



**GARGI COLLEGE  
UNIVERSITY OF DELHI**

# **DEPARTMENT OF ZOOLOGY**

**ESTB. 1967**



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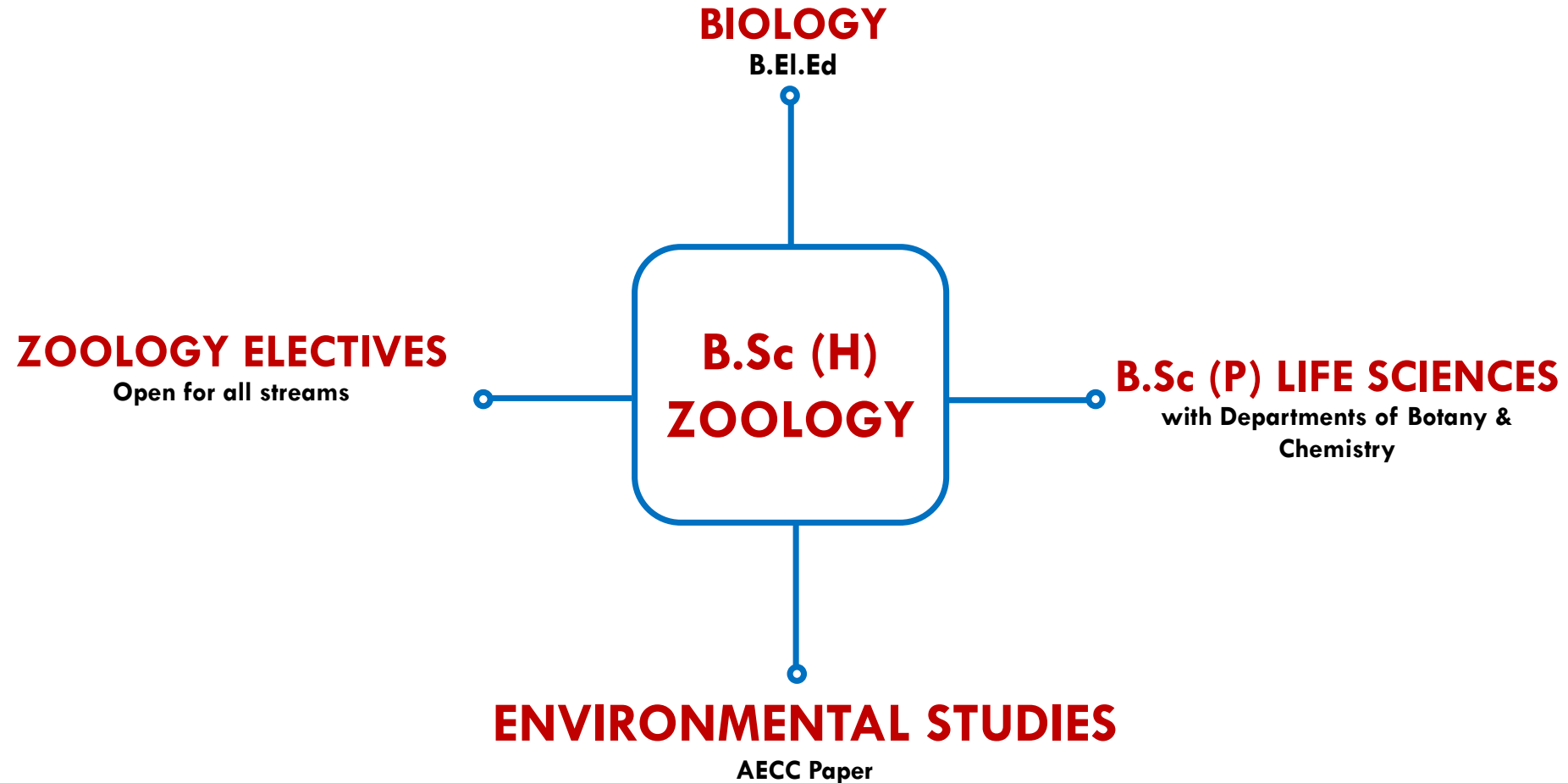


# VISION AND MISSION

**The Department of Zoology seeks to:**

- **impart a holistic understanding of the biology of animals, evolution and their environments.**
- **promote research and learning at the UG level and beyond by '*Redefining Zoology*'**
- **to produce highly motivated graduates capable of making a significant contribution toward sustainable development and the well-being of mankind.**

# COURSES OFFERED





# GLIMPSES OF THE DEPARTMENT OF ZOOLOGY





# TEACHERS' PROFILE

**Dr Poonam Sharma**  
Associate Professor



**Dr Kuntal Kalra**  
Associate Professor



**Dr Mamtesh Singh**  
Assistant Professor



**Dr Chaitali Ghosh**  
Assistant Professor



**Dr Neena Dhiman**  
Assistant Professor



**Dr Shivani Tyagi**  
Assistant Professor  
(Teacher In-charge)



**Ms Smita Choudhury**  
Associate Professor



**Dr Smriti Sharma**  
Assistant Professor



**Dr Jasvinder Kaur**  
Assistant Professor



**Dr Supriya Singh**  
Assistant Professor



# TEACHERS' PROFILE

**Dr M. Divya  
Gnaneswari**  
Assistant Professor



**Dr Thoudam Regina**  
Assistant Professor

**Dr Rashmi Saini**  
Assistant Professor



**Ms. Ishu Priya**  
Assistant Professor



**Dr Madhu Yashpal**  
Assistant Professor

**Dr Tenzin N. Bhutia**  
Assistant Professor



**Dr Usha Kumari**  
Assistant Professor



**Dr Udit Mukherjee**  
Assistant Professor

# TEACHERS' PROFILE

**Dr Supriya Pipil**



**Dr Shashibala**



**Dr Rakhee Pakhale**



**Dr Charu Tripathi**



**Dr Anina James**



**Dr Amit Kumar**



**Dr Nidhi Garg**



**Dr Parul Gulati**



**Dr Tejendra Kumar**



**Dr Jai Kumar**

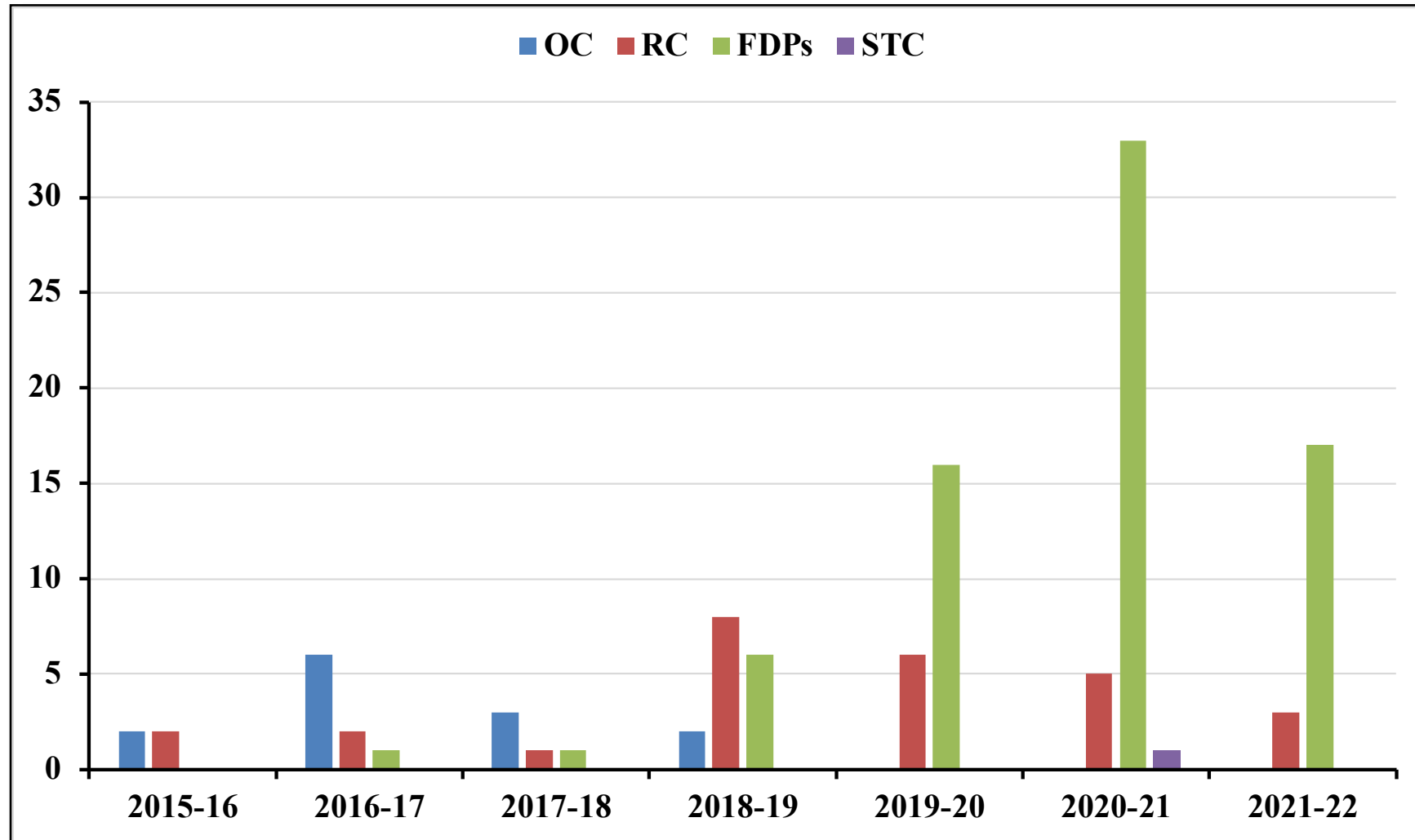


**Dr Swati Bajaj**



# ACADEMIC TRAINING (TEACHERS)

OC/RC/FDP/STC (2016-2021)



# NON-TEACHING STAFF

Mr. Govind Singh



Mr. Gopal Singh



Mr. Jai Prakash Rawat



Mr. Mukesh Kr. Meena



Mr. Ravi Kumar



Mrs. Manju Devi



Mr. Raj Kumar



Mr. Arvind Kumar

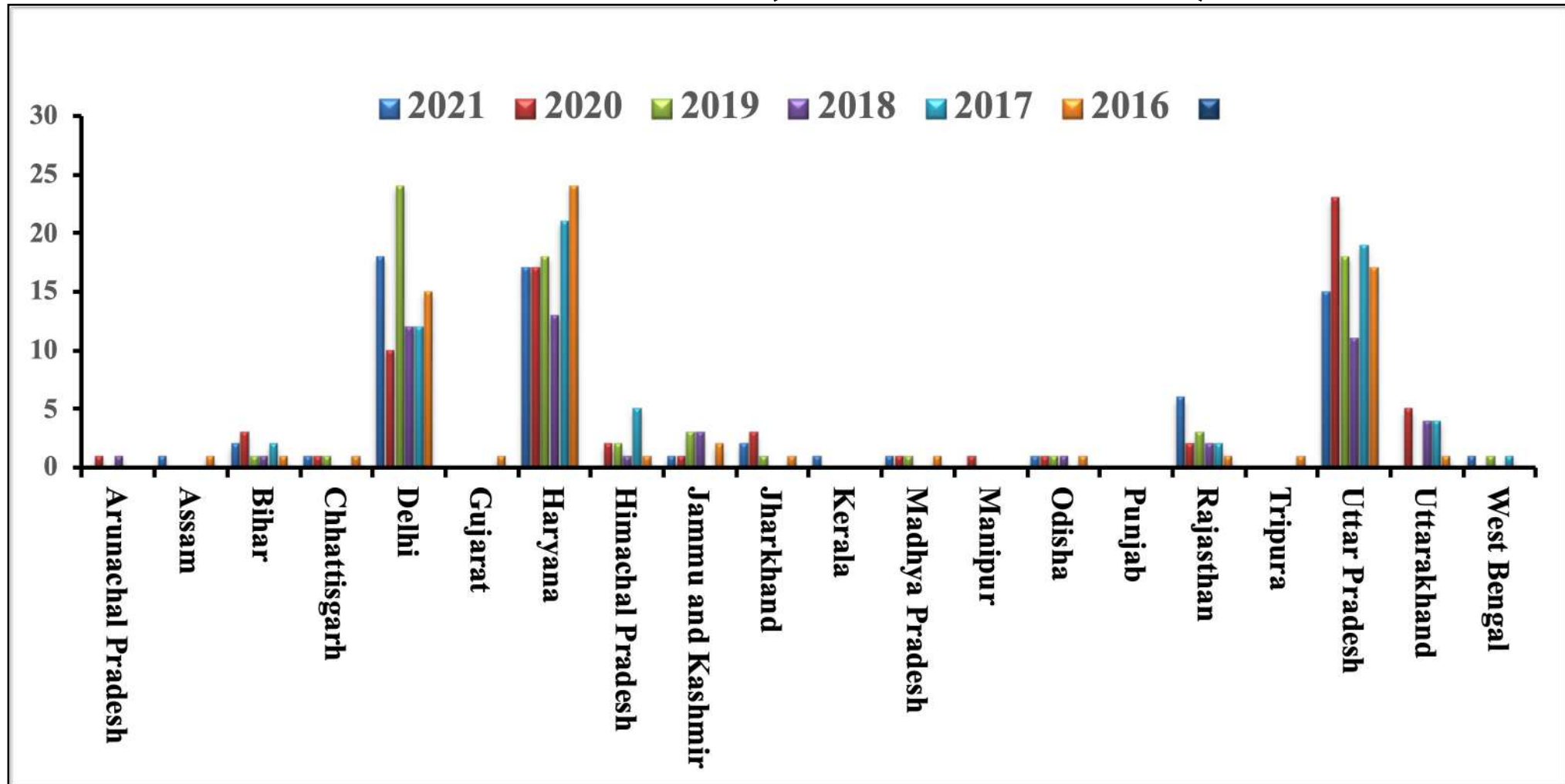


Mr. Kishan

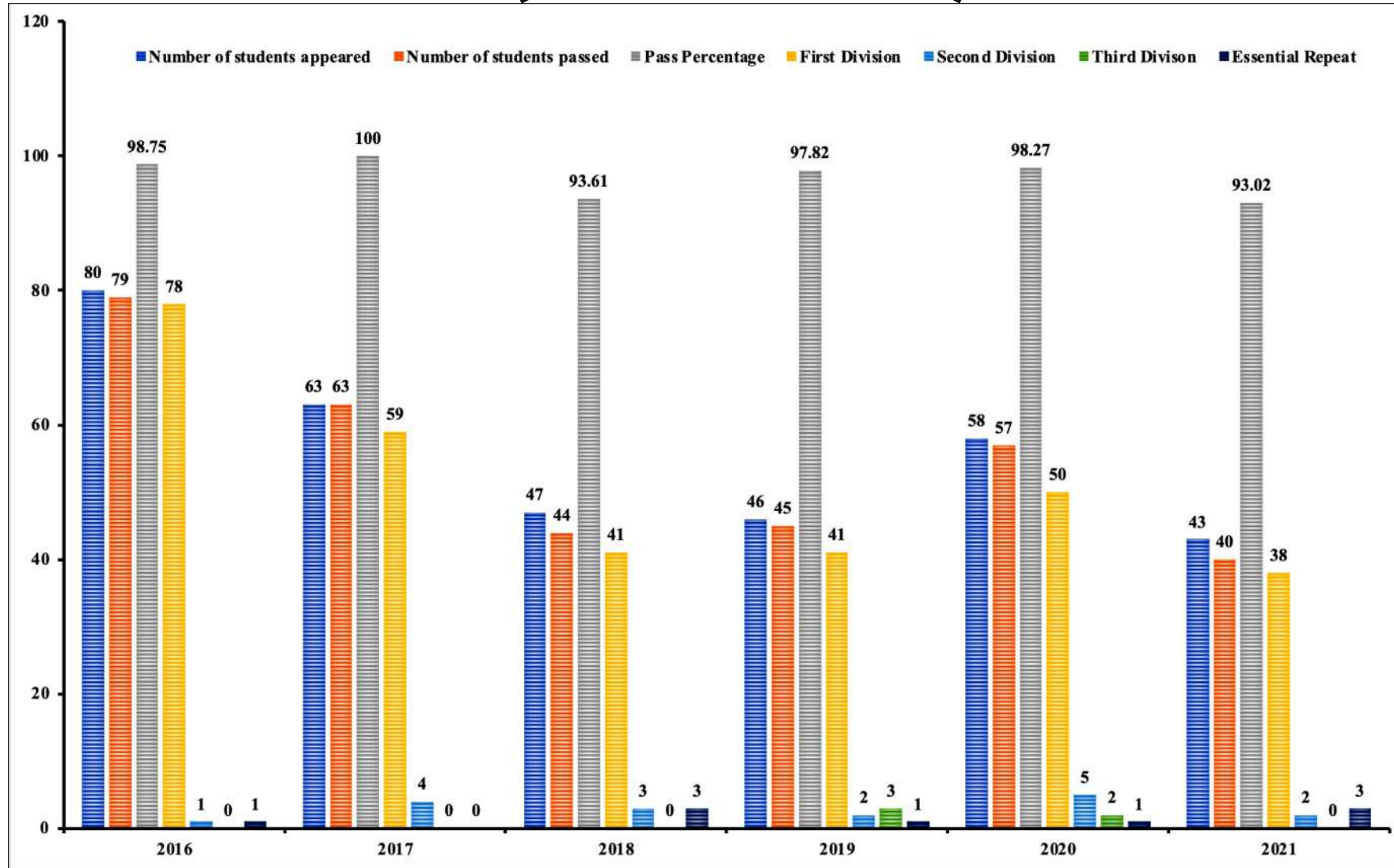


Mrs. Kiran

# STUDENT DIVERSITY (2016-2021)

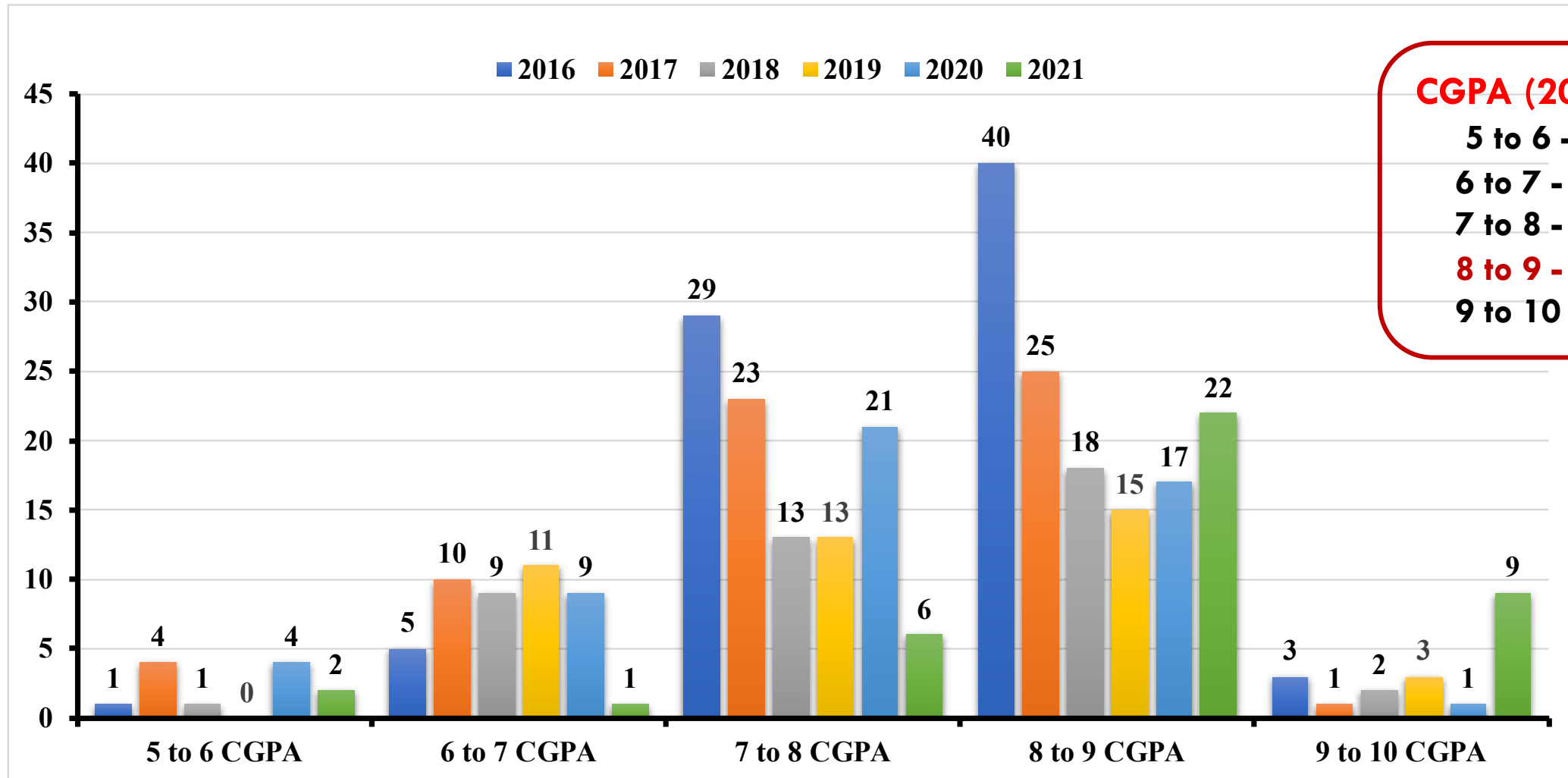


# RESULT ANALYSIS (2016-2021)





# RESULT ANALYSIS (2016-2021)



## CGPA (2016-2021)

5 to 6 - 3.77%

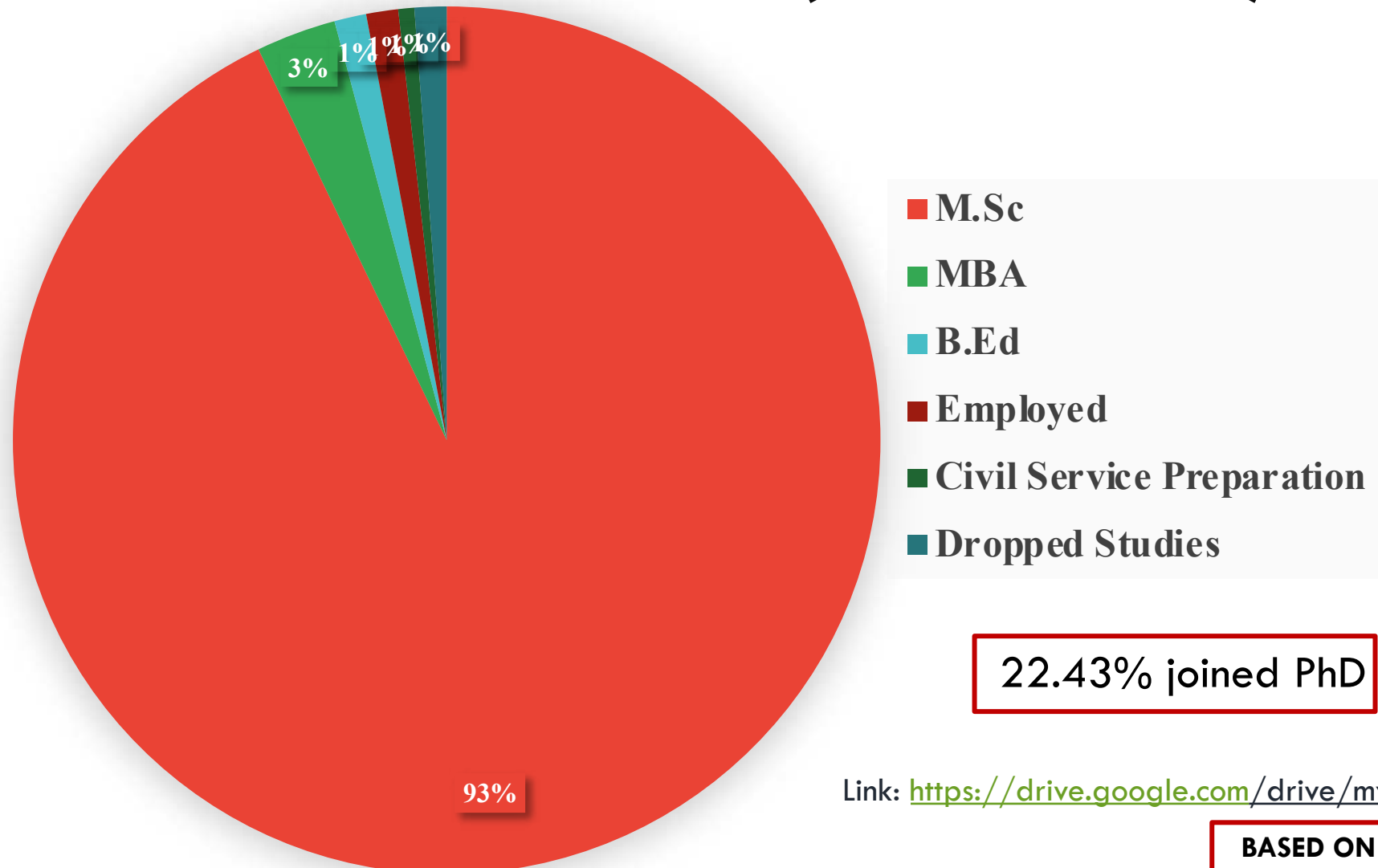
6 to 7 - 14.15%

7 to 8 - 33.01%

8 to 9 - 43.08%

9 to 10 - 5.97%

# STUDENT PROGRESSION (2016-2021)



Link: <https://drive.google.com/drive/my-drive>

**BASED ON RESPONSES RECIEVED**



**DR ANITA VERMA**  
ASSOCIATE PROFESSOR, SRI  
VENKATESWARA COLLEGE



**DR MEGHA KUMAR**  
SENIOR SCIENTIST, CSIR, CCMB, INDIA  
PHD, CLEMSON UNIVERSITY



**DR REENA KUMARI**  
Scientist, SCoBIRC, University of  
Kentucky, Lexington, Kentucky, USA



**HIMANSHI KUKRETY**  
Senior Forensic Assistant  
Delhi Police Crime Branch



**DEEKSHA KUMAR**  
EPR Specialist, Karo Sambhav 2022  
Country Officer University of Aberdeen  
British Council GREAT Scholar 2019



**ASNEHA BALANI**  
PRODUCT MANAGER,  
STEMCELL TECHNOLOGIES,  
VANCOUVER, BC



**ANTARA SHOME**  
LEAD CREDIT SPECIALIST,  
AMERICAN EXPRESS



**ASHWARYA PADMANABHAN**  
PHD. (NEUROSCIENCE),  
UNIVERSITY OF SUSSEX, UK



**VAISHALI RAWAT**  
WILDLIFE CONSERVATIONIST  
YOUNG NATURALIST AWARD (2017)



**DASHLEEN KAUR**  
PHD, CCB, IITD, INDIA



**GEETIKA NARANG**  
PhD, ICMR- NIMR, INDIA



**PRABHLEEN KAUR**  
PHD, IGIB, INDIA

# NOTABLE ALUMNI

**Ms Vaishali Rawat**

**Young Naturalist Award (2017)**

Writer, conservation advocate changemaker

**Ms Prabhleen Kaur**

**Gold Medallist M.Sc. (Zoology),  
University of Delhi (2019-2021)**

**CSIR NET JRF (Life Science) 2021 - AIR 75**

**4<sup>th</sup> Rank, Under Graduation (Zoology)  
University of Delhi (2016-19)**

**Ms Sayeda Warisul Fatima**

**Long Strider Award - 2020**



# NOTABLE ALUMNI

**Ms Simran Jayshankar Sharma**

**1<sup>st</sup> Rank, Under Graduation (Zoology)**  
**University of Delhi (2016-17)**

**Ms Khushboo Choudhary**

**7<sup>th</sup> Rank, Under Graduation (Zoology)**  
**University of Delhi (2017-18)**

**Ms Debalina Chatterjee**

**Gate (XL) 2022 - AIR 28**  
**CSIR NET JRF (Life Science) 2021 - AIR 56**  
**UGC NET LS (Life Science) 2019 - AIR 07**  
**3<sup>rd</sup> Rank - M.Sc. (Zoology) Entrance**  
**(University of Delhi) 2019**



**KHUSHBOO SINGHAL**  
PHD, CSIR-IGIB, INDIA



**SAYEDA WARISUL FATIMA**  
DST INSPIRE FELLOW  
DEPARTMENT OF CHEMISTRY, IITD, INDIA



**RANJINI GHOSH DASTIDAR**  
PhD, Polish Academy of Sciences,  
Poland



**TANYA SINGH**  
RESEARCH ASSISTANT  
PhD, University of Houston, USA



**NAMRATA PANDEY**  
Project Associate  
CSIR IITR, India



**RASHI DIXIT**  
PhD, Central University of Tamil Nadu,  
INDIA



**POOJA KRI GUPTA**  
PHD, UNIVERSITY OF HAIFA, ISRAEL



**AASHNA KAPOOR**  
SENIOR EXECUTIVE- LEARNING &  
DEVELOPMENT  
Incedo Inc., India



**APOORVA GUPTA**  
PHD, DBT - NIPGR, INDIA



**DEBALINA CHATTERJEE**  
TOPPER, MSc (Zoology) Entrance  
Examination, DU  
PhD, University of Delhi



**PRAMA PANDEY**  
DBT Scholar, M.Sc. Biotechnology,  
University of Hyderabad



**ASHIMA SHAKUJA**  
PHD, BITS, PILANI, INDIA



# MERITORIOUS ALUMNI (2016-2021)

Name	Present Status	Name of the Institution
Ms Anushka Baisoya	M.Phil.	University of Delhi, India
Ms Tanya Singh	PhD	University of Houston, USA
Ms Ranjini Ghosh Dastidar	PhD	Polish Academy of Sciences, Poland
Ms Gunjan Baisoya	PhD	National Institute of Technology, New Delhi
Ms Pooja Kri Gupta	PhD	University of Haifa, Israel
Ms Jhalak Jauhari	M.Sc	TERI SAS, New Delhi
Ms Savneet Kaur sohal	M.Sc	Banaras Hindu University, Varanasi
Ms Debalina Chatterjee	PhD	University of Delhi, India
Ms Garima Badhan	M.Sc	Cluster University of Jammu, Jammu
Ms Taniya Sherwal	M.Sc	University of Delhi, New Delhi
Ms Navleen Bali	MBA	School of Inspired Leadership, India
Ms Sarika Bhati	PhD	Indian Institute of Technology Delhi
Ms Garima Jain	M.Sc	University of Delhi, New Delhi
Ms Sweta Verma	B.Ed	Kalka Institute for Research and Advanced Studies, GGSIPU
Ms Anjali Verma	PhD	School of Biotechnology, JNU, New Delhi
Ms Hitanshi Sharma	M.Sc	University of Delhi, New Delhi
Ms Rashmi Agrata	Integrated PhD	NCBS-TIFR, Bangalore
Ms Sipaz Sharma	Integrated PhD	IISc, Bangalore
Ms Urvashi	PhD	CSIR-CFTRI, Mysuru
Ms Prama Pandey	MSc	University of Hyderabad, Andhra Pradesh

# MERITORIOUS ALUMNI (2016-2021)

Name	Present Status	Name of the Institution
Ms Sagarika Dawka	M.Sc. In Genetics And Molecular Bioscience	University of Helsinki, Finland
Ms Saher Chawla	M.Sc. In Human Disease Genetics	Centre For Human Genetics, Bangalore.
Ms Akansha Gupta	PhD	IIT Delhi
Ms Pooja	PhD	IIT, Madras
Ms Anjali Verma	PhD	School Of Biotechnology, JNU
Ms Kanika Bisht	JRF	CSIR-IGIB, New Delhi
Ms Atisha Sood	Research Fellow	Natural Institute Of Disaster Management, MHA, New Delhi
Ms Akriti Kalra	Masters in Global Public Health	Griffith University, Gold Coast
Ms Shruti Khanna	PhD, Genetics, UDSC	University Of Delhi
Ms Dashleen Kaur	PhD	IISER, Kolkata
Ms Aanchal Pruthi	Research Associate	TERI, New Delhi
Ms Neha Vimal	PhD	University of Delhi
Ms Sreshtha Mondal	PhD	NIAS, IISC, Bangalore
Ms Ashama Begum	PhD	Indian Institute of Technology Delhi
Ms Ekta Nagar	Project Assistant	CSIR-IGIB, India
Ms Khushboo Kumari	PhD	Jawaharlal Nehru University, India
Ms Rashi Dixit	PhD	Central University of Tamil Nadu

# CURRICULUM DEVELOPMENT

**CBCS, LOCF, NEP-UGCF**

**13 Teachers** worked as convenors/team members for the Curriculum Development of **26 Courses**

**Animal Diversity**  
Dr Shivani Tyagi

**Animal Form Structure and Function**  
Ms Smita Ray

**Lifestyle Disorders**  
Dr Udit Mukherjee

**Nature and Wildlife Studies**  
Dr T. Regina

**Immunology**  
Dr Smriti Sharma

**Nature and Wildlife Studies**  
Dr T. Regina

**Animal Biotechnology**  
Dr Poonam Sharma

**Developmental Biology**  
Dr M. Divya Ganeswari, Ms Smita Ray

**Biostatistics**  
Dr Usha Kumari

**Food Nutrition and Health**  
Dr Udit Mukherjee

**Basics of Neuroscience**  
Dr Jasvinder Kaur, Dr Madhu Yashpal

**Biochemistry**  
Dr Kuntal

**Evolutionary Biology**  
Dr Tenzin N Bhutia

**Wildlife Conservation and Management**  
Dr Udit Mukherjee

**Physiology and Biochemistry**  
Dr Smriti Sharma

**Genetics and Evolutionary Biology**  
Dr M. Divya Ganeswari

**Basics of Immunology**  
Dr M. Divya Ganeswari, Dr Smriti Sharma

**Nanotechnology**  
Dr Madhu Yashpal

**Biochemistry and Immunology**  
Dr Jasvinder Kaur

**Animal Behavior and Chronobiology**  
Dr Tenzin N Bhutia

**Animal Cell Biotechnology**  
Dr Poonam Sharma, Dr Chaitali Ghosh

**Molecular Biology**  
Dr Poonam Sharma

**Integrative Systems Biology and Bioinformatics**  
Dr Jasvinder Kaur

**Diversity of Chordates**  
Dr T. Regina

**Nanobiology**  
Dr Madhu Yashpal

**Principles of Genetics**  
Dr Madhu Yashpal



# MAJOR RESEARCH PROJECT: BACTERICIDAL PROPERTIES AND MECHANISM OF ACTIONS OF PLANT-MEDIATED SYNTHESIZED GOLD NANOPARTICLES.

**PI: Dr Madhu Yashpal**

**Funding Agency:** UGC (BSR-Start-up Grant)

**Duration:** 2017-2020

**Funds:**

- Sanctioned: Rs. Ten Lakhs

## Objective

- To develop a simple and eco-friendly approach for the green synthesis and characterization of AuNPs using *Punica granatum*.
- To test the antimicrobial effectiveness of gold in the form of biosynthesized AuNPs against various strains of bacteria.
- To investigate the possible antibacterial mechanism of action of green synthesized AuNPs on bacteria

## Outcomes

- Simple, cost-effective, rapid synthesis of AuNPs using *Punica granatum* peel extract as a reducing and stabilising agent under optimum conditions
- Biosynthesized AuNPs did not show any significant deleterious effect on microbial growth of *Escherichia coli*, *Pseudomonas aeruginosa* and *Bacillus subtilis*.

## Collaboration:

**Prof Prabhat Nath Jha**

Department of Biological Sciences, Birla Institute of Technology & Science, Pilani, Rajasthan

**Undergraduate Students Worked in Project**  
**6 Students from B.Sc (H) Zoology trained**

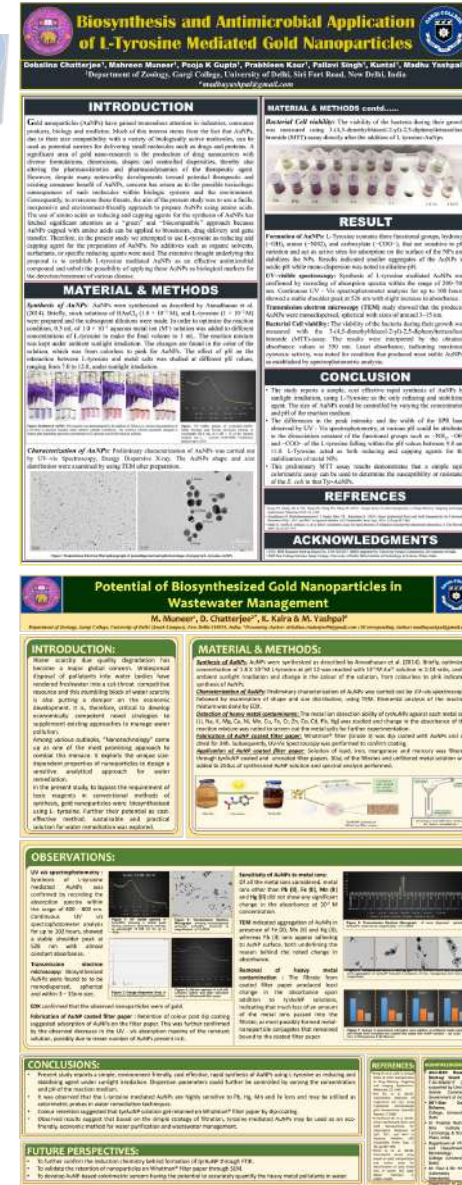
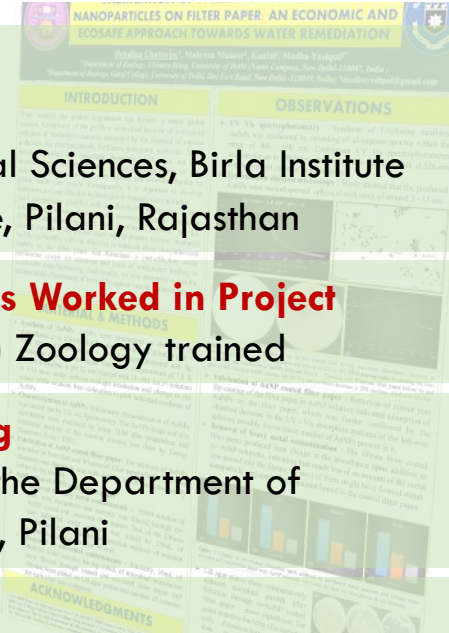
## Students visit & training

2 Weeks of training at the Department of Biological Sciences, BITS, Pilani

## Student presentation

**TEN Posters** presented at National and International Conferences.

- AWARDED BEST POSTER** International Conference on "Stewardship towards Sustainability" at SGT University, Gurgaon (2019)
- AWARDED BEST POSTER** International Colloquium on "Regulatory Mechanisms underlying Behaviour, Physiology and Development" (RMBPD-2021)







# MAJOR RESEARCH PROJECT: EXPLOITING BACILLUS, THE MICROBIAL WORKHORSE FOR BIOWASTE UTILIZATION, BIOPOLYMER AND BIOFUEL PRODUCTION: INTEGRATIVE AND CUSTOMISED APPROACH

**PI: Dr Mamtesh Singh**

**Funding Agency:** SERB under ECRA scheme  
**Duration:** 2018-2022 (3 years + 6 months extended)  
**Funds:**  
**Sanctioned:** Rs. 3674343

## Salient features

- Use of local market waste as natural resource biowaste
- Use of single and combination of biowaste as resource
- Strategy to hydrolyse the biowaste
- Strategy and optimization for Microbial biopolymer and biofuel production
- Efforts to economically isolate the polymer

## Outcomes

- Biopolymer production, biohydrogen not significant
- Work going on for biowaste combination, upscaling of the process & extraction

## Publications

- Tyagi et al., 2021; J. Env. Bio-sci.
- Afreen et al., 2021; Frontiers Bioeng. Biotechnol.

## Student visit & training

- Three months training for project student for biofuel production process at **SSS-National Institute of Bio-energy**

## Student presentation

- Oral presentation (National Seminar at Gargi College)
- Poster presentation
  1. at 3rd International Conference on Recent Advances in Bio-energy Research (ICRABR)-2022
  2. at National Conference on Natural Sciences-Exploration through Innovations, at MAU, Solan (HP) – **AWARDED BEST POSTER**

J. Env. Bio-sci., Vol. 22 (1), June 2021, 1-19  
 DOI: 10.1007/s10646-021-01004-1

Exploiting Biological Waste Hydrolysates for its Management and Biological Polymer Production: Parameter Optimization and Biological Process

Mamtesh Singh, NANCY KACHHUA, ANJALIA PRITHI, GAURAV PRATAP SINGH, KUNSHAR AFREEN, NANCY KACHHUA, ANJALIA PRITHI, GAURAV PRATAP SINGH, KUNSHAR AFREEN

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Frontiers in Bioengineering and Biotechnology  
 Volume 10 | Article 654381 | 1-10  
 DOI: 10.3389/fbioe.2021.654381

Challenges and Perspectives of Polyhydroxyalkanoate Production From Microalgae/Cyanobacteria and Bacteria as Microbial Factories: An Assessment of Hybrid Biological System

Rehman Afreen, NANCY KACHHUA, ANJALIA PRITHI, GAURAV PRATAP SINGH, KUNSHAR AFREEN, NANCY KACHHUA, ANJALIA PRITHI, GAURAV PRATAP SINGH, KUNSHAR AFREEN

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# MAJOR RESEARCH PROJECT: MOLECULAR CHARACTERIZATION OF HUMAN IMMUNODEFICIENCY VIRUS (HIV) & IMPACT OF HLA ON VIRAL EVOLUTION

**PI: Dr Supriya Singh**

**Funding Agency:** UGC (BSR-Start-up Grant)

**Duration:** 2018-2021

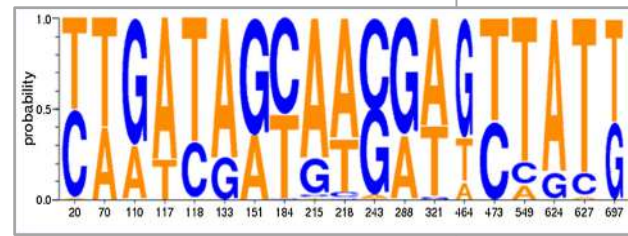
**Funds:** Sanctioned: Rs. Ten Lakhs

## Objective

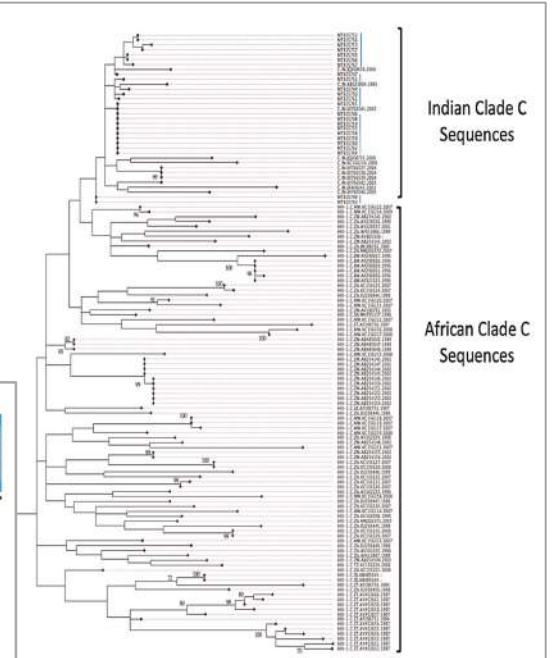
- To carry out molecular characterization of the HIV genome in samples obtained from ART-experienced subjects.
- To perform *in-silico* prediction of HLA binding epitopes in the above-mentioned genes.
- To study the impact of HLA on evolution of HIV.

## Outcomes

- Study explores intra-clade C polymorphisms that occur in HIV-1 LTR sequences from Africa and India by utilizing the latest Next Generation Sequences (NGS) technology and contributing to the sequencing database.
- Signature nucleotides in Indian sequences were observed at 19 positions, of which 7 nucleotide signatures occurred in transcription binding sites (TFBS), namely NF-AT-II, NF- AT-III, USF, TCF- 1alpha, Sp1-I and TAR. These variations may be potentially relevant in designing clade-specific therapeutic interventions.
- Results present with intra-clade C variations, in Indian and African HIV-1 LTR sequences that inscribe signature nucleotides and lead to formation monophyletic cluster of Indian sequences. The study also reveals signature nucleotides at sites where the transcription factors involved in viral regulation bind to.



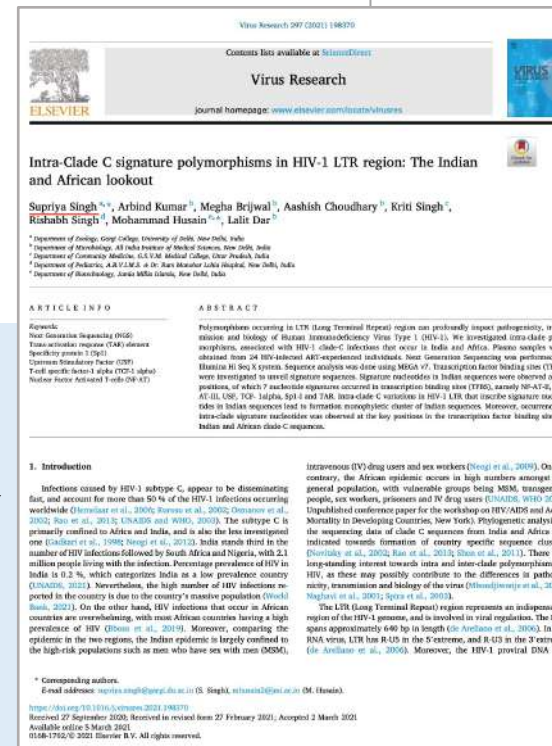
Sequence logo showing a web logo of the positions where query (Indian sequences) and background (African sequences) alignments had a different signature.



Phylogenetic tree showing clade C sequences from India and Africa, forming monophyletic cluster.

## Outcomes

- MHC region forms the major selecting force, which drives the evolution of HIV. Our study revealed mutation hotspots in our Indian sequences, which will need to be kept into consideration while designing a vaccine.





# HONOURS AND RECOGNITION RECEIVED BY TEACHERS

## Dr Mamtesh Singh

Awarded “**NES YOUNG SCIENTIST AWARD-2018**” by National Environmental Science Academy, India.

## Dr Poonam Sharma

Awarded “**BEST WOMEN FACULTY AWARD-2021**” by Novel Research Academy, India under the Ministry of MSME, Government of India and recognized by Global Accreditation Assessment Forum Series (GAAFS), Washington D.C., United States of America.

Awarded “**SCIENCE AMBASSADOR-2017**” at 1<sup>st</sup> Science Ambassador Program organized by Bio-Rad Laboratories in association with Deshbandhu College on 06.11.2017 and held at St. Thomas Girls Sr. Sec. School, Delhi.

## Dr Rashmi Saini

Awarded “**RESEARCH EXCELLENCE AWARD- 2020**” by Institute of Scholars, an ISO-certified Institute by International Accurate Certification, accredited by UASL.



# RESEARCH PUBLICATIONS/BOOK CHAPTERS/BOOKS

## JOURNALS

Aquatic Toxicology

Biosciences, Biotechnology Research Asia

Enzyme and Microbial Technology

European Journal of Biological Research

Indian Journal of Microbiology

International Journal of Pharmaceutical  
Sciences and Research

International Journal of Scientific Research

International Journal of Science and  
Research

Iraqi Journal of Pharmaceutical Sciences

Journal of Applied Biology & Biotechnology

Journal of Leukocyte Biology

Journal of Materials Nanoscience

Microbial Biotechnology

Microsphere

Trends in Sciences



Research Publications - 65      Book Chapters – 43 (including e-chapters)

Books - 4

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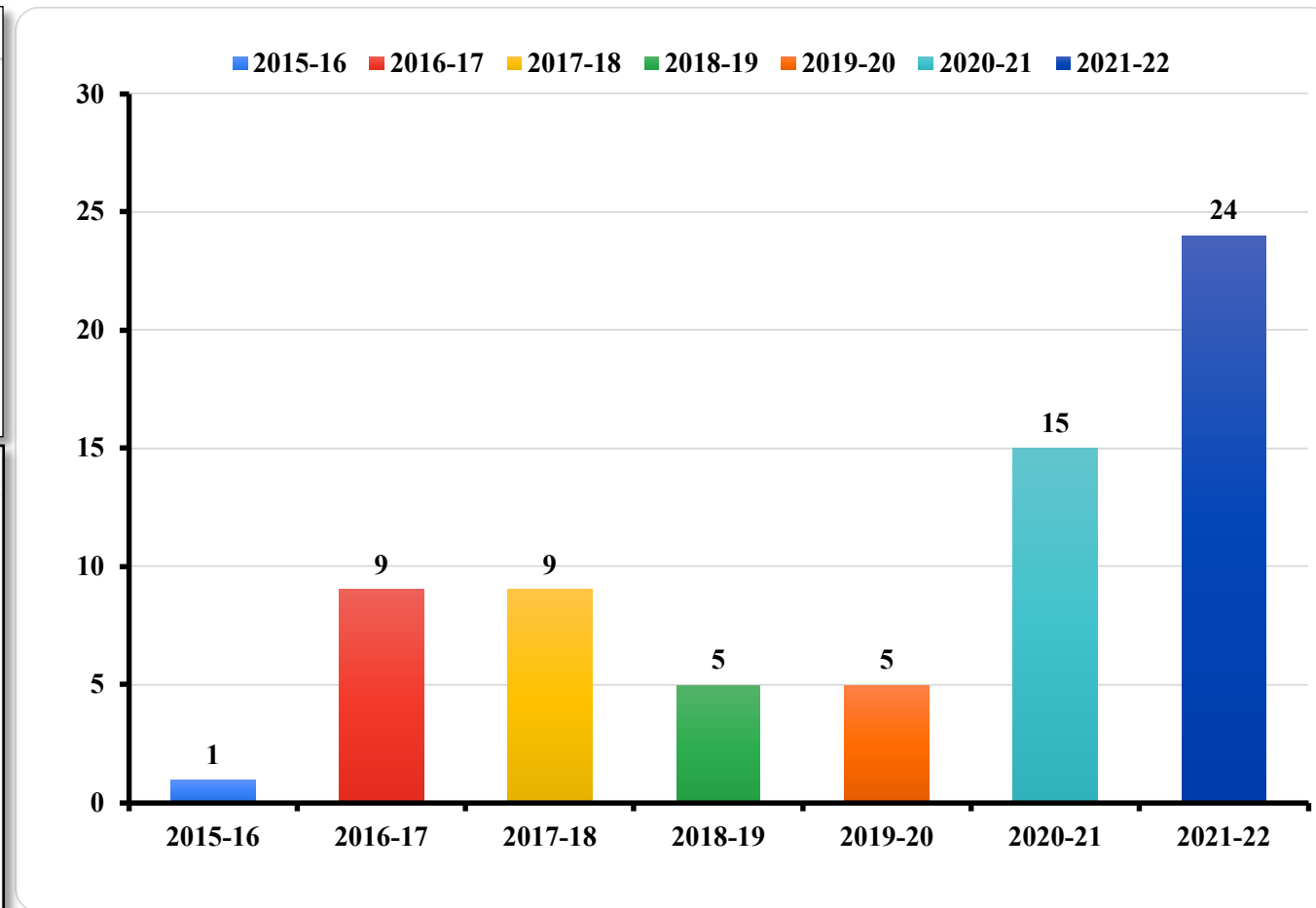
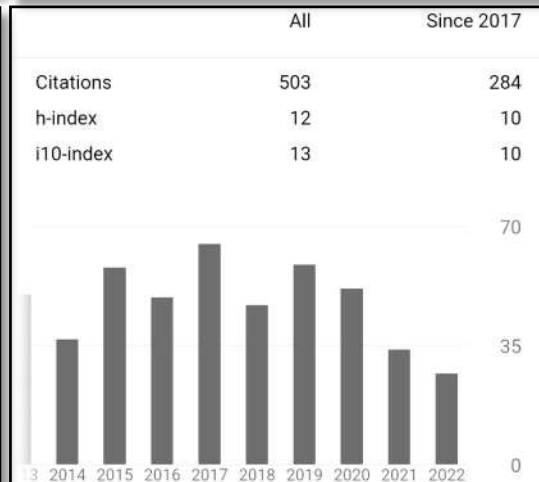
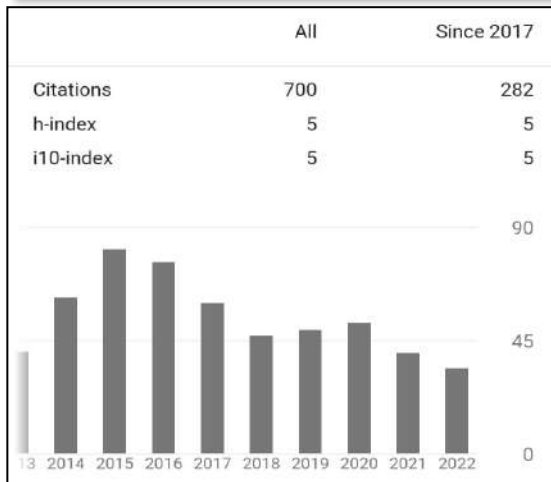
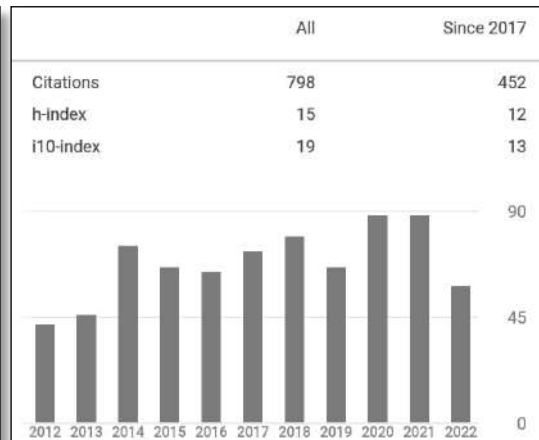
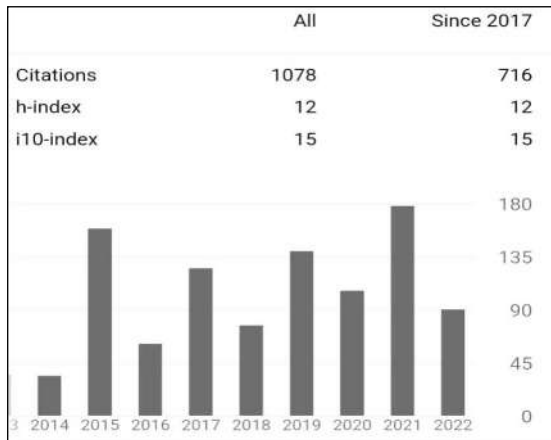


# PUBLICATIONS STATISTICS

Research Papers : 65

Book Chapters: 43

Books: 4



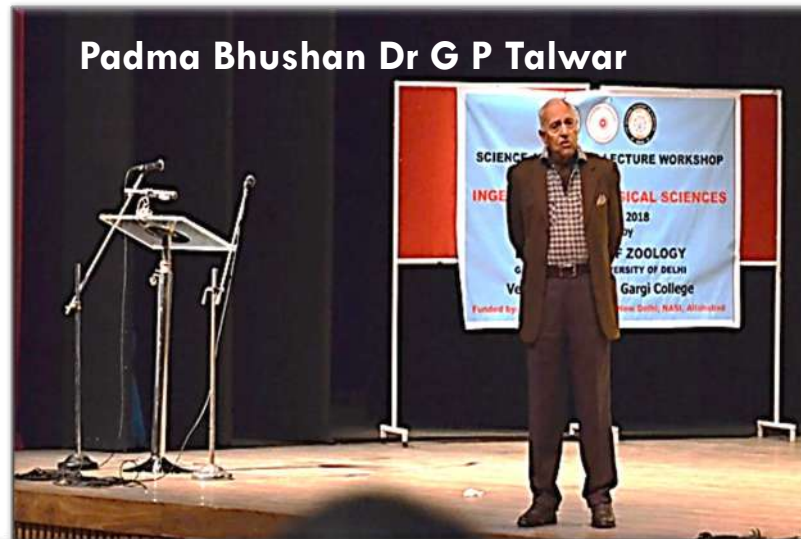
# Lecture Workshop: Ingenuity in Biological Sciences (11-12 January 2018)

## Funded by:

- IASc, Bangalore
- INSA, New Delhi
- NASI, Allahabad
- ICMR, New Delhi
- CSIR, New Delhi

## Registrations: 175

- Attended by > 200 Participants





# CONFERENCES/WEBINARS/LECTURE SERIES ORGANIZED

सतत पर्यावरण विकास: इसकी चुनौतियों, अभिकलनी विश्लेषण और अवसरों में वैज्ञानिक और तकनीकी शब्दावली का उपयोग (14-16 मार्च, 2019)

Use of Scientific & Technical Terminologies in Sustainable Environment Development, its Challenges, Computational Analysis and Opportunities

प्राणि विज्ञान विभाग, गागी महाविद्यालय द्वारा वैज्ञानिक और तकनीकी शब्दावली आयोग, उच्च शिक्षा विभाग, मानव संसाधन विकास मंत्रालय, भारत सरकार के समर्थन से आयोजित

संरक्षक: डॉ प्रोमिला कुमार (प्राचार्या)

संयोजक: डॉ.ममतेश सिंह

सह-संयोजक: डॉ शिवानी त्यागी

Organized by Department of Zoology, Gargi College with support from Commission for Scientific and Technical Terminology, Department of Higher Education, MHRD, GoI

Patron: Dr. Promila Kumar (Principal)

Convener: Dr. Mamtesh Singh

Co-convener: Dr. Shivani Tyagi



**Participants:** 200 participants (130 were from across India)

7 invited talk sessions: **20 invited talks** by experts from reputed institutions like JNU, AIIMS, Gargi College, CPCB, ZSI, Jodhpur, and Govt. P.G. College, Indore

4 oral presentation sessions: **22 oral presentations**

**Chief Guest Prof. Ravi Chaturvedi, 'superannuated from Zakir Husain College, Hindi cricket commentator and Padma Shri. Award recipient'**

Prof. Ravi Chaturvedi, in his talk, emphasized how developing Hindi & regional terminology in science and sports helped and may help many rural people to understand the subject matter and to develop an interest in the same.

Dr. Promila Kumar, (Principal, Gargi College),

Dr. Shashi Tyagi (Former Principal, Gargi College)

CSTT Personnel



# ENRICHMENT BEYOND CURRICULUM

## LABORATORY VISITS AND EDUCATIONAL TOURS

Yearly Study tour  
Industrial Tour/Laboratory Visits



## INTERNSHIP PROGRAMS

Encouragement and assistance offered



## CO-CURRICULAR

Research Paper and Poster Presentation  
Quiz competition



## RESEARCH PROJECTS

Research projects under the expert guidance;  
Project Competition (Pathfinder)

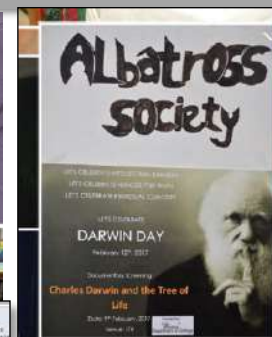


## WORKSHOPS

Technical/Soft skill  
For betterment and excellence

## LECTURES BY EMINENT SCIENTISTS

Gain knowledge and experience of experts in the field



## NATIONAL/INTERNATIONAL SCIENCE CELEBRATIONS

Enhance motivation, achievements and retention

## ADD-ON/CERTIFICATE PROGRAMS

build expertise in the professional subject area and helps with job advancement



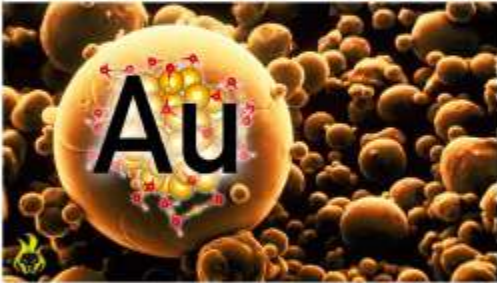
# UNDERGRADUATE RESEARCH

## PATHFINDER PROJECTS

**Pathfinder Project 2018-19**

**REPORT**


*"Applications of biosynthesized gold nanoparticles for the detection of contaminants in water"*



**Name of the Candidate(s):** Ms. Dehalina Chatterjee, Ms. Mahruan Muner, Ms. Prabhleen Kaur  
**Course:** B.Sc (H) Zoology III Year

A NEW NON-TOXIC, COST EFFECTIVE, EASILY AVAILABLE POWDER TO VISUALIZE LATENT FINGERPRINTS ON VARIOUS SURFACES

Pathfinder Project, 2018-2019




Submitted by  
 Sarika Yadav  
 Nimisha Sharma  
 B.Sc Life Science 2<sup>nd</sup> year

Pathfinder (Science) 2021-22

**Indoor plants:**  
 Its maintenance and impact on our mental and physical health

Shruti Apurva, Ananya Chamola, Adithi Rao  
 [B.Sc. (H) Botany, II<sup>nd</sup> Year]  
 Gargi College



**Introduction**



A survey based research was conducted on indoor plants and its effects on our mental & physical health, the surroundings and also about their maintenance.

Our aim was to focus on three aspects of indoor plants:

1. **The physiological aspect:** To study how indoor plants affect the environment around it & whether helps in reducing air pollution and allergens in its vicinity.
2. **The psychological aspect:** To study how house plants affect the mental health of living beings around them.

Aims of our survey are:-

- Comparative study of the indoor and outdoor plants, based on their properties and requirements.
- To find out different methods involved in the maintenance and propagation of indoor plants.
- To examine the psychological effects of indoor plants on humans, as well as their influence on the overall ambience and aesthetic appeal of the place.
- To evaluate their role in removing allergens and pollutants from the surrounding.
- To study the effect of indoor plants on air quality.

DEPARTMENT OF ZOOLOGY


FEBRUARY 2022

**PATHFINDER PROJECT REPORT**

**VISUALIZE SCIENCE:**  
 From Theoretical knowledge to Practical Applications

**SUBMITTED TO**  
 Pathfinder Committee 2022

**SUBMITTED BY**  
 Ms Aarti Venkatesan  
 Ms Kanishka Sisodia  
 Ms Ridam Yadav





# UNDERGRADUATE RESEARCH PROJECTS

COLLEGE-FUNDED PROJECT (UNDER DBT-STAR COLLEGE SCHEME)

The figure displays 12 scientific posters from the 10th International Conference on Nanobiotechnology. Each poster is a self-contained document with a title, authors, affiliations, and various data visualizations. The topics are as follows:

- Posters 1-3 (Left Column):**
  - Posters 1 & 2:** "BIOGENIC SYNTHESIS OF GOLD NANOPARTICLES BY FRUIT EXTRACT OF PUNICA GRANATUM AND THEIR ANTIMICROBIAL PROPERTIES". Authors: Binodha Chatterjee, Mahesh Munshi, Pooja Khatke, Palani Singh, Kuntal, Madhu Vinayak. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
  - Poster 3:** "Pectinase Production By Aspergillus niger Using Fruit Waste Peel as Substrate Under Submerged Fermentation". Authors: Binodha Chatterjee, Mahesh Munshi, Pooja Khatke, Palani Singh, Kuntal, Madhu Vinayak. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
- Posters 4-6 (Second Column):**
  - Poster 4:** "APPLICATIONS OF L-TYROSINE MEDIATED GOLD NANOPARTICLES IN REMEDIATION OF CONTAMINATED WATER". Authors: Munish M., Chatterjee D., Gupta P., Kaur P., Singh P., Kalia K., & Vashist M. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
  - Poster 5:** "Pectinase Assisted Gold Nanoparticles and their Antimicrobial Properties". Authors: Kaur, P., Singh, P., Gupta, P., Munish, M., Chatterjee, D., Kalia, K., & Vashist, M. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
  - Poster 6:** "Biosynthesis and Antimicrobial Application of L-Tyrosine Mediated Gold Nanoparticles". Authors: Binodha Chatterjee, Mahesh Munshi, Pooja Khatke, Palani Singh, Kuntal, Madhu Vinayak. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
- Posters 7-9 (Third Column):**
  - Poster 7:** "Pectinase Assisted Gold Nanoparticles and their Antimicrobial Properties". Authors: Kaur, P., Singh, P., Gupta, P., Munish, M., Chatterjee, D., Kalia, K., & Vashist, M. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
  - Poster 8:** "Biosynthesis and Antimicrobial Application of L-Tyrosine Mediated Gold Nanoparticles". Authors: Binodha Chatterjee, Mahesh Munshi, Pooja Khatke, Palani Singh, Kuntal, Madhu Vinayak. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
  - Poster 9:** "Pectinase Assisted Gold Nanoparticles and their Antimicrobial Properties". Authors: Kaur, P., Singh, P., Gupta, P., Munish, M., Chatterjee, D., Kalia, K., & Vashist, M. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
- Posters 10-12 (Right Column):**
  - Poster 10:** "Pectinase Assisted Gold Nanoparticles and their Antimicrobial Properties". Authors: Kaur, P., Singh, P., Gupta, P., Munish, M., Chatterjee, D., Kalia, K., & Vashist, M. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
  - Poster 11:** "Biosynthesis and Antimicrobial Application of L-Tyrosine Mediated Gold Nanoparticles". Authors: Binodha Chatterjee, Mahesh Munshi, Pooja Khatke, Palani Singh, Kuntal, Madhu Vinayak. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.
  - Poster 12:** "Pectinase Assisted Gold Nanoparticles and their Antimicrobial Properties". Authors: Kaur, P., Singh, P., Gupta, P., Munish, M., Chatterjee, D., Kalia, K., & Vashist, M. Affiliation: Department of Zoology, Gurukul Kangri Vishwavidyalaya, Haridwar, India.

# TO REVIEW THE EFFECT OF ULTRA-PROCESSED FOOD ON HEALTH AND GUT MICROBIOTA

**Vanessa Ball, Garima Bednarek, Alexander Bauer**  
Department of Food Science and Technology, University of the South  
 Africa, Bloemfontein, South Africa

## ABSTRACT

Increasing food processing can only increase the risk of chronic diseases, but how does the modern diet affect the gut microbiota? This review examines the impact of ultra-processed food on the gut microbiota. Ultra-processed food is defined as food that has been extensively processed, often containing additives and preservatives. The review discusses the impact of ultra-processed food on the gut microbiota, focusing on the role of fiber, sugar, and fat. The review concludes that ultra-processed food consumption is associated with a higher risk of chronic diseases, and that a diet rich in fiber and healthy fats can help maintain a healthy gut microbiota.

## RISK OF DISEASES



Increasing food processing can only increase the risk of chronic diseases, but how does the modern diet affect the gut microbiota? This review examines the impact of ultra-processed food on the gut microbiota. Ultra-processed food is defined as food that has been extensively processed, often containing additives and preservatives. The review discusses the impact of ultra-processed food on the gut microbiota, focusing on the role of fiber, sugar, and fat. The review concludes that ultra-processed food consumption is associated with a higher risk of chronic diseases, and that a diet rich in fiber and healthy fats can help maintain a healthy gut microbiota.

## CONCLUSION

The ultra-processed food has a negative impact on the health of individuals, leading to an increase in chronic diseases. The consumption of ultra-processed food is associated with a higher risk of chronic diseases, and that a diet rich in fiber and healthy fats can help maintain a healthy gut microbiota.

## INTRODUCTION

The modern diet is characterized by a high intake of ultra-processed food, which is food that has been extensively processed, often containing additives and preservatives. The modern diet is also characterized by a low intake of fiber and healthy fats. This review examines the impact of ultra-processed food on the gut microbiota, focusing on the role of fiber, sugar, and fat. The review concludes that ultra-processed food consumption is associated with a higher risk of chronic diseases, and that a diet rich in fiber and healthy fats can help maintain a healthy gut microbiota.

## CASE

The modern diet is characterized by a high intake of ultra-processed food, which is food that has been extensively processed, often containing additives and preservatives. The modern diet is also characterized by a low intake of fiber and healthy fats. This review examines the impact of ultra-processed food on the gut microbiota, focusing on the role of fiber, sugar, and fat. The review concludes that ultra-processed food consumption is associated with a higher risk of chronic diseases, and that a diet rich in fiber and healthy fats can help maintain a healthy gut microbiota.

## REFERENCES

1. Ball V, Bednarek G, Bauer A. (2023) The impact of ultra-processed food on the gut microbiota. *Journal of Food Science and Technology*, 56(1), 1-10.

2. Ball V, Bednarek G, Bauer A. (2023) The impact of ultra-processed food on the gut microbiota. *Journal of Food Science and Technology*, 56(1), 1-10.

## ATHEROSCLEROSIS

The modern diet is characterized by a high intake of ultra-processed food, which is food that has been extensively processed, often containing additives and preservatives. The modern diet is also characterized by a low intake of fiber and healthy fats. This review examines the impact of ultra-processed food on the gut microbiota, focusing on the role of fiber, sugar, and fat. The review concludes that ultra-processed food consumption is associated with a higher risk of chronic diseases, and that a diet rich in fiber and healthy fats can help maintain a healthy gut microbiota.

## LACTOPERITONEAL DYSBIOSIS

The modern diet is characterized by a high intake of ultra-processed food, which is food that has been extensively processed, often containing additives and preservatives. The modern diet is also characterized by a low intake of fiber and healthy fats. This review examines the impact of ultra-processed food on the gut microbiota, focusing on the role of fiber, sugar, and fat. The review concludes that ultra-processed food consumption is associated with a higher risk of chronic diseases, and that a diet rich in fiber and healthy fats can help maintain a healthy gut microbiota.

## CONCLUSION

The ultra-processed food has a negative impact on the health of individuals, leading to an increase in chronic diseases. The consumption of ultra-processed food is associated with a higher risk of chronic diseases, and that a diet rich in fiber and healthy fats can help maintain a healthy gut microbiota.



## EXPLORING THE MICROMIOME: A REVIEW

### SARITHA SHARMA, ANVISHA KHAIR

Gargi College, University of Delhi, 555 Post Road, New Delhi-49



**ABSTRACT**

The microbiome, a complex ecosystem of microorganisms residing within and on the human body, has emerged as a critical factor in human health and disease. This review explores the composition, function, and impact of the microbiome, focusing on the gut microbiome as a primary example. It discusses how the microbiome influences various physiological processes, including digestion, immune system development, and mental health. The review also highlights the role of the microbiome in disease pathogenesis, particularly in inflammatory bowel disease, obesity, and mental health disorders. Finally, it discusses potential therapeutic interventions, such as probiotics and prebiotics, aimed at modulating the microbiome for improved health outcomes.

**KEYWORDS:** Microbiome, Gut Microbiome, Probiotics, Prebiotics, Human Health, Disease Pathogenesis, Immune System, Mental Health.



**Figure 1: Distribution of the Microbiome**

#### The Composition of the Gut Microbiome

The composition of the gut microbiome is highly diverse and varies significantly between individuals. The majority of the gut microbiome consists of bacteria, with the phylum Firmicutes being the most abundant. Other prominent phyla include Bacteroidetes, Actinobacteria, and Proteobacteria. The gut microbiome also includes smaller populations of fungi, viruses, and archaea. The composition of the gut microbiome is influenced by various factors, including diet, lifestyle, and genetics.

Recent studies have shown that the gut microbiome plays a crucial role in the development and function of the immune system. The microbiome helps to train the immune system to recognize and respond to various pathogens. Dysregulation of the microbiome can lead to immune system dysfunction and the development of various autoimmune diseases.

The gut microbiome also plays a role in the production of various metabolites, including short-chain fatty acids (SCFAs). SCFAs are produced by the fermentation of dietary fibers by gut bacteria. SCFAs have been shown to have a variety of health benefits, including reducing inflammation and improving gut health.

#### The Role of the Microbiome in Disease Pathogenesis

The microbiome has been implicated in the pathogenesis of a wide range of diseases, including inflammatory bowel disease (IBD), obesity, and mental health disorders. In IBD, the microbiome is altered, leading to an imbalance in the microbial community. This imbalance is thought to contribute to the chronic inflammation characteristic of the disease.

Obesity is also associated with changes in the gut microbiome. Studies have shown that obese individuals have a higher abundance of certain bacterial species and a lower abundance of others. These changes are thought to contribute to the metabolic dysregulation associated with obesity.

Mental health disorders, such as depression and anxiety, have also been linked to the microbiome. The gut-brain axis, a bidirectional communication system between the gut and the brain, plays a role in this relationship. The microbiome influences the gut-brain axis through the production of various metabolites and the modulation of the immune system.



**Figure 2: The Gut-Brain Axis**

#### The Role of the Microbiome in Immune System Development

The microbiome plays a critical role in the development and maturation of the immune system. From birth, the infant's microbiome is shaped by the mother's microbiome during vaginal delivery. This early exposure to microorganisms is essential for the development of a healthy immune system.

The microbiome continues to influence the immune system throughout life. A diverse and balanced microbiome is associated with a stronger immune system and a lower risk of various diseases. Conversely, a dysbiotic microbiome, characterized by an imbalance in the microbial community, is associated with increased susceptibility to infections and the development of autoimmune diseases.

Probiotics, which are live microorganisms that confer health benefits when consumed, can be used to modulate the microbiome and support immune system function. Prebiotics, which are non-digestible fibers that promote the growth of beneficial bacteria, can also be used to support a healthy microbiome.

#### Potential Therapeutic Interventions

Given the importance of the microbiome in human health, there is growing interest in developing therapeutic interventions aimed at modulating the microbiome. Probiotics and prebiotics are the most commonly used interventions. Probiotics are available in various forms, including capsules, tablets, and powders. Prebiotics are typically found in dietary supplements and certain foods.

Other potential interventions include fecal microbiota transplantation (FMT), which involves transferring stool from a healthy donor to a recipient, and phage therapy, which uses bacteriophages to target and kill specific bacteria.

Further research is needed to fully understand the mechanisms of action of these interventions and to develop personalized approaches for modulating the microbiome.

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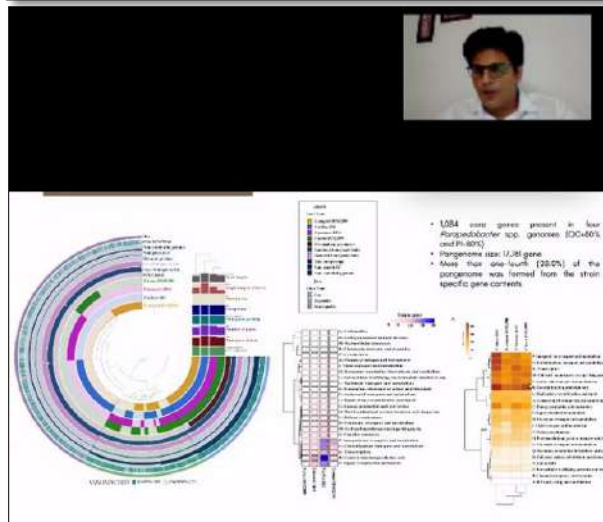
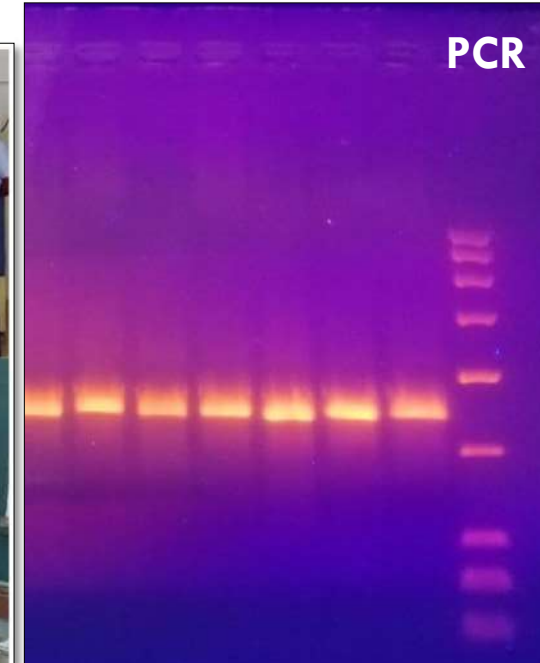
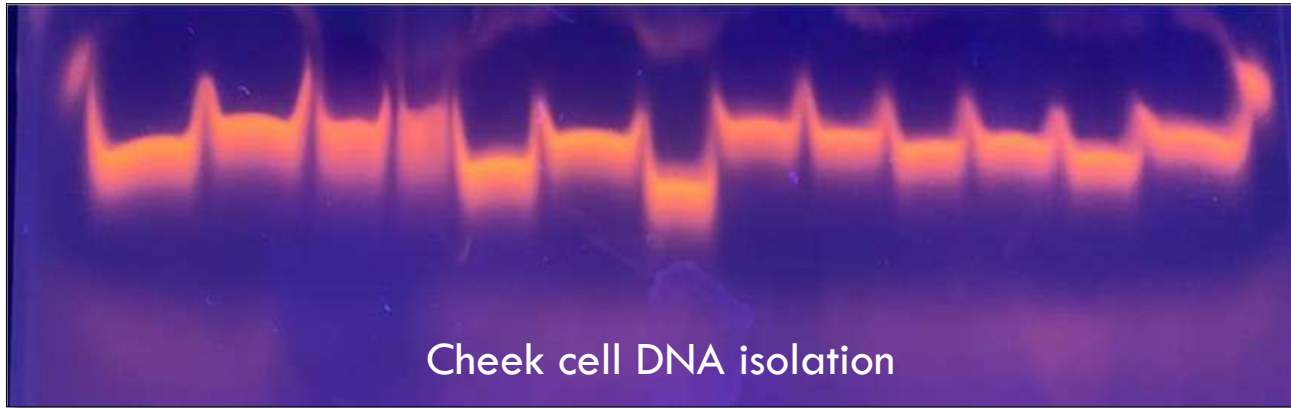


## Add-on Course

*Biotechcellence: Insights and Innovations (2017-2022)*

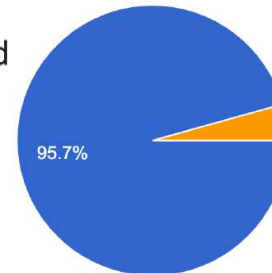
Coordinators: Dr. Poonam Sharma & Dr. Jasvinder Kaur

**153 students trained between 2017-22**



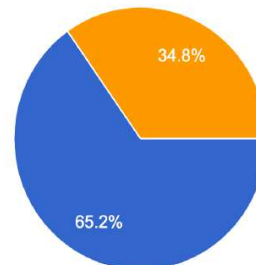
Was the course convenient to attend  
23 responses

- Yes
- No
- Sometimes



Was the delivery upto your expectations?  
23 responses

- It was good
- No
- I had difficulty understanding some topics





**Coordinators: Dr. Chaitali Ghosh And Dr. M. Divya Ganeswari**









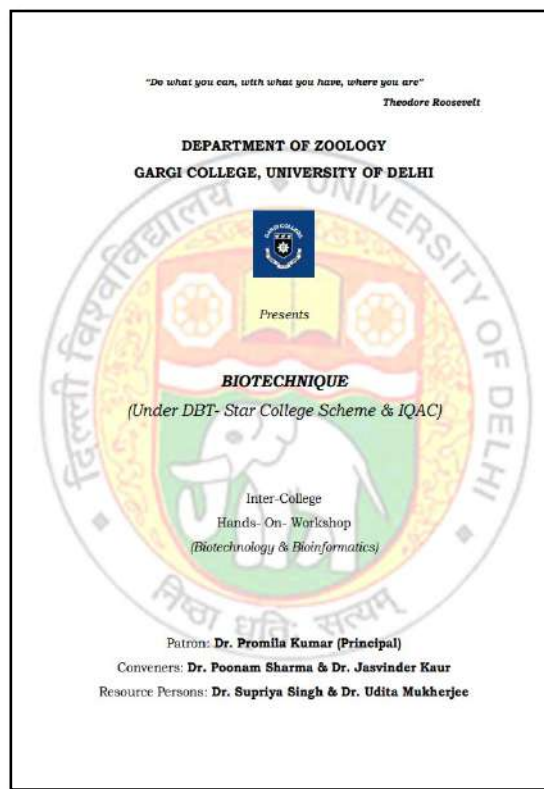
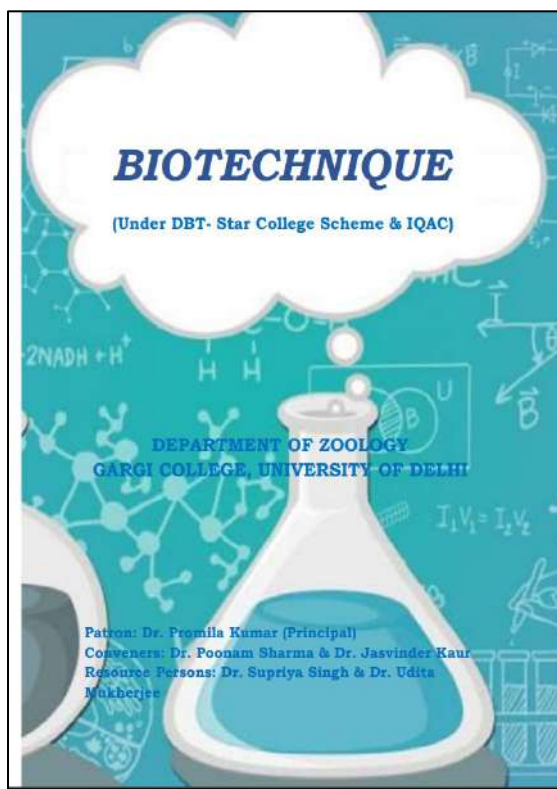
**Phylogeny**  
 Dr. Shakti Sahi, Assistant Professor, School of  
 Biotechnology, GBU  
 Add-on: Phylogeny  
 Saturday, January 15 : 3:45 – 5:45pm  
 Google Meet: Joining Info, Video call link:  
<https://meet.google.com/hwvy-jhrc-agn>  
 Or dial: (US) +1 712-318-2533 PIN: 175 327 174#

**Feedback was collected on knowledge sharing, learning process, presentation, speaker and way of conductance after every session.**



# HANDS-ON INTERCOLLEGE WORKSHOP – BIOTECHNIQUE

## BEYOND THE CURRICULUM



*Two days hands-on Intercollege workshop on Biotechnology and Bioinformatics "Biotechnology" was organized on December 23 -24<sup>th</sup>, 2019 under Star College Scheme in association with IQAC.*

**38 students from 10 colleges participated.**



# HANDS-ON INTRODUCTION TO PYTHON FOR GENOMICS

## BEYOND THE CURRICULUM

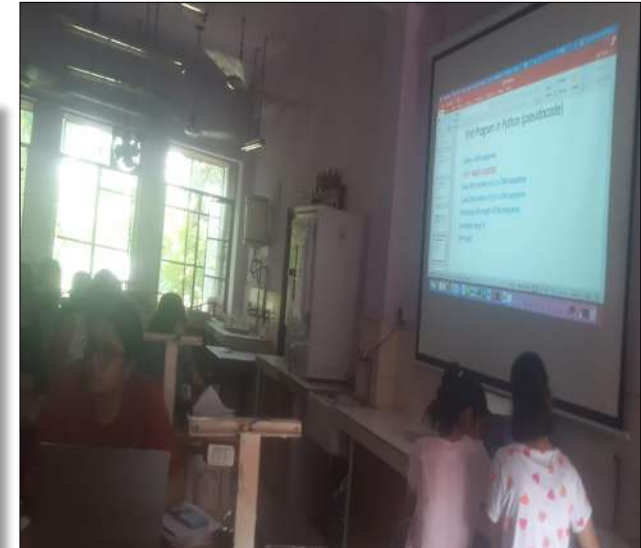

Department of Zoology  
Gargi College  
University of Delhi  
(Accredited Grade 'A' by NAAC) in collaboration with IQAC  
presents a workshop on  
**Introduction to Python for Genomics**

For Zoology (H) first Year 2022  
For Registration –  
<https://forms.gle/7r9StKtywaarqk116>

Resource Person: Dr. Swati Bajaj  
Organizer: Dr. Shivani Tyagi  
Teacher In Charge,  
Department of Zoology

30 June , 2022

Time-8.40-12.40 pm, Venue: Lab 1, Zoology Department  
Gargi College





**28 & 30 June 2022**

**40 students trained**



# WORKSHOPS/LABORATORY MANUALS

 **GARGI COLLEGE** 



*Under the Star College Scheme  
(Funded by Department of Biotechnology)*

**Laboratory manual  
for  
'2<sup>nd</sup> Hands-on Workshop on Bioinformatics'**

**Date: 22/4/2019.  
Time: 9am - 4pm.**

Convener: Dr. Chaitali Ghosh  
Resource Persons: Dr. Smriti Sharma,  
Dr. M. Divya Gnaneswari, Dr. Mamtesh Singh

*Department of Zoology, Gargi College, Siri Fort Road,  
New Delhi - 110049*



 **GARGI COLLEGE** 

**Laboratory manual  
for  
'Hands-on Workshop  
in Biological Techniques'**

**Date: 13/12/2019 & 14/12/2019  
Time: 9am - 4pm**


Convener: Dr. Smriti Sharma  
Resource Persons: Dr. Chaitali Ghosh  
Dr. M. Divya Gnaneswari

**Department of Zoology, Gargi College,  
Siri Fort Road,  
New Delhi - 110049**

 **LABORATORY MANUAL  
for  
'Summer Immersion Program'** 



*(under DBT- Star College Scheme in association with IQAC)*  
11<sup>th</sup> July -18<sup>th</sup> July, 2018

**Organized by**  
DEPARTMENT OF ZOOLOGY, GARGI COLLEGE



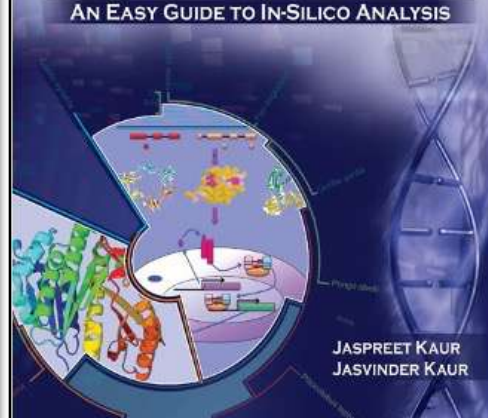
**Resource Persons:**  
Ms. Smita Choudhury, Dr. Poonam Sharma, Dr.  
Jasvinder Kaur, Dr. Chaitali Ghosh, Dr. Madhu Yashpal,  
Dr. Kuntal, Dr. Neena Kumar, Dr. M. Divya Gnaneswari,  
Dr. Supriya Singh, Dr. Rashmi Saini, Dr. Udit  
Mukherjee and Dr. Usha

**Patron: Dr. Promila Kumar**  
DBT Star College Scheme Coordinator: Dr. Shashi Tyagi  
Convener and DBT Star College Scheme  
Departmental Coordinator: Dr. Poonam Sharma



 **GARGI COLLEGE** 

**BIOINFORMATICS  
PRACTICAL MANUAL**

**AN EASY GUIDE TO IN-SILICO ANALYSIS**



**JASPREET KAUR  
JASVINDER KAUR**

 **GARGI COLLEGE** 

**Laboratory manual  
for  
'3<sup>rd</sup> Hands-on Workshop on Bioinformatics'**

**Date: 5<sup>th</sup> - 10<sup>th</sup> May, 2020  
Time: 4 - 5 pm  
Online mode:  
Google Classroom and  
Google Meet**

Organized by: Dr. Shivani Tyagi,  
Dr. Smriti Sharma and Dr. M. Divya Gnaneswari

**Department of Zoology, Gargi College, Siri Fort Road,  
New Delhi - 110049**



# CURRICULUM-BASED TRIPS/VISITS

**National Science Museum (Delhi)**  
LS Core – Genetics & Evol Biology  
April 2017

**National Zoological Park (Delhi)**  
AECC – Environmental Studies  
11<sup>th</sup> September 2017



**Sulabh International Museum of Toilets (Delhi)**  
SEC paper – Public Health and Hygiene  
6<sup>th</sup> April 2018

**Aravalli Biodiversity Park (Delhi)**  
Core Paper -Ecology  
13<sup>th</sup> September 2019





# LABORATORY VISITS

## BEYOND CURRICULUM

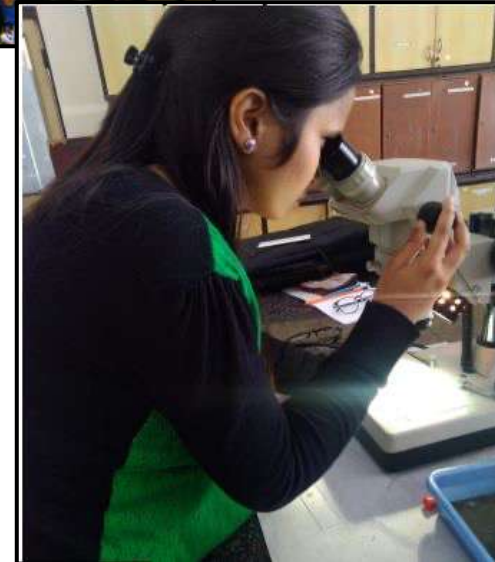
**National Brain Research Centre  
February 28, 2018**



**Abha Biotechnology Pvt Ltd.  
October 10, 2019**



**CSIR-IGIB, Delhi  
October 14, 2016**



**Morgan Lab, Daulat Ram College  
February 23, 2019**



# FEATHERED FRIENDS OF GARGI COLLEGE

# CAMPUS BIRD COUNT

**Nesting Grounds for 22 Bird Species**

**February 18, 2019**

**February 17, 2020**



**Black Kite**



**Pied Bushchat**



**Rose Ringed Parakeet**



**Sunbird (Female)**



**Sunbird (Male)**



**Indian Peafowl**



**Yellow Footed Green Pigeon**



**Shikra**



**Oriental Magpie Robin**

DR. UDITA MUKHERJEE • DR. SMRITI SHARMA • DR. SHASHI TYAGI





Department's motto is to expand their knowledge beyond curriculum, the zoological society 'albatross' lead the college in providing a podium to show the flare and to a part of high spirit, energy and creativity.

Albatross organizes various curricular and extra curricular activities to enhance the holistic development of students.

Various celebrations such as Darwin's day, and teacher's day are celebrated by enthusiastic students

### MEDIA PRESENCE

[Email-albatrosszoology@gmail.com](mailto:albatrosszoology@gmail.com)

[https://Instagram.com/albatross.gargi\\_official](https://Instagram.com/albatross.gargi_official)

<https://www.facebook.com/albatrossgargi/>

### *Albatross Activities*

Lecture Series

National and International Day Celebrations

AlumConnect

Campus Backyard Bird Count

Various Competitions

Flight - Annual Magazine

Freshers Welcome and Farewell

# STUDENTS' COUNCIL

**2021-22**



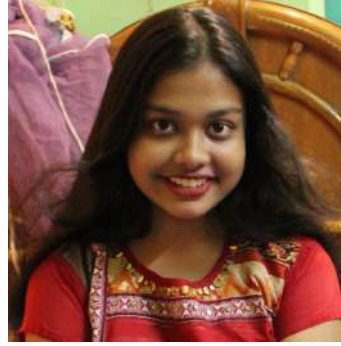
**Ms. Madhurya Ray**  
(President)



**Ms. Chestha Mutreja**  
(Vice-president)



**Ms. Archi Gupta**  
(General Secretary)



**Ms. Suvechha Panja**  
(Cultural Secretary)



**Ms. Divyanshi Chauhan**  
(Treasurer)



**Ms. Sweata Biswas**  
(Proctor 3)



**Ms. Tanya Jain**  
(Proctor 2)



**Ms. Arti Venkatesan**  
(President)



**Ms. Suvechha Panja**  
(Vice-president)



**Ms. Divyanshi Chauhan**  
(General Secretary)



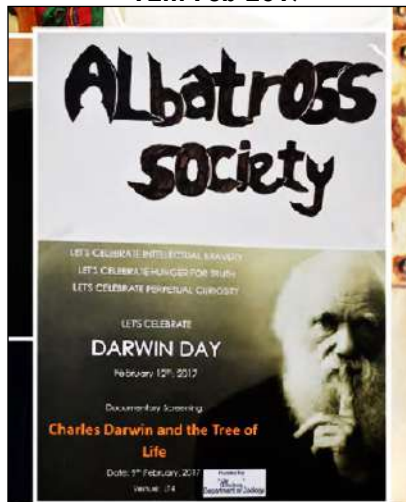
**Ms. Bhoomi Singh**  
(Proctor 3)

**2022-23**



# CO-CURRICULAR ACTIVITIES (2016-2017)

**Darwin's day  
12th Feb 2017**



**Workshop: It's in My genes: A  
Molecular Biology Approach  
March 14-15 2017**



**Inaugural Lecture by  
Prof. Raman Rajagopal**



**Trip to Jim Corbett and Nainital  
October 2016**



**Aravalli Biodiversity Park Visit  
2017**



**Visit to IGIB  
14th October 2016**



**Quiz Competition  
March 7-8, 2017**



**March Past, Sports Day 2016**



# CO-CURRICULAR ACTIVITIES (2017-2018)

**Inaugural Lecture by  
Prof. Shibnath Majumdar  
September 22, 2017**



**Symposium 'Wanderers of  
Nature' March 12, 2018**



**Lecture workshop 'Ingenuity in  
Biological Sciences'  
January 11-12,, 2018**



**Darwin's Day  
Lecture by Prof. M. Shakarad  
February 12, 2018**



**Collage Making  
Competition  
March 20 – 21, 2018**



**Photography  
Competition  
March 18, 2018**



**Recreational Trip to Solange Valley,  
Hidimba Devi temple & Manikaran  
December 2017**



**Science Fiction Plot Writing  
Competition  
March 20 – 21, 2018**



**March Past, Spin- 2017**



**Trip to Biodiversity Park on  
March 08, 2018**



**Educational Trip to Zoo, Delhi  
September 11, 2017**



# CO-CURRICULAR ACTIVITIES (2018-2019)

**Inaugural lecture by Dr. Kanchan Kaur on 'Breast Cancer Awareness.'**  
**August 31, 2018**



**Teacher's Day**  
**September 05, 2018**



**Summer Immersion Program**  
**July 11-18, 2018**



**Darwin's Day**  
**Face Painting Competition**  
**February 12, 2019**



**National Seminar**  
**March 14-16, 2019**



**Visit to Morgan Lab,**  
**Daulat Ram College**  
**February 23, 2019**



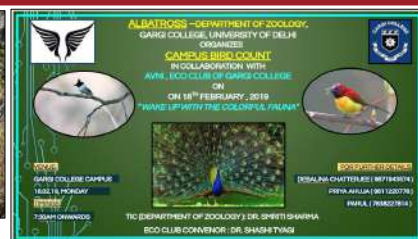
**Lecture on Wildlife Research by Ms Vaishali Rawat**  
**September 07, 2018**



**Visit to NBRC**  
**February 28, 2018**



**Recreational Trip to**  
**Mahendrapur, Dehradun**  
**March 03, 2019**



**Campus Bird Count**  
**February 18, 2019**



**March Past, Spin 2019**  
**February 28, 2018**



**Lecture - "Application of GIS technology to wildlife conservation"**  
**February 22, 2019**



**Hands-on Workshop**  
**On Cell Biology**  
**February 26, 2019**



**Turncoat Competition**  
**March 06, 2019**

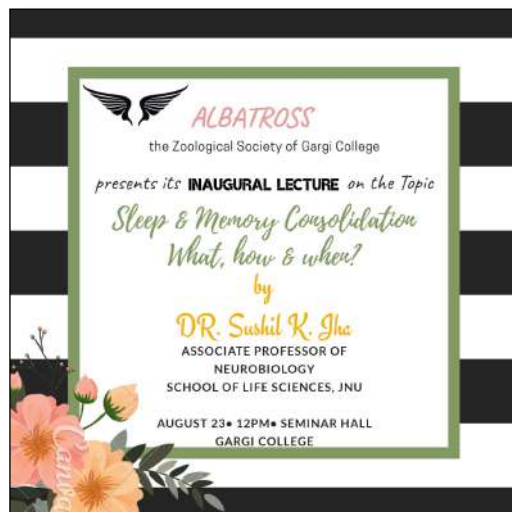


**Sculpture Making Competition**  
**March 07, 2019**

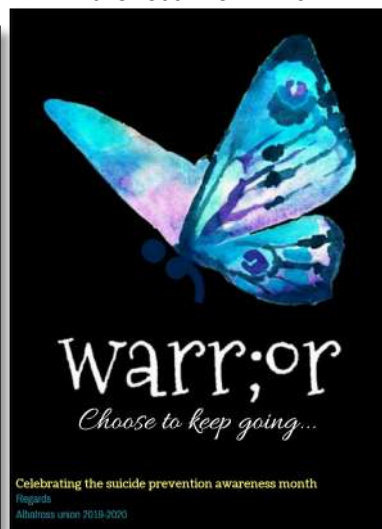


# CO-CURRICULAR ACTIVITIES (2019-2020)

**Inaugural lecture by Dr Sushil K Jha**  
August 23, 2019



**Suicide Prevention  
Awareness Month 2019**



**Doodle Competition**  
October 23, 2019



**Poetry Competition**  
September 11, 2019

**Teacher's Day**  
September 05, 2019



**Poster Making Competition**  
**On WORLD HEART DAY**  
September 27, 2019



**March Past, Spin - Sports Day**  
2019

**Hands-On Workshop in Biological Techniques**  
December 13-14, 2019

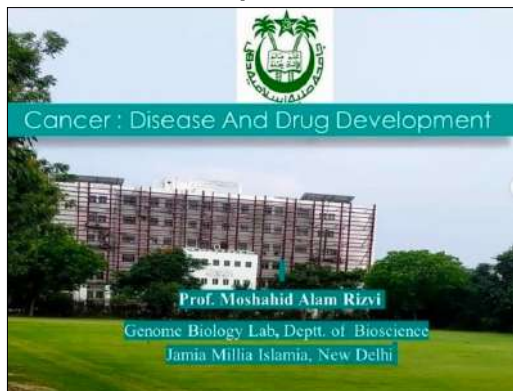


**Campus Bird Count**  
February 17, 2020

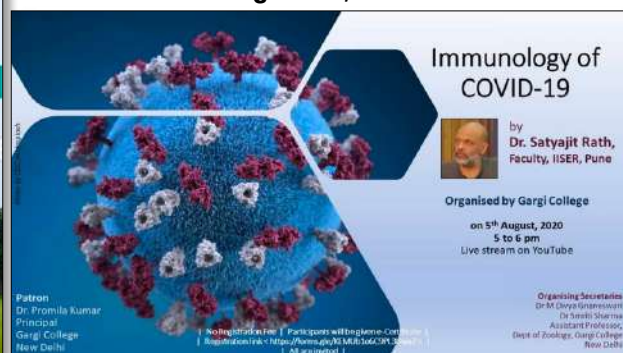


# CO-CURRICULAR ACTIVITIES (2020-2021)

**Inaugural lecture by Dr M Rizvi on  
Cancer: Disease and Drug Development  
January 29, 2021**



**Webinar on Immunology of Covid-19  
Lecture by Dr Satyajit Rath  
August 05, 2020**



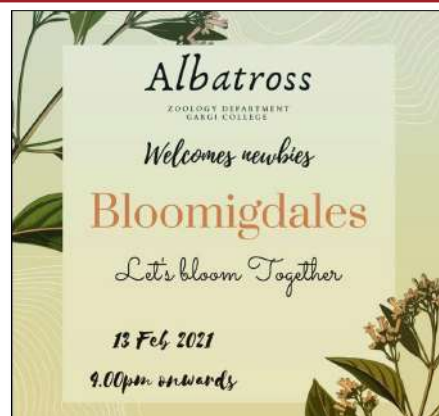
**Webinar  
Entomology in Criminal  
Investigation  
August 22, 2020**



**International Conference  
"NeuroEunoia"  
October 16-17, 2020**



**International Symposium "WISE" Women  
in Science Event  
February 11, 2021**



**Fresher's Welcome  
February 13, 2021**



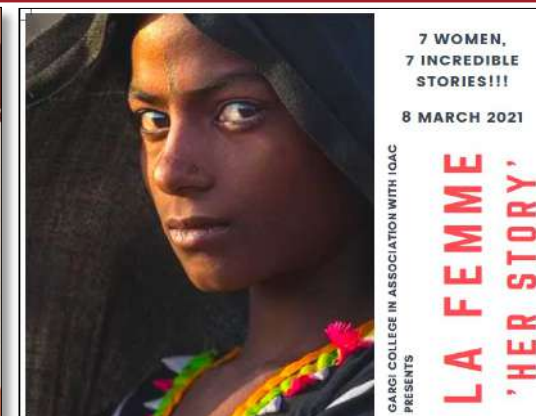
**Darwin's day  
Doodling Competition  
February 12, 2021**



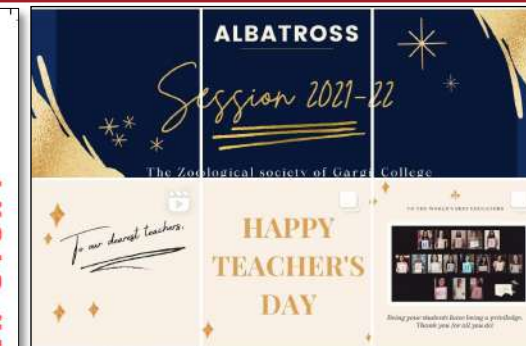
**Interaction with Alumni  
February 26, 2021**



**Debate Competition  
March 05, 2021**



**Webinar on International Women's Day  
La Femme 'Her Story'  
March 08, 2021**



**Teacher's Day  
September 05, 2021**



# CO-CURRICULAR ACTIVITIES (2021-2022)

Inaugural lecture by  
Prof. A.K. Pati  
October 06, 2021



AlumConnect  
October 31, 2021



Documentary Screening on  
World Cancer Day  
February 04, 2022

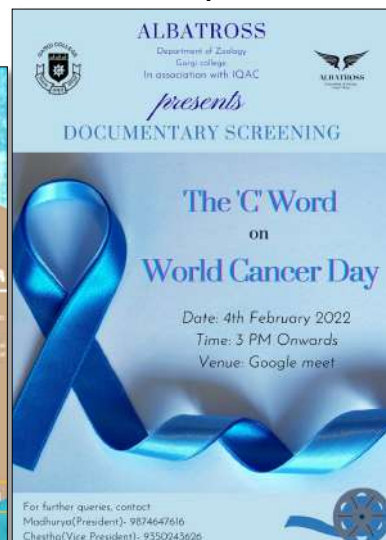


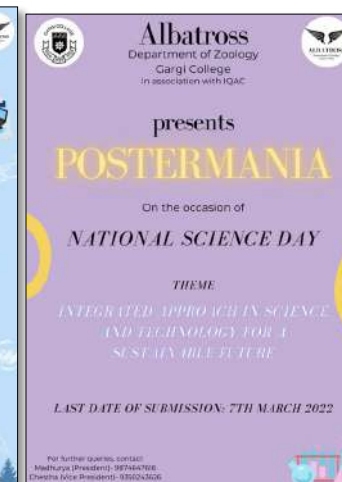
Illustration Competition on  
Darwin's Day  
February 12, 2022



Journey to Destination  
January 15, 2022



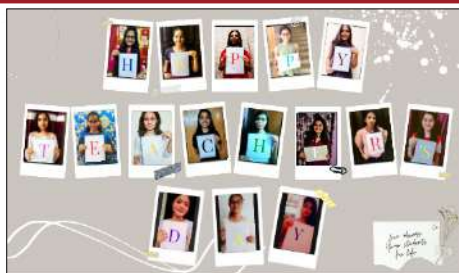
Postermania  
March 07, 2022



Article Writing  
Competition  
March 25, 2022



Teacher's Day  
September 05, 2021



Virtual Jungle Safari of Dudhwa  
Tiger Reserve  
January 13, 2022



National Science Day celebration week 'Vigyan Sarvatra Pujiyate'  
February 24, 2022





# ANNUAL MAGAZINE- FLIGHT

**2016-2017**

**Theme:** Dive to Discover



**2017-2018**

**Theme:** XXcellence in Science  
– Mapping the Maze



**2018-2019**

**Theme:** Treatise: Story of  
Human Evolution



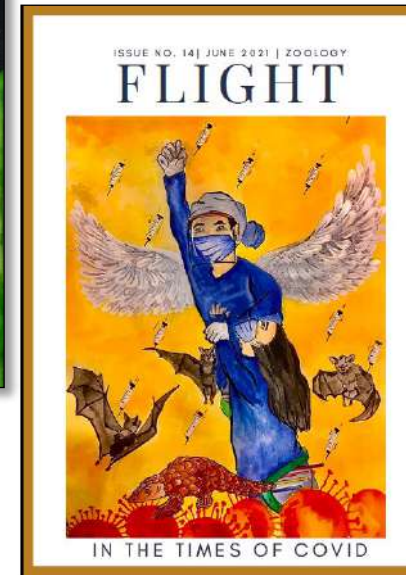
**2019-2020**

**Theme:** Fostering the Science



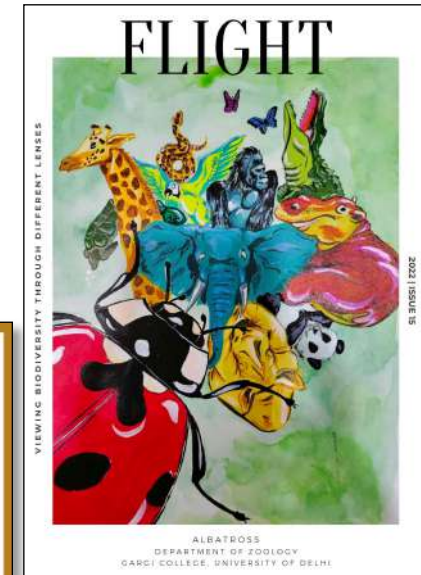
**2020-2021**

**Theme:** In times of Covid 19



**2021-2022**

**Theme:** Diversitas: Viewing  
Biodiversity through different Lenses





# STUDENTS' ACHIEVEMENT (2016-2021)

## SIMRAN J SHARMA

1<sup>st</sup> RANK in UNIVERSITY  
Meritorious Award (DU)  
2016-2017



## KHUSHBOO CHAUDHARY

7<sup>TH</sup> RANK in UNIVERSITY  
Meritorious Award (DU)  
2017-2018



## SAGARIKA SHARMA

Meritorious Award (DU)  
2018-2019



## PRABHLEEN KAUR

Meritorious Award (DU)  
2018-2019



## DEBALINA CHATTERJEE

Meritorious Award (DU)  
2018-2019



## SHRUTI KHANNA

V. Jamuna Memorial All  
Rounder Award, Gargi College  
2016-2017



## ANWESHA DE

Sarah Thomas Memorial Award  
(2020 -All Rounder Best Student  
Zoology, Gargi College



## ANWESHA DE and MADHURYA RAY

National Merit Award-3rd Position All India  
for 'National Essay Championship  
Science Diplomacy of India International  
Science Festival (IISF-2020)  
Ministry of Science and Technology, Gol.



## GARIMA JAIN

2<sup>nd</sup> RANK in UNIVERSITY  
Meritorious Award (DU)  
2020-2021



## ANWESHA DE

Uttam Sewak Award (2020) -  
Best Student NSS, Gargi College



## AYUSHI GAHLOT

Meritorious Award (DU)  
2021-2022



## MADHURYA RAY

Meritorious Award (DU) 2021-22



## SEETA PRAJAPATI

DBT INSPIRE FELLOW

[https://drive.google.com/drive/folders/12W7TZJv2HZIQdKbGNf\\_Vfi5U\\_NgTXP7m](https://drive.google.com/drive/folders/12W7TZJv2HZIQdKbGNf_Vfi5U_NgTXP7m)



# STUDENT AWARDS/MEDALS FOR OUTSTANDING PERFORMANCE IN SPORTS/CULTURAL ACTIVITIES AT UNIVERSITY/STATE/NATIONAL/INTERNATIONAL LEVEL

**SEETA PRAJAPATI**



- 1<sup>st</sup> Prize** - Parliamentary Debate Competition, Women Development Cell, AND (University of Delhi), 2022.
- 3<sup>rd</sup> Prize** - Shaheed Bhagat Singh Evening Political Science Department, TURNCOAT debate, 2022.
- 1<sup>st</sup> Prize** - Zenith, Gargi College and Evam Monologuing marauders, Punjab University (JAM-2021).
- 3<sup>rd</sup> Prize** - Extempore Competition in IIT BHU International Competition fest, 2021.
- 3<sup>rd</sup> Prize** - National Speech Competition Ramanujan College, 2021.
- 2<sup>nd</sup> Prize** - Open Mic Poetry Competition, Zenith, Gargi College and Punjab University, 2021.

**SUVECCHA PANJA**



- 1<sup>st</sup> Prize** - QUIZONE, Bhaskaracharya College of Applied Sciences, University of Delhi, Delhi, 2022.
- 3<sup>rd</sup> Prize** - Video Making Competition, Microblaze'22, SRCASW, University of Delhi, Delhi, 2022.
- 3<sup>rd</sup> Prize** - Anime quiz contest, Otaku Konekuto, PGDAV College, University of Delhi, Delhi, 2022

**SMRITI VERMA**



- 2<sup>nd</sup> Prize** - Anusandhan, Gargi College, University of Delhi, 2021.
- 1<sup>st</sup> Prize** - Scavenger Hunt Competition, Matharena '22 Pre-Event, Jesus & Mary College, University of Delhi, 2022.
- 3<sup>rd</sup> Prize** - REVEL, Paper Presentation Event, Gargi College, University of Delhi, 2022.
- 3<sup>rd</sup> Prize** - Chamber of Secrets (The Treasure Hunt), VEERANGANA 2022, Sri Aurobindo College, University of Delhi, 2022.
- 1<sup>st</sup> Prize** - Article Writing Competition, DIVERSITAS, Gargi College, University of Delhi, 2022.
- 3<sup>rd</sup> Prize** - CHEMAROMA, Paper Presentation Event, Gargi College, University of Delhi, 2022.
- 3<sup>rd</sup> Prize** - Hunt in the House (The Treasure Hunt), Exponent'22, Sri Venkateswara College, University of Delhi, 2022
- 1<sup>st</sup> Prize** - Hog D'Hogwarts, Mulya'22, Kirori Mal College, University of Delhi, Delhi, 2022.

# STUDENT AWARDS/MEDALS FOR OUTSTANDING PERFORMANCE IN SPORTS/CULTURAL ACTIVITIES AT UNIVERSITY/STATE/NATIONAL/INTERNATIONAL LEVEL

**BISMA KHAN**

- 
- 1<sup>st</sup> Prize** - Scavenger Hunt Competition, Matharena '22 Pre Event, Jesus & Mary College, University of Delhi, 2022
  - 3<sup>rd</sup> Prize** - REVEL, Paper Presentation Event, Gargi College, University of Delhi, 2022
  - 3<sup>rd</sup> Prize** - Chamber of Secrets (The Treasure Hunt), VEERANGANA 2022 Sri Aurobindo College, University of Delhi
  - 1<sup>st</sup> Prize** - Article Writing Competition, DIVERSITAS, Gargi College, University of Delhi, 2022
  - 3<sup>rd</sup> Prize** - Hunt in the House (The Treasure Hunt), Exponent'22, Sri Venkateswara College, University of Delhi, 2022.
  - 1<sup>st</sup> Prize** - Hog D'Hogwarts, Mulya'22, Kirori Mal College, University of Delhi, 2022.

**JANVI AGGARWAL**

- 
- 3<sup>rd</sup> Prize** in QUIZONE, Bhaskaracharya College of Applied Sciences, University of Delhi, 2022.
  - 3<sup>rd</sup> Prize** in THINK and LINK, Ramjas College, University of Delhi, 2022
  - 1<sup>st</sup> Prize** in Food Quiz, Gargi College, University of Delhi, 2022

**DIVYANSHI CHAUHAN**

- 
- 3<sup>rd</sup> Prize** - Article Writing Competition, DIVERSITAS, Gargi College, University of Delhi, 2022.
  - 3<sup>rd</sup> Prize** - CHEMAROMA, Paper Presentation Event, Gargi College, University of Delhi, 2022.

**AARTI VENKATESAN**

- 
- 1<sup>st</sup> Prize** - Shri Ram College of Commerce (SRCC) Debating Festival, University of Delhi, 2022.



# STUDENT PLACEMENT/INTERNSHIPS/SCHOLARSHIPS

## INTERNSHIPS

**15** students

Kanan Animal Welfare (Research & Outreach), Content Writing, Graphic Designing, Marketing & Finance, HR

## PLACEMENTS

**4** students

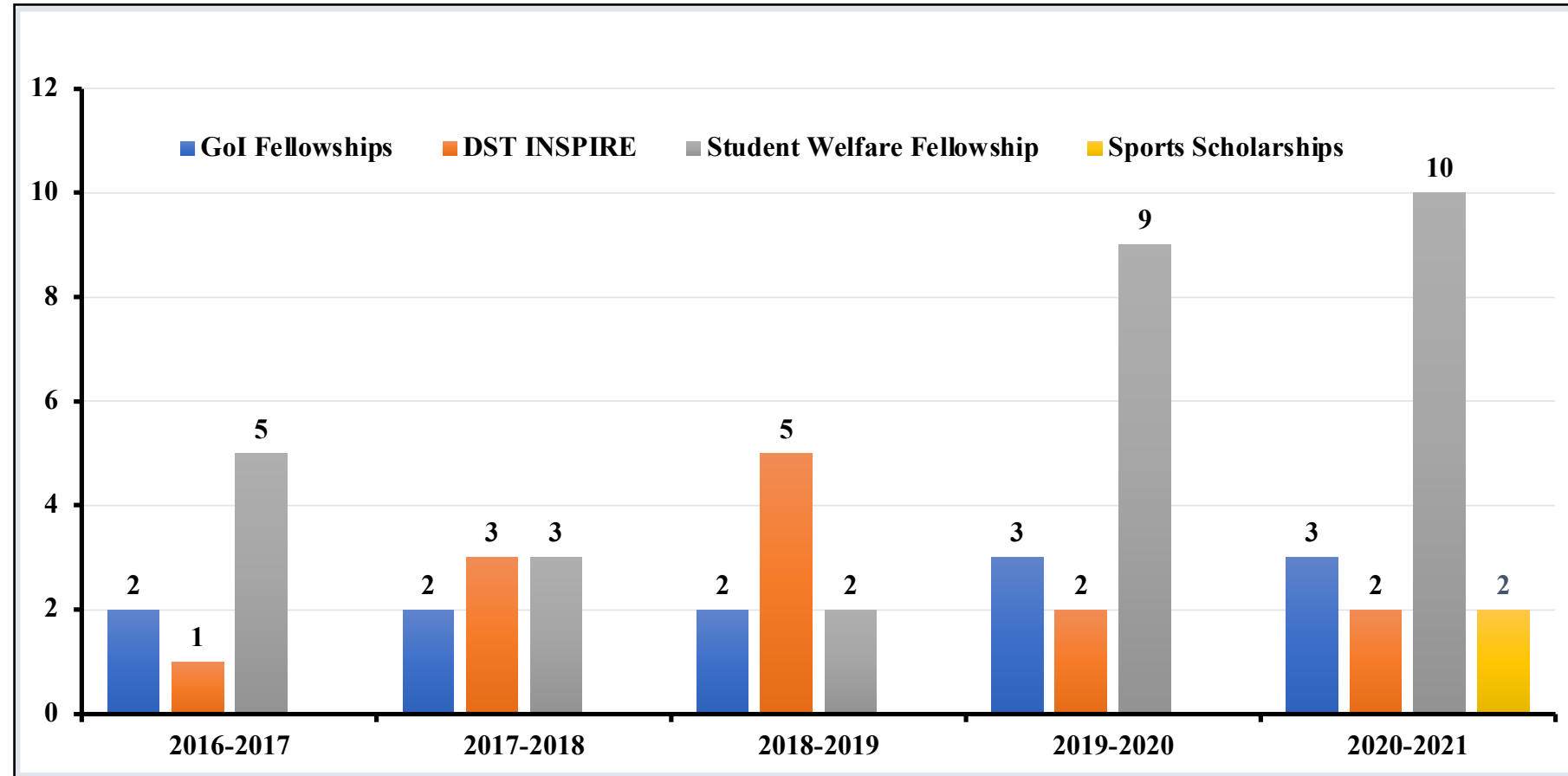
Becton Dickinson, LeaniQo, College Dunia & Skuad as Graduate trainees, Content Writers, Business Development Associates

## WELFARE FUND

**29** students received scholarships from Student Welfare Fund, Gargi College

## SCHOLARSHIPS

**27** students received fellowships from INSPIRE Scheme, PMSSS, SHE-Inspire, Sports Scholarship etc.



# FEEDBACK (FROM STUDENTS)

## Gargi College Department of Zoology Students Feedback Form Academic Year 2018-2019

This form has been designed to seek feedback from you to strengthen the quality of teaching-learning environment and to improve the performance of the teachers. The information provided by you will be kept confidential.

Name of the Faculty Member: \_\_\_\_\_

Name of the Paper: \_\_\_\_\_

Course, Year and Semester: \_\_\_\_\_

1. Percentage of classes attended by you:	0-20	20-40	40-60	60-80	80-100
2. Standard of tests and assignments	High	Normal	Easy		
Comments (If, any)					

3. Has the Teacher covered entire Syllabus as prescribed by University?	Yes/No
4. Has the Teacher covered relevant topics beyond Syllabus?	Yes/No
5. Teacher helps student in providing study material which is not readily available in the text books say through e-resources, e-journals, reference books, open course wares etc.	Yes/No
6. Teacher helps students in realizing their strengths and developmental needs	Yes/No
7. The evaluation process is fair and unbiased.	Yes/No
8. Teacher listens and understands students' point of view	Yes/No
9. Teacher checks during class to see if students understand the material.	Yes/No

10. Teacher Evaluation in terms of					
a. REGULARITY How regular is your teacher in the class?					
Least/Seldom	1	2	3	4	5 Regular
b. PUNCTUALITY How punctual is the teacher in your class?					
Always Late	1	2	3	4	5 Punctual
c. CONTENT CLARITY How thorough is your teacher with the concepts and topics of this paper?					
Least Clarity	1	2	3	4	5 Complete Clarity

## Gargi College Department of Zoology Students Feedback Form Academic Year 2018-2019

This form has been designed to seek feedback from you to strengthen the quality of teaching-learning environment and to improve the performance of the teachers. The information provided by you will be kept confidential.

Name of the Faculty Member: Madhu Yashpal

Name of the Paper: Basics of Neuroscience

Course, Year and Semester: B.Sc. (H) Zoology (III Year) Semester VI

1. Percentage of classes attended by you:	0-20	20-40	40-60	60-80	80-100
2. Standard of tests and assignments	High	Normal	Easy		
Comments (If, any)					
3. Has the Teacher covered entire Syllabus as prescribed by University?	Yes/No	Yes			
4. Has the Teacher covered relevant topics beyond Syllabus?	Yes/No	Yes			
5. Teacher helps student in providing study material which is not readily available in the text books say through e-resources, e-journals, reference books, open course wares etc.	Yes/No	Yes			
6. Teacher helps students in realizing their strengths and developmental needs	Yes/No	Yes			
7. The evaluation process is fair and unbiased.	Yes/No	Yes			
8. Teacher listens and understands students' point of view	Yes/No	Yes			
9. Teacher checks during class to see if students understand the material.	Yes/No	Yes			
10. Teacher Evaluation in terms of					

a. REGULARITY How regular is your teacher in the class?					
Least/Seldom	1	2	3	4	5 Regular
b. PUNCTUALITY How punctual is the teacher in your class?					
Always Late	1	2	3	4	5 Punctual

c. CONTENT CLARITY How thorough is your teacher with the concepts and topics of this paper?					
Least Clarity	1	2	3	4	5 Complete Clarity

d. DISCIPLINE Is the teacher able to maintain discipline in the class?	Yes/No
e. KNOWLEDGE How knowledgeable is your teacher in general?	
Least	1 2 3 4 5 Well Informed
f. COMMUNICATION How well does the teacher communicate in the class?	
Least	1 2 3 4 5 Excellent

11. Overall learning environment created by the teacher
12. Your views and suggestions about the teacher or any other suggestions for improvement.
13. Any other suggestions/comments about the course/department:

Thank you!  
Please return this form to the concerned teacher

Your Name (optional): \_\_\_\_\_

d. DISCIPLINE Is the teacher able to maintain discipline in the class?	Yes/No	Yes
e. KNOWLEDGE How knowledgeable is your teacher in general?		
Least	1 2 3 4 5 Well Informed	
f. COMMUNICATION How well does the teacher communicate in the class?		
Least	1 2 3 4 5 Excellent	
1. Overall learning environment created by the teacher	<u>Uncongenial, Attractive, Interactive</u>	
2. Your views and suggestions about the teacher or any other suggestions for improvement.	<u>Need her suggestions for all the tests both academic and non-academic</u> <u>No suggestions for exam.</u> <u>Thank you so much mam</u>	
3. Any other suggestions/comments about the course/department:	<u>Want to stay in touch always</u>	
Thank you!		
Please return this form to the concerned teacher:		
Your Name (optional): _____		

## Gargi College Department of Zoology Students Feedback Form Academic Year 2018-2019

This form has been designed to seek feedback from you to strengthen the quality of teaching-learning environment and to improve the performance of the teachers. The information provided by you will be kept confidential.

Name of the Faculty Member: Radhika Shrivastava

Name of the Paper: Genetics

Course, Year and Semester: B.Sc. (H) Zoology (III Year) I & II Sem

1. Percentage of classes attended by you:	0-20	20-40	40-60	60-80	80-100
2. Standard of tests and assignments	High	Normal	Easy		
Comments (If, any)					
3. Has the Teacher covered entire Syllabus as prescribed by University?	Yes/No	Yes			
4. Has the Teacher covered relevant topics beyond Syllabus?	Yes/No	Yes			
5. Teacher helps student in providing study material which is not readily available in the text books say through e-resources, e-journals, reference books, open course wares etc.	Yes/No	Yes			
6. Teacher helps students in realizing their strengths and developmental needs	Yes/No	Yes			
7. The evaluation process is fair and unbiased.	Yes/No	Yes			
8. Teacher listens and understands students' point of view	Yes/No	Yes			
9. Teacher checks during class to see if students understand the material.	Yes/No	Yes			

10. Teacher Evaluation in terms of					
a. REGULARITY How regular is your teacher in the class?					
Least/Seldom	1	2	3	4	5 Regular
b. PUNCTUALITY How punctual is the teacher in your class?					
Always Late	1	2	3	4	5 Punctual
c. CONTENT CLARITY How thorough is your teacher with the concepts and topics of this paper?					
Least Clarity	1	2	3	4	5 Complete Clarity

## FEEDBACK FORM

Name of Teacher - Jasvinder Kaur

Course - B.Sc. (H) Zoology

Semester - III

Date of feedback - 16 Nov - 2018

Please rate the teacher on the following attributes using the 4-point scale

- A - Very Good  
B - Good  
C - Satisfactory  
D - Unsatisfactory

S.No.	Parameters	A	B	C	D
1.	Knowledge base of the teacher as perceived by you	✓			
2.	Communication Skills (in terms of articulation and comprehensibility)	✓			
3.	Sincerity / Commitment of the teacher	✓			
4.	Interest generated by the teacher	✓			
5.	Ability to integrate course material with environment/other issues, to provide a broader perspective			✓	
6.	Ability to integrate content with other courses			✓	
7.	Accessibility of the teacher in and out of the class (includes availability of the teacher to motivate further study and discussion outside class)			✓	
8.	Ability to design quizzes / Tests / assignments / examinations and projects to evaluate students understanding of the course	✓			
9.	Encourages and accepts different opinions	✓			
10.	Makes class interesting and meaningful to me.	✓			
11.	Is well prepared and organized	✓			
12.	Grades fairly and is unbiased	✓			
13.	Recognizes and acknowledges efforts.	✓			
14.	Manages class so I can learn with few disruptions.	✓			
15.	Encourages cooperation and participation.	✓			
16.	Enforces rules fairly and consistently	✓			
17.	Incorporates humor in lecture so lecture isn't very boring.	✓			
18.	Rate the teacher overall	✓			

Question. Please write below aspects of the teaching that have pleased you most and describe briefly why these aspects have pleased you.

Answer:  
The aspect that pleased me the most is her way of teaching and managing the flow in an excellent way. She conducts online and interactive presentations often so that it becomes interesting and easy to understand the topic.

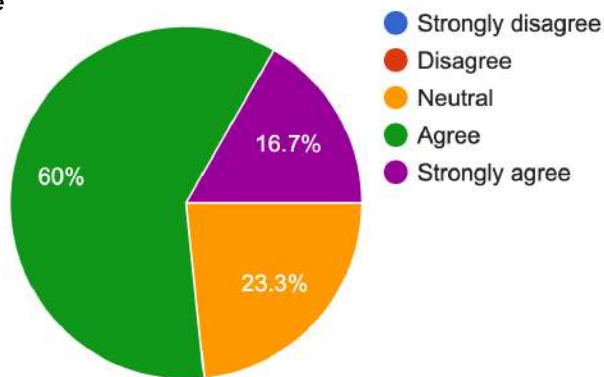
Any parameter missing in feedback form and you felt should have been included.

Any other comments  
She is very interactive in class like when she explains a topic, most the very next day she asks questions on that previous topic so in that way we also get prepared for the exam too.

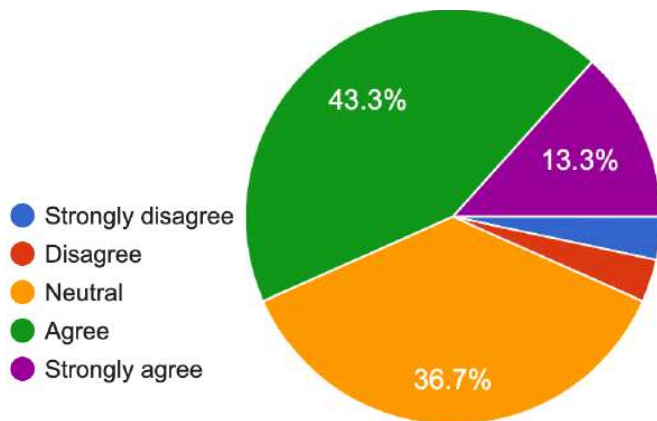


# FEEDBACK (FROM STUDENTS)

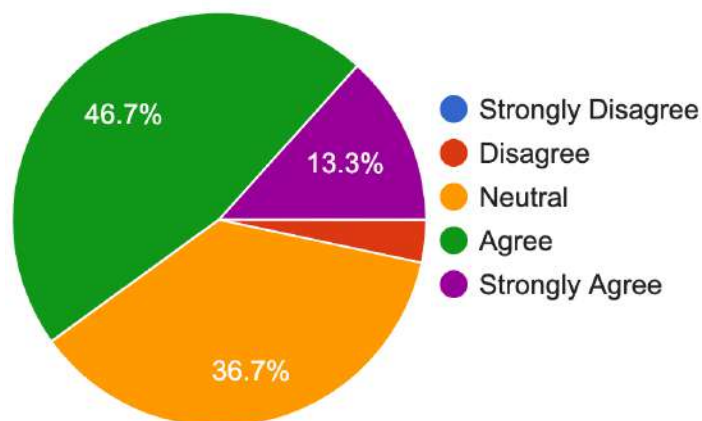
The syllabus is interesting and conveys to students a clear idea of the course content and the knowledge they will gain throughout the course



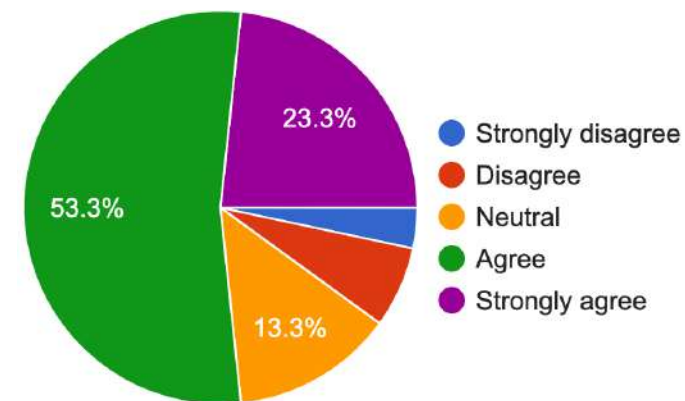
The discipline-specific electives offered are relevant to academic career advancements.



The allocation of the credits to the course is appropriate in relation to the level of course work.



The laboratory staff are having a clear understanding of their roles and responsibilities

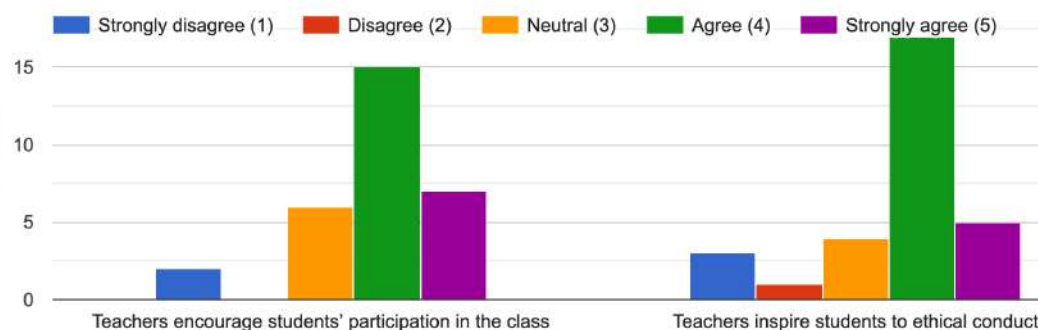


## SUGGESTIONS.....

**Publishing of at least one research paper during graduation should be made compulsory for students under mentors provided by the faculties only with proper guidance.**

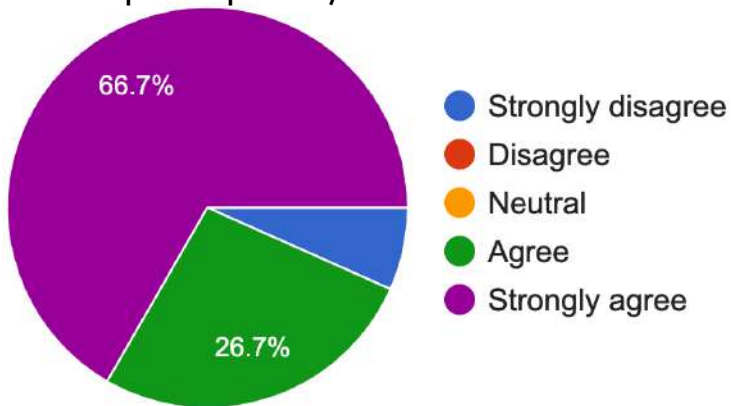
**Tests should not be taken only during the internal assessment but from the starting of the semester itself so that they don't feel suddenly burdened and become familiarised with the curriculum.**

### Your opinion in terms of CLASS INTERACTION:

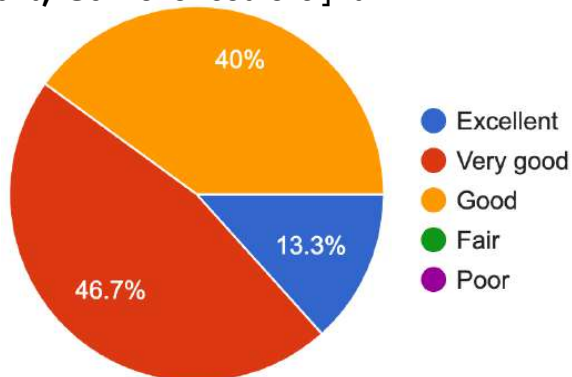


# FEEDBACK (FROM TEACHERS)

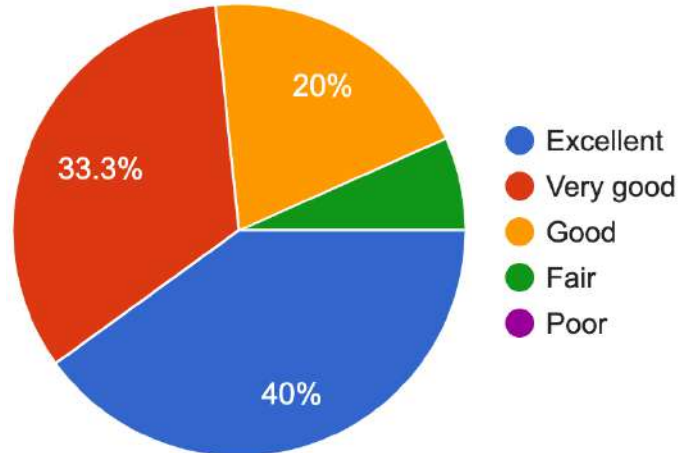
The teacher has the freedom to adopt new techniques/strategies of teaching (such as seminar presentations, group discussions and learners' participation).



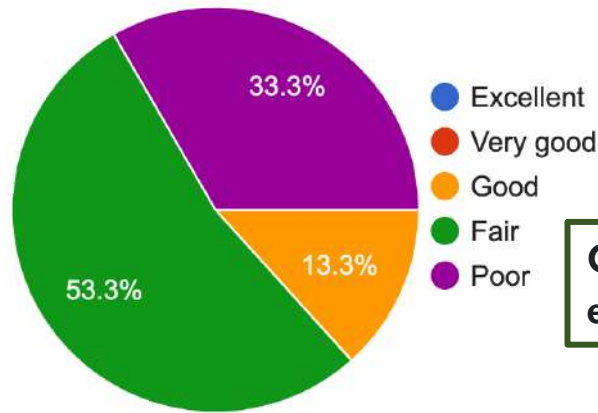
The support/resource provided by the department for teacher's development [like FDP, Workshop, Books, Conferences etc.] is



The content of the course is in terms of recent advancements.



The course/syllabus has a good balance between theory and application.



## SUGGESTIONS.....

**Interdisciplinary training programmes may be organised frequently for students because such collaborations help the evolution of ideas, develop critical thinking skills, heightens communication skills and provide more in-depth perspectives. Additionally, Alumni meet may be organised so that current students can expand their horizons by interacting with the department's alumni.**

**More industrial visits, lab visits and hand-on workshops to enhance students' skills and exposure**

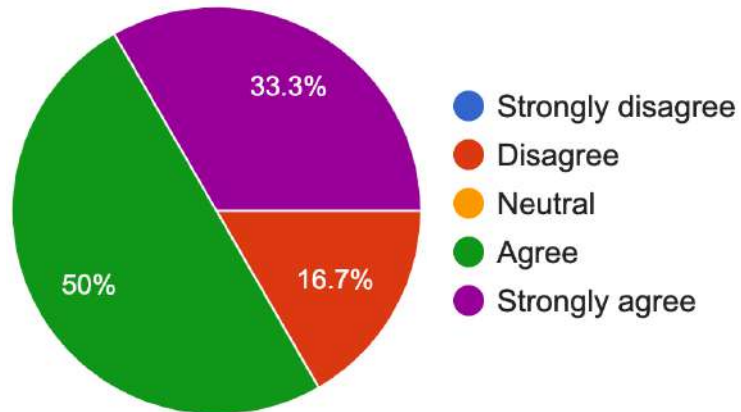
**More student-centric lecture series and workshop should be conducted**

**Can have more hands-on sessions for practical experience/applications of different papers**

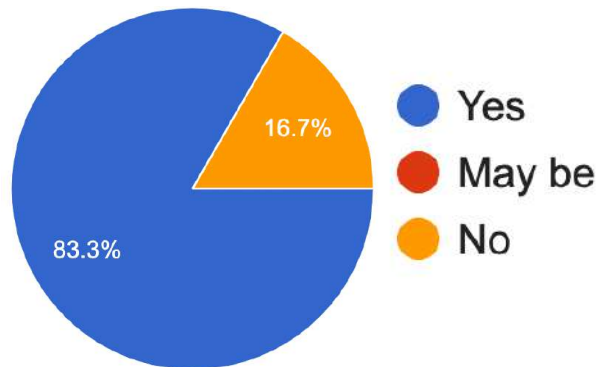


# FEEDBACK (FROM ALUMNI)

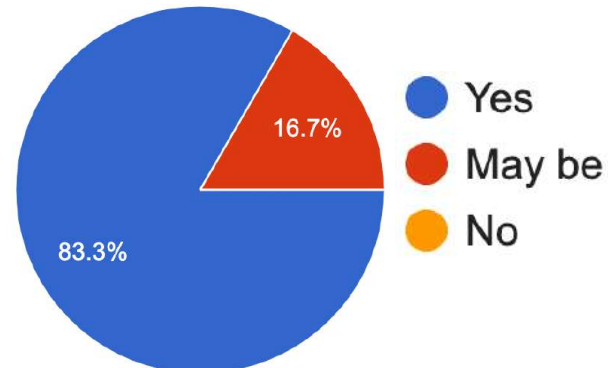
Department provides an effective platform to inculcate team spirit and a sense of belonging.



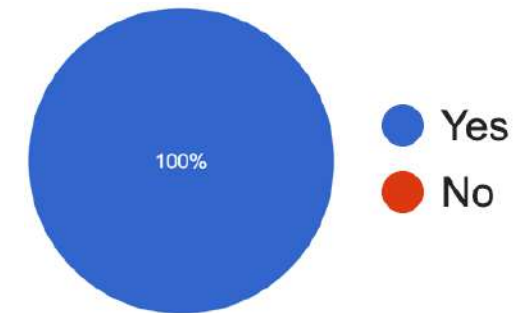
Do you think that department explored your talent & potential by providing an integrated learning environment



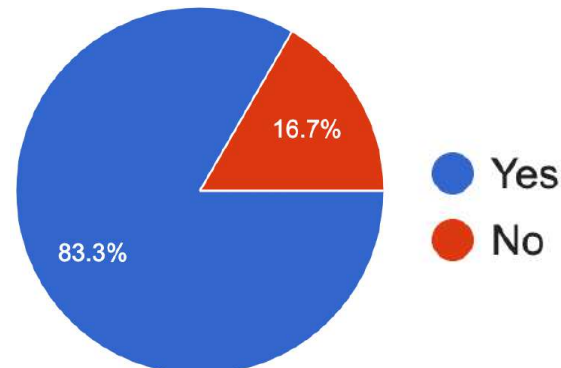
Have you obtained sufficient knowledge relevant to the course both in theory and in practicals at the Department?



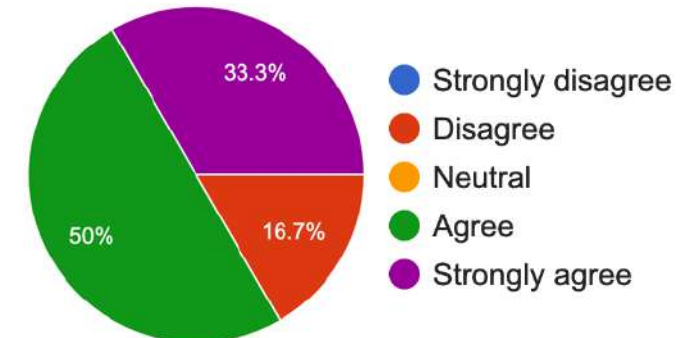
Do you feel that adequate knowledge/skill was gained during your course of study?



Has the college administration been helpful in case of educational dealings post your graduation? (Eg. in matters of issuance of documents etc.)

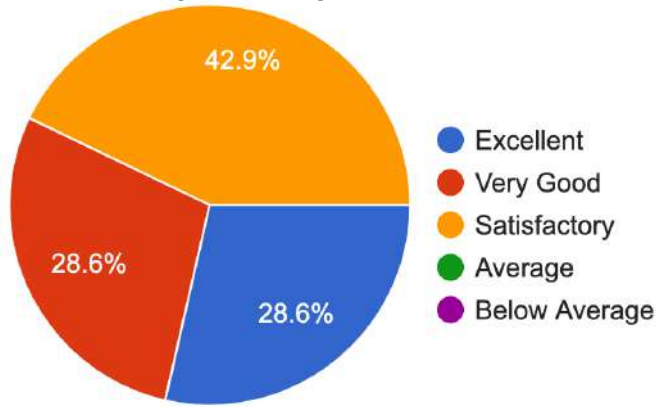


Department provides ample co-curricular opportunities for the holistic development of students.

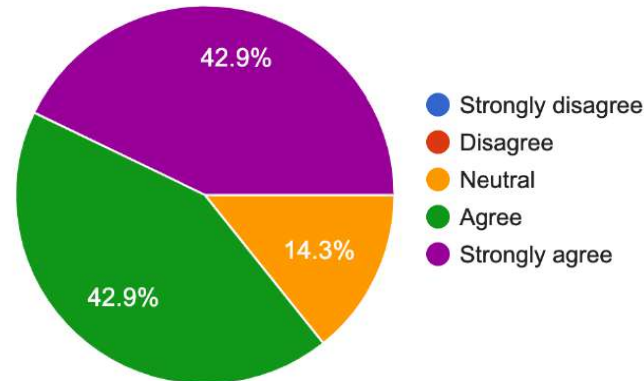


# FEEDBACK (FROM PARENTS)

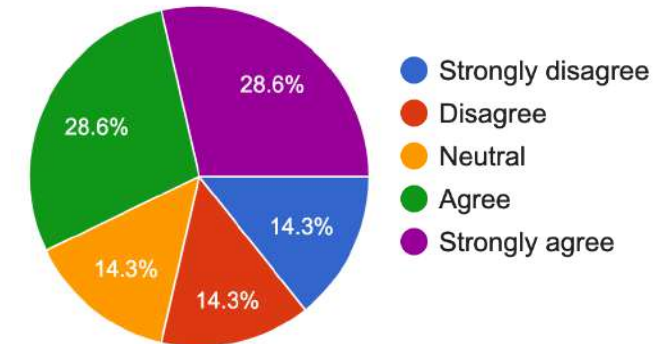
Do you think that the department's environment is conducive to the overall development of your ward?



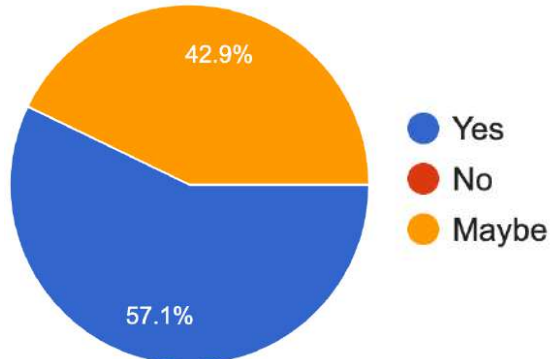
Are the faculty easily approachable regarding any queries?



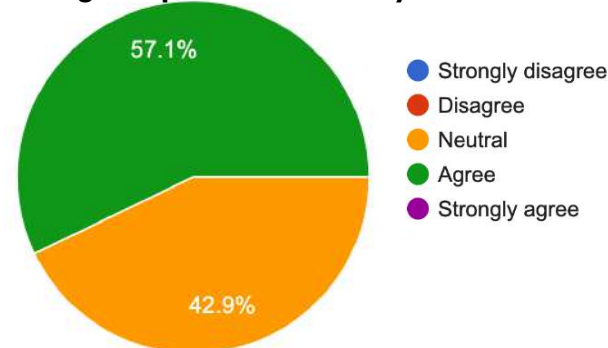
Is the environment of the department congenial for the students to discuss their problems?



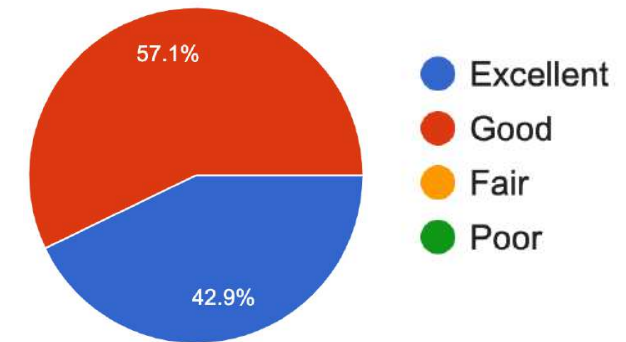
Is your ward given enough exposure as far as career orientation is concerned?



Are you satisfied with the communication (if any) at the department end regarding the regular performance of your ward?



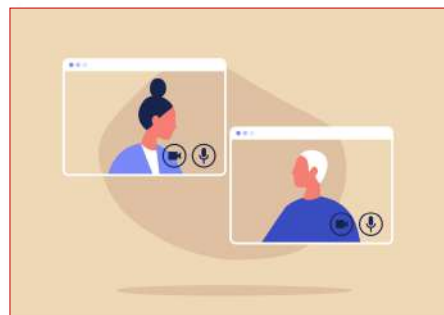
How would you rate the overall quality of academics in the department?





# DURING COVID19 PANDEMIC

**WE ADAPTED WELL TO THE LOCKDOWN!!!**



## MENTORING

Reached students to support them during the pandemic to help manage this crisis



## MOCK INTERVIEWS

Helped students toward career advancements

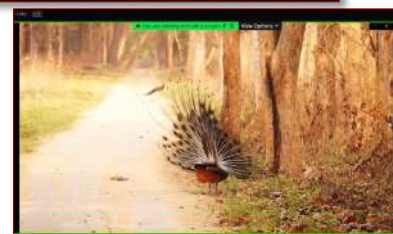
**MS PRIYANKA**

**Got Selected For Assistant Professor (Currently Posted at Raghunath Girls College Meerut)**



## ONLINE WEBINARS

hosted several virtual seminars to help students stay informed



## VIRTUAL FIELD VISITS

Technology helped us to explore Virtual Field Trips from the comfort of home



## DEPARTMENTAL ACTIVITIES

Teacher's Day, Freshers Welcome, Farewell, Student Union Election, Competitions and other events

# DURING COVID19 PANDEMIC

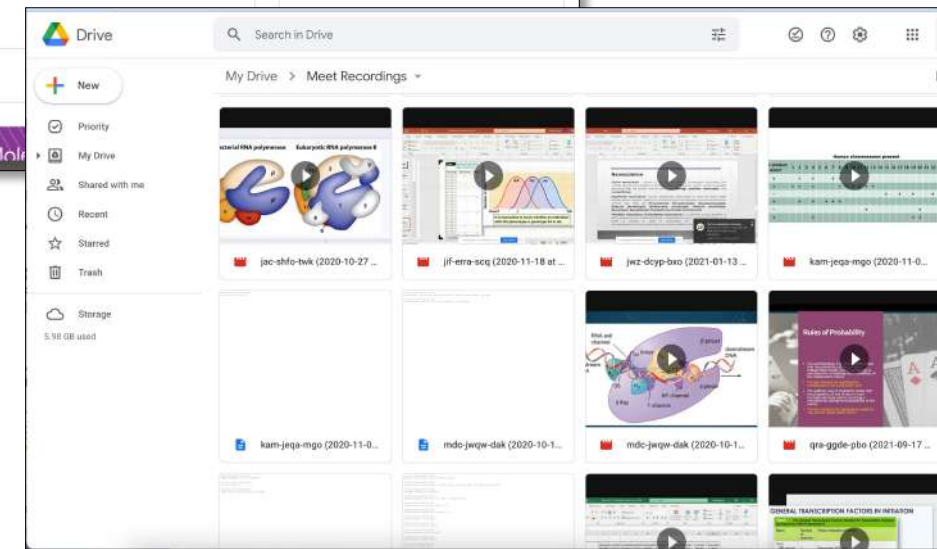
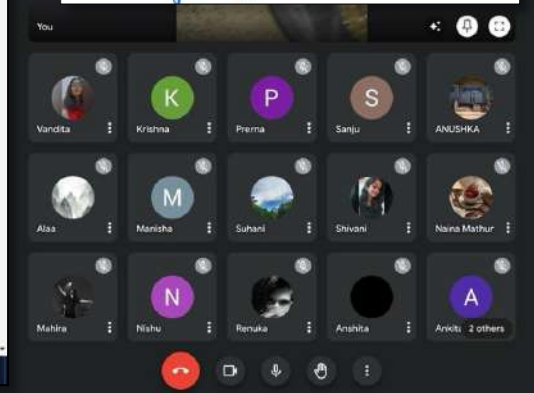
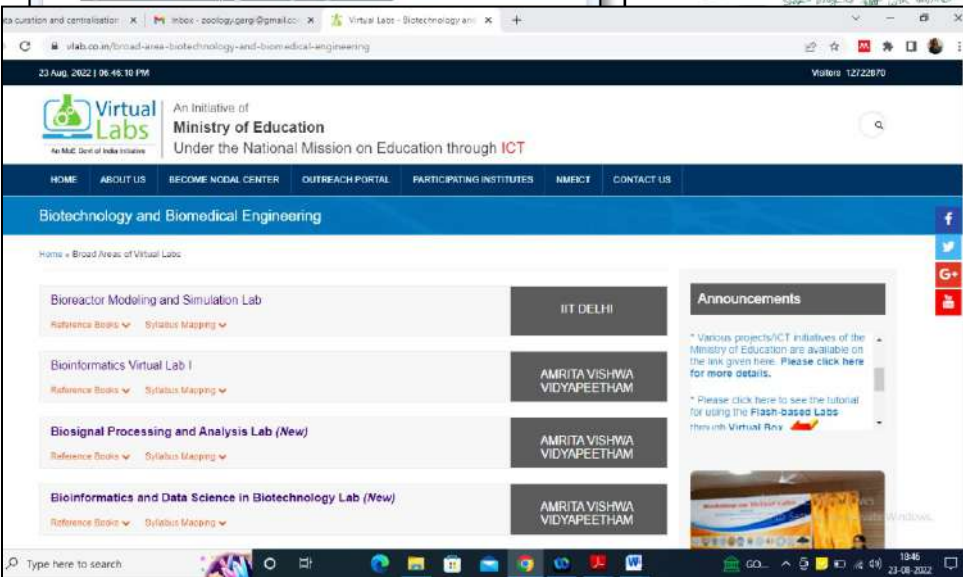
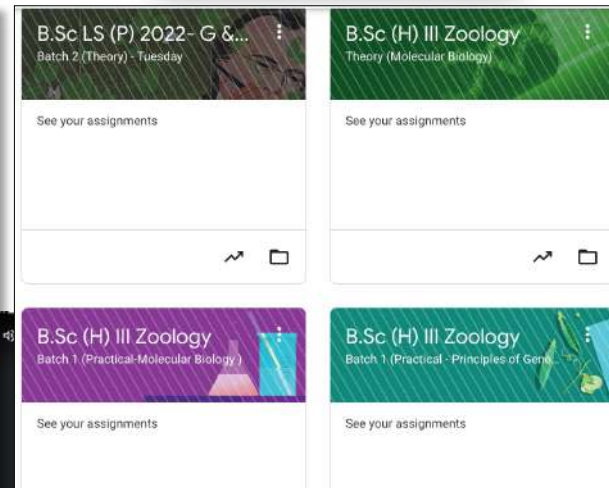
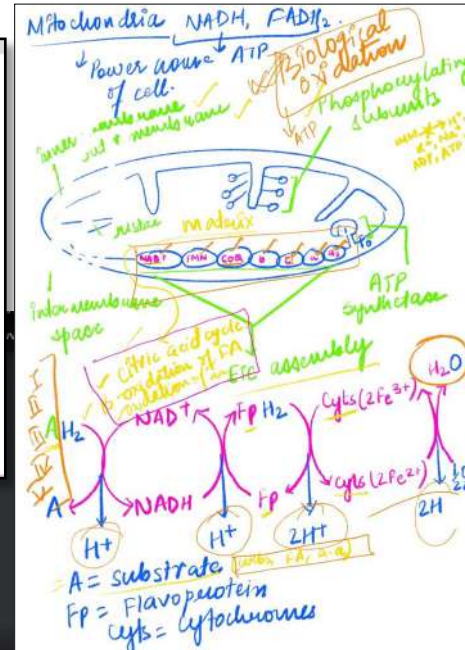
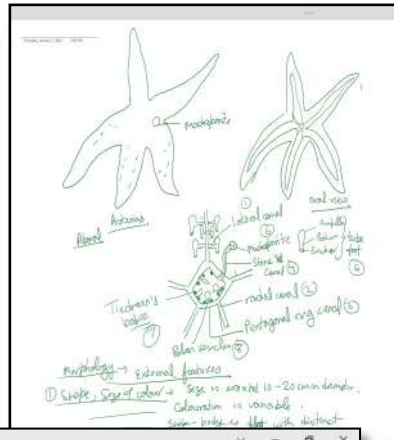
## TRANSITION FROM OFFLINE TO ONLINE MODE!





# DURING COVID19 PANDEMIC

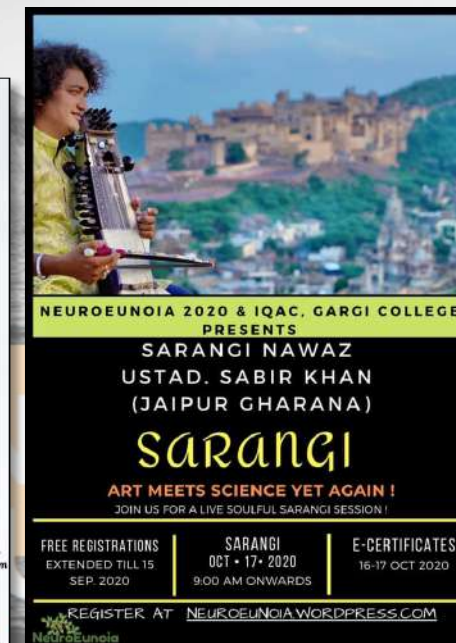
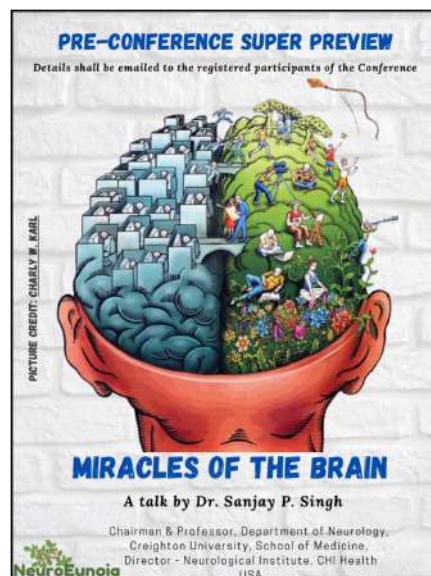
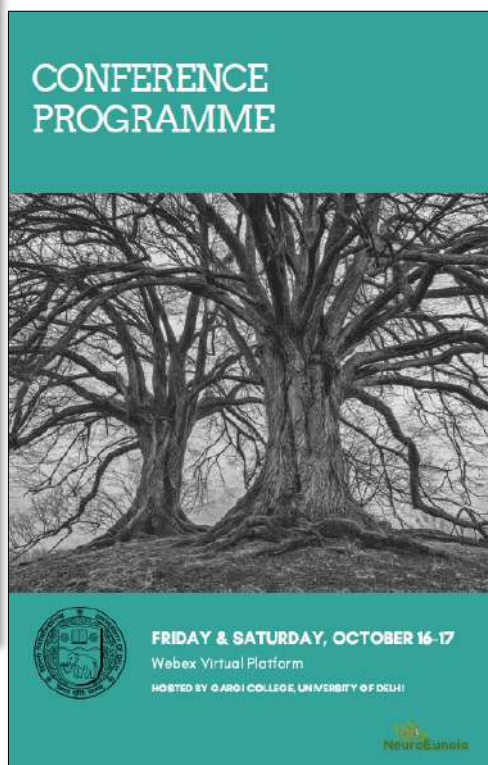
## TRANSITION FROM OFFLINE TO ONLINE MODE OF TEACHING!





# NeuroEunoia

## International Conference: **NEUROEUNOIA 2020: A Neuroscience Affair** (16-17 October 2020)



**Funded by:**

**Indian Academy of Neuroscience  
(Delhi Chapter)**

**Advertised by:**

**International Brain Research Organization**

**Registrations: 733**

**Attended by 250 Participants**

**Posters Presented: 63**

<https://neuroeunoia.wordpress.com/>

<https://www.youtube.com/channel/UCZDgKWO2UopkQRS-NFDGQ6g>

OCTOBER 2020



# 'WISE' Women in Science Event (February 11, 2021)



**INTERNATIONAL SYMPOSIUM ON INTERNATIONAL DAY FOR WOMEN AND GIRLS IN SCIENCE**



**GARGI COLLEGE**

**"WISE" Women in Science event !**

11 February 2021





**Gargi College**  
(in association with IQAC)  
UNIVERSITY OF DELHI

**ABOUT US !**

Gargi is named after Gargi Vachaknavi, an ancient Indian philosopher. In Vedic literature, she is honored as a great natural philosopher, renowned expounder of the Vedas, and known as Brahmavadini, a person with knowledge of Brahma Vidya !!

HERE'S A LOVING TRIBUTE TO GARGI !

**About WISE !**

The world's ground-breaking research is led by women scientists. Yet, despite their impressive findings, women still do not represent a good percentage of researchers worldwide, and their work seldom receives the recognition it deserves. However, we strive to see a world where girls are inspired to study science, and where women have sufficient resources to balance research and parental responsibilities, and where scientists are judged purely on the merit of their findings !





**THE TEAM**

**PATRON**  
DR. PROMILA KUMAR  
PRINCIPAL (Off.)  
GARGI COLLEGE

**CONVENER**  
DR. JASVINDER KAUR  
ASSISTANT PROFESSOR  
DEPARTMENT OF ZOOLOGY

**CO-CONVENERS**  
DR. SUPREETI DAS  
ASSOCIATE PROFESSOR  
DEPARTMENT OF PHYSICS  
DR. UDITA MUKHERJEE  
ASSISTANT PROFESSOR  
DEPARTMENT OF ZOOLOGY  
MS. SAILAJA MODEM  
(IQAC CONVENER)  
DEPARTMENT OF  
ELEMENTARY EDUCATION

**GET REGISTERED FOR FREE !**

<https://forms.gle/AmZi9zaWRCAsYHhUA>

**NO REGISTRATION FEE!**

**LAST DATE FOR REGISTRATION IS 08 FEBRUARY 2021**

**100% ATTENDANCE IS COMPULSORY FOR AVAILING THE CERTIFICATES !**

**Everything is theoretically impossible, until it is done!**

**Registrations: 300**  
**Attended by 150 Participants**

**PROGRAMME**

**KEYNOTE ADDRESS BY CHIEF-GUEST**

**DR. TESSY THOMAS**  
09:00 AM - 09:45 AM  
Distinguished Scientist & Director General - Aeronautical Systems (AS)  
Defence Research and Development Organisation  
"Agni Missile Project Director Agni-IV"

**INAUGURAL LECTURE BY GUEST-OF-HONOR**

**PROF. GURCHARAN KAUR**  
09:45 AM - 10:30 AM  
Professor | Department of Biotechnology  
Guru Nanak Dev University, Punjab



*A wise woman can predict the future, because she creates it !!*



**SCHEDULE**

**DR. SMITA GOPINATH**  
10:30 AM - 11:15 AM  
Assistant Professor | Department of Immunology and Infectious Disease  
Harvard T.H. Chan School of Public Health, United States

**DR. NEELIMA MISHRA**  
11:30 AM - 12:15 PM  
Scientist 'G' | Science and Engineering Research Board  
Assistant Professor (Reader F) | DBT/Wellcome Trust India Alliance Fellow  
National Centre for Biological Sciences (NCBS), Pune

**DR. DEEPA AGASHE**  
12:15 AM - 01:00 PM  
Assistant Professor (Reader F) | DBT/Wellcome Trust India Alliance Fellow  
National Centre for Biological Sciences (NCBS), Pune

**MS. ANU ACHARYA**  
01:30 PM - 02:15 PM  
CEO | mapmygenome India Limited

09:24 Thu 11 Feb

Webex | Dr.Tessy Thomas's desktop

SM AA AR A

sailaja modem (me) anuj.staom...comp (host) Dr.Tessy Thomas Adithi Rao Aditi

**MISSILE PROGRAMMES - DRDO**

**SURFACE TO AIR MISSILES**  
Quick Reaction Interceptors

**ANTI TANK MISSILES**  
Fire & Forget  
IR / Dual Mode Seekers

**ANTI BALLISTIC MISSILE DEFENCE**  
Endo & Exo Atmospheric Interception  
C<sub>3</sub> Terminal Guidance

**ASAT MISSION**

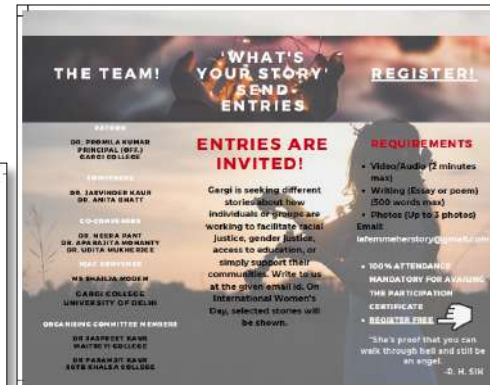
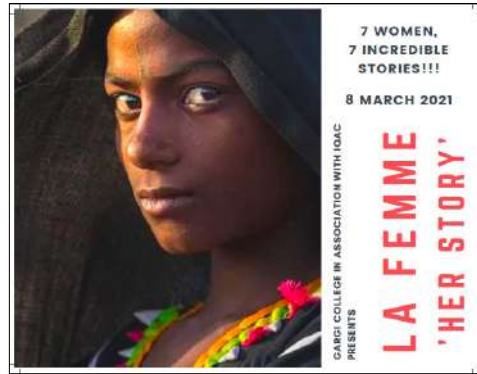
**AIR TO AIR MISSILES**  
Beyond Visual Range  
Short Range

**CRUISE MISSILES**

Start Video Share



# LA FEMME 'Her Story' Breaking Stereotypes (March 08, 2021)



Registrations: 300  
Attended by 150 Participants



# DURING COVID19 PANDEMIC

## FEEDBACK FROM STUDENTS

Department of Zoology, for me, was a way of **broadening my horizons in college**, academically as well as socially. Even though the world did stop for a while in the wake of the pandemic, our department's constant efforts kept us motivated. ~Mugdha Sharma (Batch 2023)

Teachers provide ample guidance and moral support in terms of sharing different resources, both academic and co-curricular. Teachers were very **understanding and acknowledged the mental health issues that we were facing during covid**. ~Aarti Venkatesan (Batch 2023)

The **use of various technology such as digital white boards, animations, videos, presentations, sharing PDFs, etc.** by the teachers made online classes not only resemble in-person teachings but also aided in our understanding and grasping the complex concepts involved in the study of biology at the graduate level. ~ Sakshi Jha (Batch 2024)

Teachers were a great support in Covid-19, and they were the ones who left no stone unturned to give their 100% in terms of teaching and constant guidance. Our teachers did each and every effort to make a **conducive atmosphere of studying for the students in the online mode**, be it by showing presentations and videos. ~Janvi (Batch 2023)

Being in a circle where your peers also possess great skills and abilities definitely helps you to find your best skill among all. I am really thankful to our respected teachers who managed to **always help us during the pandemic** and are now being even more supportive of a better future for us. ~Akriti Sharma (Batch 2023)

The teachers were **extremely helpful and flexible during the covid times** and understood that everyone needs time to cope with the matter and they tried their best to transfer their knowledge to us virtually. I am just perfectly happy with my department. ~Tanisha (Batch 2021)

During covid, we could not go to physical classes and online class helped a lot in studies. Teachers are very nice and it's never exhausting. They illustrate the examples through videos, pictures, etc. even though in online class it's hard to sit for straight 6 hours in front of a screen. Teachers provide us with a window of 10 minutes to relax. ~Nikki Yadav (Batch 2024)

Covid took a toll on all of us, but our wonderful teachers **made the transition much easier**. We were allowed to view specimens through pictures as they are in the actual lab, and we were taught very well through a variety of various sources. ~Anika (Batch 2024)

# NEP COMPLIANCE/PREPAREDNESS

## INTERDISCIPLINARY TEACHING-LEARNING

WeGyanam  
Student research-  
centric platform

## SKILL-BASED CURRICULUM

Promote skill-based  
education & minimize  
rote-based learning e.g.,  
Add-on Courses,  
Certificate Programs

## TECHNOLOGY USE & INTEGRATION

Enhance and Support  
Teaching-Learning (e.g.  
Blended Classrooms)

## LEARNING MANAGEMENT SYSTEM

Promote online  
collaborative  
groupings/discussions &  
provide different courses

## RESEARCH

Promote Undergraduate  
Research





## Weज्ञानम्: The Research Wing of Scintillation



### Purpose

Bring students of science from all disciplines to work towards the development of scientific temperament.



### Vision

Create a platform for encouraging scientific rigor and inculcating a sense of curiosity towards it.



### Approach

An interdisciplinary approach that brings together students and teachers from different scientific fields to work towards one common aim, the enrichment of science.



**Founding Members:** Ms Divyanshi Chauha, Ms Smriti Verma, Ms Aarti Venkatesan, Ms Bisma Khan



## Inaugural

The inaugural lecture by  
Prof. Parvesh Bubber on  
“Overview of the Biotech Industry”

Certificate of Appreciation

Is presented to

**GARGI COLLEGE, UNIVERSITY OF DELHI**

For participating in the "MANAV Scientific Reading and Comprehension Self-Assessment Module (for students)", conducted by Project MANAV – The Human Atlas Initiative in September to October 2021.

The students from your College read and critically evaluated two scientific papers from peer reviewed journals from the field of *Microbiology/ Biochemistry / Pharmacy*.

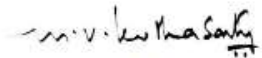
They were able to self assess their skills in scientific comprehension of

1. Research Design
2. Pictorial/Graphical Representation of Data
3. Statistical Analyses
4. Scientific text- Inference and Conclusion

This activity helped students take a step ahead towards honing their scientific temper, critical thinking skills and overall academic excellence .

We appreciate your efforts towards the facilitation of this program and look forward to your continued engagement with Project MANAV.

Best wishes,



**Prof M. V. Krishna Sastry**  
Project Co-Ordinator &  
Principal Investigator,  
Scientist G, NCCS, Pune



**Dr. Nagaraj Balasubramanian**  
Principal Investigator,  
Associate Professor,  
IISER, Pune



**Dr. Anamika Krishanpal**  
Principal Investigator,  
Senior Domain Specialist,  
Persistent LABS, Pune

**INTERDISCIPLINARY TEACHING-LEARNING**



***“Manav”***

**A Human Atlas Initiative Programme (DBT)**

**Aim: To create a unified database of a molecular network of all the tissues in the human body and to derive a holistic picture of the working of the human body.**

**Under Faculty Coordinator, Dr Poonam Sharma, more than 100 Science students from different disciplines (Botany, Microbiology, Life Sciences, and Zoology) of Gargi College participated in the "MANAV Scientific Reading and Comprehension Self-Assessment Module".**

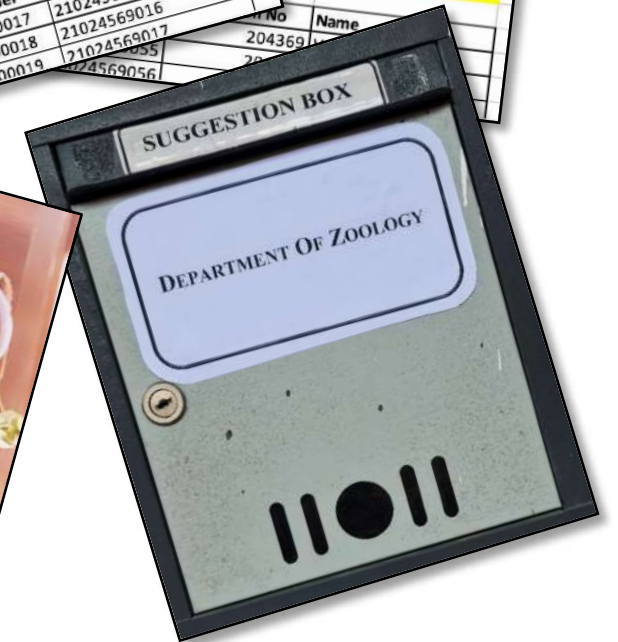


# BEST PRACTICES

**Suggestion Box for  
Students, Teachers  
and Laboratory  
Staff**

**Student Mentoring  
and Support  
(Additional to  
Mentorship  
Program at  
College level)**

**Teacher's Plant  
Exchange Club**



10) Dr. Chaitali Ghosh			Zoology (H) 3rd yr		
Sr No	Examination Roll No	College Roll No	Name	College Roll No	Name
1	20024569011	204315	Garima Singh	204301	Aarti Venkatesan
2	20024569012	204316	Gunjan	204302	Aarushie Chatterjee
3	20024569013	204317	Harish Rani	204303	Aditi kherwal
4	20024569062	204318	Harpita	204304	Afreen Bano
5	20024569063	204319	himani	204305	Akriti Maurya
6	20024569014	204320	Janvi Aggarwal	204306	Akriti sharma
7	20024569015	204321	JYOTI	204307	Ankita

11) Dr. Madhu Yashpal			Zoology (H) 3rd yr		
Sr No	Examination Roll No	College Roll No	Name	College Roll No	Name
1	20024569027	204338	Ningsal Katoch	204308	Anushka Singh
2	20024569028	204339	Nisha Yadav	204309	BHOOMI SINGH
3	20024569029	204340	Payal Kashotia	204310	Bisma Khan
4	20024569030	204342	Preet Parihar	204311	Deepti Arora
5	20024569031	204344	Ridam Yadav	204312	DIKSHA MISHRA
6	20024569032	204345	Ritika	204313	Divya Dhama
7	20024569033	204346	Ruchi Jha	204314	Divyanshi Chauhan

12) Dr. Kuntal			Enrolment Number		
Name	Enrolment Number	Exam Roll Number	Name	Enrolment Number	Exam Roll Number
AYANAN	21GRGIBS20000017	21024569015	204369		
	21GRGIBS20000018	21024569016			
	21GRGIBS20000019	21024569017			
		21024569018			
		21024569019			
		21024569020			
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		21024569100			



- Dedicated & highly qualified faculty integrate experiential and innovative methodologies in the teaching-learning process.
- Museum – **more than 411 specimens; 300 Slides**
- Library – **50 Books**
- **Albatross – the Zoological Society** provides a platform for the students to hone their creative talents.
- **Annual Magazine 'Flight'** - a platform for students to showcase their talent as writers and express themselves in a conglomeration.
- Encourage **undergraduate research** by encouraging participation in **Add-on Courses**, lecture series and hands-on workshops.



- Restricted space for laboratory and research work.
- Inadequate research funding. Develop more grant proposals and increase/establish funds available for research activities.



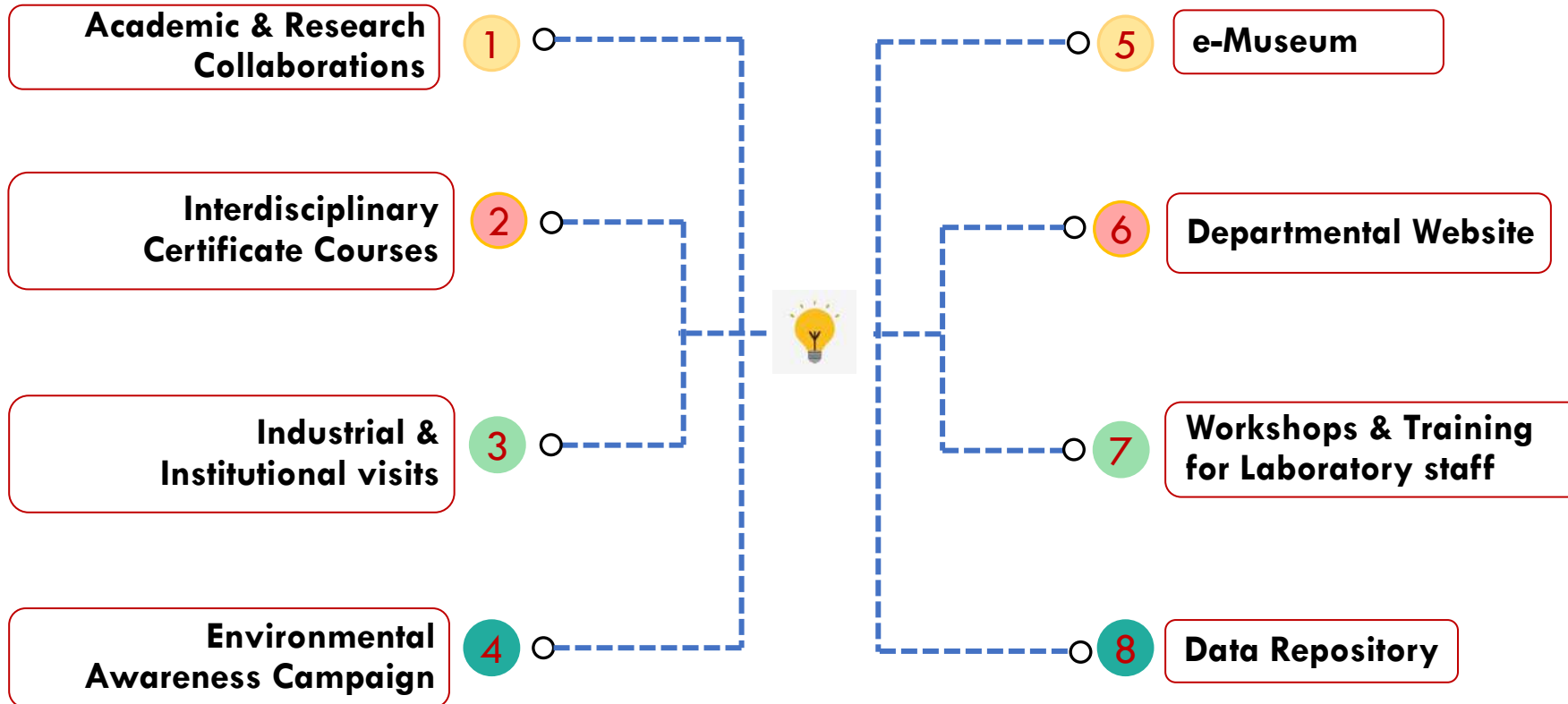
- **Strengthening alumni interactions** to provide mentorship and career guidance to our students.
- Introduce **new skill-based and vocational certificate courses**, along with the academic courses that would empower students.
- Explore more opportunities to **establish collaborations** with other departments in college/Research Institutes/Universities in keeping with the spirit of the NEP 2020.



- Undergraduate programmes generally involve intensive teaching. But, with the current stress on research, teachers and students find it challenging to assert the right balance between the two.



# FUTURE PLANS





**THANK YOU**