### DEPARTMENT OF MICROBIOLOGY

### Training programes- Attended by Faculty(2022-23)

Name of the faculty	Details of the course	<b>Duration of the course</b>	Institute/organization
Dr T. Chaitanya	Three day hands on national workshop on gene cloning	24 <sup>th</sup> to 26th April, 2023	Dept of Microbiology, Nizam college
Dr K. Anuradha	Fermentation-interplay of microbes, immunity and nutrition	3 <sup>rd</sup> and 4 <sup>th</sup> February, 2023	Dept of rural development and Agricultural production, RDAP
Dr Y. Aparna	National Credit Frame work:Credit Transfer policy	10 <sup>th</sup> February, 2023	Institution of Eminence and Human resource development center
Dr Deepak Raj	Research based pedagogical tools in life sciences	6 <sup>th</sup> to 8 <sup>th</sup> February, 2023	Dept of Microbiology, O.U
Dr Mahalakshmi	Research based pedagogical tools in life sciences	6 <sup>th</sup> to 8 <sup>th</sup> February, 2023	Dept of Microbiology, O.U
Dr Shalini Devi	"Structural Biology" NPTEL course	January to April, 2023	NPTEL-AICTE
Dr Y Aparna	Academic leadership and management in higher education in a globalised economic era	2 <sup>nd</sup> to 4 <sup>th</sup> March, 2023	Dept of commerce and business management, University college of arts and science, Krishna university

	29th April to 5th May, 2023	G 1 15 11
MOOCs and e-Content development	29 April to 5 Way, 2025	Guru Angad Dev teaching learning center, university of Delhi
MOOCs and e-Content development	29th April to 5th May, 2023	Guru Angad Dev teaching learning center, university of Delhi
MOOCs and e-Content development	29 <sup>th</sup> April to 5 <sup>th</sup> May, 2023	Guru Angad Dev teaching learning center, university of Delhi
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MOOCs and e-Content development	29 <sup>th</sup> April to 5 <sup>th</sup> May, 2023	Guru Angad Dev teaching learning center, university of Delhi
Online refresher course in lifescience	15 <sup>th</sup> to 28 <sup>th</sup> November, 2022	UGC- HRDC, OU, Hyd
Online refresher course in lifescience	15 <sup>th</sup> to 28 <sup>th</sup> November, 2022	UGC- HRDC, OU, Hyd
Mentoring pedagogy and class room delivery enhancement techniques	3 <sup>rd</sup> to 10 <sup>th</sup> August, 2022	IIT Guwahati
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	MOOCs and e-Content development  MOOCs and e-Content development  MOOCs and e-Content development  MOOCs and e-Content development  Online refresher course in lifescience Online refresher course in lifescience Mentoring pedagogy and class room delivery enhancement techniques Mentoring pedagogy and class room delivery enhancement	MOOCs and e-Content development  29th April to 5th May, 2023  MOOCs and e-Content development  29th April to 5th May, 2023  MOOCs and e-Content development  29th April to 5th May, 2023  MOOCs and e-Content development  29th April to 5th May, 2023  MOOCs and e-Content development  Online refresher course in lifescience  Online refresher course in lifescience  Mentoring pedagogy and class room delivery enhancement techniques  Mentoring pedagogy and class room delivery enhancement  3rd to 10th August, 2022  3rd to 10th August, 2022

Dr Shalini Devi	Mentoring pedagogy and class room delivery enhancement techniques	3 <sup>rd</sup> to 10 <sup>th</sup> August, 2022	IIT Guwahati
Dr Y Aparna	4th national level workshop on NIRF India rankings 2023	21st December, 2022	Bhavans Vivekananda College of Science, Humanities and Commerce, Sainikpuri, Hyderabad.
Dr Y Aparna	National intellectual property awareness mission	15 <sup>th</sup> December, 2022	Intellectual property office, India
Dr Deepak Raj	Applications of fermentation technology	29 <sup>th</sup> November, 2022	Dept. of Microbiology, St. Francis College

### Training programes- Attended by Faculty (2023-24)

			<i>/</i>
		International conference on	
		microbiological research: current	
D. C. Ch. J D		challenges and future	0.4.202444.4.2024
Dr S.Shalini Devi	International conference	perspectives-2024	9-1-2024 to 11-1-2024
		SERB Sponsored Workshop on Genome Editing, BITS Pilani	
Dr. J. Sarada	Workshop	Hyderabad	17 <sup>th</sup> and 18 <sup>th</sup> November 2023
		SERB Sponsored Workshop on	
		Genome Editing, BITS Pilani	
Dr. K Deepak Raj	Workshop	Hyderabad	17 <sup>th</sup> and 18 <sup>th</sup> November 2023
Dr Mahalakshmi			30-7-2023 and 31-7-2023
		Aspects of effective teaching-	
		organized by teaching-learning	
DR K. Anuradha	Conference	center of BITS PILANI, Hyderabad campus	1-6-2023 to 6-6-2023
DIVIX. Alfulaulia	Comercine	Campus	1-0-2023 to 0-0-2023
		Strengthing teaching-learning and	
		evaluvation process in higher	
DR Y. Aparna	FDP	education organized by IQAC,BVC	1-6-2023 to 6-6-2023
		Strengthing teaching-learning and	
		evaluvation process in higher	
Dr S.Shalini Devi	FDP	education organized by IQAC,BVC	9-1-2024 to 11-1-2024

# VISITS(2022-23)

Course/Activity	Dates/ Duration	No of beneficiaries
Visit to AG Biosystems, Cherlapally Industrial visit to Sewage Treatment	16th May 2022 29 <sup>th</sup> Oct 2022	37 UG students
plant, MCH, Amberpet	29° OCI 2022	37 UG students



# VISITS(2023-24)

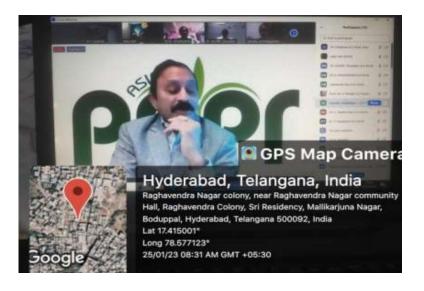
	Dates/ Duration	No of beneficiaries
Visit to CROWN BEVERAGES and CHARMINAR BEVERAGES	7- 12-23 (one day) 1-8-2023 (one day)	75 UG students 28 UG students
Visit to CCMB- One -Week One-Lab		





#### Guest Lectures 2022-23

Department	Name	Title of the Lecture	Date
	Designation		
	Host Institute		
Microbiology	Dr. Naveen Kumar R, Senior Technical Officer, NIN, Hyderabad	Use of Lytic phages for Bio Food preservation	28th September 2022
	Dr. E.M. Shankar, Professor, Central University of Tamil Nadu	Immune System – a double edged sword	21st October 2022
	Prof.M.S. Reddy, Founder and Chairman of Asian PGPR Society, Auburn University, USA	"Eco-Evolutionary response of Plant- Microbiome interactions under Climate change for sustainable Agriculture	25th January, 2023





#### Guest Lectures 2023-24

Department	Name	Title of the Lecture	Date
	Designation		
	Host Institute		
Microbiology	Sandhya Ganesan	Immune Evasion Mechanisms	27-7-2023
	Assistant Professor		
	Department of Biology		
	IISER Thiruvananthapuram, Kerala		
	Dr Subha Narayan Das	Plant Immunity: How plant	24-11-2023
	Assistant Professor	defend themselves?	
	Department of Botany		
	Indira Gandhi National Tribal		
	University, Madhya Pradesh Prof. Gnanesh Nanjappa	Occurrence, Molecular	2-12-2023
	Professor and Dean	characterisation and Standardization of Screening	
	Department of Genetics and	Techniques of Fungal Pathogens: Current Trends	
	Plant breeding	and Future Perspectives	
	Sampurna International institute of Agri Science and		
	Horticulture Technology,		
	Karnataka		
	B 11		40.40.000
	Dr Hameeda Bee	Human Microbiome	12-12-2023
	Associate Professor, Chaiperson-BOS, Department		
	of Microbiology, Osmania		
	University		





#### Awareness generation programmes / exhibitions / seminars, training programmes 2022-23

	Department	Topic	Date	Nature of beneficiaries
	Microbiology	International Microorganisms Day	28/9/2022	120
		World Rabies Day	28/9/2022	400
		Polio awareness Program  Microbes in our daily Life	24/10/2022 11th October,2022	Zilla Parishad High School, Kapra -10 <sup>th</sup> class students-150
0 CE 100	1/4	HIV Awareness Program	1/12/2022	160
		Experiments on Microbial Food spoilage, Detection of Microbial Milk spoilage and Blood Grouping	17th December 2022	
Ge-	151	Bioverse-Microbial Petri Art Competition	9 <sup>th</sup> Feb, 2023	28 teams (2 in each team)
		Bioverse- Model Making	9 <sup>th</sup> Feb, 2023	9 teams







#### Awareness generation programmes / exhibitions / seminars, training programmes 2023-24



Department	Торіс	Date	Nature of beneficiaries
Microbiology	Awareness of Food Borne Diseases and Significance of Drinking Milk	12-7-2023	KV, Trimulgherry school students of 9th & 10th Class
	Rangoli Competition on Viral Diseases	2-9-2023	BVC-UG/PG 28
	Value Added Course on Basics in Nanobiotechnology	6-9-2023 to 25-9-2023	National Level UG/PG 49
18	Microbial Marvels-	23-9-2023	BVC-School children and

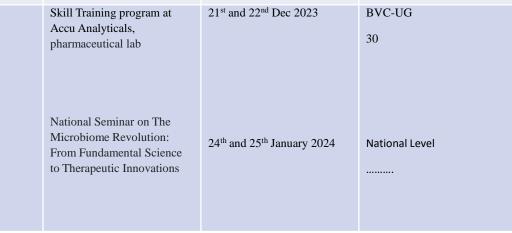
Exhibition of Microbial Products (World

Microorganisms Day

Celebrations)







intermediate college students

350







### Research Projects- Department specific

#### Projects – DEPARTMENT OF MICROBIOLOGY

- 1. Designing of cost-effective media for mass multiplication of PGPR consortium/Biofertilizers.
- 2. Strain improvement of microorganisms for high enzyme yield.
- 3. Screening of microbes with antimicrobial properties by using crowded plate method.
- 4. Biological synthesis and characterization of nanoparticles.
- 5. Microbial biodiversity of pondwater ecosystem.

## Interdiciplinary projects

- 1. Optimization of media for antimicrobial compounds production from streptomyces sp.
- 2. Synthesis of different types of Nanoparticles using waste and their Comparision

### Student's achievements- Impacts of DBT support 2022-23

- 1. K. Mahesh, 2<sup>nd</sup> year student secured the First prize in the Iron throne competition organized Department of Genetics and Biotechnology of Bhavans Vivekananda College of Science during the celebration of Bhavanostav.
- 2 K. Mahesh, 2<sup>nd</sup> year student participated in a PPT presentation organized by the Department of Chemistry at Sarojini Naidu Vanita Mahavidyalaya College, which took place on the 24th of February 2023, and secured the second prize.
- 3. Sadhbhavana 2nd year student won second prize intercollegiate PPT competition on 24 th Feb 2023 organized by the Department of Chemistry at Sarojini Naidu Vanita Mahavidyalaya College







S. Sai Abilash, 1<sup>st</sup> year student participated in a PPT presentation organized by the Department of Botany at Sarojini Naidu Vanita Mahavidyalaya College, which took place on the 24th of February 2023, and secured the second prize.



# Student's acheivements- Impacts of DBT support 2023-24

- 1. Ms Naga Sushma, MGC final year has received Best student award for the year 2023 from Microbiologists society of india
- 2. Ms Awantika and Ms Naga Sushma won first prize in Rangoli competition conducted based on the theme "Viruses". They also won first prize in Micobial Marvels- A microbial products exhibition.
- 3. K. Niharika (MGC-3)K. Mahesh (BtMC-2)Y. V Tanishq (BtMC-2), Sahiti (BtMC-2)Sadhbhavana (BtMC-2) have won best presentation awards at Centre For Research Development, OU organised their first ever 'One Week Internship Program' from 28th Aug 2nd sep.



### Faculty acheivements-Impacts of DBT support

Dr T Chaitanya received Meritorious Best Teacher award, Govt. of Telanagana and Senior Teacher award, Microbiologists society of India for the year 2023

Dr Shalini Devi received Best Young teacher award, Microbiologists society of India for the year 2023

Dr T Chaitanya awarded Second prize in Oral presentation – Interdisciplinary National Conference on Scientific approaches for Sustainable approaches organized by Wilson College in collaboration with University of Mumbai on 4<sup>th</sup> and 5<sup>th</sup> Dec 2023

Dr Shalini Devi received Best research paper- oral presentation award at International conference on microbiological research: current challenges and future perspectives-2024



### LIST OF NEW EXPERIMENTS

- 1. Production of citric acid using various industrial and agricultural byproducts
- 2. Isolation of amylase and cellulase producing microbes from varied environmental sources
- 3. Isolation of T2 bacteriophage from sewage sample
- 4. Isolation of methanogenic bacteria and production of biogas
- 5. Determination of BOD of various water samples collected from various ponds located in secunderabad.
- 6. Analysis of Microbiological quality of air at various locations
- 7. Isolation and identification of various fungal food contaminants
- 8. Microbiological examination of various water samples like RO water and Municipal treated water by coliform test