Centre for Molecular Biology Research (CMBR), Bhopal, MP Sponsored

One-Day National Level e-Conference
Connecting

'BIOLOGY, BIOTECHNOLOGY AND BIODIVERSITY' (BBB)

For Basic Education & Commercial Implications

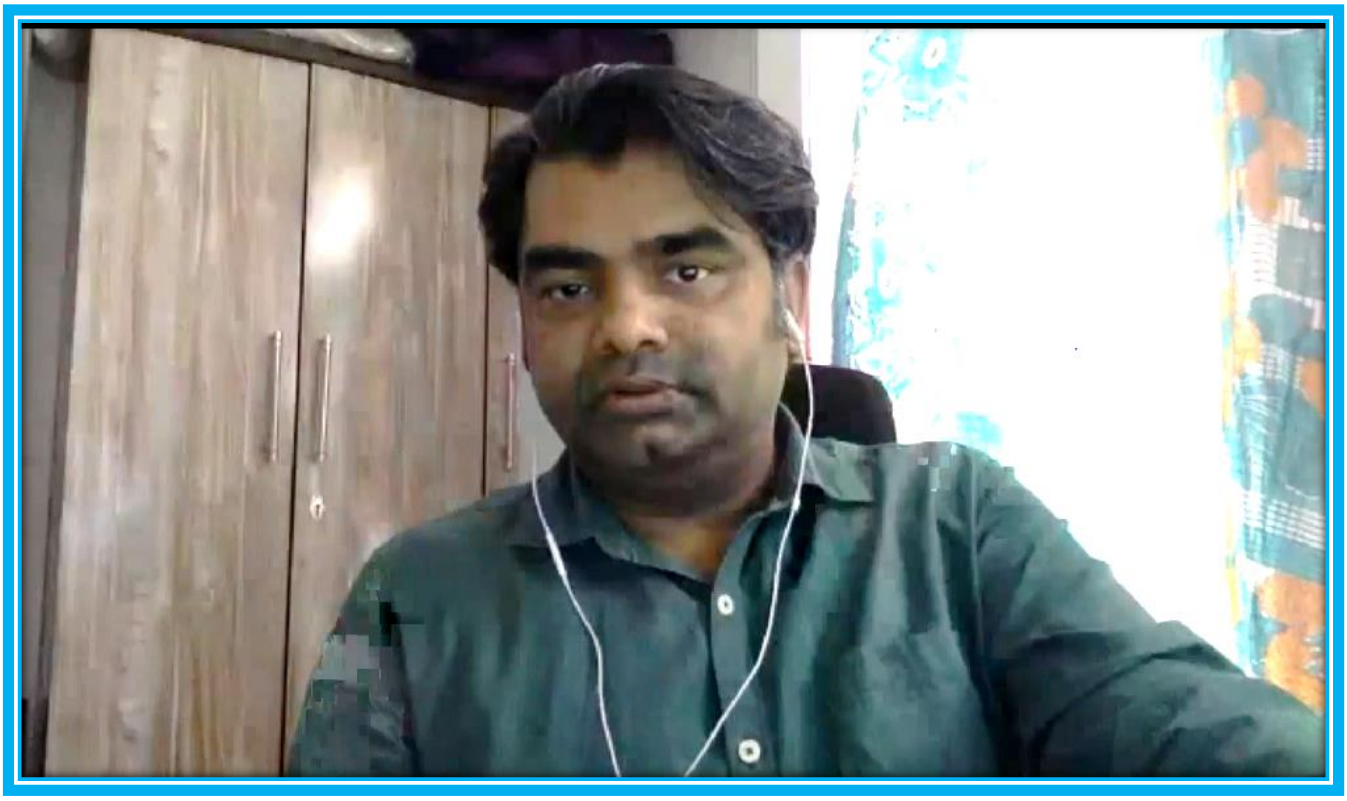
Organized by: Department of Zoology

3rd October, 2020

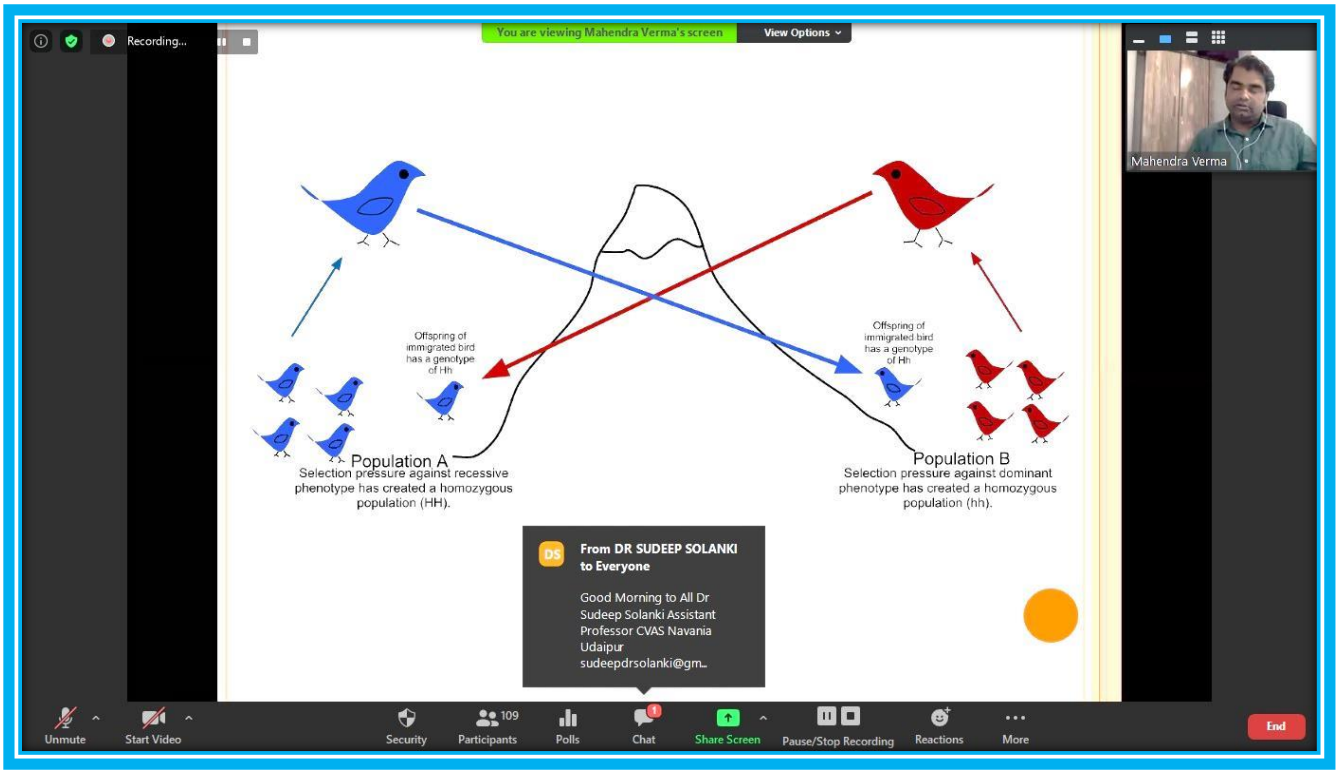
Welcome Address of Webinar by Dr. V. Subhashini, Retd. Lecturer in Zoology, KBNC

Inaugural Address by Principal Mr. E. Vara Prasad

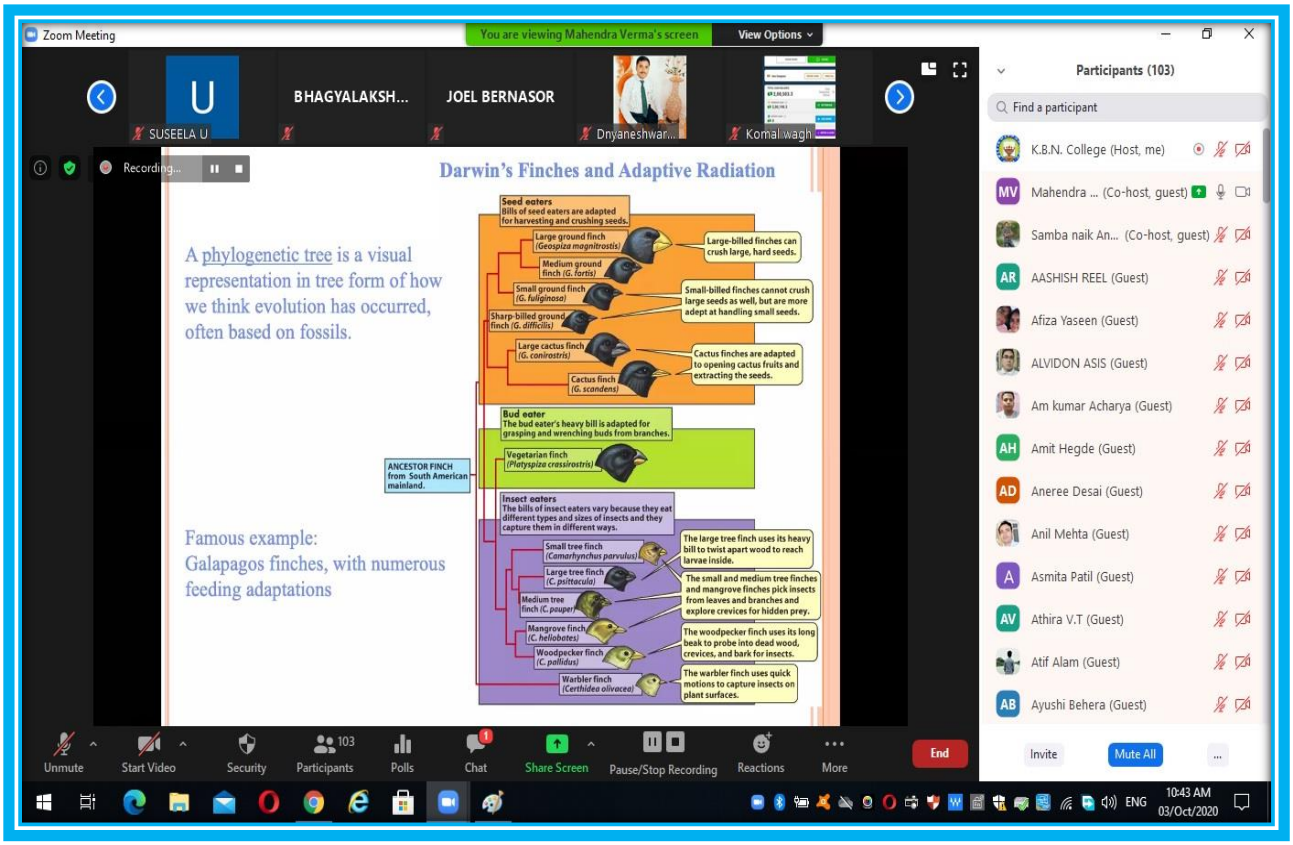
Theme of the Webinar by Dr. A. Samba Naik, Lecturer in Zoology & Convenor BBB



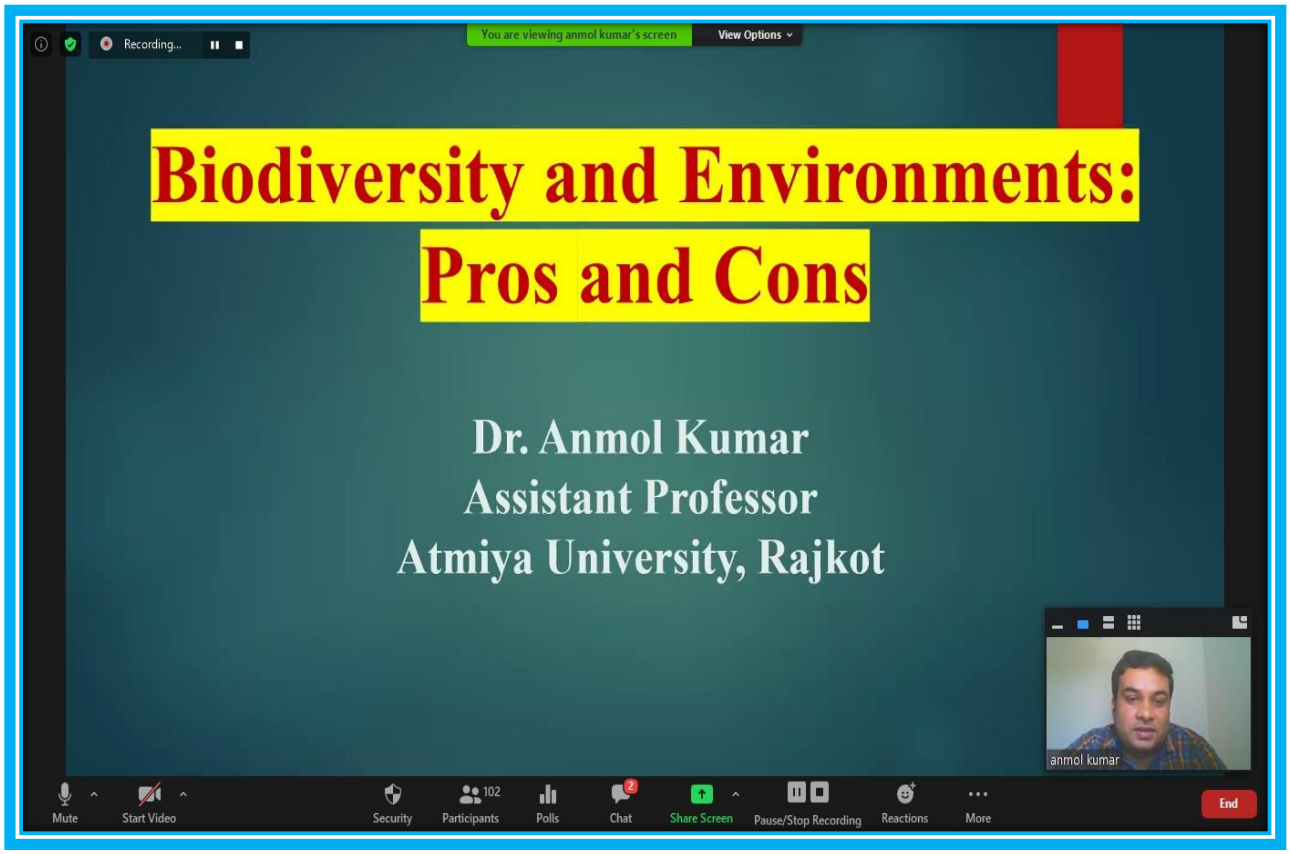
Session – I by Dr. Mahendra Verma, Scientist, CMBR, Bhopal, about Molecular Evolution & Biodiversity



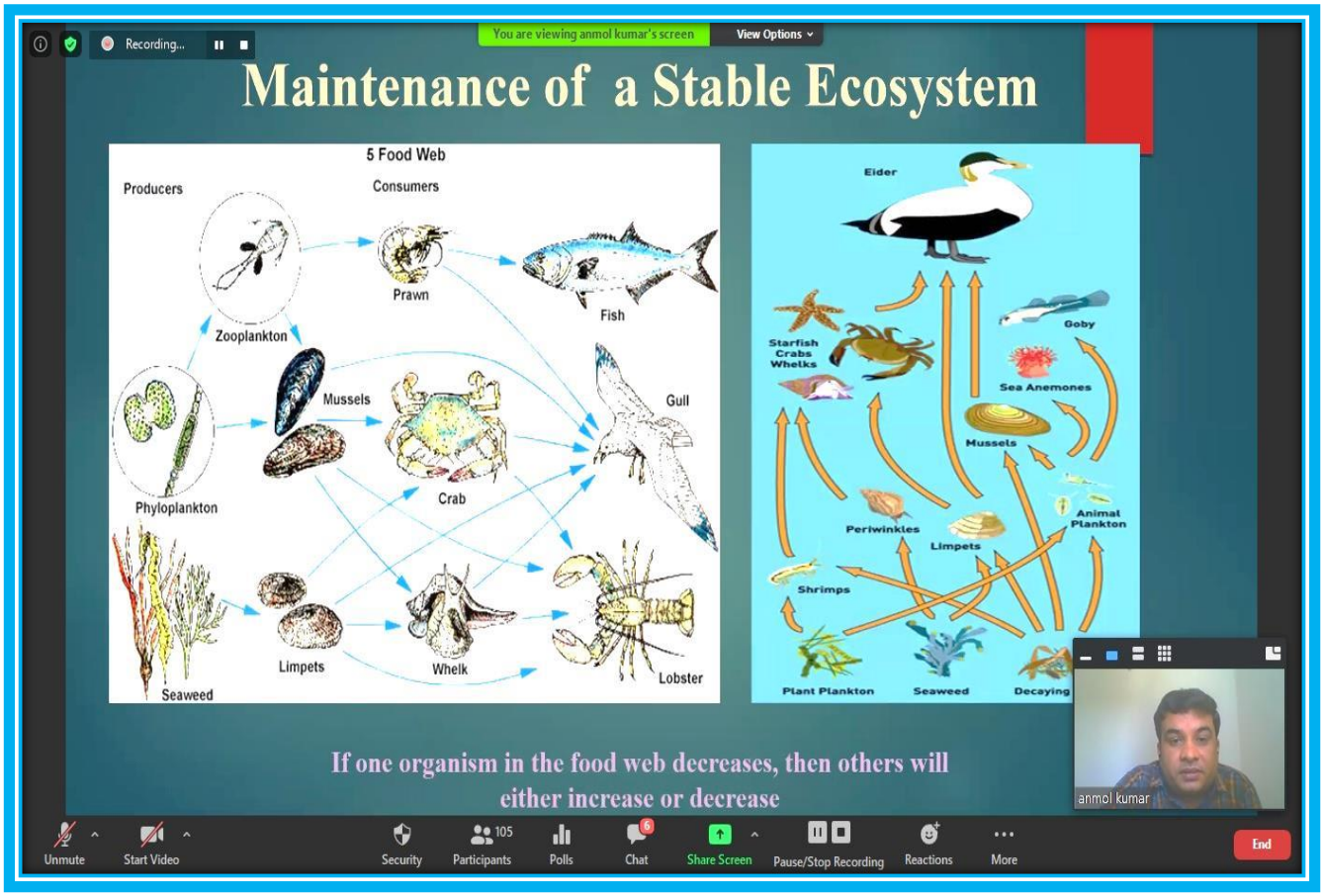
Session – I Screenshots

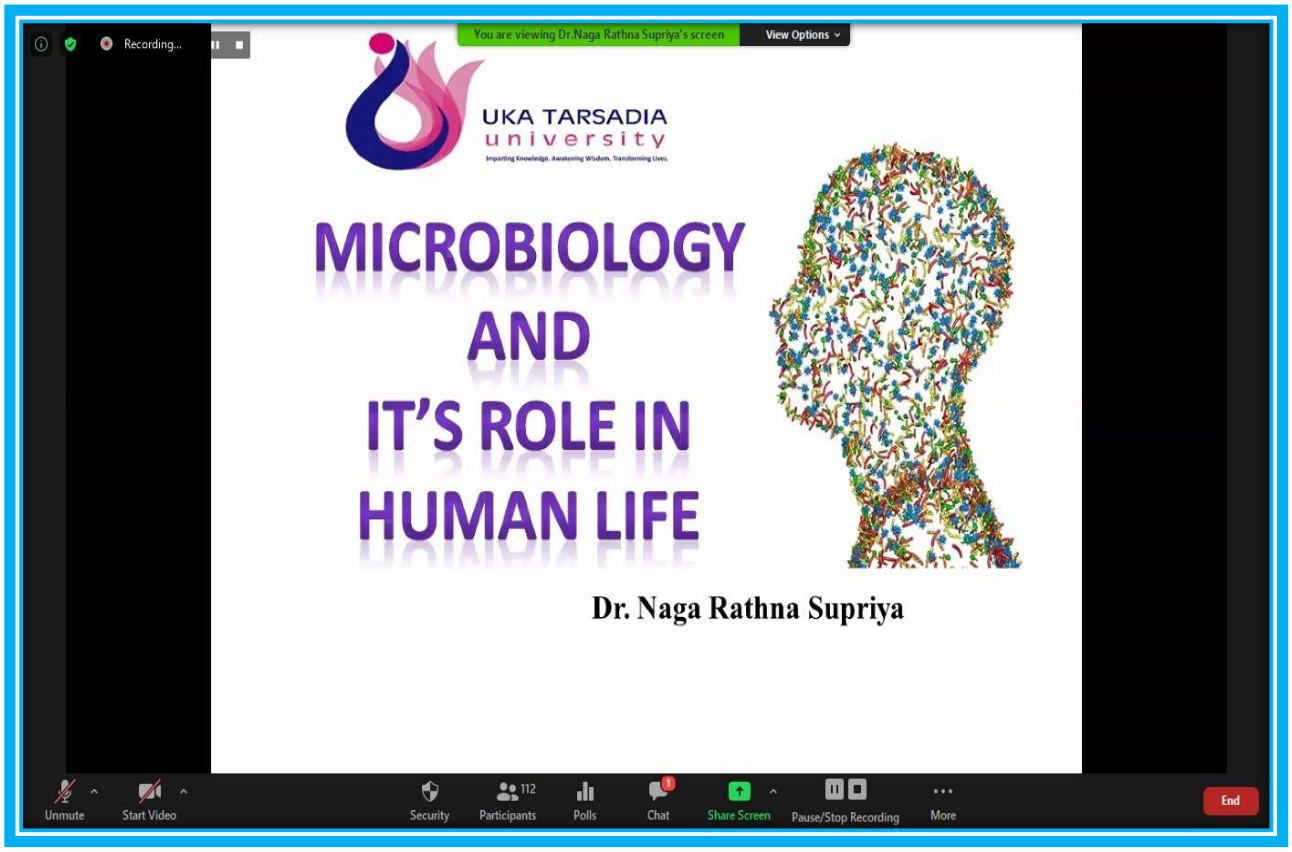


Understanding Biodiversity from Genetic Prospects: Tools & Techniques by Dr. Deepak Bharti, Asst. Prof. Biotechnology, SRK University, Bhopal in Session - II

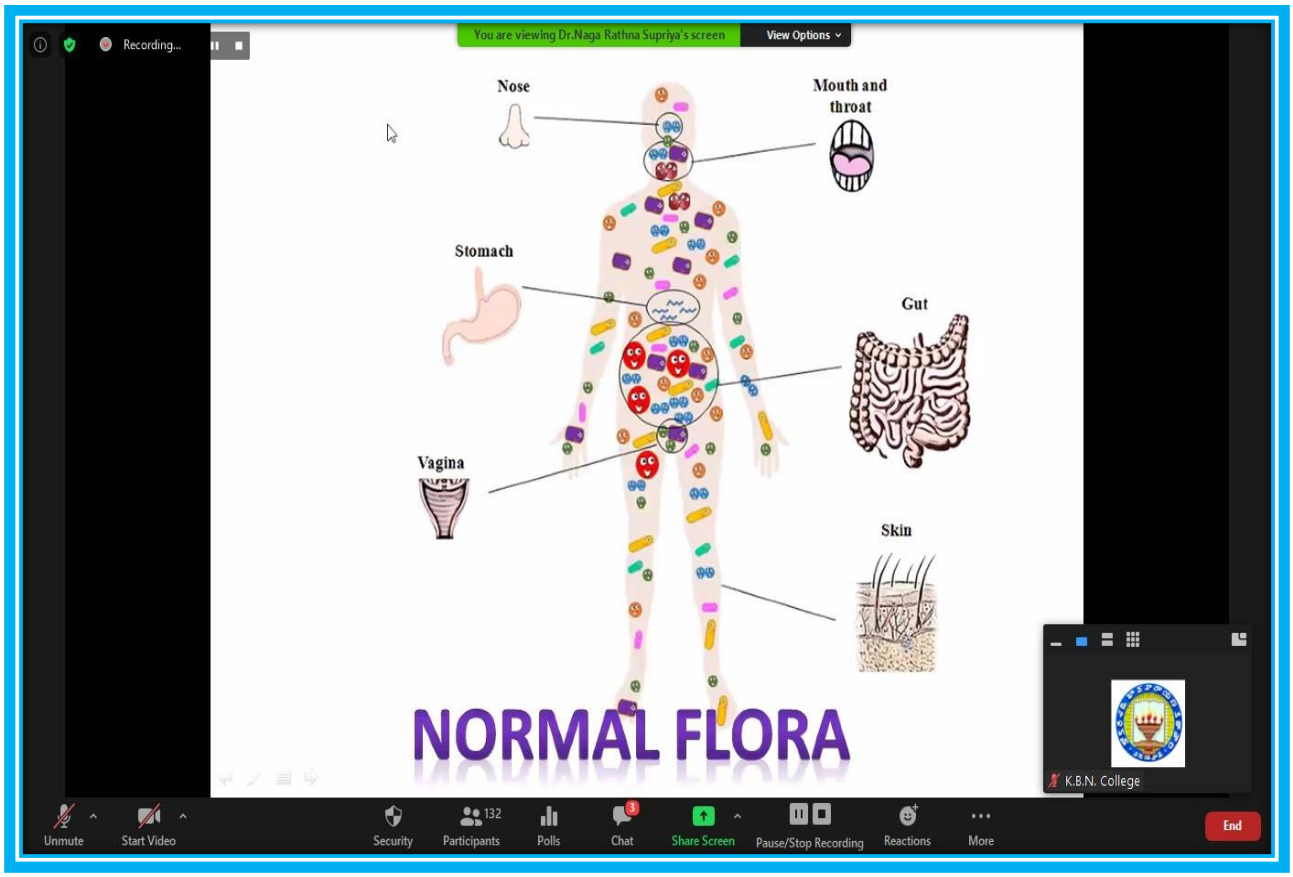


Session – III by Dr. Anmol Kumar, Asst. Prof., Atmiya University, Rajokot, Gujarat, discussing about Biodiversity & Environment: Pros & Cons.





Microbiology & Its role in Human Life by Dr. G. Supriya, Asst. Prof. Ukatarsadia University, Surat, Gujarat, in Session - IV



Vote of thanks by Dr. G. Sakunthala, Lecturer in Zoology

One Day National Level e Conference

Connecting

"Biology, Biotechnology and Biodiversity (BBB)"

For basic education & commercial implications

Report

One Day National Level e- Conference with the theme "Biology, Biotechnology and Biodiversity" for basic education and commercial implication was conducted on 3rd, October, 2020 by Department of Zoology, KBN College, Vijayawada, Andhra Pradesh in collaboration with Centre for Molecular Biology Research (CMBR) Bhopal, Madhya Pradesh.

The resource persons for this e-conference are eminent scientists and academicians from reputed institutions like Dr. Mahendra Verma, Scientist, CMBR Bhopal, Dr. Deepak Bharathi, Asst. Prof. Biotechnology, SRK University, Bhopal, Dr. Anmol Kumar, Asst. Prof. Atmiya University, Rajkot, Gujarat and Dr. G. Supriya, Asst. Prof. Ukatarsadia University, Surat, Gujarat. The Convener of this program is Dr. A. Samba Naik, Asst. Prof. in Zoology, KBN College and Co-convener is Sri. T. Samba Siva Rao Asst. Prof. & Head, Department of Zoology, KBN College.

Preparation of the event:

Theme BBB was designed to make a platform for multidisciplinary life science participants. The conference has started with a spirit of Unity and hand in hand effort. The decision of conducting the e-conference was put forward by Dr. Samba Naik and approved by Director, CGBIBT almost one week prior to the date. The circular was communicated among the staff and students regarding the events that are supposed to be held on that day through social means.

Objectives:

- To create awareness and make a platform for researchers, Academicians and students to get an idea of the importance and pave a path towards research.
- The *objective* of the conference is to contribute to the safe transfer, handling, and use of living modified organisms resulting from

modern *biotechnology* that may have adverse effects on the conservation and sustainable use of biological *diversity*, taking also into account risks to human health.

- To review and learn that the science of biotechnology is not a subject of controversy, but it is the mode and nature of its application, through techniques and technologies, which could stir contradictions.

To know the status of the use of biotechnology for conservation and use of biodiversity and interaction among them.

Programme Schedule

9:45 AM – 9:50 AM	Welcome address of seminar by Dr. V. Subhashini, Retd. HOD of Zoology Department
9:50 AM – 10: 00 AM	Speech by Sri E. Vara Prasad, Principal, KBNC, Vijayawada
10:00 AM – 10:05 AM	Introduction of Dr. Mahendra Verma by Dr. A. Samba Naik, Convenor, BBB e-Conference
10:05 AM– 10:55 AM Technical Session – I	Dr. Mahendra Verma, Scientist, CMBR, Bhopal, MP
10:55 AM – 11:00 AM	Introduction of Dr. Deepak Bharti by Dr. V. Subhashini
11:00 AM – 11:45 AM Technical Session – II	Dr. Deepak Bharti, Assistant Professor, SRK University, Bhopal, MP
11:45 AM – 11:55 AM	Break
11:55 AM – 12:00 Noon	Introduction of Dr. Anmol Kumar by Dr. Supriya, Assistant Prof. Surat, Gujarat
12:00 Noon-12:45 PM Technical Session-III	Dr. Anmol Kumar, Assistant Prof. Atmiya University, Rajkot, Gujarat
12:45 PM – 12:50 PM	Introduction of Dr. Supriya by Dr. G. Sakunthala, Dept. of Zoology, KBNC
12:50 PM – 1:50 PM Technical Session – IV	Dr. Supriya, Assistant Professor, Ukatarsadia University, Surat, Gujarat
1.50PM – 2.00 PM	Vote of thanks by Dr. A. Samba Naik, Convenor of BBB e-Conference

The session has started on time and has been summarized above as mentioned in the Itenary.

The e- conference started with the welcome speech of Dr. V. Subhashini, Retd. HOD of Zoology Department. She welcomed all the Resource persons, faculty, scientists, research scholars, students and NGO's with a key note message on Biology, Biotechnology and Biodiversity. She asked them to utilize the opportunity with their active interaction.

The online conference was officially inaugurated by Sri. E. Varaprasad, Principal of KBN College who on the onset acknowledged CMBR, Bhopal M.P, for sponsoring the conference. He thanked the resource persons for obliging our invitation and taking part in e-conference. He congratulated the Zoology Department for organizing the program. He addressed the participants that Biotechnology has a lot of contribution for the conservation of biodiversity and it is also used for the production of chemicals, drugs, medicines, enzymes, pathogen free and high yielding plants and live stocks. He concluded by saying that "We hope to get a broad and deep exchange of views on this concept which is of importance for the whole of society."

<u>This e-conference is organized into 4 sessions:</u>

10:00 AM – 10:05 AM -Introduction of Dr. Mahendra Verma by Dr. A. Samba Naik, Convenor, BBB e-Conference

<u>Session I: 10.05 am- 10.55am -</u> Theme: Molecular evolution & biodiversity
Resource person: Dr. Mahendra Verma, Scientist, CMBR, Bhopal

In his introduction to the e-conference, Dr. Mahendra Verma set out the main aims of the e-conference, namely to have a broad discussion between scientists, faculty, research scholars and people from industry and NGOs on the need for a more careful approach to the interactions between industrial activities and the living world.

Dr. Mahendra Verma started the session by explaining about the relation between Molecular evolution & biodiversity. It is the process of change in the sequence composition of cellular molecules such as DNA,

RNA, and proteins across generations. The field of molecular evolution uses principles of evolutionary biology and population genetics to explain patterns in these changes. Major topics in molecular evolution concern the rates and impacts of single nucleotide changes, neutral evolution vs. natural selection, origins of new genes, the genetic nature of complex traits, the genetic basis of speciation, evolution of development, and ways that evolutionary forces influence genomic and phenotypic changes.

He concluded by explaining how some duplicates of the hemoglobin genes evolved into nonfunctional pseudo genes. He gave examples of Darwin finches and adaptive radiation.

10:55 AM – 11:00 - Introduction of Dr. Deepak Bharti, Assistant Professor, by Dr. V. Subhashini

Session II: 11.00am – 11.45am - Theme: Understanding biodiversity from Genetic Prospects: Tools and Techniques

Resource person: Dr. Deepak Bharti, Assistant Professor, SRK University, Bhopal, MP

The second session of the e-conference focused on "Biodiversity from Genetic Prospects: Tools and Techniques" Dr. Deepak Bharti, Assistant Professor, SRK University, Bhopal, MP mainly dealt with Basic molecular biology techniques like i) isolating nucleic acids, ii) cutting DNA into fragments, iii) Ligating DNA fragments, iv) amplifying DNA fragments, v) Hybridization techniques. He shared his views on Genomics - sequencing genomes & analyzing genome sequence, and Proteomics- separating proteins & analyzing proteins.

11:45 AM – 11:55 AM - A small Break was given for 10 minutes.

11:55 AM – 12:00 Noon- Introduction of Dr. Anmol Kumar by Dr. Supriya, Assistant Prof. Surat, Gujarat

Session III: 12.00 noon – 12.45pm - Theme: Biodiversity & Environment: Pros and Cons

Resource person: Dr. Anmol Kumar; Assistant Professor, Atmiya University, Rajkot, Rajasthan

The third session of the e-conference concentrated on how human activities have been and are continuing to alter the environment on local and global scales. He added that many of these changes are leading to dramatic changes in the biotic structure and piece of ecological communities, either from the mislaying of species or from the introduction of exotic species. Such alterations can preferably change the ways in which ecosystems work. Altered biodiversity has led to widespread cover for a number of both market (e.g., ecotourism, "mining" for medicines) and non-market (e.g., ethical, aesthetic) explanation"

He concluded by saying that many people may support environmental causes to help preserve the beauty of Nature. For many decades, various environmentalists, biologists and other scientists have viewed the entire earth as a massive living organism or system due to the interdependent nature of all species within it. Some cultures have recognized this kind of inter-relationship for a very long time. He finally suggested that ecological balance and biodiversity are crucial for all of earth, not just humans.

12:45 PM – 12:50 PM- Introduction of Dr. Supriya by Dr. G. Sakunthala, Dept. of Zoology, KBNC

Session – IV- 12:50 PM – 1:50 PM - Theme: Microbiology and its role in human life

Resource person: Dr. Supriya, Assistant Professor, Ukatarsadia University, Surat, Gujarat

Dr. Supriya, Assistant Professor, Ukatarsadia University, Surat gave voice to the influence of microorganism in human life. She said that microorganisms are both beneficial as well as detrimental also. For example microorganisms are required for the production of bread,

cheese, yogurt, alcohol, wine, beer, antibiotics (e.g. penicillin, streptomycin, chloromycetin), vaccines, vitamins, enzymes and many more important products.

She added that fundamental understanding of how a cell works has come through the study of microorganisms. The lives of humans, plants and animals are all intrinsically linked to the microbes that continually recycle key nutrients such as carbon and nitrogen, degrade organic matter and shape our day to day existence. She added a note on Medical microbiology, which helps in the identification, isolation, diagnosis and treatment of pathogenic microorganisms and also produces beneficial organisms such as yeasts and some antibiotics.

She concluded that the environment is incomplete without microorganisms. With every breath you take, there are millions of microscopic organisms that you breathe in. Apart from that, the human body hosts a plethora of microbes both inside and outside. Besides this, they are a crucial part of the ecosystem and take part in activities like production of minerals like nitrogen, gases like oxygen, carbon dioxide, taking care of dead and decaying materials etc.

1.50PM – 2.00 PM: Vote of thanks by Dr. A. Samba Naik, Convenor of BBB e-Conference

Target Achieved: Total 600+ participants have registered through the link provided below:
https://us02web.zoom.us/j/84716682390?pwd=NVBGQXg5emREdFkwbjNSNG8xdGRGdz09

Conclusion:

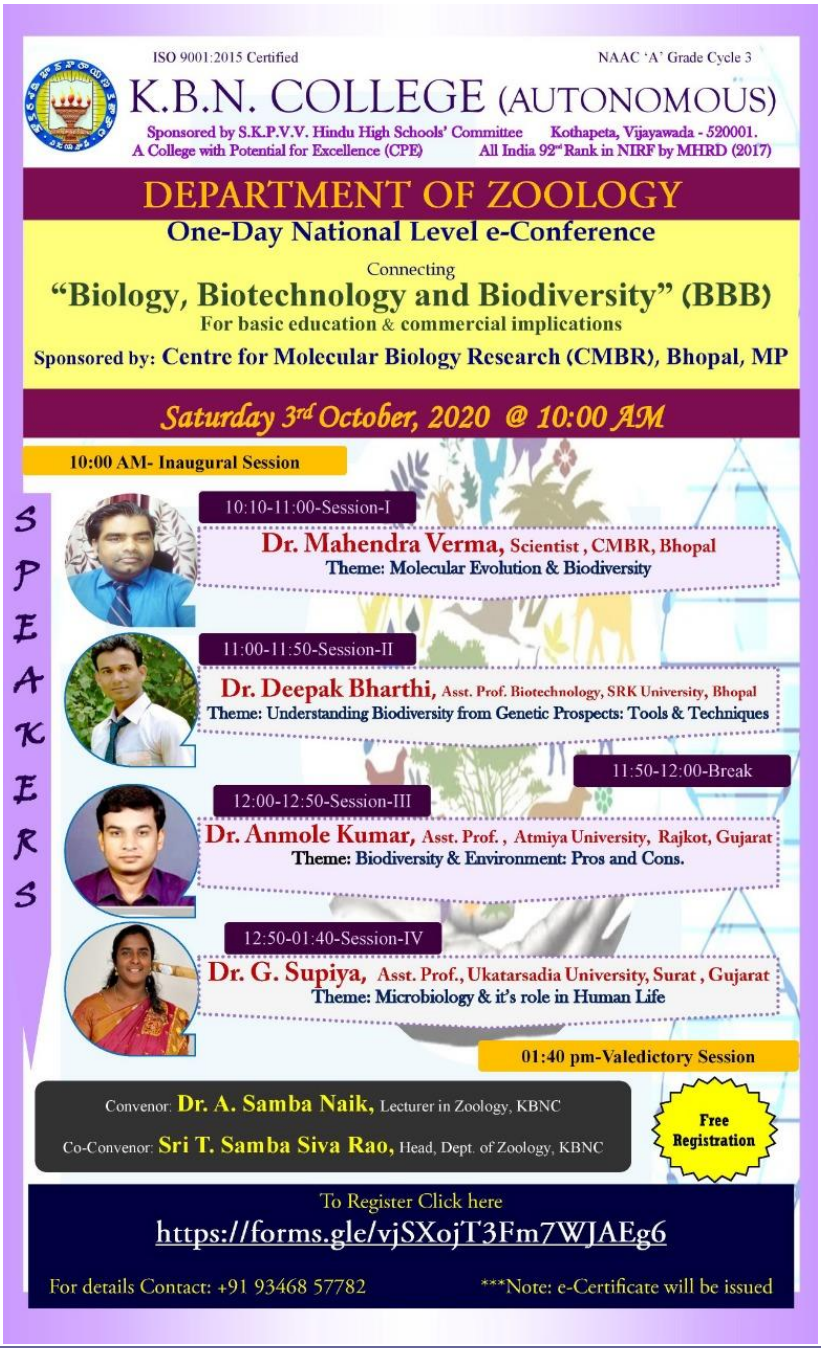
Biotechnology and its application must always avoid accentuation of poverty and socioeconomic inequalities as these are strong cause for environmental degradation, political instability, and social unrests, which lead to greater unsustainability. The current trend of biotechnology development has generally been pro-rich as most of the biotechnological research and its application is in the hands of private sectors of developed

countries, thus widening the gap between the rich and the poor. This trend is certainly not sustainable. This contradiction can be resolved if the pro-poor features of biotechnology are promoted. The public sector in developing countries must have the responsibility and capacity for the promotion of pro-poor features of modern biotechnology

Remarks:

The theme has been fulfilled by the keynote speakers in spreading the tent of knowledge and that has been reflected in the feedback forms submitted by the participants.

BROCHURE



NEWSPAPER CLIPPINGS

నూతన ఆవిష్కరణలపై దృష్టి పెట్టాలి

ఆచార్య మహేంద్రవర్మ

వన్‌టౌన్: జీవశాస్త్రం దాని అనుబంధ విభాగాల్లో నూతన ఆవిష్కరణలపై విద్యార్థులు, అధ్యాపకులు దృష్టి పెట్టాలని సెంటర్ ఫర్ మెలిక్యూలర్ బయాలజీ రీసెర్చ్ (భోపాల్) శాస్త్రవేత్త ఆచార్య మహేంద్రవర్మ అన్నారు. కేబీఎన్ కళాశాల జువాలజీ విభాగం ఆధ్వర్యంలో జీవశాస్త్రం, దాని అనుబంధ విభాగాలలో చోటు చేసుకున్న నూతన ఆవిష్కరణలపై మంగళవారం వెబినార్ నిర్వహించారు. ఆయన మాట్లాడుతూ జీవశాస్త్రం, జీవ సాంకేతిక విజ్ఞానం, జీవ వైవిధ్యం తదితర అంశాలపై ప్రపంచ వ్యాపితంగా అనేక పరిశోధనలు జరుగుతున్నాయన్నారు. అయితే వాటి సంఖ్యను, మరింత లోతైన పరిశోధనల శాతాన్ని పెంచాల్సిన అవసరాన్ని వివరించారు. ఇటీవల కొన్ని శాస్త్రాలను నిర్లక్ష్యం చేస్తున్న పరిస్థితులను వివరించారు. ముఖ్యంగా కరోనా ఇతర వ్యాధులు, వాటి నివారణతో పాటు జీవ వైవిధ్యం తదితర అంశాలపై విద్యార్థులు మరింత అవగాహన పెంచుకోవాలన్నారు. నేడు ఆయా రంగాల్లో చోటుచేసుకున్న అంశాను తెలుసుకొని వాటి ద్వారా మరింత విశ్లేషణ చేసేందుకు లోతైన పరిశోధనలు కొనసాగించాలని చెప్పారు. మధ్యప్రదేశ్‌కు చెందిన డాక్టర్ దీపక్‌భారతి (మధ్యప్రదేశ్), డాక్టర్ అనుమోల్‌కుమార్, డాక్టర్ సుప్రియ (గుజరాత్) తదితరులు మాట్లాడారు. తొలుత విశ్రాంత విభాగాధిపతి డాక్టర్ వి.సుభాషిణి కార్యక్రమానికి స్వాగతం పలికారు. వెబినార్‌ను ప్రారంభించిన ప్రిన్సిపాల్ ఈ.వరప్రసాద్ మాట్లాడుతూ మారుతున్న జీవనశైలి, వాతావరణ మార్పులు, నూతనంగా వస్తున్న వ్యాధులు తదితర అంశాల నేపథ్యంలో జీవశాస్త్రం దాని అనుబంధ విభాగాలపై మరిన్ని పరిశోధనలు జరగాలన్నారు. ఆ దిశగా విద్యార్థులు ఆసక్తిని పెంపొందించుకోవాలని సూచించారు. కార్యక్రమాన్ని విభాగాధిపతి డాక్టర్ సాంబానాయక్ పర్యవేక్షించారు.

సాక్షి అమరావతి Wed, 07 October 2020
https://epaper.sakshi.com/c/55492555

జీవశాస్త్రంపై మరిన్ని పరిశోధనలు అవసరం

వన్‌టౌన్, అక్టోబరు 6 : జీవశాస్త్రం దాని అనుబంధ విభాగాల్లో మరిన్ని పరిశోధనలు జరగాల్సిన అవసరం ఉందని సెంటర్ ఫర్ మాలిక్యులర్ బయాలజీ రీసెర్చ్ ఇనిస్టిట్యూట్(భోపాల్) శాస్త్రవేత్త ఆచార్య మహేంద్రవర్మ అన్నారు. కొత్తపేట కేబీఎన్ కళాశాల జువాలజీ విభాగం ఆధ్వర్యంలో జీవశాస్త్రం, దాని అనుబంధ విభాగాలలో చోటు చేసుకున్న నూతన ఆవిష్కరణలపై మంగళవారం వెబినార్‌ను నిర్వహించారు. డాక్టర్ దీపక్ భారతీ (మధ్యప్రదేశ్), డాక్టర్ అనుమోల్ కుమార్, డాక్టర్ సుప్రియ (గుజరాత్) ప్రసంగించారు. విభాగాధిపతి డాక్టర్ సాంబానాయక్ పర్యవేక్షించారు.

ఆంధ్రజ్యోతి Wed, 07 October 2020
https://epaper.andhr

INFORMATION OF THE WEBINAR

Greetings from K.B.N. College (Autonomous), Vijayawada!

Department of Zoology, K.B.N. College organizes a 'One-Day National Level e-Conference in connecting "Biology, Biotechnology and Biodiversity" (BBB) Sponsored by Centre for Molecular Biology Research (CMBR), Bhopal, MP on 3rd October, 2020.

Who can participate?

Faculty, NGOs, Research Scholars and Students

For Registration Click the below link:

https://forms.gle/vjSXojT3Fm7WJAEg6

Note: e-Certificate will be provided to the participants

Feedback Link:

https://docs.google.com/forms/d/1mBw3mCYmrHAQi6EYXERk07n3hfJRIneaR4wq5SlSGtA/edit

YOUTUBE LINK OF THE WEBINAR :

https://www.youtube.com/watch?v=RTgjeh-Sldo&feature=youtu.be