong re-birth of South-East Asia, specially bring back SAARC at the centre-stage, federalism in the foreign policy, moving from bilateral to multilateral negotiations, huge aid to neighbouring countries- all came into effect. Despite these efforts, India as a collaborative nation failed due to (1) arbitrary South Asian border lines which we inherited from the British and (2) unresolved river disputes like Indo-Nepal River dispute, Madhesi dispute among many such disputes.

His next lecture was titled ***India's Soft Power Potential and/or His Name is Khan: Shah Rukh Khan***

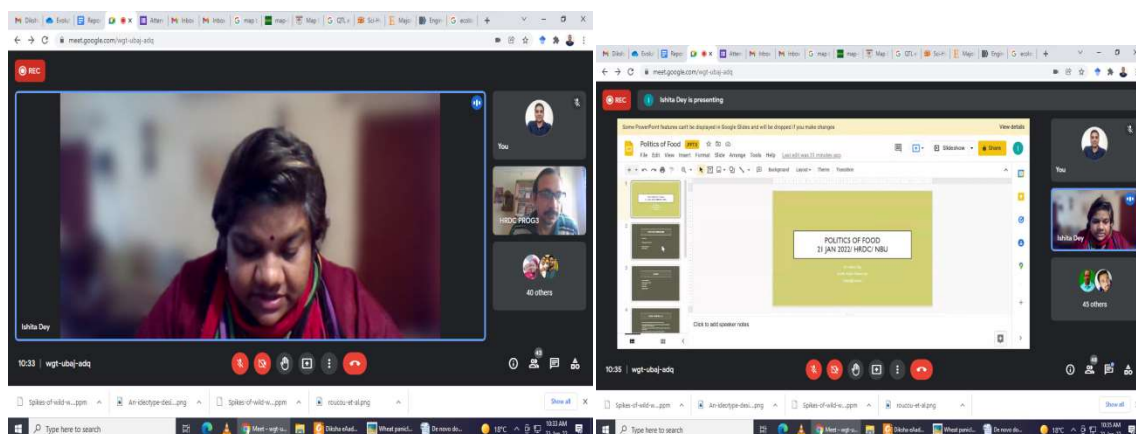
According to him, dramatic transformation has happened in the global power map in the last couple of decades. China emerged as a new global hegemony- not just in South-East or East Asia but in the global world order. In this context he addresses two major issues- firstly, what would be the role of India in this new global order? Secondly, how to define power? In an interconnected world, the concept of 'hard power' acts reactively. Here, he brings Joseph Nye, who introduced the concept of 'soft power' in the late 1980s. For Nye, power is the ability to influence the behaviour of others to get the outcome you want. This soft power – getting others to want the outcomes that you want – co-opt people rather than coercing them. To the speaker, Bollywood is an example of India's 'soft power' in the cultural domain and Shah Rukh Khan as the most eminent name at the present times in the world. Hence, the title of the lecture.



On Day 14 i.e. on 21.01.2022 the first Lecture was titled *Politics of Foods* by Dr. Ishita Dey of the Department of Sociology, South Asian University. The summary of her lecture follows.

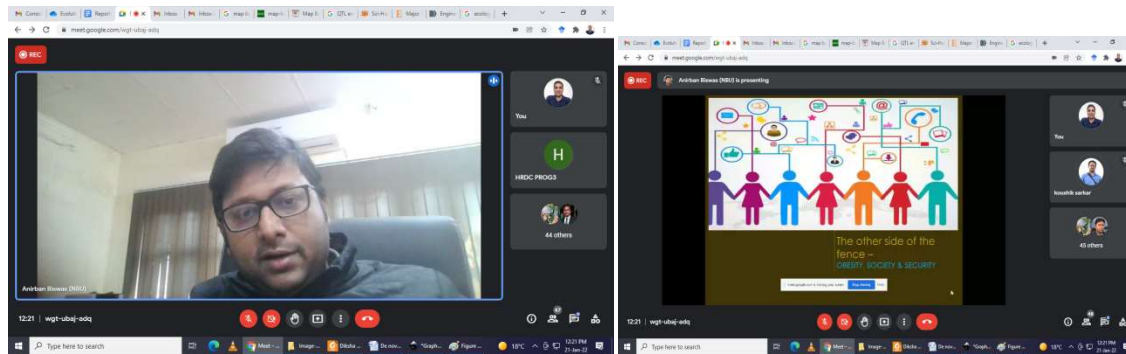
Food has remained an important aspect of social and anthropological studies. It allows us to map intra-community and inter-community relations. It therefore becomes a means to mark or practice 'differences'. In this lecture, Dr. Dey proposes to draw our attention to how food came to be studied in the earliest sociological and anthropological literature. To do so she takes us through symbolic and materialist approaches to food and eating. Both these approaches are about understanding food from a single species perspective. What is good for humans to eat? How do we arrive at a multispecies approach to food and eating? Can a multispecies approach to food-eating tell us about varied cultures of transformation from raw to cooked food? Why do certain stories of transformation go on to be reified and celebrated? Through her ethnographic journey on exploring 'sweetness' across Epar and Opar Bangla (Both this side and that side of Bengal), she explores the politics of caste and labour in the making of food. In her lecture, she talks about the structuralist approach to understanding the politics of food. She mentions the contributions of the scholars like Claude Levi Strauss and Mary Douglas in the field of politics of food. She discusses how food always comes up with coded messages, and how the hierarchies of caste, class, gender or religion are associated with the politics of food. In her discussion of

the materialist approach to the understanding of politics of food, she talks about how humans have used animals like cows and pigs. At the same time we are informed about how the French scholar Pierre Bourdieu puts emphasis on the temporal contingencies of social analysis. The way we say some food is tasty highlights our cultural structure, which is shaped by education and class, and in postcolonial India which is shaped by caste, religion and class. In the question-answer session, she also discusses the controversial film on food politics ***Caste on the Menu Card***, and also throws light upon the politics of beef-eating, and how even water becomes the cause of social politics.



Lecture-II of the day was delivered by Speaker: Dr. Anirban Biswas.

In his discussion on ***Information Obesity***, Dr. Anirban Biswas introduces us with the seamy side of the world of information and data analytics. He informs us how search engines like Google mislead us in the process of receiving information. It is not that Google does not serve us with providing information we search, but also rather it compels us to swallow the information which it wants us to swallow irrespective of our requirement or urgency. He talks about how the distinction between the private and the public has been blurred in the age of the internet. Here we approve Google to store everything personal and private about ourselves. Every act of ours, ranging from travelling to some tourist spots to going to a restaurant for dinner is getting captured and stored by Google. The Google Map is tracing our location every time. In this age of the internet we ourselves have become the products. He also introduces us with the prevailing concept of crowdsourcing. The encryption logic we find in our social media apps has also been discussed. He also warns us about the cyber threats like SQL Injection, Malware, Phishing, DDos, Man in the middle, Romance Scams, Dridex Malware and Emotet Malware. In the concluding part of his lecture, he focuses on Cyber security, wherein he suggests some crucial steps to follow to avoid the risk of getting hacked: i) Don't open a file from an unknown sender, ii) Don't use same password everywhere, iii) Use anti-virus software, iv) Try not login to your accounts on public networks, v) Don't visit fishy websites, vi) Don't keep a copy of plain text login etc. He warns that even the anti-virus softwares also create some viruses, though they do not have any bad intentions. He also warns us about our habit of connecting our mobile phones or laptops to public networks.

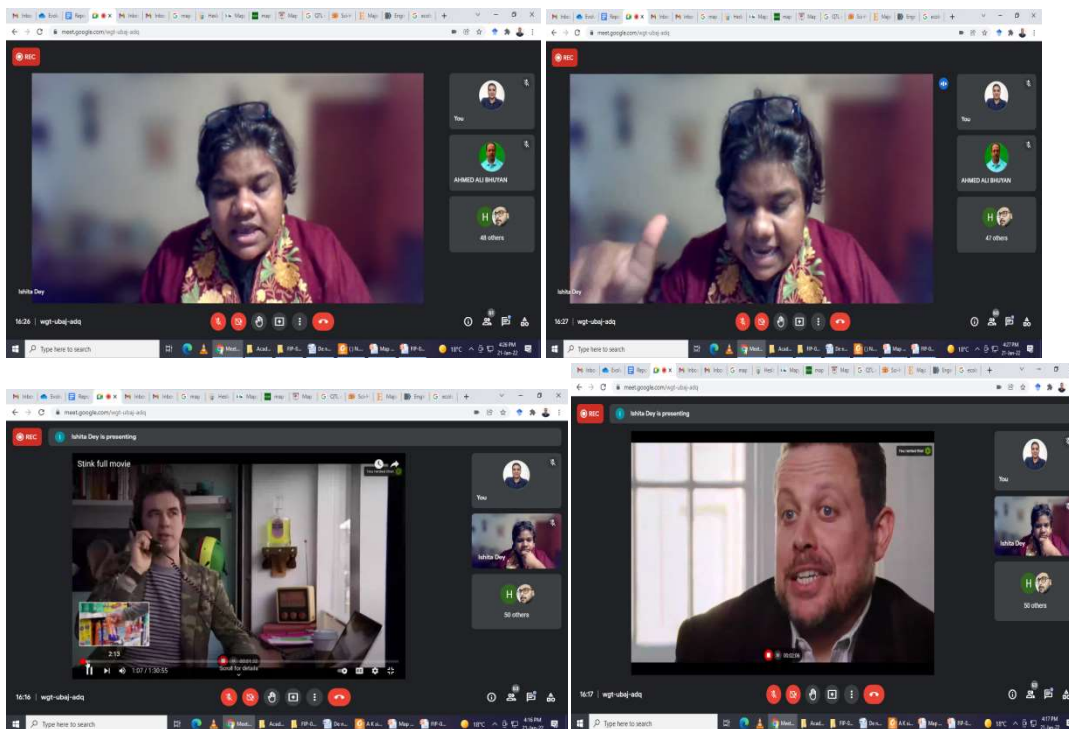


Lecture-III by Dr. Tapati Banerjee, Director of National Atlas and Thematic Mapping Organisation delivered her lecture on “Geospatial Technique for Advanced Geographical Research was captivating too. In the initial part of her discussion she focused on the evolution of cartographic techniques from the traditional manual approach to the latest remote sensing and GIS methods. She has enlightened us about the classical and modern period of Geographical thoughts starting from Pythagoras, Ptolemy to Vidal de la Blanche. She has also focused on the history of making maps worldwide as well as in India. Reference to the modern map making agencies in India was also made in her deliberation. With the advent of computer technology and its periodic modern innovations and new data base structure how there was a massive paradigm shift of basic thinking in geographical research towards Geographical Information System (GIS)/ GI science was the pivotal to her discussion. In the later part of her lecture she had turned her focus on the various geospatial insights and technology in Disaster Management. In this part she has highlighted how geospatial technology contributes in the reduction of risks relating to disasters by ensuring active community participation. In this connection she gave special emphasis on Community Based Disaster Risk Reduction Management (CBDRM), which is a bottom-up approach involving the participation of local community in the managing the reduction of various disaster risks.

Lecture-IV was delivered by Dr Ishita Dey again and it was a very curious topic presented under the title of ***the Politics of Smell.***

Is there a hierarchy of senses in our ways of doing research? What is it to bring back the nose as an active participant in our research? This has been the pivotal concern in her talk. Dr Ishita Dey takes us through a history of anthropology of senses to show how senses can be used as an analytic to study labour. She also argues that senses are central to understanding intimate labour – a theme that has remained unaddressed in the meanings of work. Anthropological work on craftsmanship has time and again hint at the synesthetic reason which involves sight, smell, taste and touch. However, in mainstream anthropology of work, senses have been limited to descriptions of work rather than a form of work. Intimate labour, as she goes on to argue, centrally revolves around smell and touch, however most theorisation around intimate labour has revolved around the blurred boundaries of productive and

unproductive labour, and separation of home from work. Drawing upon her fieldwork with a domestic workers' union in Delhi known by the name *Shehri Mahila Kamgar union* and her unstructured interviews with members of the union conducted in intermittent phases in 2014, 2015, 2018 and 2020 she shows how smell and touch remains central to bodily forms of work such as domestic work. Drawing upon the narratives of domestic workers' engagement with smells in their employers' homes she show how intimate labour involves working with smells, disaggregation of smells, sorting smells and removal of smell with smells thereby reproducing work hierarchy between those who can afford to produce smells and those who are left to clean smells because of gender, caste and class dispositions of domestic work in India.



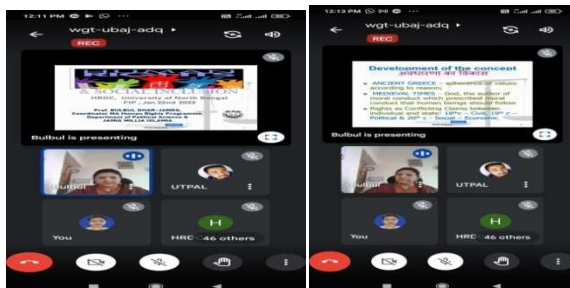
On Day 15 i.e. 22.01.2022, Dr. Santanu Mukherjee, Regional Director, IGNOU delivered the first lecture and his title of the talk was ***An Overview of MOOCs***.

At first Dr. Santanu Mukherjee defines what MOOC is. MOOC is Massive Open Online Course which is a model for delivering learning content online to any person who wants to take a course, with no limit in the number of attendees. This platform has emerged to democratized higher education which has been used to be treated as something only available in universities. All over the world MOOC is applied for education on online mode. It removes the barricade of space and time. In this presentation he shows

predecessors of MOOC, MOOC's architecture, interaction process, assessment process, and certification process of MOOC. Also shows some MOOC platforms and a model developed by IIT, Kanpur, named MOOKIT and shows a video on that model.

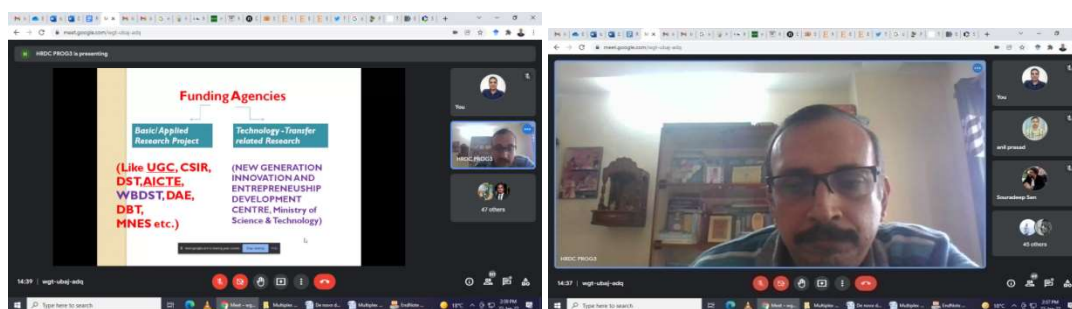


Lecture – II followed, which was delivered by Prof Dr. Bulbul Dhar James of the Department of Political Science, Jamia Milla Islamia University, who delivered her lecture earlier also to the same audience. This time her title has been **Human Rights and Social Inclusion**. In this lecture, the speaker defines the concept of “Human Rights” as moral principles or norms for certain standards of human behaviour and are regularly protected in municipal and international law. In her lecture, she explains the forms of violence against woman as domestic violence, female genital mutilation, son preference, dowry related violence and early marriage – Child marriage. She describes the impact of science and technology on human rights as the UN Commission on Human Right invited the UNs University in 1986 to study both the positive and negative impacts of scientific and technological development on Human Rights and fundamental freedoms.



The post lunch session comprised an interactive session between Associate Professor cum Deputy Director of the HRDC Dr. Sanjib Bhattacharya and all the teacher-participants.

In this session, various issues such as research and higher education, teaching learning research proposal writing skill to capture funding from various funding agencies (mostly Government agencies) for the research have been discussed. It was followed by an interactive session in which he answered a bunch of questions from the teacher-participants regarding the lecture topic. Later, he discussed about seminar presentation and microteaching to be conducted in the ensuing week. The days programme ended at 5:30 pm.



January 23 being a Sunday, the next day of activities was January 24 and the whole week was dedicated to Seminar presentation and Micro-teaching. Six groups were formed among the teacher participants based on the broad subject/discipline and each of them was given a broad theme to prepare their individual presentations all in keeping with the broader theme provided.

On 24 January, Groups A and B presented their Seminars throughout the day.

The broader theme for Group A and B was ***Dissemination of Scientific Knowledge from Laboratory to Society.***

There were seven participants in Group A viz. Prof. Lakpa Tamang, Prof. Chinta Haran Majumdar, Prof. Indadul Khan, Prof. Prosenjit Choudhury, Prof. Manabendu Das, Prof. Prasanta Mandal, Prof. Avik Bag. They spoke on the following topics respectively.

Seminar Presentation- I: Role of Social Media in Research

Paper Presentation- II: Application of Biodegradable and Biocompatible Chitosan Nanocomposites in Solar Cells (DSSC)

Seminar Presentation- III: Computational technology and its impact on society

Seminar Presentation- IV: Learning Physics Using Smartphone and Internet

Seminar Presentation- V: The effective dissemination of scientific knowledge from laboratory to society and the adverse effect of misinterpretation of scientific knowledge in society

Seminar Presentation- VI: Implementation of science and technology in our daily life

Seminar Presentation: VII: Role of Mathematics in Society

Participants from the Group B the subjects/disciplines they teach and titles of their seminar presentation have been shown in the following table.

Name	Subject/ Discipline	Title of Seminar Presentation
Khoosbu Lepcha	Microbiology	Microbial deconstruction of agroresidues for biofuel production
Ashutosh Ganpatrao Sawarkar	Genetics And Plant Breeding	Tissue culture technology of Banana
Kishor Kumar	Agricultural Biotechnology	Transgenic crops: Pros and Cons
Koushik Sarkar	Zoology	Application of Probiotics in Aquaculture
Ravi Kumar Singh	Plant Biology	Evolution in the Dissemination of Scientific Knowledge
Falguni Kishorbhai Sheth	Botany	Evaluation of calotropis procera (Ait) R.Br. for the treatment of Psoriasis

Next day i.e. on 25 January the session started with the presentations of Group C and they were followed by Group D in the post-lunch session.

Participants from the Groups C and D, the subjects/disciplines they teach and titles of their seminar presentation have been shown in the following two tables.

Group C

Broad theme: **Literary Works & Society**

Name	Subject/Discipline	Title of Seminar Presentation
Sumit Rajak	English	Visualizing Caste in Nagraj Manjule's Fandry
Kyamalia Bairagya	English	The Victorian Society and Victorian Fiction: Reading the English Penitentiaries in the novels of Charles Dickens
Dulal Sarkar	English	Mahesh Dattani's Bravely Fought the Queen : Value of Women in Family and Marriage Life
Mamoni Mahata	Bengali	রবীন্দ্র ভাবনায় রাশিয়াঃ রাশিয়ার সমাজব্যবস্থা, শিক্ষা ব্যবস্থা, কৃষি ব্যবস্থা, স্বাস্থ্য ব্যবস্থা ও রাষ্ট্রনৈতিক জীবন
Bithika Sahana	Bengali	রামকথার নির্মাণঃ বিভিন্ন রামায়ণ পাঠ
Anal Pal	Bengali	কবিতার বিদ্যাসাগর
Rajesh Chandra Mandal	Bengali	সাময়িকপত্রে উপন্যাসকেন্দ্রিক বঙ্কিমচর্চা: ১৮৭২-১৯২২
Prosanta Barman	Sanskrit	Modern Life in the Light of Vedanta

Group D

Broad theme: **Economy, Society and Philosophy: Global and Local Issues**

Name	Subject/Discipline	Title of Seminar Presentation
Subhasis Dey	Economics	Multidimensional Poverty Index of Totos-The Smallest and Primitive Tribe in Jalpaiguri District of West Bengal
Moneswar Sarkar	Economics	The Political Economy of Development in India
Mintu upadhyaya	Economics	The Socio-economic impacts of COVID- 19 Pandemic: Current and Future role of Social economy
Lakshmi Das	Commerce	The Impact of Corporate Social Responsibility on Firm's Financial Performance...
Pintu Das	Commerce	Socio-Economic Position of Women Slum

		Dwellers: A study on Some Selected Slums in Bansberia Municipal Area, West Bengal, India
Abhrangshu Kumar Sarkar	Commerce	Indigenous Innovative Products by Micro, Small and Medium Enterprises: A study of cases
Anil Kumar Prasad	Law	Euthanasia : A Socio-Legal Study
Chiranjib Sarkar	Geography	Social and Environmental Problems of Tea Gardens in Dooars, North Bengal
Md Golam Martuja	Philosophy	Environmental ethics in Islam
Dasarath Murmu	Philosophy	Eco-centric Knowledge Production of Santals and the Problems in Sustaining their Knowledge Systems in Modern Period: A Philosophical Approach

On the next working day i.e. 27 January (26th was the Republic Day and a holiday) there were 2 groups namely Groups E and F to present their seminars.

Group E

Broad theme: Revisiting Nation and Modernity in 21st Century.

Name	Subject/ Discipline	Title of Seminar Presentation
Souradeep Sen	Political Science	Paradoxos Modernus: Europe from Locke to Napoleon
Pawan Gurung	Political Science	The critical outlook of the Modernity on failure of developing a Sustainable Human Society:
Utpal Roy	Political Science	E-Learning: A Tool of Social Development in the 21 st Century
Md Sariful Islam	Political Science	Green Federalism in the Present Indian Context
Palash Dey	History	Rethinking Medicine and Modernity in India
Gita Rani Das	History	Revisiting Gandhism : Its Relevance In The 21 st Century
Swastika Biswas	History	Shreechaitanya: the pioneer of Democratic and non-violent movement

Ujjal Biswas	History	Some elements of today's National Integrity
Bablu Sarkar	History	Views Regarding Nation of Swami Vivekananda: Relevant His Words Today Context(sic!)
Ahmed Ali Bhuyan	History	"Revisiting Nation and Nationalism with Reference of Gandhi's Philosophy
Prosenjit Mondal	History	Modernity and Change: Santali Folk-Treatment of the Santals of Santal Pargana

Group F presented in the second half and the broad theme was **Changing Dimensions of Education, Society & Information.**

The name of the teacher-participants and their titles of the presentations are given in the following table.

Name	Subject/ Discipline	Title of Seminar Presentation
Shamba Dutta	Library And Information Science	Major Initiatives in Modern Library Practices in the Digital Era that Made Online Study Easier and Barrier-free
Rumki Pramanik	Library And Information Science	Information Sources : A Discussion
Jhuma Hari	Library And Information Science	Information Explosion in a Global Age
Mousumi Mahato	Library And Information Science	Changing Dimensions of Education Systems and Open Educational Resources for Online Teaching and Learning: Indian Scenario
Rajesh Let	Library And Information Science	Role of libraries on marketing of information

Ritirekha Kalita	Education	Virtual Learning And Educational Environment: New Opportunities And Challenges Under The Covid-19
Mousumi Sarkar	Education (Foundation Course Of B.Ed)	CHANGING SCENARIO OF EDUCATION IN THE LIGHT OF HUMANISTIC APPROACH: A REFLECTION
Manoj Kumar Murmu	Physical Education	Understanding Health as a Role of Physical Education and Physical Activity: Exploring and reconsidering its relevance in School

With the completion of the presentation of Group F the day's programme as well as the event of seminar presentation ended as a whole.

The next two days i.e. 28 and 29 January were devoted to the Micro-teaching practices.

On 28 January four Groups i.e. Groups A, B, C, and D participated in the Micro-teaching.

Teacher-participants were free to choose any topic from their subjects to demonstrate in the micro-teaching session. Time allotted to each teacher was 10 minutes including 2 minutes for question and answer.

In the following tables names of the participants their subjects and topics of teaching are shown for each group.

Groups A and B presented in the pre-lunch session.

Group A

Name	Subject/ Discipline	Topic of Micro-teaching
Lakpa Tamang	Physics	Double slit experiment: Classical Vs Quantum Particles

Chinta Haran Majumder	Physics	Liquefaction of gases : Andrews' Experiment & Critical Constants
Indadul Khan	Computer Science	Programing Language
Avik Bag	Mathematics	Sets and Binary Operation
Prosenjit Choudhury	Physics	Scalar and Vector fields
Manabindu Das	Physics	The Matter Waves
Prasanta Mandal	Physics	Semiconductor & its Application

Group B

Name	Subject/ Discipline	Topic of Micro-teaching
Khusboo Lepcha	Microbiology	DNA replication
Ashutosh Ganpatrao Sawarkar	Genetics And Plant Breeding	Role of Plant introduction in plareeding
Kishor Kumar	Agricultural Biotechnology	Structure of DNA
Koushik Sarkar	Zoology	Component of Species Diversity
Ravi Kumar Singh	Plant Biology	Plant - Pathogen Interactions- Molecular Aspects and Challenges
Falguni Kishorbhai Sheth	Botany	Leaf and its arrangement

Group C and D participated in the post-lunch session.

Group C

Name	Subject/	Topic of Micro-teaching
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	Discipline	
Sumit Rajak	English	War Poetry
Kyamalia Bairagya	English	Nissim Ezekiel 's poem 'Night of the Scorpion'
Dulal Sarkar	English	The Good Morrow
Mamoni Mahata	Bengali	কবিতা: অবনী বাড়ি আছে / শক্তি চট্টোপাধ্যায়
Bithika Sahana	Bengali	বাড়ি থেকে পালিয়েঃ সাহিত্য থেকে সিনেমা
Anal Pal	Bengali	শজারুর কাঁটা : গোয়েন্দা গল্পের কাঠামো / <i>Sajarur Kanta</i> : Topology of Detective Fiction
Rajesh Chandra Mandal	Bengali	মঙ্গলকাব্যে ভণিতা
Prosanta Barman	Sanskrit	We do the Maths too

And group D:

Name	Subject/ Discipline	Topic of Micro-teaching
Subhasis De	Economics	The Short-Run Trade-off Between Inflation and Unemployment
Moneswar Sarkar	Economics	
Mintu Upadhyaya	Economics	Market Failure in the Presence of Externalities
Lakshmi Das	Commerce (Accounting & Finance)	Theory of Dividend
Pintu Das	Commerce	Advance Tax & Self Assessment Tax

Abhrangshu Kumar Sarkar	Commerce	Fundamentals of Accounting
Anil Kumar Prasad	Law	Competency to Contract under The Contract Act, 1872
Chiranjib Sarkar	Geography	.Some Aspects of Map Projection
Md Golam Martuja	Philosophy	Is capital punishment is Justifiable?
Dasarath Murmu	Philosophy	Some Features of Indian Philosophy

With the micro-teaching of Group D completed, the programme of the day ended.

Next day or 29 January the Micro-teaching of Groups E and F remained due.

The following 2 tables depict the names subjects and topic of micro-teaching of the teacher-participants of these remaining groups.

Group E.

Name	Subject/ Discipline	Topic of Micro-teaching
Souradeep Sen	Political Science	India's Challenge of a Two-front war
Pawan Gurung	Political Science	Rawl' Theory of Justice
Utpal Roy	Political Science	FEDERALISM
Md Sariful Islam	Political Science	E-governance impact on the local democracy in India
Palash Dey	History	Periodisation in Indian History
Gita Rani Das	History	Historical Background of the Tea Industry of Assam
Swastika Biswas	History	Environmental thinking of Kumarappa and Mira Behn.
Ujjal Biswas	History	Evolution of stone tools in the palaeolithic period in India

Bablu Sarkar	History	Thoughts of Ramakrishna Paramhans
Ahmed Ali Bhuyan	History	Formation of East India Company and its formation in India special reference in Bengal
Prosenjit Mondal	History	Santhal Hul(Rebellion)

And finally, Group F:

Name	Subject/ Discipline	Topic of Micro-teaching
Shamba Dutta	Library And Information Science	Noise and Barriers of Communication in a Nutshell
Rumki Pramanik	Library And Information Science	Five Laws of Library Science
Jhuma Hari	Library And Information Science	DIGITAL DIVIDE AND LIBRARY SERVICES: AN OBSERVATION
Mousumi Mahato	Library And Information Science	Deterioration of Library Materials: Some Preventive Measures
Rajesh Let	Library And Information Science	Public library system in West Bengal
Ritirekha Kalita	Education	Classroom Communication Process
Mousumi Sarkar	Education (Foundation Course Of B.Ed)	Emotional Intelligence
Manoj Kumar Murmu	Physical Education	Determining Heart Rate Training Zones

In the post-lunch session the Associate Professor cum Deputy Director of the HRDC conducted a vibrant interactive session and an overall discussion of the seminar presentation and micro-teaching their techniques best practices and benefits were discussed at some length. The day's programme ended at 5:30 pm.

Next day i.e. 30 January was a Sunday and everyone met again on 31 January, Monday, at 10:30 am at the virtual platform.

Lecture-I & II were on the Language of film delivered by Mr. Sourav Sarkar a film maker. A very beautiful explanation was given by Mr. Sourav Sarkar regarding Film and its language in his two consecutive lectures. He said that film itself is a language in which the film maker expresses and communicates his inner voice through that of the motion of images to the viewers. He informed how the term film comes into the existence and how it was presented in old time. He finally concluded with that the film is medium of expression which is skillfully crafted like other art forms.

Language of film has two crucial parts i.e. film making and to study or view a film. He has given the analogy between film making and story writing. As words are in a written language, so are the individual shots in the film language. Different shots can be thought of as different parts of speech, serving different purposes and answering different questions.

Film is of composite nature which has literary script, camera, action, dialogues, enactment and dramatic skills, story board, sound, background, music etc. A good film is that where the audience understands the *story* and *feels* what the filmmaker means them to feel. It has intent, subtexts and metaphors to present it more effectively.

He then presented a short film by him ***Anoochcharito*** (Unuttered). The film was beautifully crafted and was piece of an art where it reflected a child suffering from parental relationship distress and loneliness. It creates empathy in viewers in support of emotional well being of child. Reference of this film can be utilized in different segments of the society.

He then explained about major elements of a film language i.e. camera, shots, angles, movement, focus, lighting, sound and music, editing etc. Other associated elements include production design, costumes, make up, ambience shown etc.

He then played a documentary movie ***Nibhritochari*** in which a story of ageing was beautifully carved. The subtext and metaphors were used with the help of some natural elements like sun rising from the cloud, dried leaves, thorny surface and fresh leaves coming up.

Just like any other art form film language also tries to wake up the conscious of the viewer. They directly not preach them through words what one should do and what not too. It is through the theme of the story and through language of film it is communicated to the viewer and society in larger about the righteousness in behavior.

In the second half the topic was ***Cancer & its recent trends in Bio System*** and the lecture was delivered by **Dr Mosaraf Hossain**, Assistant Professor cum Assistant Director, HRDC, NBU. He discussed at some length what Cancer is and what its causes are, and how can we prevent Cancer. He laid importance on the food habit and presented the list of top 25 anti Cancer foods. He explained how harmful fast food and junk food are and why we must avoid them. He also laid extreme stresses on proper diet and lifestyle, as a vital measure of keeping sound health. Various medical tests and its side effects were also discussed by the speaker. Interactions took place at times within the lecture itself that made the session more interesting and effective. The speaker also indicated at treatments of Cancer too. He presented slides to show the differences between Cancer Cells and Normal Cells. The expert took on a lot of other Cancer related issues such as Bioinformatics Study, Lipinski rule, binding of Cancer proteins, also about amino acids. The interaction was so fruitful and effective that three hours covering two sessions passed rather imperceptibly. Finally, there was a long interactive session in which Dr. Hossain answered to many questions asked by the teacher-participants before they called it a day at 5:30 pm.

On February 1, Prof. Siddhartha Das of the Dept. of Metallurgical and Materials Engineering, IIT (Kharagpur) delivered the first lecture titled ***Entrepreneurship for Innovation***.

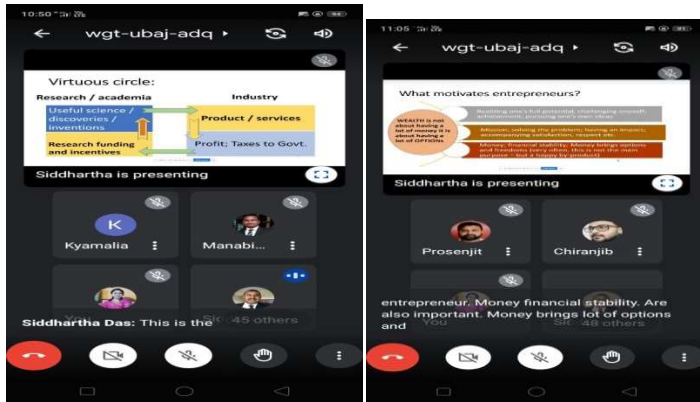
The speaker defines innovation as the specific instrument of entrepreneurship. Technology, invention (Tech + Novelty), innovation (invention + Market introduction) are the main elements of entrepreneurship. Entrepreneurship means capacity to take risks, ability to own and organize, desire & capability to innovate and diversify.

He defined entrepreneurs as individual who actively forms or leads their own business and nurtures them for growths and prosperity.

Entrepreneurs shift economic resources out of areas of lower into areas of higher productivity. In his lecture, the speaker explained nicely about the importance of entrepreneurship. Entrepreneurship generates employment. It helps to improve the standard of living of a person by increasing the income. It creates new business, it adds to national income and community development too.

The speaker says that entrepreneurship can change the way we live and work. The impact of entrepreneurship capital is, in his opinion, is stronger than that of knowledge capital. He said that new products and services need to be researched and tested before launching in the market.

Now entrepreneurship- education is also more prominent. Entrepreneurship allows students to learn more than just their chosen field of study and creates an interdisciplinary environment to work and develop. In this context he shows some presentation related to 'Science and Technology Entrepreneurs Park (STEP) IIT/Kharagpur. STEP helps to promote, facilitate and undertake application oriented research activities and to build component techno-entrepreneurs with science and technology background to start technologically challenging industrial ventures and also organizes training for entrepreneurship development and relevant workshop.



Lecture-II was delivered by Professor Amiya Kumar Kalidaha, Senior Scientific Officer, DSTBT, Govt. Of West Bengal, Kolkata, titled *Basic Concepts on Intellectual Property and its Rights.*

The speaker defines different types of properties like movable property (example, jewellery, watches, computers, money etc), immovable property (real estates, trees, or plants attached to the earth etc), private property etc. Properties also can be defined as intangible and tangible. Intangible properties or assets are known as brands, knowledge, goodwill, trademarks, patents etc. Intellectual property is also recognized as intangible assets. IP is *Product of Mind* can be used by the owner alone and lawfully by others with owner’s permission. Different confidential Information, Trademarks, Layout Design of Integrated circuit, Industrial Designs, Copyrights, Geographical Indication, Plant Varieties etc. IP is a key aspect for economic development. Now Modern Economy is related like Knowledge-Invention-Value. IP can generate income for the business through licensing, selling or commercializing protected products or services. This in turn, can improve the stock market and increase the profit. In case of a sale, merger or acquisition, registered and protected IP assets can increase the value of the business. IP is necessary to create an image for the business like trademark, logo, or design of the product. IP can increase to opportunities in export markets. IP is regarded as a tool to earn incentive for inventions, creations and investment in knowledge economics. IPR are legally sanctioned monopolies....Negative Right!! There are some National Strategies of Intellectual property like Business –friendly Environment, Govt strategy/Policies etc. He exposed various copyrights in a single work as Rights of the performers, Rights of the Producer, Rights of the Dance Director, Rights of the Title song, Rights of the Broadcaster etc.

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After lunch, Professor Amiya Kumar Kalidaha delivered another lecture titled ***Research, Collaboration and Funding***.

The speaker divides his lecture in three parts. First part consists of Research and Funding. Second part includes Research Collaboration and the third part of his lecture consists of the role of DSTBT in spreading *Research and Development* and Science Popularization in West Bengal. The speaker very elaborately describes the meaning of Research and its funding agencies. He highlights the research journey, research project overview, project proposal goals and objectives, statement of the problem, users of the proposed project, expert opinion and comments. The speaker describes lucidly how to convince the experts for funding. The speaker very clearly discusses the various agencies for funding R and D Projects in India and in international field. The speaker provides useful tips for the researcher to convince the funding agencies by the way of that his or her proposal has value and he/she can complete it successfully within budget and on time. The researcher can convince the experts by saying that he/she has the required qualifications and experience to achieve the stated objectives and he/she has a full understanding of how to manage the project and complete it effectively. The speaker highlights the 5W1H i.e. What, Who, Why, Where, When and How in Research collaboration. He adds that research collaboration consists of teamwork, share, trust, inspiration, exchange, assist, support and success. The speaker underlines that a truly collaborative approach and environment is necessary for research to be effective and it also makes more fun of it. The speaker focuses on the issue of collaborators conflict and at the same he provides tips to solve it. Lastly in the third part of his deliberation the speaker highlights the role of DSTBT-Government of WB in spreading R and D and science popularization in West Bengal.

Lecture IV was delivered by Dr. Sudash Lama. Associate Professor, Department of History of the North Bengal University, titled: ***Educational Status of Scheduled Tribes in West Bengal: Attainments and Challenges***. The speaker delivered his lecture on his ICSSR based project. In this lecture, the speaker focused on the problems regarding tribal illiteracy in the state of West Bengal. He highlights the reasons

of Lower rate of the tribal literacy is low in rate in West Bengal. The speaker discussed elaborately the reasons behind the low rate of literacy in the scheduled tribes in West Bengal. Data revealed that the ST people live mostly the in remote areas and their main occupations are agriculture and some non agricultural activities. The speaker highlighted that due to the poor economic condition, social and ecological reasons the ST people are educationally backward. Struggles for survival compelled the children to leave schools. The speaker added that the children are not confident and they are shy and cannot adjust themselves outside home. The Govt. of West Bengal introduced many welfare activities and scholarship scheme for the tribal children. But due to the lack of information they often do not have the access of these facilities. The speaker pointed out that the relations between the non ST teachers and the ST students are often not friendly enough. Thus the speaker covers extensively the issues and challenges faced by the ST students and identified these to be the reasons behind the tribal illiteracy in the state of West Bengal.

The first lecture of the 2nd February was again by Dr. Shankar Nath and his topic was ***History of Pandemic in Bengal and their Managements.***

In this lecture, the speaker defines and elaborates the concepts of Endemic and Pandemic. Then he said that there were two ways to combat a disease – therapy of the disease and prevention of the disease. He said about how to prevent Covid-19 and informed us India started its national vaccination programme on 16th January, 2021 against the SARS-CoV2 which is responsible for the Covid-19 pandemic. He discussed about disease like Cholera, Malaria, Plague, Spanish Flu which are evokes in Bengal. He also detailed the causes, mortality rate and what measures were taken to remedy these epidemics.



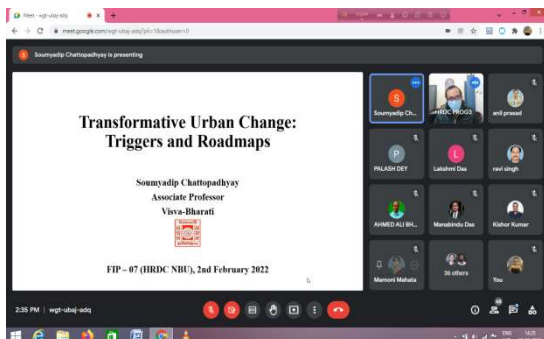
Lecture – II of the day was on a very different but important topic related to the professional life of every teacher. It was nothing other than the **Computation of Income Tax.**

The Speaker – Mr. Surajit Das, Deputy Finance Officer, NBU beautifully described various matters relating to Income Tax in his lecture. In this lecture Firstly, he explained what is Financial Year and what is Assessment and then about the components to be accounted for income tax from his discussion. He discussed about important terminologies like PAN of employee, TAN of employer, Gross salary received, Arrear received, Professional tax, HRA paid, TDS etc. Then he explained how we can calculate the tax. He spoke about the House Building Loan and the tax benefits it endows. Various components of income was discussed in his lecture. Then he elaborated about available deductions like u/s 80C, 80CCC, 80CCD, 80TTA, 80CCG, 80E, 80D, 80DD, 80DDDB, 80U, 80EEA, 80G, 80GGC etc. Finally he pointed to the differences of the old and new tax regimes.



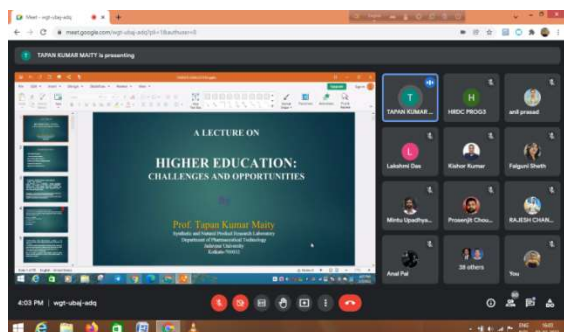
The first lecture of the half II, titled Transformative **Urban Change: Triggers and Roadmaps** was delivered by Prof. Soumyadip Chattopadhyay, Associate Professor, Visva-Bharati.

Prof. Chattopadhyay focused on the residents of lower and middle income groups of growing urban cities who are underserved daily in terms of the core urban services, which we call urban inequality. Then he said that if we mitigate this inequality, it will help improve quality of life. So we need to redesign the urban infrastructure, formulate alternative service provision models, combine large public investments and innovative financing instruments. In his opinion we have to rethink of and restructure urban governance, and also work towards coordination among various institutions involved in urban/municipal development, participation of citizens in city governance etc.



The title of Lecture – IV was **Higher Education: Challenges and Opportunities**, delivered by Prof. Tapan Kumar Maity, Department of Pharmaceutical Technology, Jadavpur University.

Prof. Tapan Kumar Maity starts his lecture by drawing our attention to the current status of the higher education system in India and the changes that have occurred in the post-independence era. In his lecture, he points out some challenges of higher education such as the increase in the number of universities but lack of arrangements and facilities, curriculum not updated as required, unemployment, increase of cost in private universities, etc. He adds that education is a dynamic process. In the 21st century India has witnessed growth of population, knowledge expansion, technological revolution, changes in teaching methods, global competition, sustainable development etc. He says, if we don't update our higher education, we will fall behind. Although there have been a lot of challenges to the higher education system of India, equally it also has a lot of opportunities to overcome these challenges and to make the higher education system much better. It needs great accountability and transparency. Emerging scientific research on how people learn is of utmost importance. At the end, he gives some suggestions to improve our higher education system. We need to enhance teaching, learning and evaluation methods, focus on continuous development of faculty, knowledge alliance etc.



On February 3, the first two lectures were delivered by Prof. Lakshminarayan Satpati, Professor-cum-Director, HRDC, University of Calcutta. And his topic was ***Climate Change in Anthropocene and Climate Hazards in INDIA***.

Prof. Satpati described the climate changes and climate hazards in India. Global warming has already started being felt as a local threat now-a-days. According to him, in 1990, global warming was included as a very vital aspect of the climate changes. Climate of an urban area is called micro-climate. He also discussed several hazardous atmospheric phenomena. First, Tropical cyclone is a big hazard. It is devastating. Thunderstorm is also a hazard. In Bengal, *Kalbaishakhi* (the summer-evening thunderstorm) generally occurs on land surface mostly on afternoon or evening. Tornadoes are also very damaging. The above three are extremely hazardous events. Drought is a very slow event, common in central India and opposite to it excessive rain causing flood also occurs frequently in India. Hail storm is a kind of thunderstorm which occurs in the higher latitude region. Strong winds and tropical cyclones are also observed in many places. Climate is the mean weather of some 40 years over a region and climate change is also a holistic terminology.

On 3 February, Lecture III & IV were delivered by Dr. Samir Kumar Das (Professor of Political Science Dept., University of Calcutta).

Title of the Lecture-III was *Teaching Ethnic Studies*.

At the beginning Dr. Das drew our attention to the diversities as characteristics of India. He said that ethnic studies is a recently developed field of study which gained much interest of the scholars of social sciences. He informed about the book published named *Ethnicity :Theory and Practice*, published in 1975 which popularized ethnic studies. He defined ethnic-group, ethnic-community, and ethnicity very clearly. He said that modernity does not collapse ethnicity, but gives it a new dimension. He introduced us with different objective markers of the ethnic groups and cited some examples of such ethnic groups as Bodo, Naga, etc. Traditionally it was believed that due to emergence of modernity ethnicity is under threats, which proved false. Objective markers of different ethnic groups are to some extent distinguishable from each other.

Title of the Lecture-IV, i.e. the second lecture by professor Das was *Exploring Research Possibilities in Ethnic Studies*. In this lecture Dr. Das made us aware of the geographies of ethnicity. He said that the world's habitable surfaces are compartmentalised by nation states. He defined nation states, territorial states and sovereign states. He has told that every state has a territorial boundary and also stated about sub-territoriality. Due to the consciousness of such kinds some objectives markers are formed which differentiate one ethnic group from the other. Each and every ethnic group wants to build a separate state of their own, where they may get some sort of rights and autonomy. As it is a new field of research, scholars of social sciences have a great opportunity to do research on ethnic studies.

The day's programme ended with this at 5:30 as usual.

The 4th and the 5th day of February were holidays on account of Saraswati Puja and 6 February was a Sunday.

On 7 Feb, Lecture-I titled ***Ethical View of Higher Education*** was delivered by Dr. Swapan Kr. Rakshit, Joint Registrar, University of North Bengal. He began his talk by throwing lights on API score pattern for the teachers and explained the importance of the different categories of activities under the API pattern. He also discussed on the motto of University Grants Commission behind establishing the HRDCs and arranging such FIPs and Refreshers Courses and how they help in enhancing the quality of Higher Education. He shared many experiences of his own 15yrs of teaching career in different colleges as examples, and tried to motivate the teacher-participants. He mainly focussed on Quality of Higher Education, emphasising its need. The take away message of his lecture was, in a word, that excellence can be achieved in Teaching and Learning through constant effort and it is desirable that all must try to achieve it.



In Lecture II the resource person was Prof. Zinia Mitra, Associate Professor in the Department of English in North Bengal University who delivered a lecture under the title ***Poetry of silence and verbosity- a discussion***. As the title indicates, it was a wonderful deliberation on how poetry can serve as a medium of expressing 'silence' and 'verbosity' both. The honourable resource person in this lecture began by quoting Shelley's 'one word is too often profaned' and continued by emphasizing on the problem of being overburdened with words or expressions in our modern world of digitisation. She also read and recited a few English and Bengali poems and read them aloud in order to foreground the importance of words in depicting the world of silences in those poems. While referring about 'Poetry of Silence', she mentioned about movements like Imagism and Symbolism and gave the instances of Henry Vaughan's 'Silence and Stealth of Days', Thomas Hood's 'Silence', Edgar Allan Poe's 'Sonnet- Silence', Emily Dickinson's 'Silence' is all we dread', DH Lawrence's 'Silence' etc. As a binary to poetry of 'Silence', the resource person talked about 'verbosity' and referred to movements of the Beat Generation poets and gave instances of Allan Ginsberg's 'Howl', and William S. Burroughs 'Naked Lunch'. She also showed us Edvard Munch's painting entitled 'Scream' which symbolises the anxiety of human condition in aesthetic terms.

The session was concluded by a short discussion on the issue of signifier/signified in response to a question raised by one of the teacher participants.

In the post lunch session, an MCQ test was conducted by the HRDC as declared before. Teacher-participants logged in by 2:20 pm and a link was shared in the chat box. Participants had to take on the test via this Google link. Thirty questions were set from different topics of the lectures delivered so far in the FIP 7. Participants had to take the test keeping their video on, thus making the test a proctored one.

After completing the test the answers were submitted online. After the test, there were no further lectures that day.

On 8 February, the pre-lunch period was dedicated solely to interactions between the teacher-participants and the Associate Professor-cum-Deputy Director, HRDC, Dr. Sanjib Bhattacharya. The

teacher-participants exchanged their views and experiences of the FIP programme continuing for the past one month and now drawing to its end.

From 2:30 pm to 5:30 pm Prof. Pranab Ghosh, Registrar-Officiating, NBU delivered his lecture on ***Natural Resource and its Utilization.***

Prof. Pranab Ghosh started his lecture by a brief session of introduction with the teacher-participants. He then asked a few teacher participants to share their philosophies of teaching. After that he has started his actual lecture. He pointed out that the most effective solution to environmental pollution is increase the use of natural resources and reducing artificial and synthetic things.

He reminded us of the present scenario of the world, in which the countries are fighting between them to become more developed than the others. The process of development is comprised mainly of two things, one is industrialization and the other is transportation. But, as a consequence of rapid development, the nature is severely affected. Both industrialization and transportation cause emission of toxic gases causing massive pollution. So, we need some measure to reduce pollutions. Prof. Ghosh discussed some recent initiatives to save our planet from such pollutions. He mentioned that a lot of emphasis has been put on research of advanced materials, green chemistry and resource utilization. According to him, researchers are trying to develop new kind of engines which does not require petrol to run. These new engines may run on hydrogen, they may run even on water. Innovation of green fuel is also a great step towards pollution free surroundings.

Prof. Pranab Ghosh gave a brief account of the application of some advanced materials. He stated that surface-active materials are good to use as they are required in very small quantity. Apart from that, Carbon-nanotubes are vastly used nowadays as they are not hazardous. Oil soluble detergents are very much effective in vehicle washing. Use of oil soluble detergent not only saves a huge amount of water, but it also protects marine life to a large extent. Prof. Ghosh also talked about solvent of ionic properties and conducting polymers.

Prof. Ghosh has presented the idea of green chemistry to the teacher participants. Green Chemistry is a philosophy of chemical research and engineering that encourages the design of products and processes that minimize the use and generation of hazardous substance.

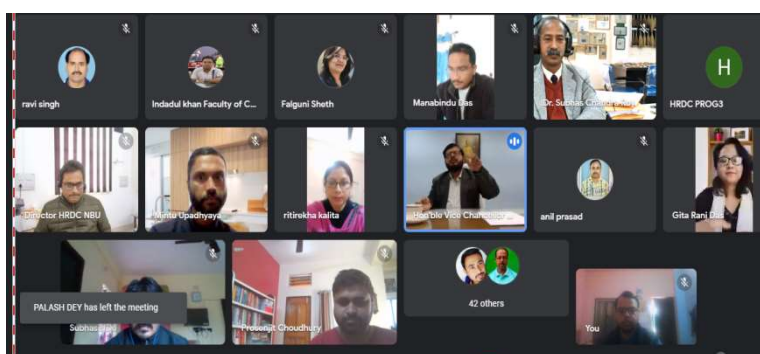
He also discussed about optimum resource utilization and demonstrated the concept of greener medicine. Greener medicines are medicine extracted from animals and plants. A few inorganic materials can also be used as green medicine. Green medicines can be synthesized chemically with the help of biotechnology. Prof. Ghosh has put forward some information about use of natural products in synthesizing of green medicines. Some merits and demerits of synthetic drugs were also discussed by him in his lucid deliberation.

The 9th day of February was a special day in all sense, as it was the final and closing day of the month long Faculty Induction Programme and also because it ended with a brief but beautiful valedictory session arranged by the teacher-participants.

The programme of the closing day started at 12:30 pm. In the beginning the course coordinator Dr. Sanjib Bhattcharya welcomed all the dignitaries such as Dr. Anjan Chakrabarti, Director, UGC-HRDC of the NBU; Dr. Subhas Chandra Roy, DEAN, Faculty Council for PG Studies in science, NBU, Dr. Mossaraf Hossain, Assistant Professor-Assistant Director, UGC-HRDC, NBU, Jt. Course Coordinator and the teacher participants successively.

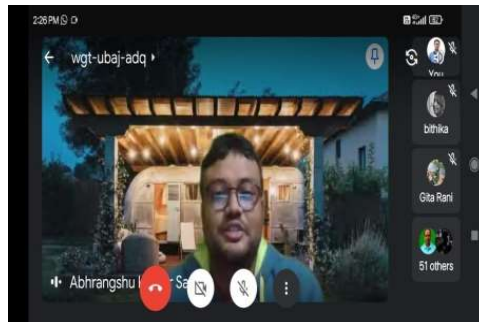
After that Dr. Anjan Chakrabarti delivered his valedictory address. Next, Dr. Subhas Chandra Roy delivered a brief valedictory speech.

On this closing day Professor Shibaji Pratim Basu, Hon'ble Vice-Chancellor of Vidyasagar University delivered a lecture. Professor Basu in his deliberation discussed about the social awareness in this present COVID-19 pandemic context and how to combat this deadly virus as a community. He mentioned the view of the great Italian Philosopher Giorgio Agamben. E-learning is the only process to reduce the scarcity of face-to-face physical class, he added. In the process of globalization, which strives on the systems of worldwide circulation of capital, goods, money and labour, diseases have somehow become global too. The education system and the educators have adopted in emergency a new notion education emergent through the various platforms. He said that the current consensus among infectious diseases specialists and public. Health officials would seem to indicate that the decision to limit face to face classes as a means of reducing close proximity interactions. He uttered before the audience a very important message for today's survival strategy: we should stand collectively with our collective conscious activities, for which it is important to stay informed in all new kind of developments collectively. Only a community approach can really save us from any global calamities.



At the fag-end of the closing day programme, the teacher-participants organised a short term event where they shared their experiences and participated in a cultural meet. It started with the beautiful

Vaidic chanting presented by Prof. Prosanta Barman. Prof. Falguni Kishorbhai Sheth shared her feedback of 7th Faculty induction Programme. Prof. Avik Bag and Prof. Ritirekha Kalita sang two wonderful songs consecutively. Prof. Abhrangshu Kumar Sarkar delighted us with a Tagore song. Prof. Shamba Dutta read out two of his published poems. Finally, Prof. Souradeep Sen shared his feedback. This programme was compered by Prof. Bithika Sahana.



Finally, Dr. Sanjib Bhattacharya, the Deputy Director cum course coordinator gave the formal vote of thanks. He also expressed his hope that the teacher-participants would try to apply the knowledge they gathered from this FIP in teaching and research. Finally, he declared the end of FIP 7. The teacher-participants left the platform with a heavy heart, promising to keep in touch with North Bengal University, especially the HRDC, and also with each other as an informal community, in order that the scope of sharing valuable thoughts among teachers is furthered, and in this way not only the students but the society as a whole be benefitted.

THE END