



**DEMPO CHARITIES TRUST's
Dhempe College of Arts and Science, Panaji-Goa**

DEPARTMENT OF BIOTECHNOLOGY

Report on International Conference on Recent Trends in DNA Forensics

A two-day International Conference on Recent Trends in DNA Forensics was jointly organized by the National Forensics Sciences University, Dharwad and Karnataka Institute of DNA Research, Dharwad on 29th and 30th November 2023 at National Forensics Sciences University, Dharwad-Karnataka to track the recent advances inDNA-Forensics.

A total of four students of FY BSc. Biotechnology of DCT's Dhempe College of Arts and Science participated in the conference, following are the students.

1. Mr. Kiran Burli (232715)
2. Mr. Siddhit S. Shenvi (232732)
3. Ms. Vaishnavi Mesta (232741) and
4. Ms. Samruddhi Biranje (232726).

- During the visit to Dharwad-Karnataka, we also visited some places related to Science, we visited the Regional Science Centre, Dharwad. It was a great experience to see the Science Centre located there. We got to learn many things related to Science, Nature, and Heritage and there were many exhibits which we could experience by playing with them by just clicking the button
- The Regional Science Centre, Dharwad-Karnataka.





Another place we visited was the Institute of AgriBiotechnology in the Agricultural Sciences University, Dharwad. Here we got to see the use of Biotechnology in Agricultural Sciences, we got a chance to see the biosafety level-2 labs and it was a good experience to see the advance instruments used there.



which were very new to us and got to know about it, we even interacted with the H.O.D of AgriBiotechnology and discussed with the Senior students how they work towards their projects and gained a good experience.



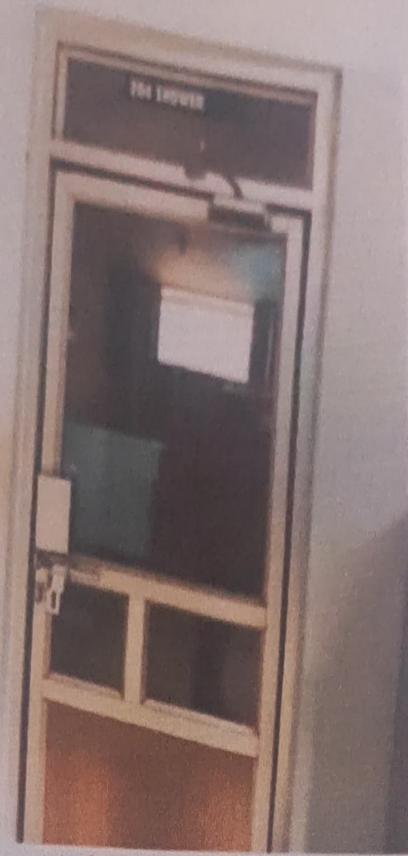
• Entrance of Institute of AgriBiotechnology.



A Microbiology Laboratory.(BSL-2)



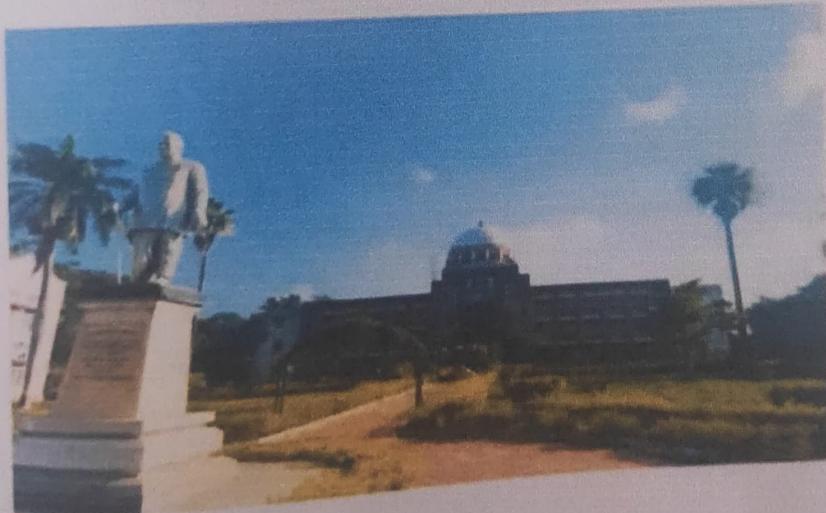
A separate cold storage room.

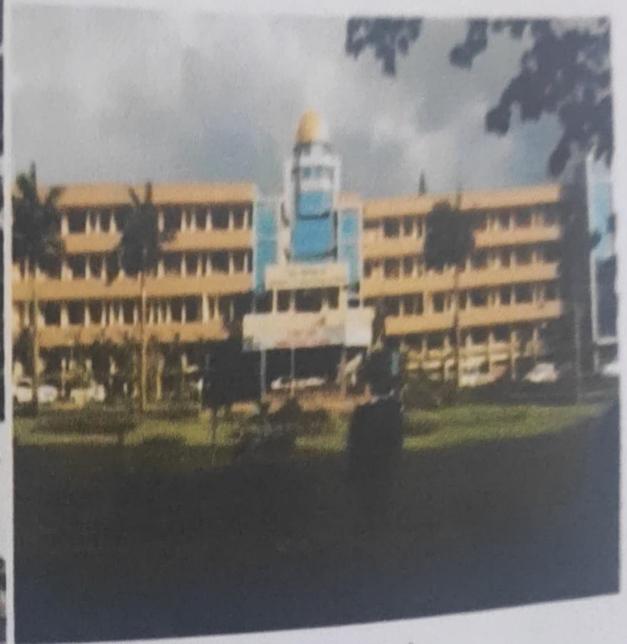


• A shower room.

On 29 November we were taken to the National Forensics Sciences University, Dharwad from the University of Agricultural Sciences, Dharwad (where we were given accommodation). Exactly at 10:45 the inaugural ceremony started it was the first time that this international conference was being held. The chief guest for the conference was Dr. V.N. Mathur - Former Director, of SFSL, Rajasthan, India. Dr. Pramod B. Gai - Director of KIDNAR was also present, the Convener and Campus director Prof. (Dr.) Manjunath Ghate and the organizing secretary Dr. Saroj P. Babar was present.

• University of Agricultural Sciences, Dharwad. Old Administrative Block.





University of Agricultural Sciences, Dharwad. New Administrative Block.



The NFSU Campus, Dharwad.

Soon after the inauguration of the Conference the technical session started, speakers from all over India and outside India were invited to deliver talks on various topics listed below.

Day-1

Technical session

Dr. K. Thangaraj, Former Director, CDDI

Topic: DNA analysis for multifaceted applications: forensic, medico-legal and beyond

Ajay Gaur, Incharge, Wild Life Forensics, La COTES, CCMB Hyderabad

Topic: Wild Life DNA Forensics

Dr. Sunil Ruwandi Ranasinghe, Scientist, Institute of Molecular Biology & Biotechnology, University of Colombo, Sri Lanka

Topic: The Application of Genetic Markers in Forensic Genetics: Insights from the Sri Lankan Context

Dr. V.N. Mathur, Former Director, SFSL Rajasthan

Topic: DNA Past, Present & Future

Smt. L. Purushothama, Assistant Director & Technical Manager, DNA Section, SFSL, Bangalore

Topic: Role of evidence materials for forensic DNA examination

Mark Perlin, Founder, Cyber Genetics, Pittsburgh, USA
(Online)

Day-2

Dr. Raju Panday, Scientific Officer, National Forensic Science Laboratory, Nepal

Topic: Recent Trend in DNA Forensics in Nepal

Dr. Pramod B. Gai, Professor & Director, KIDNAR Dharwad. Former Vice Chancellor, Karnataka University Dharwad.

Topic: Application of Next-Generation Sequencing in DNA Forensics

Dr. S.S. Iyengar, Distinguished University Professor, Ryder International University of Computer Science, Florida

Topic: Unveiling the Illusions: Exploring the USA of Stochastic Networks in the Realm of Deepfake Generation and Deep Learning

Dr. Prashanth R.G., Senior Scientific Officer, Regional Forensic Science Laboratory, Hubli, Karnataka, India

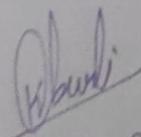
Topic: Application of X and Y STR Markers in Forensic DNA Investigation

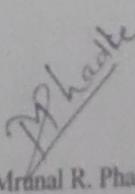
The talks delivered by the Scientist's was very interesting to listen as we got an opportunity to learn about DNA in more detail, and to associate it with the Forensics Sciences field application to counter the Criminals in crime through the techniques of DNA fingerprinting, use of X and Y chromosomal markers and Short Tandem Repeats (STR). The advances in technology and use of improved machines has increased the efficiency of good DNA-Profiling systems and their secure reporting on the Databases. We also came to know that there are new software developed to monitor the access of DNA data and ensure its safe for use of only to do something good towards the scientific community.

The talks brought before us how irresponsible are medical officers in sampling and transportation of samples collected from the crime scenes which has resulted in the deterioration of the DNA samples present. There are no proper documentation and storage practices involved which is a setback for the laboratories to investigate and draw an accurate DNA profile. Malpractices in preserving technique are carried out like storing the samples in formalin, formaldehyde, dilute acid or diluted alcohol, use of such acids slowly deteriorates the DNA. The Scientists advised that salt is the best preserving Material and the samples collected from the crime scenes should be preserved in salt rather than any acid.

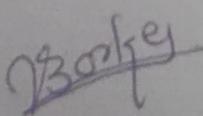


Photo with the Organizing secretary, Dr. Saroj P. Babar.


Mr. Kiran Busli
FYB.Sc Biotech
Student


Mrs. Mrinal R. Phadke

Department In-charge


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