

Goa University

Microbiology Discipline

School of Biological Sciences and Biotechnology

Report on “Field Trip to industries/institutions across India (Gujarat) M.Sc. Microbiology students”

1. Title of the Event/Activity/program	MIC 633 Field Trip to Industries/Institutes across India (Gujarat)
2. Date and Time	04/10/2025 to 11/10/2025
3. Mode of conduct (Physical/Online)	Physical (Offline)
4. School/ Directorate/ Section	Microbiology Discipline, School of Biological Sciences and Biotechnology
5. Collaborating Agency/School/Directorate	<ol style="list-style-type: none">1. Entrepreneurship Development Institute of India (EDII), Gandhinagar2. Institute of Advanced Research (IAR), Gandhinagar3. Gujarat Biotechnology Research Centre (GBRC), Gandhinagar4. FRIGE's Institute of Human Genetics (Foundation for Research in Human Genetics & Endocrinology), Ahmedabad5. Amul dairy cooperative society, Anand6. Amul Chocolate Plant, Mogar7. Aaragoya Van, Kevadia8. REVY Environmental Solutions Pvt. Ltd., Vadodara9. Savli Technology & Business Incubator, Vadodara10. Dr Vikram Sarabhai Institute of Cell and Molecular Biology, Maharaja Sayajirao University of Baroda, Vadodara
6. Detail of the Resource Person (Brief biodata)	NA
7. Number of Faculty attended/participated	02 (Dr. Lakshangy Charya & Dr. Bhakti Salgaonkar, Faculty from Microbiology Discipline, SBSB)
8. Number of Student attended / participated	18 (M.Sc. Microbiology, Part 2 Semester III Students)
9. No. of external students/faculty/other	01 (Mr. Surendra Velip, non-teaching staff from Microbiology Discipline, SBSB)

participants	
10. The objectives of the Program/activity/event	<ol style="list-style-type: none"> 1. To provide experiential learning through visits to research institutes, industries, startups, and bio-incubators across India. 2. To bridge theory and practice by showcasing real-world applications of microbiology and biotechnology in research, industry, and environmental sectors. 3. To promote innovation and entrepreneurship by exposing students to startup ecosystems, incubation centers, and industry–academia collaborations. 4. To familiarize students with industrial processes and quality systems followed in biotech, dairy, and environmental industries. 5. To align with the National Education Policy (NEP) by fostering multidisciplinary exposure, skill development, and career readiness.
11. Description of the Program/activity/event	<p>Eighteen students from the M.Sc. Microbiology programme, School of Biological Sciences and Biotechnology (SBSB), Goa University, undertook an academic field trip to Gujarat from 04/10/2025 to 11/10/2025 as part of the course MIC 633, “Field Trip to Industries/Institutes across India.” The group was accompanied by Dr. Lakshangy Charya and Dr. Bhakti Salgaonkar, along with non-teaching staff member Mr. Surendra Velip.</p> <p>Following are the institutes/industries visited:</p> <ol style="list-style-type: none"> 1) Entrepreneurship Development Institute of India (EDII) 2) Institute of Advanced Research (IAR) 3) Gujarat Biotechnology Research Centre (GBRC) 4) FRIGE's Institute of Human Genetics 5) Amul dairy cooperative society 6) Amul Chocolate Plant 7) Aaragoya Van, Kevadia 8) REVY Environmental Solutions Pvt. Ltd. 9) Savli Technology & Business Incubator 10) Dr Vikram Sarabhai Institute of Cell and Molecular Biology, Maharaja Sayajirao University of Baroda <p>The visit provided exposure to premier institutions and industries, including the EDII and IAR, where students learned about research innovation and academic entrepreneurship. At the GBRC and FRIGE's Institute of Human Genetics, they gained insights into advanced molecular research and genetic diagnostics.</p> <p>Industrial visits to Amul Dairy Cooperative Society and the Amul Chocolate Plant highlighted large-scale dairy processing and quality control practices. Students also explored sustainability initiatives at Aaragoya Van and environmental technologies at REVY Environmental Solutions Pvt. Ltd. The visit to Savli Technology & Business Incubator and Dr Vikram Sarabhai Institute of Cell and Molecular Biology further enriched students’ understanding of translational research and industry–academia collaboration.</p> <p>Overall, the field trip offered valuable practical exposure, bridging theoretical knowledge with real-world applications in microbiology and</p>

	biotechnology.
12. Benefit/Key outcomes of the Program/activity/event	<ol style="list-style-type: none"> 1. Enhanced Practical Exposure: Students gained first-hand understanding of industrial processes, laboratory practices, quality control systems, and large-scale biotechnology applications beyond classroom learning. 2. Insight into Research & Innovation: Visits to premier research institutes helped students understand advanced techniques in molecular biology, genetics, biotechnology, and translational research. 3. Industry–Academia Interface: Interaction with scientists, entrepreneurs, and industry professionals provided clarity on how academic knowledge is translated into commercial and societal applications. 4. Entrepreneurial Awareness: Exposure to incubation centres and entrepreneurship institutes broadened students’ perspectives on start-ups, innovation management, and career opportunities in biotech enterprises. 5. Understanding of Environmental & Sustainability Practices: Visits to environmental solution companies and sustainability initiatives highlighted the role of microbiology in waste management, environmental protection, and sustainable development. 6. Career Orientation & Networking: The field trip enabled students to explore higher studies, research internships, and industry career pathways while building professional connections with experts in the field.
13. Enclosures with report	<ol style="list-style-type: none"> 1. Geo-tag photos 2. Attendance of students



Visit to *Bt* Cotton Fields in Gujarat



***Bt* Cotton Fields in Gujarat**



The Entrepreneurship Development Institute of India (EDII) at Gandhinagar, Gujarat



Dr. Etinder Pal Singh delivered a session on “Fostering Entrepreneurial Mindsets,”



Dr. Amit Kumar Dwivedi briefed on the EDII Goa Centre, launched on 12 March 2024 to support skill development, and innovation-led entrepreneurship in Goa



Institute of Advanced Research (IAR), University for Innovation, Gandhinagar, Gujarat



Dr. Paritosh Parmar briefing regarding Key Research Areas, in Plant Biotechnology, Plasma Research, Neurodegenerative Diseases, Cancer Research, Sensor Development



Lab-Scale Bioreactor



Gujarat Biotechnology Research Centre (GBRC) Gandhinagar, Gujarat



Gandhinagar, Gujarat, India
 89x+HhY Gandhinagar, Maha Nagar Palika Block-a,b,c, Sector 11,
 Gandhinagar, Gujarat 382010, India
 Lat 23.219064° Long 72.643964°
 06/10/2023, 06:09 PM GMT +05:30

**GBCR is A Leading Centre For Genomics,
 Bioinformatics, Molecular Diagnostics, And
 Industrial Biotechnology**



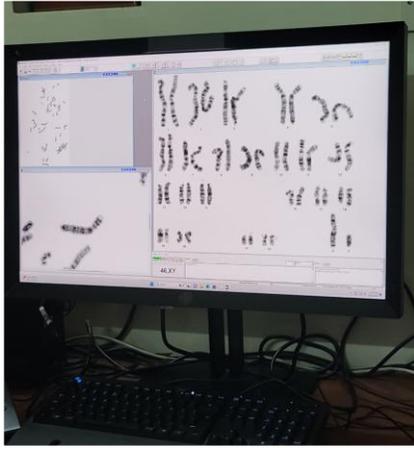
Gandhinagar, Gujarat, India
 Gandhi Nagar Road, Sector 11, Gandhinagar,
 Gujarat 382010, India
 Lat 23.219219, Long 72.643503
 10/06/2023 05:21 PM GMT+05:30
 Note - Captured by GPS Map Camera

**Plant
 tissue
 culture at
 GBCR**



**FRIGE's (Foundation for Research in Human Genetics & Endocrinology) Institute of Human Genetics,
 Ahmedabad Gujarat.**

**Dr. Harshit Sheth explained applications in detecting COVID-19 (RT-PCR), cancer, neurodegenerative
 diseases (Alzheimer's, Parkinson's), and chromosomal disorders like Down's syndrome. FRIGE was
 Gujarat's first cytogenetics lab and is known for its FISH probe design expertise in detection of
 chromosomal abnormalities**



Cytogenetics Lab: Karyotyping Analysis



Microarray



Amul Dairy Unit – Kaira District Cooperative Milk Producers Union Ltd



Ms. Dipti Shukla explained Amul's history, operations, and production processes.



Students enjoying Amul Products



Amul Chocolate plant, Mogar



Arogya Van, Kevadia



Students visited Arogya Van to learn about the importance of medicinal plants and their role in promoting health and wellness



Aushadh Manav is a large 3D human body model in a resting posture, with walkways representing veins and arteries



REVY Environmental Solutions Pvt. Ltd, Vadodara



Dr. Vanita Prasad shared insights on the global textile waste crisis, noting that the fashion industry is among the largest environmental polluters



Discussed research on lignocellulosic biomass for enzyme and bioenergy production and emphasized the severe impact of industrial waste on soil and vegetation



Savli Technology and business Incubator (STBI)



STBI has played a major role in nurturing innovation and strengthening the technology-based start-up ecosystem



scaling up biotech and life science processes, this area houses fermenters (2L to 100L),



Vikram Sarabhai Institute of Cell & Molecular Biology: Maharaja Sayajirao University



A demonstration highlighted confocal microscopy's use in biological research. It employs a laser and scanners for high-resolution imaging

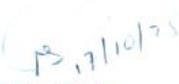
Batch 2024-2026
Field Trip to Cryanant

SCHOOL Biological Sciences & Biotechnology		GOA UNIVERSITY											Programme Name: M.Sc. Microbiology Part II		
COURSES MIC 633 Field Trip to Industries/Institutes		ATTENDANCE SHEET											Academic Year 2025-2026		
(Code)		(Title) Acad. India 03											Semester III		
Teacher's Name Dr. Lakshangy Charya X Dr. Bhakti Salgaonkar & Mr. Surendra Velip (Non-Teaching Staff)		Total number of lectures delivered by the teacher during the Semester													
Date of Lectures	Time of Lectures	No. of lectures delivered	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	Total	Remarks
24PO420001	Ranay Vikrant Shahapurkar														
24PO420002	Akanksha Harwanant Napsakar														
24PO420003	Ana Melyn Fernandes														
24PO420004	Ankita Kalangutrai														
24PO420005	Abhishek Purohit														
24PO420007	Chitra Bedavanna														
24PO420009	Gowri M. Baidarkar														
24PO420010	Kamnika Pare														
24PO420012	KOMAL Phadke														
24PO420013	KSHITI KUMAR														
24PO420014	Om Naik														
24PO420016	Riya Saxena Jayas														
24PO420017	Rishabh Naik														
24PO420019	Sanskriti Jha Bhargava														
24PO420020	Bharvati A. Naik														
24PO420021	Shrishti Singh														
24PO420023	Tanya Bhagat Amrikar														
24PO420025	Walisha Carmel Silveira														

Attendance of the students

Signature: 
 Name of Coordinator: Dr. Lakshangy Charya
 Designation: Assistant Professor
 Discipline/ School: Microbiology, SBSB
 Date: 17th October, 2025

Coordinator: Dr. Bhakti Salgaonkar
 Designation: Assistant Professor
 Discipline/ School: Microbiology, SBSB
 Microbiology Programme
 School of Biological Sciences & Biotechnology
 Goa University, Science Block E,
 Taleigao Plateau, Goa - 403206

Signature: 
 Name of Prog. Director: Dr. Milind Naik
 Designation: Assistant Professor
 Discipline/ School: Microbiology, SBSB

Name of Dean: Prof. S. Krishnan
 Designation: Senior Professor & Dean
 Discipline/ School: SBSB



Dean of School of Biological Sciences & Biotechnology
 Goa University, Goa - 403206