V.S.R GOVERNMENT DEGREE & P.G COLLEGE

MOVVA-521 135 KRISHNA DISTRICT, ANDHRA PRADESH

NAAC Accredited With "A" Grade (3.01 CGPA)

ISO 9001:2015, 14001:2015, 5001:2011 Certified Institution

(Affiliated to Krishna University)

Email Id:gdcjkc.movva@gmail.com Mobile: 9948121714 Phone No: 08671 252451

DEPARTMENT OF BIOTECHNOLOGY

PROFILE

https://www.freepik.com/free-vector/biotechnology-isometric-composition-with-group-scientists-holding-big-dna-model-with-workplace-mouse-computer-vector-illustr

https://www.freepik.com/free-vector/dna-helix-symbol

About the Department

The B.Sc Biotechnology (Restructured Course) was introduced in the year 2008-09 with Botany and Chemistry as other major subjects. The Department of Biotechnology was established in the year 2008 with the student sanctioned strength (Intake) 30. Committed, qualified and dynamic regular faculty with doctoral degree working under one sanctioned post. The strength of the department is its enthusiastic and student compassionate faculty who have been graduated from reputed universities like Sri Padmavathi Mahila Visvavidyalayam, Tirupati and Periyar university, Tamilnadu. The faculty render to support the students for academic as well as personal counselling. The faculty inspire and guide the students to participate in co-curricular and in extra curricular activities across several colleges, institutes and universities.

VISION

"*Empower the building of a skilled workforce and basic research temperament by sound scientific principles and quality teaching*".

MISSION

- Creation of skilled Bio technologists to help society, cope with new challenges.
- To empower young minds as innovative in applications of different areas in biotechnology.
- To develop scientific human resources as per biotechnology industry demand.

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INFRASTRUCTURE

The Department has one fully equipped laboratory for Undergraduate Biotechnology including culture laboratory. The Department has acquired the following laboratory equipment for conduction of practicals.

S. No.	*Instrument*	*Number*
1.	Autoclave	1
2.	Laminar Air flow	1
3.	Centrifuge	1
4.	Chromatography Apparatus(TLC)	1
5.	Colorimeter	2
6.	Electronic digital balance	2
7.	Electrophoresis Apparatus(Vertical)	1
8.	Electrophoresis Apparatus(Submerged/horizontal)	1
9.	pH meters	1
10.	Hot air oven	1
11.	Hot plate	1
12.	Incubator	1
13.	Micro wave oven	1
14.	Water bath	1
15	Magnetic Stirrer	1
16.	Spectrophotometer	1
17.	Magnetic stirrer	1
18.	Refrigerator(Mini)	1
19.	UV chamber	1
20.	Micro Pipettes(Variable Volume)	3
21.	Deep freezer	1

Equipment gallery

Incubator

Refrigerator(Mini)

Hot air oven

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Laminar Air flow chamber

Autoclave

Hot Plate

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Colorimeters

PH Meter

Centrifuge

Gel Electrophoresis apparatus

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Horizontal Gel Electrophoresis apparatus

Deep Freezer

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Distinctiveness of the department

- Department has excelled in achieving more than **90% of pass percentage**
- Well equipped Laboratory
- **Biotechnology club** conducts student centered activities like celebration of birth anniversaries of eminent scientists to commemorate their inventions.
- As a part of **experiential learning and participative learning** students were guided to organize **"Lab to School"**
- DSR - **Departmental Social Responsibility** is one of the best practice of the department
- Students take up **community service projects** in order to understand the societal problems faced by a community
- Research publications by faculty
- Students participated in **Skill oriented training programmes** offered by Krishi Vigyan Kendra (KVK - ICAR institute), Ghantasala.

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PROFILE
OF
THE PRESENT FACULTY

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Teaching Faculty Profile

1. Name of the Faculty	**:**	**Dr.K.VASUDHA, M.Sc., PhD.**
2. Designation	:	**Lecturer in Biotechnology**
3. Date of Joining in service: 23/06/2008	**:**	**23.06.2008**
4. Date of Joining in Present College	**:**	**22/07/2023**
5. Date of Birth	:	**27/04/1980**
6. Educational Qualifications	**:**	**M.Sc., Ph.D.**
7. Area of Research in Ph. D	:	**Reproductive Toxicology**
8. Year of award of Ph. D.	**:**	**2019**
9. Qualified in NET/ APSET	**:**	**NET**
10. Year of Qualified in NET	**:**	**2007**

11. Total Teaching Experience in Years(both Govt. & Private): 17

12. Number of Research Papers published : 10

13. Number of Paper presentations in National / International Seminars : 12

14. No.of Books published : 02

15. Area of Interest to Guide Students in Research : Toxicology, Microbial biotechnology Nanobiotechnology

16. No.of NPTEL courses completed : 03

17. No .of OC attended : 01

18. No.of RCs completed : 03

19. No.of Short term courses completed : 01

20. Whether guided for Students Study Projects/ community service projects/Internship : Yes

21. Awards / Rewards received if any :

1. Best Teacher award at District and College level by Commissioner of Collegiate Education, Andhra Pradesh in 2013-14.Academic Festival , Yuvatharangam-2014 .

2. Received Best Oral Presentation in UGC Sponsored National Seminar on "Advances in Biotechnology and Bioinformatics, held at DNR college(A), Bhimavaram in collaboration with Dept.of Zoology, AKNU, Rajamahendravaram on 7th Feb 2020.

3.VIFA- 2023 - Outstanding faculty in Biotechnology

Membership : Life member in BRNS-Indian Association of Nuclear Chemists and Allied Scientists(IANCAS), Bhabha Atomic Research Centre, Mumbai.

22. Teaching Experience :

- 15yearsofTeaching experience for undergraduate Biotechnology students
- 2years of teaching experience for Postgraduate Biotechnology students while pursuing PhD at Sri Padmavati Mahila Visvavidyalayam(Women's University), Tirupati .
- 3yrsof PG Zoology teaching experience (Tools and Techniques of Biotechnology)

23. Technical Experience:

Experienced in handling Laboratory animals (Rats)– Maintenance and carrying out rat related experiments. Isolation and separation of Nucleic acids, Proteins Qualitative and Quantitative estimations PCR, qRT-PCR studies Gel electrophoresis, SDS-PAGE Microbial cultures– Isolation and identification and biochemical and molecular characterization Plant Tissue culture Techniques.

25.Contact Number : 9704723056

26.E-Mail ID : kvasudhabt@gmail.com

24. Participation in Institutional Governance

- Lecturer in charge of Biotechnology
- Student Induction Programme Coordinator(SIP)
- Restructured Fee Committee Convenor
- Women Empowerment cell Convenor etc.,

Any other Information relating to your profession : CCE, AP LMS content Generator, UG Biotechnology BOS Chairman, Krishna University, BOS subject expert for DNR college (A), Bhimavaram, St.Joseph College(A),Visakhapatnam and Dr.VS Krishna College(A), Visakhapatnam.

Signature of FacultyMember

PROFILE
OF
THE PREVIOUS FACULTY

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VSR GOVT. DEGREE & P.G. COLLEGE, MOVVA

Teaching Faculty Profile

1. Name of the Faculty Member : K. Anusha
2. Designation : Lecturer in Biotechnology
3. Date of Birth : 15/08/1988
4. Educational Qualifications : M.Sc.,B.Ed.,SET
5. Area of Research in Ph. D / M. Phil : Microbial Biotechnology
6. Year of Ph. D. / M. Phil :
7. Qualified in NET/ APSET : APSET
8. Year of Qualified in NET/ APSET : 2014
9. Total Teaching Experience in Years(both Govt. & Private): 1 1
10. Date of Joining as Degree Lecturer : 6/06/2018
11. Date of Joining in this Institution : 06/10/2021
12. Number of Research Papers Presented at

    a) International Seminar : -
    b) National Seminar : -
    c) State Seminar : -
    d) Local : --------

13. Number of Seminars Attended at

    a) International Seminar : 2

    b) National Seminar : 6

    C) State Seminar : --2-----
    -

    D) Local : ----0---
    -

14. Research Papers,published in ISSN Journals :

S.NO	Name of the Journal	Topic	ISSNO.	Date
1	nil	nil	nil	nil

15. Research Papers Published in ISSN Seminar Proceedings : --------

(Please furnish details in ANNEXURE-II)

16. Area of Interest to Guide Students in Research : Environmental and microbial biotechnology

17. Number of Students guided as on today : 80

a) M. Phil

b) Ph. D.

c) P.G.

d) U.G : 88

18. Students Study Projects if any : 9

19. Awards / Rewards received if any : ---------

20. Contact Number : 7981940019

21. E-Mail ID : laxmi.anusha05@gmail.com

22. Participation in Institutional Governance

(as Convener / Member in College Committees and cells) : Women Empowerment cell, Convener and as member in various committees

23. Any other Information relating to your profession : Lecturer in charge of Biotechnology, Botany, Zoology

Signature of the faculty Member

Date:
01/11/2021

PROFILE OF THE LECTURER

G.P.CHAKRAVARTHI

1. Designation : Lecturer
2. Qualification : M.Sc; M.Tech
3. Teaching experience : 13 Years

S. no	Designation	Organisation	Period	Total service
1	Lecturer	VSR Govt.Degree College, Movva	2.1. 2013-6.10.2021	9 years
2	Assistant Professor	GITAM University, Visakhapatnam	2009-2013	4 years
3	Senior Research Fellow	LVPEI, Hyderabad	2007	1 year

4. Achievements:
   - Qualified in CSIR UGC NET and attained JRF-NET
   - Selected as a Summer Research Fellow by Indian Academy of Sciences for the year 2013.
5. Additional Responsibilities:
   - Acting as a **BOS Chairman** for **UG Agriculture** at **Krishna University**.
   - Acting as a **BOS Member** for **UG Biotechnology** at **Krishna University**
   - Acted as a **BOS chairperson** for **UG Biotechnology** at **Krishna University**
   - Acting as a Chairman for Restructured committee at the college
   - Acted as an Examination in charge from 2015-2017 at the college
   - Served as a UGC coordinator at the college
   - Served as a store in charge at the college

6. RC,OC and other trainings:

S. no	Nature of training	Venue	Date
1	Orientation Course	Andhra University	19-01-2013 to 15-02-2013
2	**Summer Research Fellowship Programme (SRFP)**	**Indian Statistical Institute, Kolkata ISI, KOLKATA.**	01-05-2013 to 02-07-2013
3	Refresher Course	Andhra university	07-03-2015 to 27-03-2015
4	Faculty development programme in Introduction to Proteomics	ONLINE Program through SWAYAM	Aug to Oct 2019 (8 WEEKS)
5	Faculty development programme on Analytical and Diagnostic Tools in Chemical and Life sciences	ONLINE Program organised by Andhra University	05-06-2020 to 06-06-2020 (2 days)
6	Faculty Development Programme on Innovative Teaching Learning Methodologies	ONLINE Program organised by Coimbatore Institute of Technology	06-07-2020 to 10-11-2020 (5 days)
7	Faculty Development Programme	ONLINE Program organised by APCCE	07-09-2020 to 11-09-2020 (5 days)

7. Certification courses completed through SWAYAM:

- Completed a course in Bioinformatics: Algorithms and Applications through SWAYAM, 12 Weeks duration.
- Completed a course in Introduction to Proteomics through SWAYAM, 8 Weeks duration.

VSR Govt. DEGREE &P.G.COLLEGE, MOVVA.
LIST OF VARIOUS ACTIVITIES DURING COVID-19

I SWAYAM Course

- Completed a course in Bioinformatics:Algorithms and Applications through SWAYAM,12 Weeks duration.

II Conducting Online Classes:

- Online classes conducted to students of I, II, III B.Sc. through zoom and Google meet.

III Conducting Online Quiz:

- Conducted an online on "AMINOACIDS" through google forms
- Participated in various quiz programmes.

IV.Participation in Online Faculty Development Programmes:

- FDP on Innovative Teaching Learning Methodologies, organised by Coimbatore Institute of Technology during 6/7/2020 to 10/7/2020 (5 days)
- FDP ON Analytical and Diagnostic Tools in Chemical and Lifesciences, organised by ANDHRA UNIVERSITY during 05/6/2020 to 06/6/2020 (2 days)

V.Participation in Webinars and Workshops:

- Participated in Cyber Security Workshop organised by Hyper Techno Solutions from 27th to 29th July 2020
- An Online Session on Environmental Communication &Sensitising the Media in the context of COVID-19 organized by AP-HRDI
- Participated in an Online workshop on "Online Course Design, Development and Delivery"Organized by University of Hyderabad from 28-06-2020 to 30-06-2020
- Participated in a webinar on "How to Read Scientific Literature" Organized by IISER PUNE and MANAVon 26-06-2020
- Participated in a webinar on "Applications of Biotechnology in Advanced Research" organized by PR Govt Degree College,Kakinadaon 20-06-2020
- Participated in a webinar on "Genetic Counselling"Organized by Aurora College, Hyderabad from 18-06-2020 to 19-06-2020.
- Participated in a webinar on "Molecular Biology Tools and Applications"Organized by Kasturba Gandhi Degree& PG college Secunderabad on 12-06-2020
- Participated in an International webinar "How Near is the Corona End-Vaccines and Drugs on trial" organized by Maris Stella College, Vijayawada on 09-06-2020.
- Participated in a webinar on "Pandemic and Disability Challenges"Organized by SRR&CVR GDC, Vijayawada on 29-05-2020.
- Participated in a webinar on "Employability Skills and Emotional Intelligence" organized by VSR GDC, Movva on 26-05-2020.

- Participated in a webinar on "Diagnostic Techniques for Virus Detection"Organized by SCNR,GDC,Prodatturon 14-05-2020.

8 .Seminar/Conference/Workshop attended:

S. no	Name of the seminar/conference/workshop	Venue	Date
1	Two day work shop on Molecular Biology Techniques	Government college for women(A)	23rd &24th August 2017
2	Faculty Training Programme	VSR govt degree college, Movva	26-11-2016
3	Instrumentation and hands on training in Advanced Biological Techniques	Andhra Loyola college	07-12-2015 to 08-12-2015
4	Faculty Training Programme	VSR govt degree and pg college	04-12-2015
5	Workshop on UGC schemes and guidelines	Dr. V S Krishna college Visakhapatnam	06-07-2015
6	6th Indian youth science congress	Acharya Nagarjuna University	19-01-2015 to 21-01-2015
7	**Annual meeting of Indian Academy of Sciences**	**Indian Institute of Technology, Chennai IIT CHENNAI**	**07-11-2014 to 09-11-2014**
8	Workshop on UGC XII Plan guidelines	Govt arts college, Rajahmundry	17-10-2014

9. Publications:

1. DNA Methylation and its impact in generation of cancer

2. Role of oxidative stress in human health

10. Contact details:

G.P.Chakravarthi,
Lecturer in biotechnology,
VSRGDC, Movva.
Mobile: 9502191501

Courses /Programmes offered
(2018-2022)

Program me	Programme Name	Group/Subject
UG	B.Sc., (Bt.B.C)	Biotechnology, Botany,Chemistry

Programme wise students strength profile
(A.Y 2018-2022)

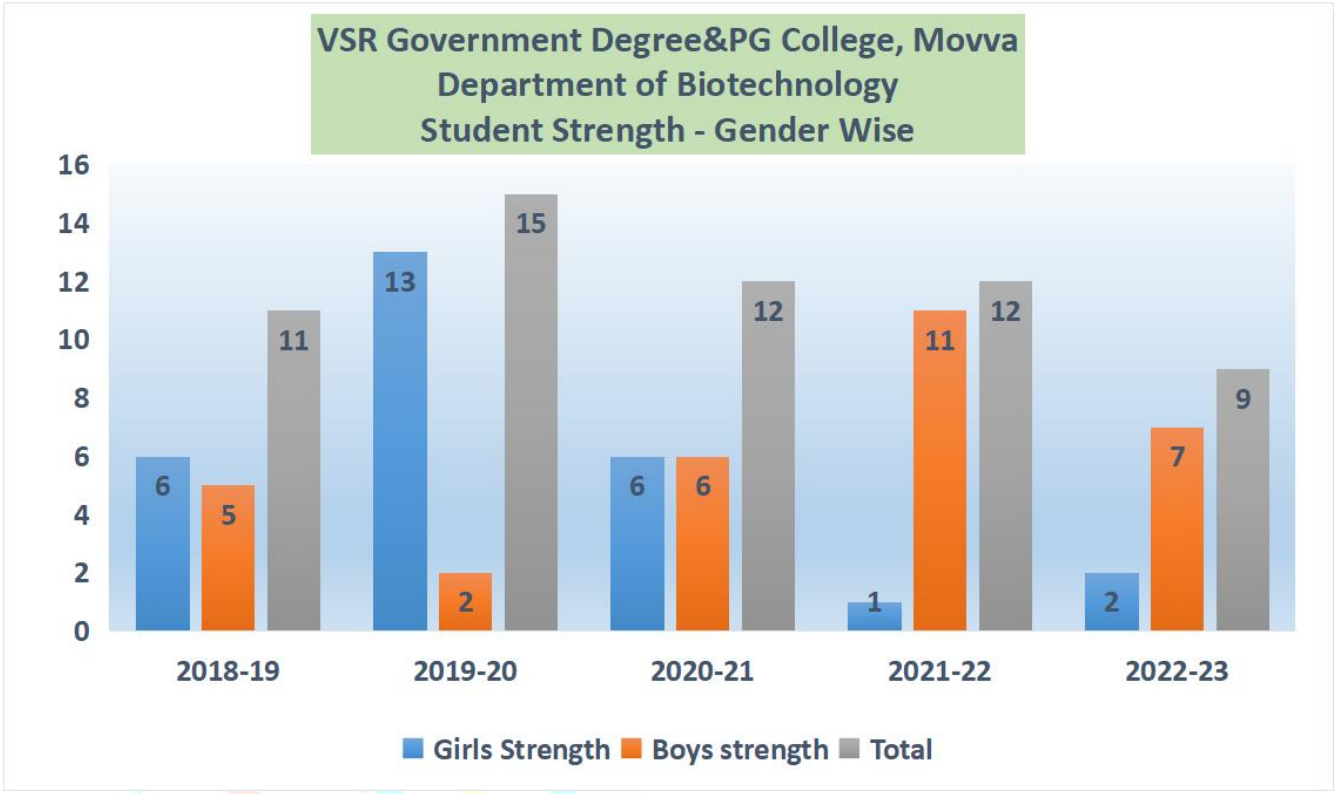
Programme	Name of the Group	Year of admission	Students Enrolled		Total
			Male	Female	
B.Sc., (Bt.B.C)	Biotechnology, Botany,Chemistry	2018-19	06	05	11
B.Sc., (Bt.B.C)	Biotechnology, Botany,Chemistry	2019-20	03	12	15
B.Sc., (Bt.B.C)	Biotechnology, Botany,Chemistry	2020-21	08	10	18
B.Sc., (Bt.B.C)	Biotechnology, Botany,Chemistry	2021-22	01	11	12
B.Sc., (Bt.B.C)	Biotechnology, Botany,Chemistry	2022-23	02	08	10

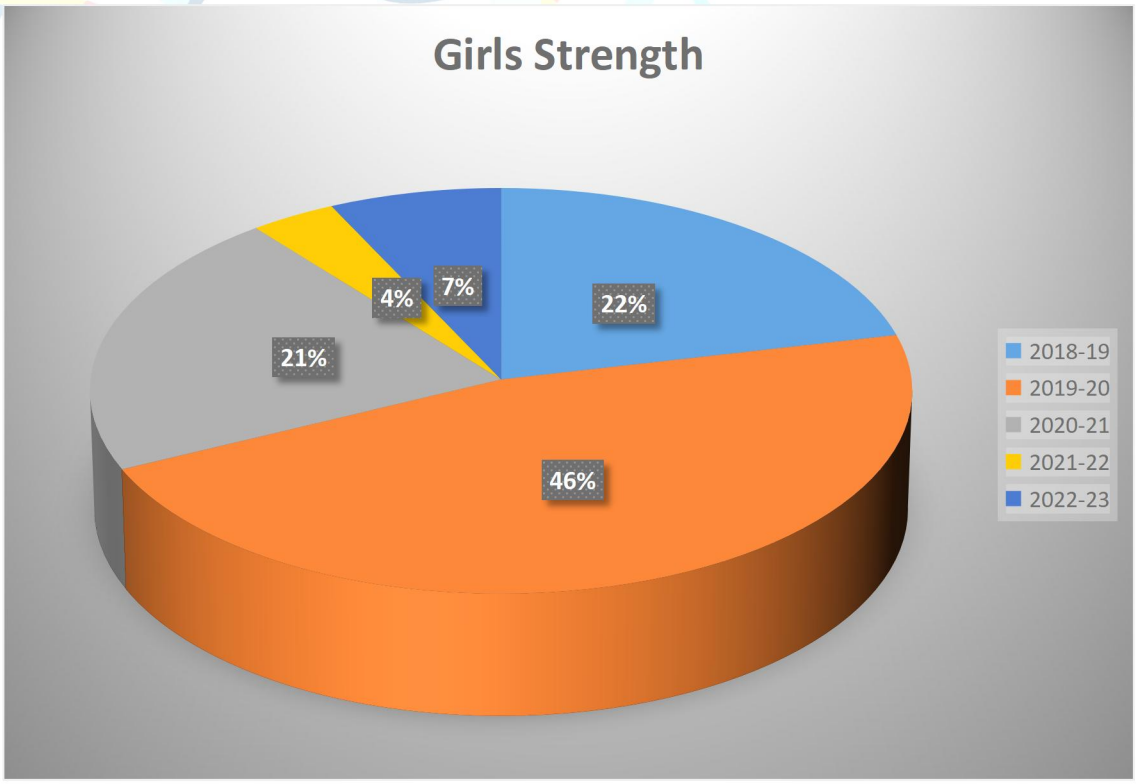
- 90% of the students belong to the socially and economically background section.
- More than 80% of the students are girls.

STUDENTS STRENGTH

(GENDER WISE)

S.No	Year	Combination	Sanctioned Intake	Admitted	Boys	Girls	Total
1	2018-19	Biotechnology, Botany, Chemistry	30	11	6	5	11
2	2019-20	Biotechnology, Botany, Chemistry	30	15	02	13	15
3	2020-21	Biotechnology, Botany, Chemistry	30	12	06	06	12
4	2021-22	Biotechnology, Botany, Chemistry	30	12	01	11	12
5	2022-23	Biotechnology, Botany, Chemistry	30	09	02	07	09





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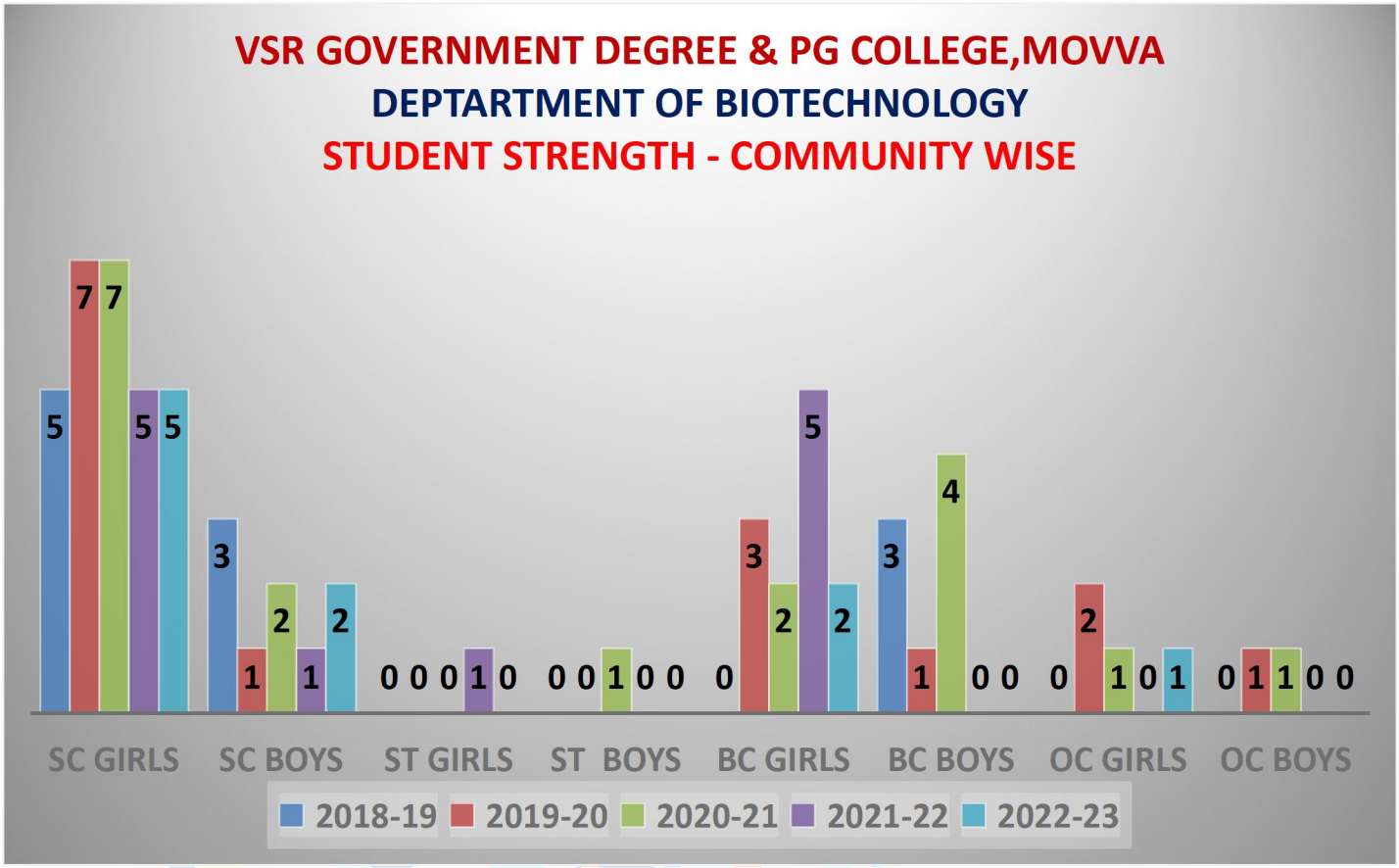

Department of Biotechnology
Result Analysis 2022-23

Group	Year	Semester	Appeared	Passed	Pass %
B.Sc(Bio-Tech)	2022-23	I	09	07	78%
B.Sc(Bio-Tech)	2022-23	II	07	07	100%
B.Sc(Bio-Tech)	2022-23	III	12	10	84%
B.Sc(Bio-Tech)	2022-23	IVA	12	12	100%

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B.Sc(Bio-Tech)	2022-23	IVB	12	12	100%
B.Sc(Bio-Tech)	2022-23	VI(6B)	8	8	100%
B.Sc(Bio-Tech)	2022-23	VI(7B)	8	8	100%

Department of Biotechnology
Result Analysis 2021-22

Group	Year	Semester	Appeared	Passed	Pass %
B.Sc(BioTech)	2021-22	I	12	10	85%
B.Sc(BioTech)	2021-22	II	12	11	91%
B.Sc(BioTech)	2021-22	III	10	09	90%
B.Sc(BioTech)	2021-22	IVA	8	8	100%
B.Sc(BioTech)	2021-22	IVB	8	8	100%
B.Sc(BioTech)	2021-22	V	13	13	100%
B.Sc(BioTech)	2021-22	V	13	13	100%
B.Sc(BioTech)	2021-22	VI	1`3	12	92%

Department of Biotechnology
Result Analysis 2020-21

Group	Year	Semester	Appeared	Passed	Pass %
B.Sc(Bio-Tech)	2020-21	I	12	10	83%
B.Sc(Bio-Tech)		II	11	11	100
		III	14	13	93%
		IV	13	12	92%
		V P5	13	13	100
		V P6	13	13	100
		VI	13	12	92

Department of Biotechnology
Result Analysis 2019-20

Group	Year	Semester	Appeared	Passed	Pass %
B.Sc(Bio-Tech)	2019-20	I	15	8	53%
		II	14	14	100%
		III	08	06	75%
		IV	08	05	62%

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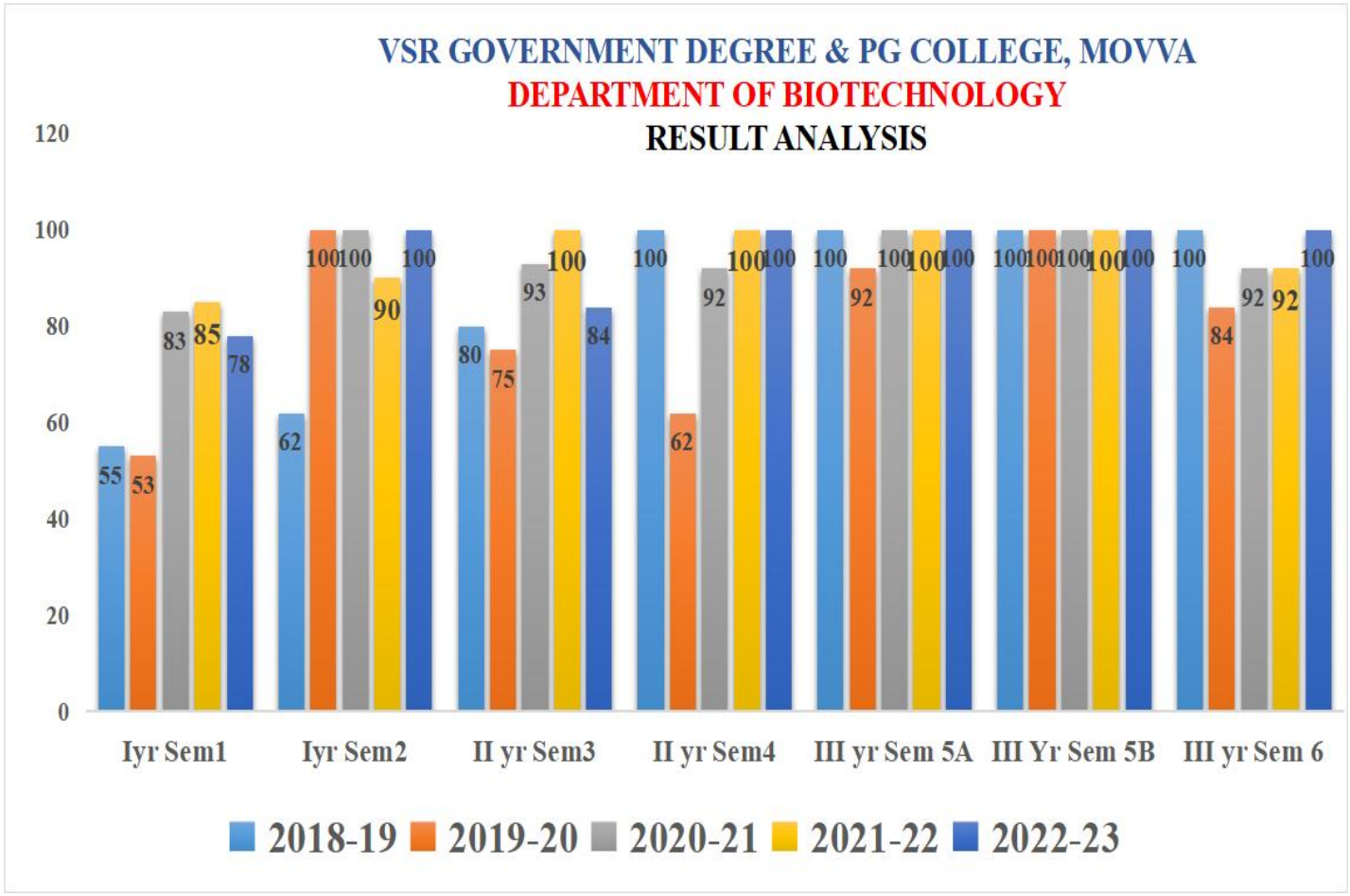
B.Sc(Bio-Tech)	2019-20	V(A)	14	13	92%
		V(B)	13	13	100%
		VI	13	11	84%

Department of Biotechnology
Result Analysis 2018-19

Group	Year	Semester	Appeared	Passed	Pass %
B.Sc(Bio-Tech)	2018-19	I	09	05	55%
B.Sc(Bio-Tech)		II	08	05	62%
		III	15	12	80%
		IV	15	15	100%
		V(A)	14	14	100%
		V(B)	14	14	100%
		VI	14	14	100%



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SWOC ANALYSIS

STRENGTHS

- Consistency in pass percentage i.e above 90% Result achieved in the final semester
- Committed, qualified and dynamic regular faculty
- Young and energetic students involved in curricular, co curricular and in extracurricular activities.
- Student centered participative learning through Biotechnology club
- The faculty possess Doctoral degree and actively involved in research.
- Paper publications in reputed journals
- Paper presentations in National Seminars by faculty .
- Preparing students for writing PG set for pursuing higher education.
- Well equipped Lab, Department sectional library with sufficient number of books.
- Participation in Seminars, workshops and conferences.
- Supporting slow learners through class notes and remedial classes.

WEAKNESS

- Deterioration of students strength in the course
- Limited scope to introduce various combinations

OPPORTUNITIES

- Enormous employment opportunities for biotechnology graduates in medical coding, medical and R&D labs.
- More scope to use modern technology aids in teaching learning process.

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- ❖ **Skill development for students through internships.**
- ❖ **To train and council students to become more employable**
- ❖ **Much scope to pursue higher studies and research.**

CHALLENGES

- ❖ **Most of the students are from Telugu medium(Mother tongue) background**
- ❖ **More drop outs due to other technical courses offered by near by colleges**
- ❖ **Getting new admissions into I yr.**

STUDENT SUPPORT ACTIVITIES

- ➢ **Ward counseling**
- ➢ **Career guidance**
- ➢ **Remedial coaching for slow and moderate learners**
- ➢ **Bridge course**
- ➢ **Special coaching for advanced learners**
- ➢ **Guest lectures**
- ➢ **Certificate courses**
- ➢ **Virtual classes**

FUTURE PLANS

- ❖ **To introduce Post Graduation (PG) course in Biotechnology**
- ❖ **To organize a National Seminar on Cross cutting issues of Biotechnology**
- ❖ **To organize a Workshop on basic instruments used in Biotechnology Lab**

Criteria - I: CURRICULAR ASPECTS

Syllabus framing and approval by Board Of Studies of affiliated University, Krishna University, Machilipatnam

&

A. P. STATE COUNCIL OF HIGHER EDUCATION GUIDELINES FOR THE REVISED CHOICE BASED CREDIT SYSTEM CBCS (W.E.F 2020-21)

Choice Based CreditSystem (CBCS) was introduced, under the aegis of Andhra Pradesh State Council of Higher Education (APSCHE), at the insistence of the University Grants Commission, for the general undergraduate programmes, i.e., BA, BCom, BSc, BCA, BBA, UG Honours etc., by the affiliating universities in all government, aided and private degree colleges in the state of Andhra Pradesh in 2015 - 2016.

The system of CBCS has been in vogue for the undergraduate programmes in all the advanced countries for several decades and proved to be advantageous to the students of higher education because of its features like courses in place of papers, availability of diverse courses, scope for choice, weightages with credits, space for multiple kinds of teaching, learning and assessing methods which can effectively cater to the diverse needs of students. As the existing CBCS would be completing five years by 2019-20, the APSCHE decided to revise and strengthen the scheme while addressing the following issues.

a. Overcoming the shortages in the existing system.

b. Consolidating the system in its true spirit by providing multiple choices in domain as well as general courses.

c. Revising the curricular framework wherever needed.

d. Orienting syllabus to the course outcomes as advised by UGC

e. Updating of syllabus to match to the present needs

f. Replacing papers with courses

g. Introducing better skill-oriented courses to align with the emerging and employment areas.

(https://apsche.ap.gov.in/Pdf/guide_cbcs_2020.pdf)

"NEP-2020 : For the purpose of developing holistic individuals, it is essential that an identified set of skills and values will be incorporated at each stage of learning, from pre-school to higher education". In view of implementation of NEP-2020, the syllabus was strengthened by introducing skill courses and inter disciplinary core subjects.

ANNEXURE - II CBCS CURRICULAR FRAMEWORK (2020 - 21 ONWARDS) - BACHELOR OF SCIENCES

Subjects		SEM I		SEM II		SEM III		SEM IV		SEM V		SEM VI			
		Hrs/W	Credits	Hrs/W	Credits	Hrs/W	Credits	Hrs/W	Credits	Hrs/W	Credits	Hrs/W	Credits		
Languages															
English		4	3	4	3	4	3								
Language (H/T/S)		4	3	4	3	4	3								
Life Skill Courses		2	2	2	2	2+2	2+2								
Skill Development Courses		2	2	2+2	2+2	2	2								
Major 1	Core 1,2,3,& 4	4+2	4+1	4+2	4+1	4+2	4+1	4+2	4+1						
Major 2	Core 1,2,3,& 4	4+2	4+1	4+2	4+1	4+2	4+1	4+2	4+1						
Major 3	Core 1,2,3,& 4	4+2	4+1	4+2	4+1	4+2	4+1	4+2	4+1						
Major 1	Core -5							4+2	4+1						
Major 2	Core -5							4+2	4+1						
Major 3	Core -5							4+2	4+1						
Major 1	Skill Enhancement Courses (6 & 7)									4+2	4+1				
										4+2	4+1				
Major 2	Skill Enhancement Courses (6 & 7)									4+2	4+1				
										4+2	4+1				
Major 3	Skill Enhancement Courses (6 & 7)									4+2	4+1				
										4+2	4+1				
Hrs/W (Academic Credits)		30	25	32	27	32	27	36	30	36	30		12	4	4
Project Work															
Extension Activities (Non															
NCC/NSS/Sports/Extra Curricular									2						
Yoga							1		1						
Extra Credits															
Hrs/W (Total Credits)		30	25	32	27	32	28	36	33	36	30		12	4	4

THIRD PHASE of APPRENTICESHIP Entire 5th / 6th Semester

FIRST and SECOND PHASES (2 spells) of APPRENTICESHIP between 1st and 2nd year and between 2nd and 3rd year (two summer vacations).

As per the above curricular frame work and guidelines proposed by A.P. STATE COUNCIL OF HIGHER EDUCATION (APSCHE), the affiliated university, Krishna University, Machilipatnam has approved the courses and syllabus through Board Of Studies.

VSR GOVERNMENT DEGREE & PG COLLEGE, MOVVA

DEPARTMENT OF BIOTECHNOLOGY

COURSE OUTCOMES

Semester 1-Bio molecules and Bio analytical techniques - BT 101

CO1. Impart complete knowledge about structure and function of different bio molecules (proteins, lipids, nucleic acids, and carbohydrates) found in living cells.

CO2. Impart knowledge on classification physical and chemical properties of biomolecules.

CO3. Students will be able to learn underlying principle of techniques such as electrophoresis, microscopy, spectroscopy, centrifugation and chromatography.

CO4. Bio analytical tools are cell-based bio assays that give a measure of the effect and presence of known and unknown chemicals in complex environmental samples.

CO5. Course will impart knowledge on the principle, working, maintain and calibrations of bio analytical tools and techniques for industrial and research purpose

Semester II - Microbiology, Cell & Molecular Biology- BT 201

CO1. To acquire skills and competency in microbiological laboratory practices applicable to microbiological research or clinical methods, including accurately reporting observations and analysis.

CO2. Course will provide practical knowledge about different types of bacteria, virus and fungi found in environment and their isolation and identification techniques.

CO3. Course will impart knowledge on CO4. Course will impart knowledge on role of cell organelles, cell division and its regulation

CO4. The course particularly aims at understanding structure, synthesis and replication of nucleic acids.

CO5. Acquire knowledge on enzymology and steps in gene expression and regulation.

VSR GOVERNMENT DEGREE & PG COLLEGE, MOVVA
DEPARTMENT OF BIOTECHNOLOGY
COURSE OUTCOMES

Semester III-Immunology & r-DNA technology - BT 301

COI. Course will provide technical knowledge as to how different diseases are caused and various responses mediated by living cells to combat pathogen attack.

CO2. Course will provide sound knowledge about immune system, how various cell types involved in prevention of disease.

CO3. Students will understand mechanism of different vaccines and hypersensitivity reactions .

CO4. Understand the mechanism of action and the use of restriction enzymes in biotechnology research and recombinant protein production.

CO5. Understanding on application of genetic engineering techniques in basic and applied experimental biology and proficiency in designing and conducting experiments involving genetic manipulation.

Semester-IV-Plant & Animal Biotechnology - BT 401 (1)

CO1. The course will provide complete exposure as how plant and animal cells are isolated, cultured and genetically manipulated in laboratory.

CO2. To acquaint knowledge on maintenance of cell suspension cultures, their utilization for molecular farming.

CO3. To analyze commercially synthesizing products such as vaccines, hormones, proteins, enzymes, etc..

CO4. Understand the mechanism of different gene transfer methods in plants and animals.

CO5. Understand the applications of Transgenic plants and animals.

Semester-IV - Environmental & Industrial Biotechnology- BT 401 (2)

CO1. Environment Biotechnology is to describe existing and emerging technologies that are important in the area of environment.

CO2. Course will impart knowledge on principles and techniques which underline the application of bioscience, address environmental issues including pollution, mineral resource, renewable energy and water recycling.

CO3. Develop skills associated with screening of Industrially Important Strains.

CO4. Understand principles underlying design of Fermentor and Fermentation Process.

CO5. Understand the steps involved in production of various biotechnological products.

COURSE OUTCOMES

Semester-V - Organic Farming (Skill enhancement course (Elective)

CO1. To Understand the soil profile and nutrients in soil and estimate NPK levels in the soil

CO2. Appreciate the importance of organic manure and bio fertilizers

CO3. Develop skill of Produce vermi compost, farmyard manure from bio waste

CO4. Learn the technique of establishing organic farms to demonstrate the collection and processing of raw material

CO5. Equip with the skill of preparation of microbial media

Semester-V - Bio fertilizers and Bio pesticides production

(Skill enhancement course (Elective)

CO1. Understand the importance of bio fertilizers for sustainable agriculture

CO2. Acquire skill on isolation and maintenance of bio fertilizers

CO3. Understand the role of bio pesticides and isolate fungal bio control agents from soil samples.

CO4. Produce bio fertilizers and bio pesticides on large scale

CO5. Learn field application techniques of biofertilizers and biopesticides

COURSE OUTCOMES

Semester-V-Cell biology and genetics (syllabus according to 2018-2019 regulations)

CO1. Course will impart knowledge on isolation and identification techniques.

CO2. Course will impart knowledge on role of cell organelles, cell division and its regulation.

CO3. Course on molecular Biology & genetics will enhance the knowledge base about functional and structural organization of nucleic acid.

CO4. Acquire knowledge on different gene mutations and their causative agents

CO5. Acquire knowledge on Mendelian principles and their applications in biology and different epistatic gene interactions.

Semester V-Molecular Biology

CO1. The course particularly aims at understanding structure, synthesis and replication of nucleic acids.

CO2. To Understand the role of genetic code in transmitting genetic information.

CO3. To acquire knowledge on process of transcription and translation.

CO4. Acquire knowledge on enzymology and steps in gene expression and regulation.

CO5. To analyze the differences between Prokayotic and Eukaryotic Gene expression and Gene regulation.

Semester VI -Computer Science, Biostatistics & Bioinformatics

CO1.To understand about Bio informatics, it is an interdisciplinary area that is the interface between the biological and computational sciences.

CO2. The primary goal of this course is to uncover how various tools and techniques of bioinformatics can be utilized in studies pertaining to macromolecules (DNA, RNA, protein).

CO3. After completing this course students will be able to analyze, interpret and study biological data (sequence, structure, etc) stored in various databases available on internet.

CO4. To Understand the various Statistical Tools for Analysis of Biological Data.

CO5. To understand the applications of Statistics in data interpretation and arrival of results pertaining to the research based experiments.

COURSE OUTCOMES

Semester VI - Microbial Biotechnology (cluster elective)

CO1.To Develop an understanding of the various aspects of Bioprocess Technology.

CO2.To Develop skills associated with screening of Industrially Important Strains.

CO3.To Understand principles underlying design of Fermentor and Fermentation Process

CO4. The Course will impart knowledge on principles and techniques which underline the application of biosciences, address environmental issues including pollution, mineral

resource, renewable energy and water recycling.

CO5. The Course will have a specific focus on bioremediation and treatment of polluted effluent

Semester VI rDNA Technology (cluster elective)

COI. Understand the mechanism of action and the use of restriction enzymes in biotechnology research and recombinant protein production

CO2. Explain the steps of a bacterial transformation and various selection processes for identifying transformants.

CO3. Understanding on application of genetic engineering techniques in basic and applied experimental biology.

CO4. To acquire proficiency in designing and conducting experiments involving genetic manipulation.

CO5. To gain knowledge about GMOs production and ethical issues involved in it.

Semester VI-Plant And Animal Biotechnology (cluster elective)

CO1. The course will provide complete exposure as how plant and animal cells are isolated. cultured and genetically manipulated in laboratory

CO2. The course will provide information how cell suspension cultures can be utilized for molecular farming for commercially synthesizing products such as vaccines, hormones, proteins, enzymes, etc..

CO3. To Understand the mechanism of different gene transfer methods in production of transgenic plants.

CO4. To Understand the mechanism of different gene transfer methods in production of transgenic animals.

CO5. Understand the applications of Transgenic plants and Transgenic animals.

DEPARTMENT OF BIOTECHNOLOGY

Group: BTBC (UG)

CO ATTAINMENT LEVEL

Course: BIOMOLECULES and Bio analytical Techniques 2020-21(Sem-I)

COS	CO Attainment Level (Internal)	CO Attainment Level (External)	Direct CO Attainment Level =Internal 25%+External 75%	Indirect CO AL	Total CO ATL Direct CO Atl x80%+20%Indirect ATL
CO 1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
				Total	15
				FINAL CO ATL	**3**

Action Taken Report
Batch :2020-21, 1 BTBC-Sem-I; Course code :1003BIT 20
Course Name : BIOMOLECULES AND BIO ANALYTICAL TECHNIQUES

CO attainment level					
	CO 1	CO 2	CO 3	CO 4	CO 5
Target: 3	3	3	3	3	3
Attainment level:3	3	3	3	3	3
Observation : We have achieved the set Target Level.					

DEPARTMENT OF BIOTECHNOLOGY

Group: BTBC (UG)

CO ATTAINMENT LEVEL

Course: Microbiology,Cell and Molecular biology 2020-21(Sem-II)

Cos	CO Attainment Level (Internal)	CO Attainment Level (External)	Direct CO Attainment Level =Internal 25%+External 75%	Indirect CO AL	Total CO ATL Direct CO Atl x80%+20%Indirect ATL
CO 1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
				Total	15
				FINAL CO ATL	3

Action Taken Report
Batch :2020-21, BTBC -Sem-II; Course code :2003BIT 20
Course Name : Microbiology,Cell and Molecular biology

	CO 1	CO 2	CO 3	CO 4	CO 5
Target: 3	3	3	3	3	3
Attainment level:3	3	3	3	3	3
Observation : We have achieved the set Target Level.					

DEPARTMENT OF BIOTECHNOLOGY

Group: BTBC (UG)

CO ATTAINMENT LEVEL

Course: IMMUNOLOGY AND r DNA TECHNOLOGY 2020-21(Sem-III)

Cos	CO Attainment Level (Internal)	CO Attainment Level (External)	Direct CO Attainment Level =Internal 25%+External 75%	Indirect CO AL	Total CO ATL Direct CO Atl x80%+20%Indirect ATL
CO 1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
				Total	15
				FINAL CO ATL	3

Action Taken Report
Batch :2020-21, BTBC-Sem-III; Course code :3003BIT 20
Name : IMMUNOLOGY AND r DNA TECHNOLOGY

	CO 1	CO 2	CO 3	CO 4	CO 5
Target: 3	3	3	3	3	3
Attainment level:3	3	3	3	3	3
Observation : We have achieved the set Target Level.					

DEPARTMENT OF BIOTECHNOLOGY

Group: BTBC (UG)

CO ATTAINMENT LEVEL

Course: PLANT AND ANIMAL BIOTECHNOLOGY 2020-21(Sem-IV(1))

Cos	CO Attainment Level (Internal)	CO Attainment Level (External)	Direct CO Attainment Level =Internal 25%+External 75%	Indirect CO AL	Total CO ATL Direct CO Atl x80%+20%Indirect ATL
CO 1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
				Total	15
				FINAL CO ATL	3

Action Taken Report
Batch :2020-21, BTBC-Sem-IV; Course code :4003BIT 20
Name : Plant and animal biotechnology

	CO 1	CO 2	CO 3	CO 4	CO 5
Target: 3	3	3	3	3	3
Attainment level:3	3	3	3	3	3
Observation : We have achieved the set Target Level.					

DEPARTMENT OF BIOTECHNOLOGY

Group: BTBC (UG)

CO ATTAINMENT LEVEL

Course: ENVIRONMENTAL AND INDUSTRIAL BIOTECHNOLOGY 2020-21(Sem-IV(2))

Cos	CO Attainment Level (Internal)	CO Attainment Level (External)	Direct CO Attainment Level =Internal 25%+External 75%	Indirect CO AL	Total CO ATL Direct CO Atl x80%+20%Indirect ATL
CO 1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
				Total	15
				FINAL CO ATL	3

Action Taken Report

Batch :2020-21, BTBC-Sem-IV (2); Course code :4003BIT 20 (2)
Name : ENVIRONMENTAL AND INDUSTRIAL BIOTECHNOLOGY

	CO 1	CO 2	CO 3	CO 4	CO 5
Target: 3	3	3	3	3	3
Attainment level:3	3	3	3	3	3
Observation : We have achieved the set Target Level.					

DEPARTMENT OF BIOTECHNOLOGY

Group: BTBC (UG)

CO ATTAINMENT LEVEL

Course: ORGANIC FARMING 2020-21 (Sem-VI(1))

Cos	CO Attainment Level (Internal)	CO Attainment Level (External)	Direct CO Attainment Level =Internal 25%+External 75%	Indirect CO AL	Total CO ATL Direct CO Atl x80%+20%Indirect ATL
CO 1	3	1	2	3	2.2
CO2	3	1	2	3	3
CO3	3	1	2	3	2.2
CO4	3	1	2	3	2.2
CO5	3	1	2	3	2.2
				Total	11.8
				FINAL CO ATL	**2.36**

Action Taken Report - BATCH 2020-21,
BTBC-Sem-VI (1); Course code :6003BIT20 A
Course Name : ORGANIC FARMING

	CO 1	CO 2	CO 3	CO 4	CO 5
Target: 3	3	3	3	3	3
Attainment level:3	2.2	3	2.2	2.2	2.2

Observation : We have achieved the set Target Level.

DEPARTMENT OF BIOTECHNOLOGY

Group: BTBC (UG)

CO ATTAINMENT LEVEL

Course: BIOFERTILIZERS AND BIOPESTICIDES 2020-21(Sem-VI(2))

Cos	CO Attainment Level (Internal)	CO Attainment Level (External)	Direct CO Attainment Level =Internal 25%+External 75%	Indirect CO AL	Total CO ATL Direct CO Atl x80%+20%Indirect ATL
CO 1	3	1	2	3	2.2
CO2	3	1	2	3	3
CO3	3	1	2	3	2.2
CO4	3	1	2	3	2.2
CO5	3	1	2	3	2.2
				Total	11.8
				FINAL CO ATL	**2.36**

Action Taken Report BATCH 2020-21,
BTBC Sem-VI (2); Course code :6003BIT20B
Name : BIOFERTILIZERS AND BIOPESTICIDES

	CO 1	CO 2	CO 3	CO 4	CO 5
Target: 3	**3**	**3**	**3**	**3**	**3**
Attainment level:3	**2.2**	**3**	**2.2**	**2.2**	**2.2**

Observation : We have achieved the set Target Level.

Criteria - II:TEACHING- LEARNING AND EVALUATION

- Student seminars are organized regularly to develop presentation and communication skills in student community
- Guest lectures by eminent academicians are arranged to create in-depth understanding of the subject
- Remedial coaching is provided for slow learners and moderate learners
- Group discussions are in practice in order to develop initiation and leadership qualities among students
- Periodical assignments were given to evaluate the students performance
- Peer teaching is encouraged to motivate them towards high levels of learning
- Advanced coaching for meritorious students about job opportunities at various universities and prestigious institutions
- Career counseling to create awareness regarding various job opportunities at state and National level
- Bridge course is organized regularly to the students who studied vocational courses at +2 level to integrate them with regular students who are in mainstream
- PPTs and YouTube lessons are used as a part of ICT based learning
- Field trips are arranged to create real time experience
- Evaluation is based on **C**ontinuous **I**nternal **A**ssessment (**CIA**) with various pedagogical tools.

Criteria - III:RESEARCH INNOVATION AND EXTENSION

- Faculty active participation and paper presentations in seminars and workshops.
- Providing opportunities to the young minds to inculcate research motto through internships.
- Extension activities like **"Lab to School"** was conducted through **Biotechnology club**

- Faculty developed content for CCE-LMS in 4 quadrant model.
- Encouraging students to participate in social outreach activities through NSS&NCC
- Faculty involved in research and publishing articles in reputed journals

Criteria - IV:INFRASTRUCTURE AND LEARNING RESOURCES

- Collection of Reference books(25 in No.) available in departmental sectional Library
- Teachers Prepared Power Point lessons (CCE - LMS)
- Well equipped Biotechnology Laboratory with Desktop and WiFi.
- Students has access to old question papers, study material etc.,

Criteria - V : STUDENT SUPPORT AND PROGRESSION

- Most of the biotechnology graduates pursuing higher education (PG) in reputed universities across the state.
- Few students joined in jobs like medical coding and in aqua industries around Krishna Dist.,

Criteria - VI : GOVERNANCE, LEADERSHIP AND MANAGEMENT

- Faculty of biotechnology department render services as convenor/Member of the various committees constituted by college Principal and cooperate for smooth administration in college.

Criteria - VII : BEST PRACTICES

CORE VALUES OF THE DEPARTMENT

- Biotechnology club was established to conduct student centric extra curricular activities.
- students shall learn the things by **experiential and participative learning.**

OBJECTIVES OF THE CLUB:

- To inculcate social responsibility, awareness on common problems spread in the community
- To encourage students to self learning
- To build critical thinking and problem solving attitude in student community

BEST PRACTICES OF THE BIOTECH CLUB

1. To organize extension activities related to community and society
   Ex: LAB TO SCHOOL, awreness rally etc.,
2. Commemorate the birthdays of eminent scientists
   Ex: Alexander Fleming Birthday on 06.08.2023
3. Publishing wall magazine to create awareness in peers
   Ex: Awareness on seasonal diseases
   Recent advances in Science etc.,

OUTCOME OF THE PRACTICE

- To affix DSR - Departmental Social Responsibility in stake holders
- To practice extension and outreach programmes for the welfare of the community

Various activities

CURRICULAR, CO-CURRICULAR & EXTRA CURICULAR ACTIVITIES

Of the Department

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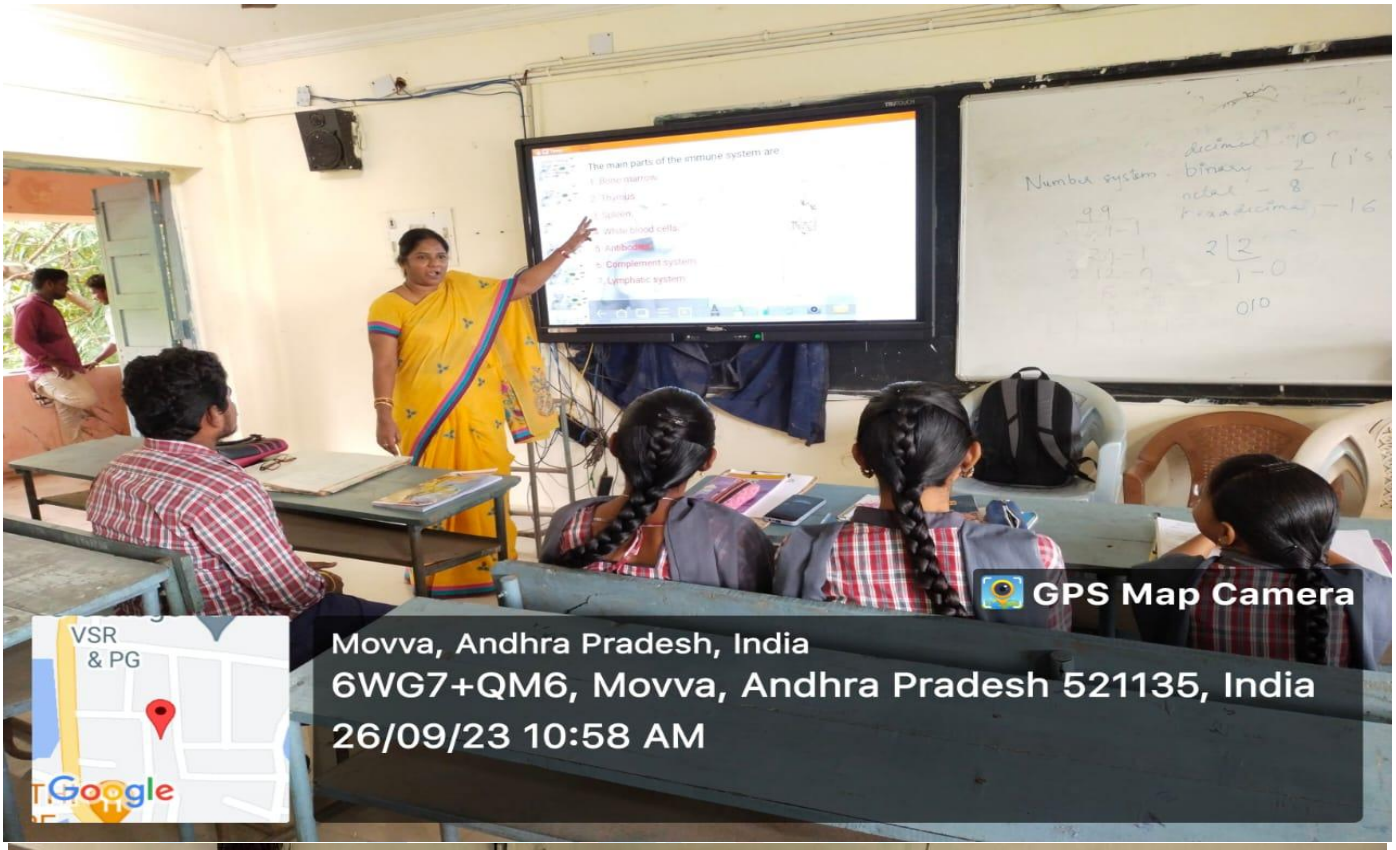
ICT BASED TEACHING



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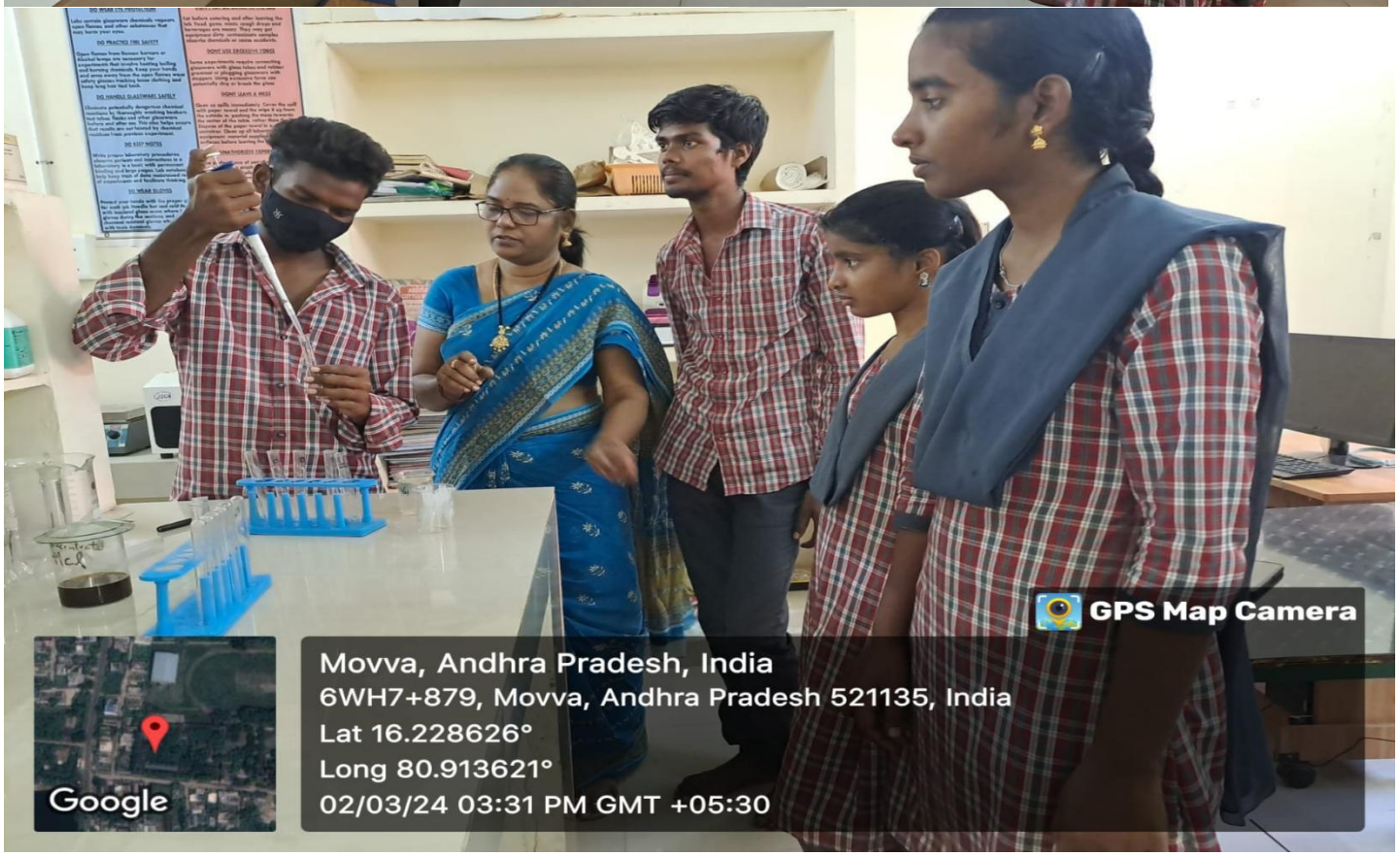
Demonstration of PRACTICALS



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Peer Teaching - Practical demonstration of Blood Grouping by III yr student Ch.Ashwitha to IIyr students

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Guest Lectures

An invited talk delivered by Smt.B.Haritha, Lecturer, Pavithra Degree College, Machilipatnam on “Organic Farming -Significance and Applications” on 20.02.24

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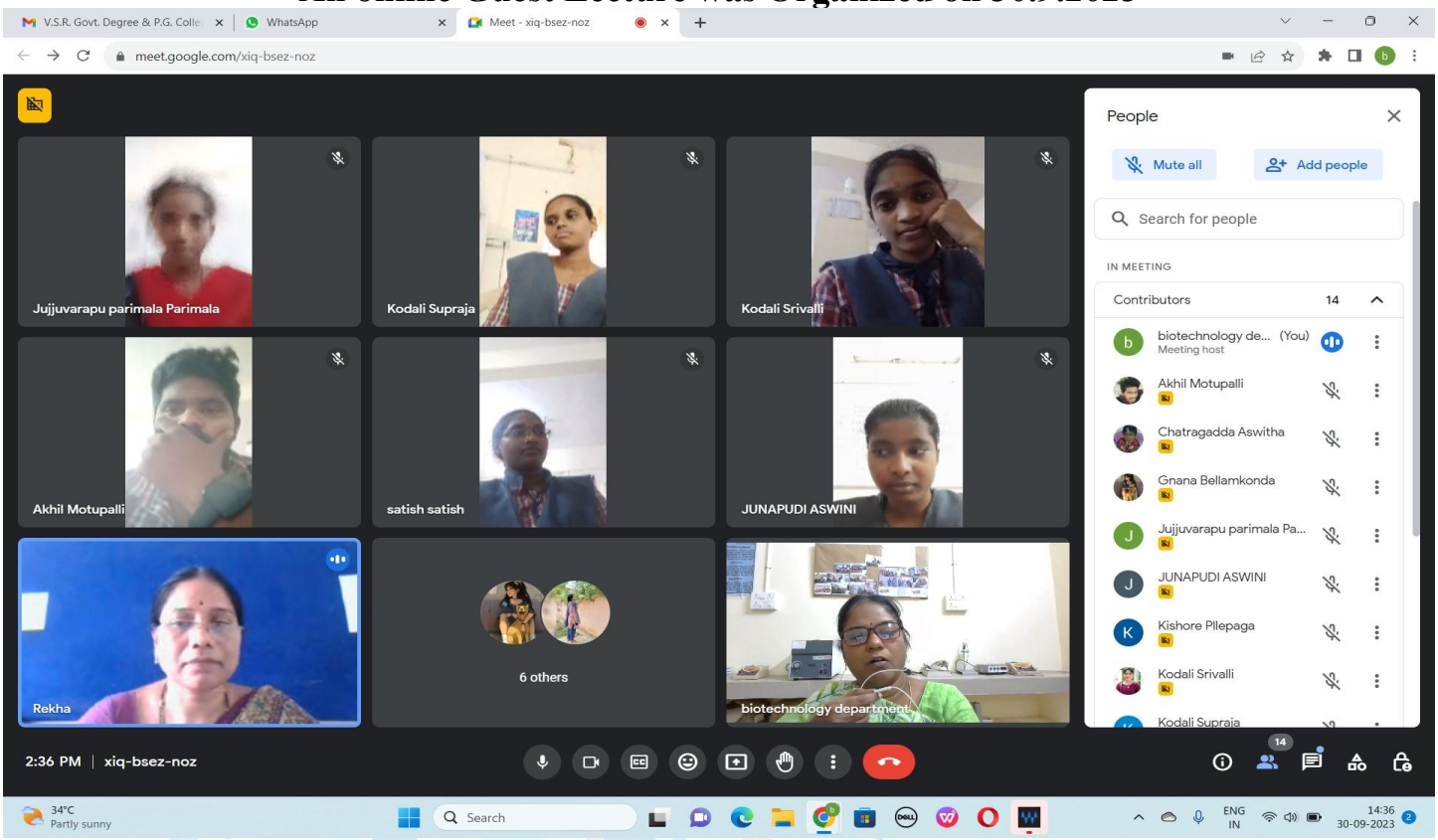
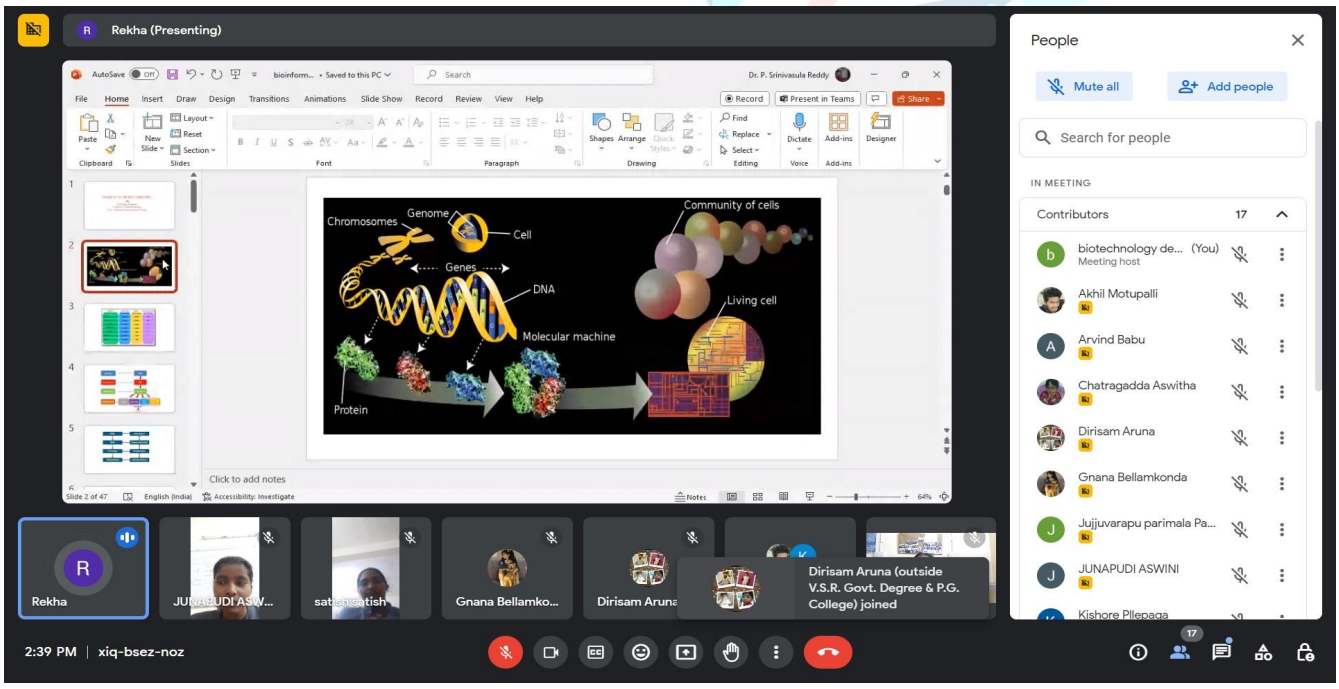
An online Guest Lecture was Organized on 30.9.2023



Speaker Dr.K.Rekha, Lecturer in Biotechnology, Dr.VSK Govt.Degree College(A), Visakhapatnam
Topic: Basics of Bioinformatics and its applications in drug discovery



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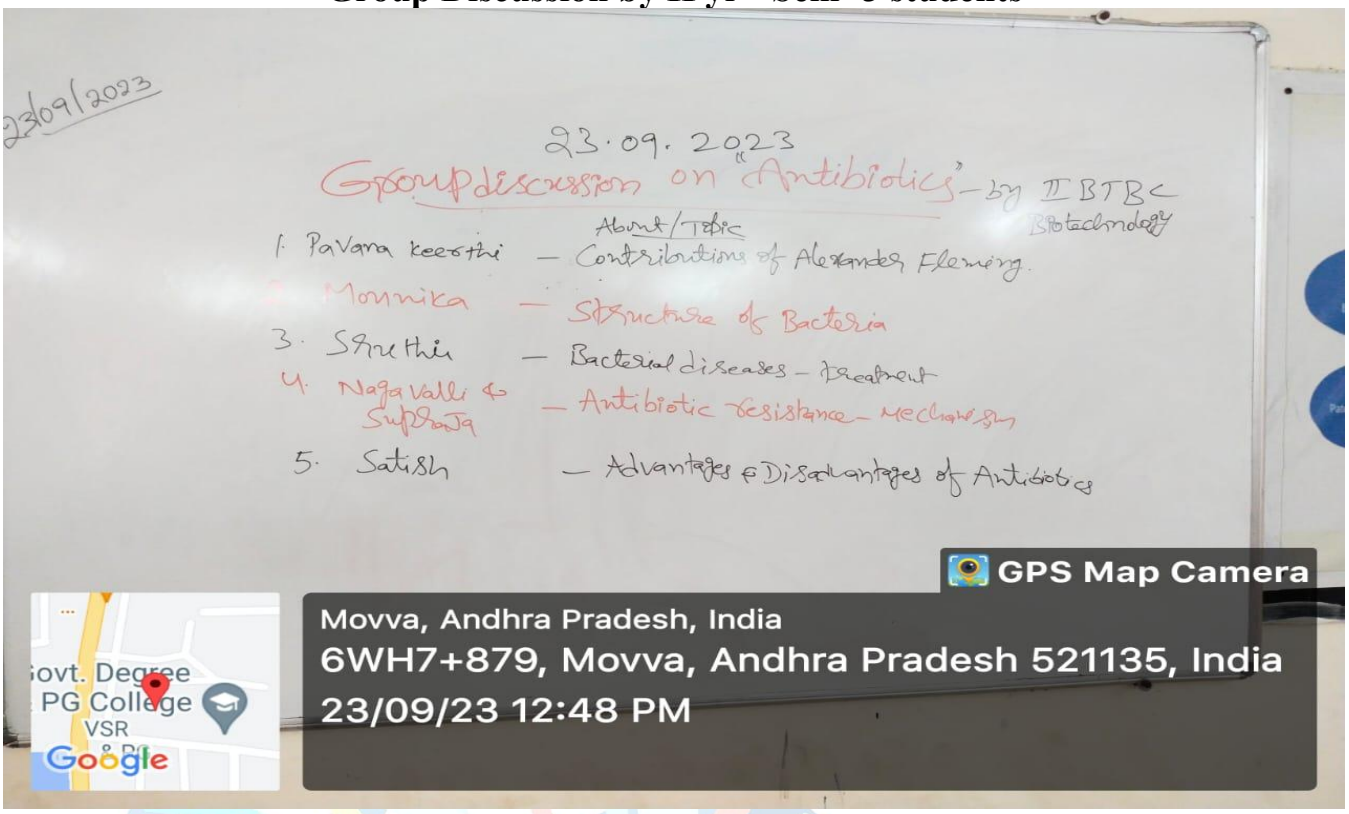
Group Discussion by II yr - Sem -3 students



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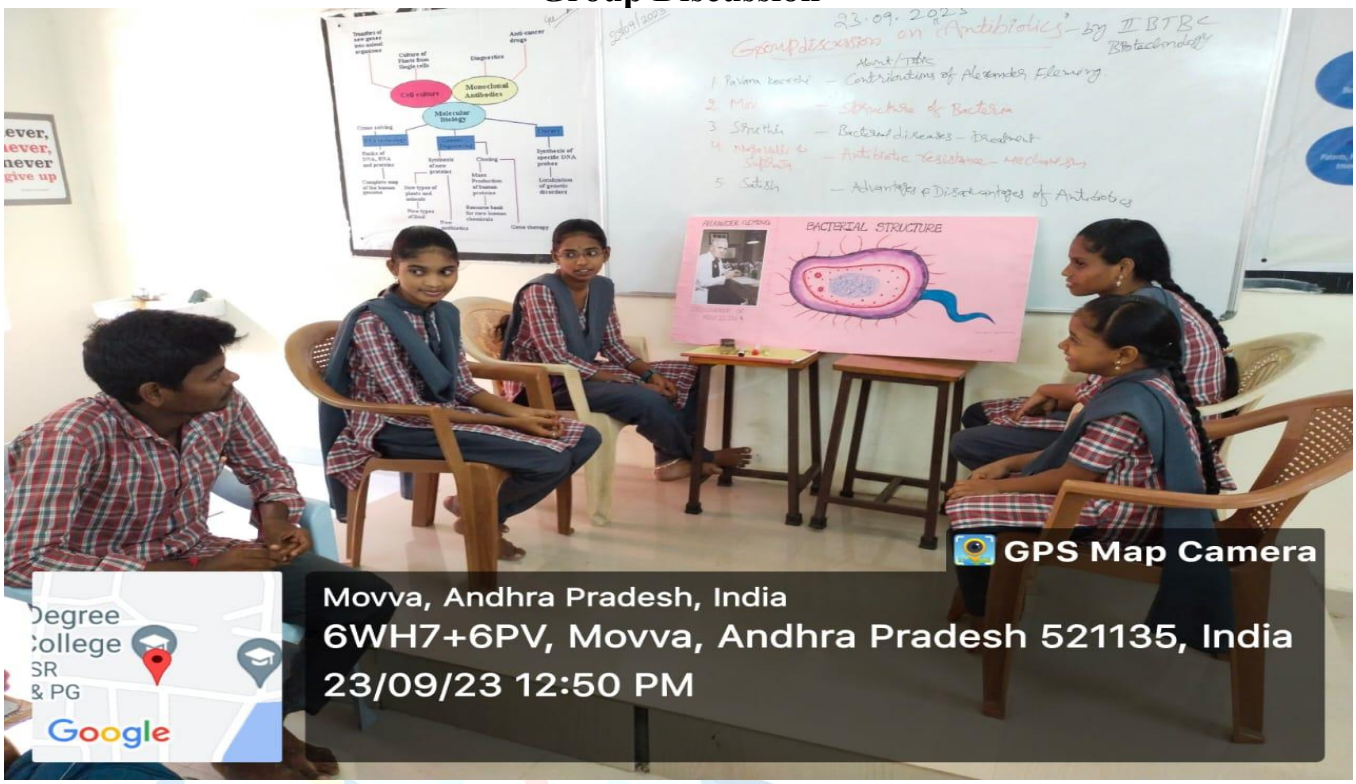
Group Discussion



Ward Counselling to II yr Sem 3 students

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Biotechnology Club - EXTENSION ACTIVITIES - LAB TO SCHOOL

Topic: Awareness on Seasonal Diseases and Misuse of Antibiotics

సీజనల్ వ్యాధుల పట్ల అవగాహన

ప్రజాకాంక్ష - మొవ్వ : మొవ్వ వి ఎస్ ఆర్ ప్రభుత్వ డిగ్రీ మరియు పీజీ కళాశాల, బయోటెక్నాలజీ శాఖ ఆధ్వర్యంలో సోమవారం శ్రీ మండవ కనకయ్య జిల్లా పరిషత్ ఉన్నత పాఠశాల నందు బ్యాక్టీరియా వలన వచ్చేటటువంటి వ్యాధుల గురించి పాఠశాల ప్రధానోపాధ్యాయులు ఎస్ సాంబశివరావు అధ్యక్షతన అవగాహన సదస్సు నిర్వహించారు. ఈ అవగాహన కార్యక్రమంలో బయోటెక్నాలజీ రెండవ సంవత్సరం చదువుతున్నటువంటి విద్యార్థిని విద్యార్థులు బ్యాక్టీరియా వలన వచ్చేటటువంటి సీజనల్ వ్యాధుల గురించి వాటి నివారణకు తీసుకోవలసిన తగు చర్యల గురించి మరియు యాంటీబయోటిక్స్ మందుల వాడకం గురించి ఆ మందులు నిరుపయోగంగా లేదా డాక్టర్ సలహా లేకుండా వాడడం వల్ల వచ్చేటటువంటి అవాంఛితమైనటువంటి పరిణామాలు గురించి వివరించడం జరిగింది. ఈ సందర్భంగా బయోటెక్నాలజీ శాఖ అధిపతి డాక్టర్ కే వసుధ మాట్లాడుతూ యాంటీబయాటిక్ రెసిస్టెన్స్ గురించి వివరించడం జరిగింది. యాంటీబయటిక్ రెసిస్టెన్స్ వల్ల మానవులు అన్ని రకాలైనటువంటి ఇన్ఫెక్షన్స్ కి బ్యాక్టీరియల్ ఇన్ఫెక్షన్స్ కి గురవడం వ్యాధి నిరోధకతను చూపించలేకపోవడం జరుగుతుందని విచ్చలవిడిగా యాంటీబయాటిక్స్ ఉపయోగించరాదని తెలియజేశారు.

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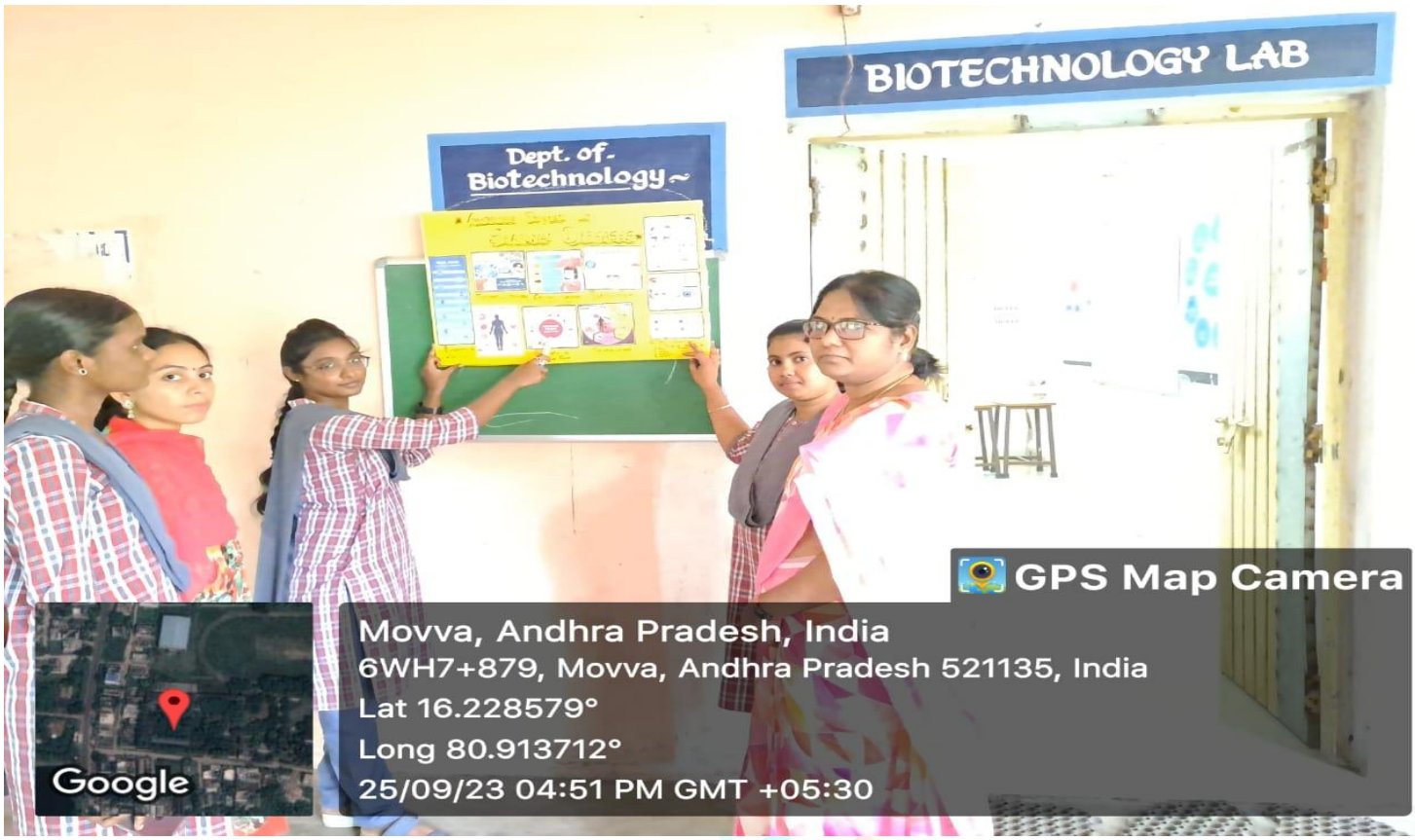
Best Practice - Display of Wall Magazine on
"Viral Diseases and their prevention"



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Ward Counselling to II yr Sem 3 students

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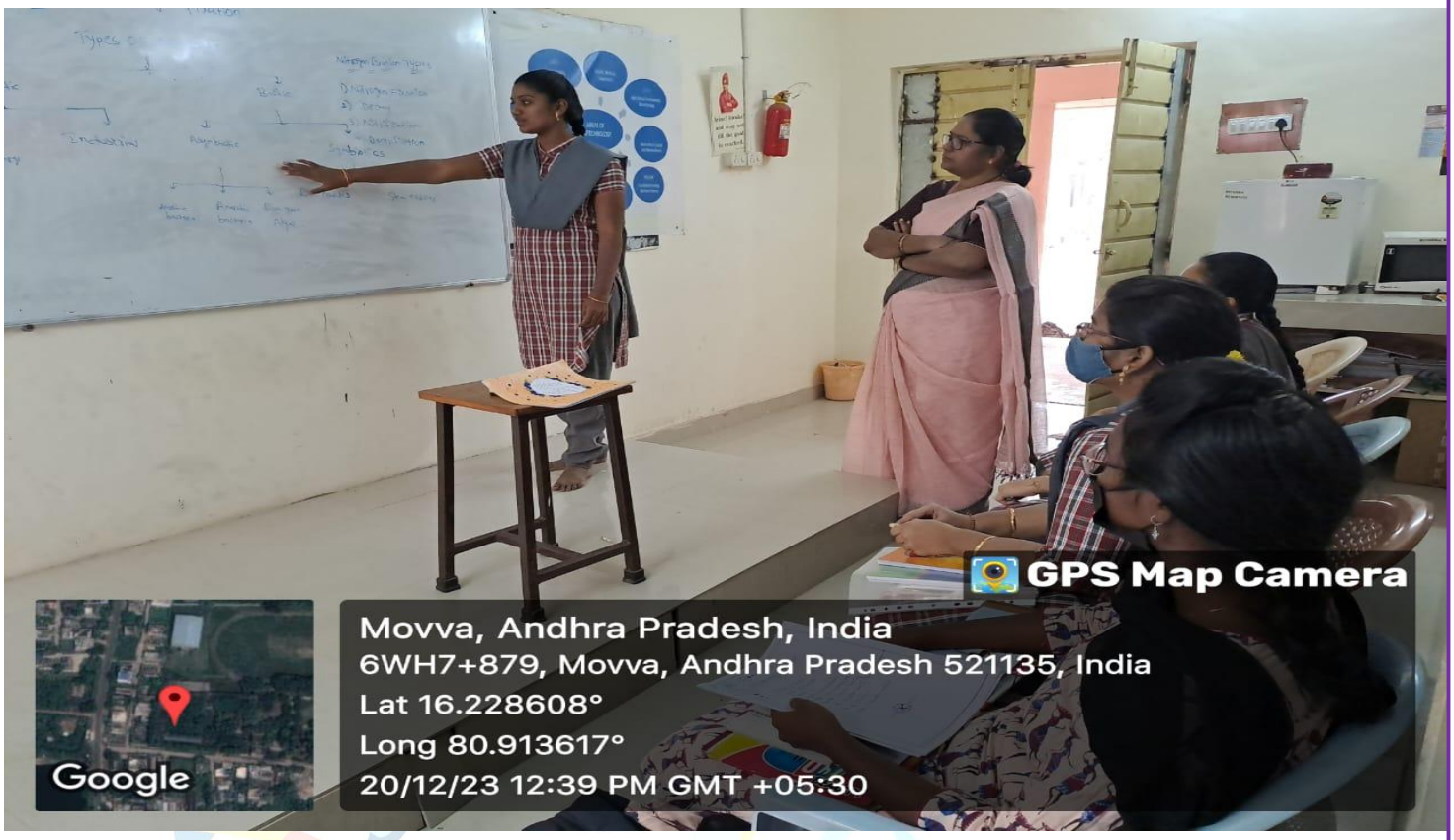
Student Seminars



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STUDENT INDUCTION PROGRAMME(SIP)-2023 FOR IYR
Field Trip to Ghantasala(Buddhist Sthupa)

విద్యార్థులు చారిత్రాత్మక ప్రదేశాల సందర్శన

విశాఖాంధ్ర-కూచిపూడి : మొవ్వ వి.ఎస్.ఆర్ ప్రభుత్వ డిగ్రీ మరియు పీజీ కళాశాల విద్యార్థులకు నిర్వహించిన "చారిత్రాత్మక ప్రదేశాల సందర్శన" కార్యక్రమంలో భాగంగా శనివారం అవనిగడ్డ నియోజకవర్గం లోని ఘంటసాల బౌద్ధ క్షేత్రాన్ని సందర్శించారు. ఈ సందర్భంగా బౌద్ధ క్షేత్ర విశేషాలను వివరాలను అధ్యాపకులు విద్యార్థులకు వివరించారు. ఆ కళాశాల ప్రధానాచార్యులు డాక్టర్ ఎస్ మాధవి సూచనతో బీఏ హిస్టరీ, పొలిటికల్ సైన్స్, విభాగాలలోని సైన్స్ మరియు కామర్స్, మొదటిసంవత్సరం విద్యార్థిని విద్యార్థులు ఘంటసాల లోని బౌద్ధ స్తూపం, మ్యూజియంను సందర్శించారు. బౌద్ధ క్షేత్రంలోని గౌతమ బుద్ధునికి సంబంధించిన అవశేషాలను తిలకించి దానికి సంబంధించిన అంశాలను తెలుసుకొన్నారు. ఈ కార్యక్రమంలో విద్యార్థిని విద్యార్థులతో పాటు కళాశాల సూపరింటెండెంట్ ఇంచార్జ్ భోగాం కోఆర్డినేటర్ డాక్టర్ వి వసుధ, అధ్యాపకులు కొప్పిన ఆర్ వెంకయ్య, డాక్టర్ ఎం సుందర రావు, డాక్టర్ సిహెచ్ ఆనందకుమార్, పాల్గొన్నారు.

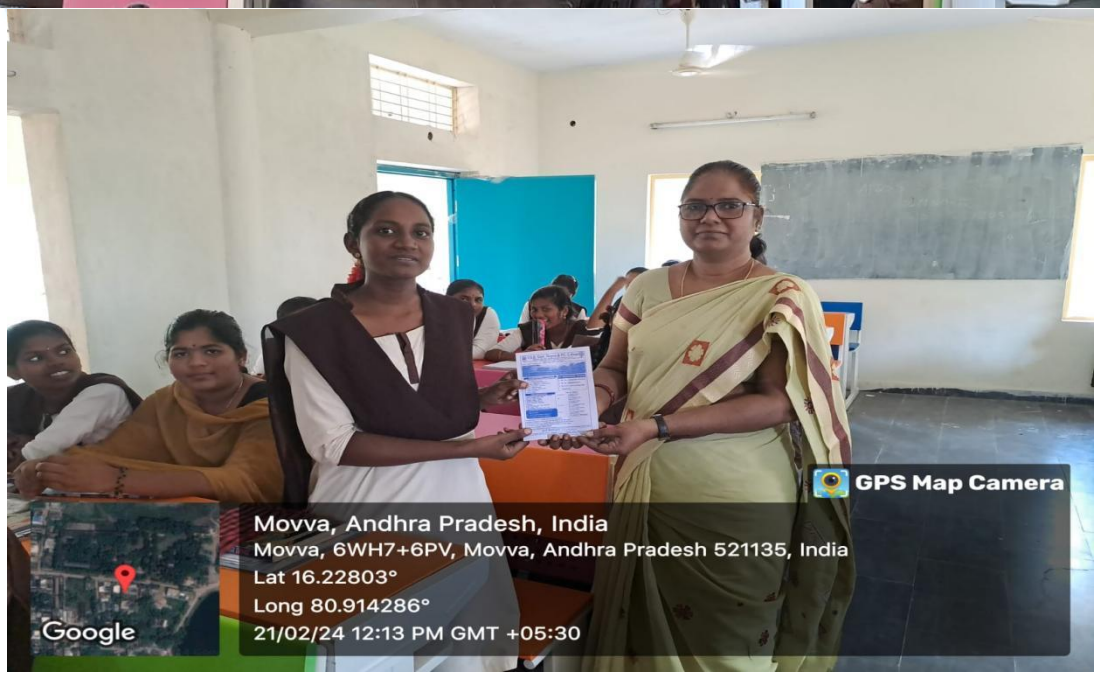
https://www.freepik.com/free-vector/dna-helix-symbol

Skill training on Mushroom Cultivation and Production of value added products by Krishi Vigyan Kendra, Ghantasala from 05.02.2024 to 07.02.2024

https://www.freepik.com/free-vector/dna-helix-symbol

Admission Campaign at Kshetrhaiah Government Junior college, Movva

Created awareness on courses offered in B.Sc degree for Life sciences (Bi.P.C) students



Pamphlet distribution to Intermediate students

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Field Visit to Biocontrol Lab at Krishi Vigyan Kendra, Ghantasala on 09.01.2024

Students and staff exhibiting a fungal biocontrol agent formulations "*Trichoderma viridae*" culture prepared by KVK, Ghantasala.

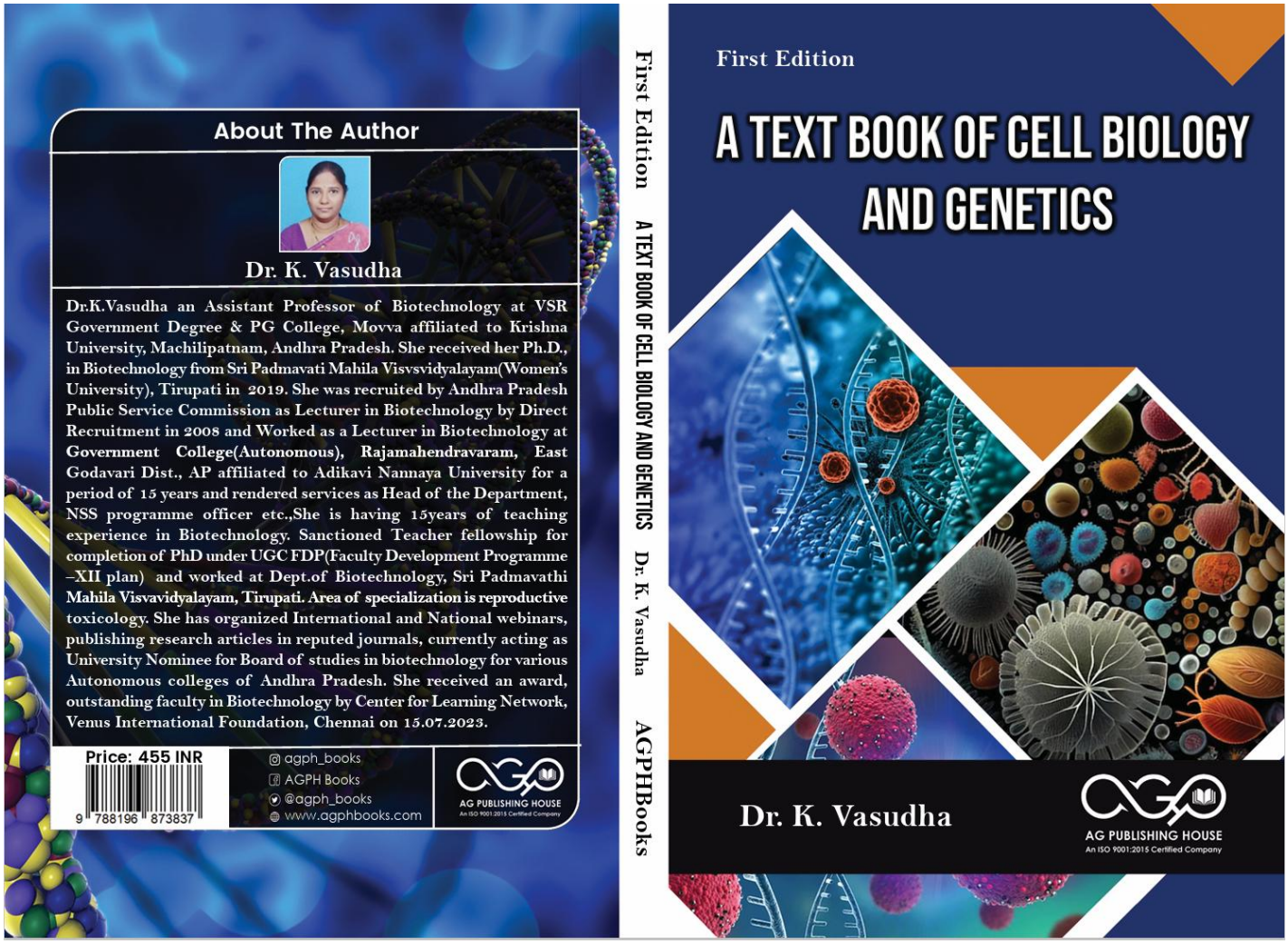
https://www.freepik.com/free-vector/dna-helix-symbol

Details of Text Book Published

Title of the Book : A Text Book Of Cell Biology And Genetics

Author : Dr.K.Vasudha

- **Publisher: AG Publishing House**
- **ISBN: 9788196873837**
- **Edition: First Edition, 2023**
- **Pages: 233**



https://www.freepik.com/free-vector/dna-helix-symbol

Research Papers published(2023-2024)by Dr.K.Vasudha

S.NO	Name of the Journal	Topic	ISSNO.	Date
1	Next Materials	Green fabrication of *Tinospora cordifolia*-derived MgO nanoparticles: Potential for diabatic control and oxidant protection	100171	1 March 2024
2	International Journal of Membrane Science and Technology	The Role of Herbal Medicine in Oxidative Stress: Prevention of Diabetes	2410-1869 Vol. 10, No. 4, pp 2374-2378	8 August 2023
3	The International journal of analytical and experimental modal analysis	Isolation and antimicrobial activity of marine actinomycetes from Nizampatnum soil.	0886-9367	September 2023
4	Solovyov Studies ISPU	A Comparative Analysis of Nutritional and Protein Composition in Vegan and Non-Vegan Milk Products	2076-9210	September 2023
5	The International journal of analytical and experimental modal analysis	Production and partial purification of pectinase enzyme by marine aspergillus niger from orange peels	0886-9367	July 2023

Ministry of Culture
Government of India

Azadi Ka Amrit Mahotsav

CERTIFICATE

OF APPRECIATION

PROUDLY PRESENTED TO

Dr.K.Vasudha

FOR SUCCESSFULY UPLOADING A SELFIE,
AN INITIATIVE BY THE MINISTRY OF CULTURE TO MARK **AZADI KA AMRIT MAHOTSAV**

HAR GHAR TIRANGA

https://www.freepik.com/free-vector/dna-helix-symbol

Awareness Programme on “Career Guidance”

కేరీర్ గైడెన్స్‌పై విద్యార్థులకు అవగాహన

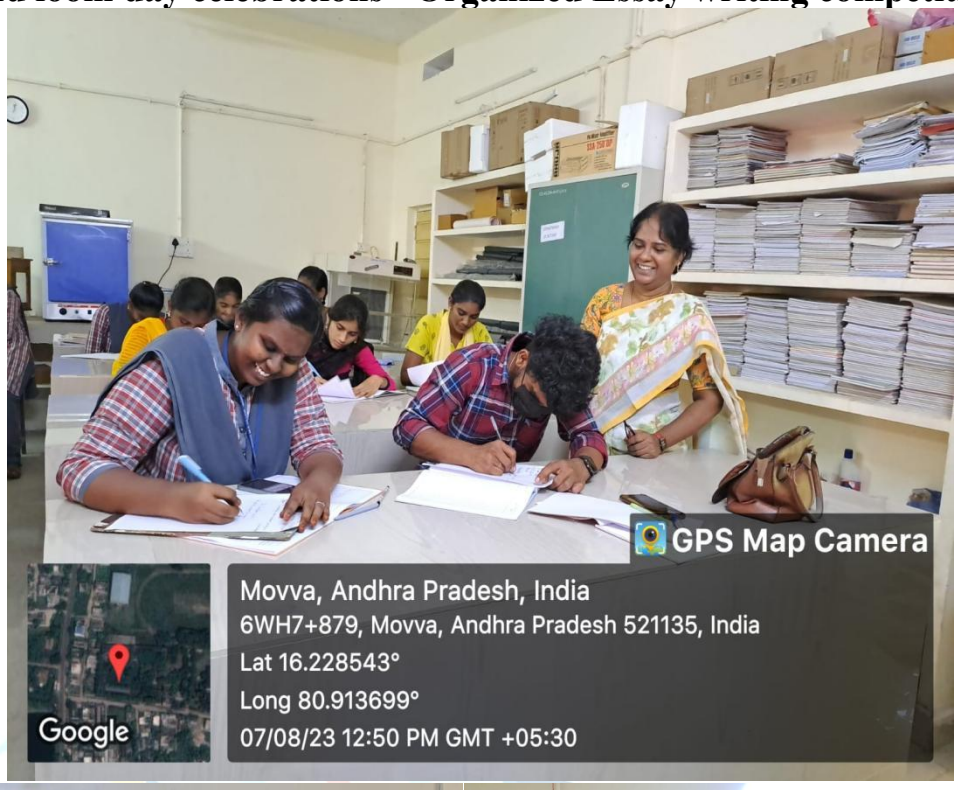
విశాలాంధ్ర- కూచిపూడి : మొవ్వవిఎస్సార్ ప్రభుత్వ డిగ్రీ మరియు పీజీ కళాశాలలో కెరీర్ గైడెన్స్ సెల్, డిపార్ట్మెంట్ ఆఫ్ బయోటెక్నాలజీ సంయుక్తంగా ఐ .క్యు .ఏ.సి. ఆధ్వర్యంలో బీఎస్సీ, బిఏ, బీకాం విద్యార్థులకు కెరీర్ ఆపర్చునిటీస్ విత్ రెస్పెక్ట్ టుఇంటెన్షివ్ అనే అంశంపై సోమవారం అవగాహన కార్యక్రమాన్ని నిర్వహించారు. ఈ విషయాన్ని కళాశాల ప్రిన్సిపల్ డాక్టర్ ఎస్ మాధవి విలేకరులకు తెలిపారు .ఈ కార్యక్రమాన్ని గుంటూరు పెరల్స్ల్యాబ్స్ సహకారంతో నిర్వహించారు . ముఖ్య అతిధిగా డాక్టర్ ఇమ్రాన్ ఉల్లా ఖాన్, (పెరల్స్లాబ్స్ గుంటూరు) మాట్లాడుతూ బి.ఏ విద్యార్థులు కంప్యూటర్ స్కిల్స్.లోఎమ్మెస్ ఆఫీస్ నేర్చుకోవడం ద్వారా డిగ్రీ తోనే ఉద్యోగ ఉపాధి అవకాశాలు పొందవచ్చని తెలియజేశారు. బి.ఎస్.సిలైఫ్ సైన్సెస్ నందు కరోనా తర్వాత ఉపాధి అవకాశాలు పెరిగినట్లు వివరించారు. ఈ సందర్భంగా తమ సంస్థలో కల వివిధ ఉపాధి కోర్సుల గురించి వివరించారు. ఈ కార్యక్రమంలో కోఆర్డినేటర్ డాక్టర్ మల్లేశ్వరమ్మ, నాక్ కోఆర్డినేటర్ డాక్టర్ ఎల్వీ కృష్ణారావు ,డాక్టర్ కృష్ణమోహన్ డాక్టర్ కే వసుధ ఆర్ వెంకయ్య డాక్టర్ ఎంసుందరరావు,జి. సురేష్ ,బి రఫియా లతో పాటు అధ్యాపకులు విద్యార్థినీ విద్యార్థులు పాల్గొన్నారు

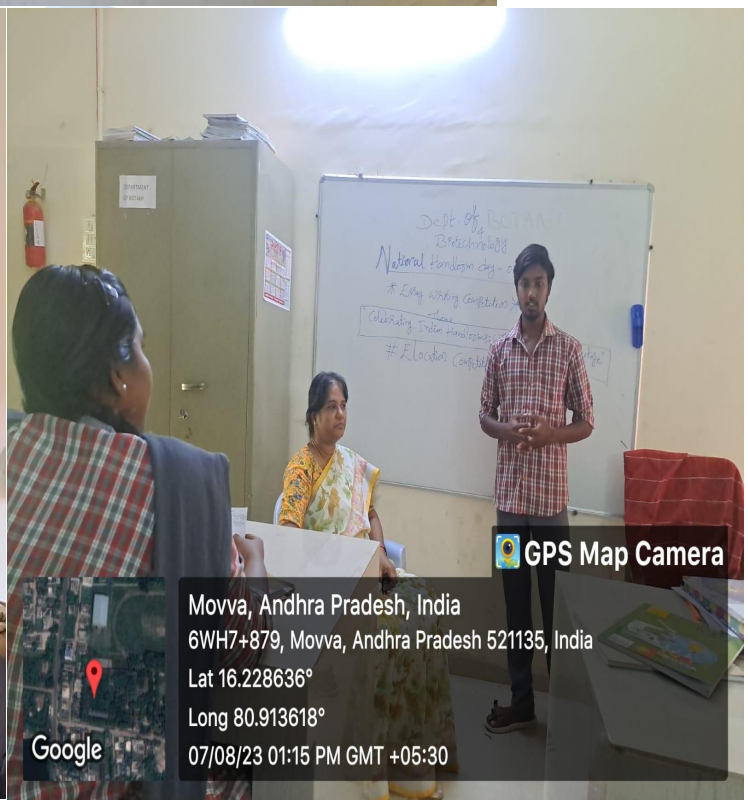
https://www.freepik.com/free-vector/dna-helix-symbol

Field Visit to ARS(Agriculture Research Station) Krishi Vigyan Kendra, Ghantasala
Seedlings cultivation under shade net

https://www.freepik.com/free-vector/dna-helix-symbol

National Hand loom day celebrations - Organized Essay writing competition@07.08.23





Elocution Competitions

https://www.freepik.com/free-vector/dna-helix-symbol

National Handloom day celebrations @ 07.08.23 - Prize Distribution by Principal

మొవ్వ కళాశాలలో జాతీయ చేనేత వస్త్ర దినోత్సవం

మొవ్వ – అమరావతి: మొవ్వ వి ఎస్ ఆర్ ప్రభుత్వ డిగ్రీ మరియు పీజీ కళాశాలలో సోమవారం జాతీయ చేనేత వస్త్ర దినోత్సవం కార్యక్రమాన్ని నిర్వహించారు. ఆ కళాశాల బాటని మరియు బయోటెక్నాలజీ శాఖల సంయుక్త ఆధ్వర్యంలో నిర్వహించగా ప్రిన్సిపాల్ డాక్టర్ ఎన్ మాధవి అధ్యక్షో పన్యాసం చేస్తూ చేనేత వస్త్రాలు భారతీయ సంస్కృతిని ప్రతిబింబచేస్తాయని, చేనేత కార్మికులు మన కళను ఎంతో నైపుణ్యంతో వస్త్రాలపై తీర్చిదిద్ది వారిలో ఉన్న ప్రతిభను వదిమందికి తెలియపరచడంలోనే సంతృప్తి చెందుతున్నారని వెల్లడి చేశారు. ఈ సందర్భంగా విద్యార్థిని విద్యార్థులకు''భారత చేనేత వస్త్రాలుచేనేత మన సంస్కృతి''అనే అంశంపై వ్యాసరచన, వక్తృత్వ పోటీలను నిర్వహించి విజేతలకు ప్రోత్సాహక బహుమతులు అందజేశారు. ఈ కార్యక్రమంలో వైస్ ప్రిన్సిపాల్ మంజుల, అధ్యాపకులు అనిల్ ,వసుధ, నాగ పరమేశ్వరి తదితర అధ్యాపక బృందం విద్యార్థులు పాల్గొన్నారు.

https://www.freepik.com/free-vector/dna-helix-symbol

THANK YOU

https://www.freepik.com/free-vector/dna-helix-symbol

VSR GOVERNMENT DEGREE AND PG COLLEGE

MOVVA

DEPARTMENT OF BIOTECHNOLOGY

ACTIVITIES – 2021 - 2022

Field visit to ARS Ghantasala

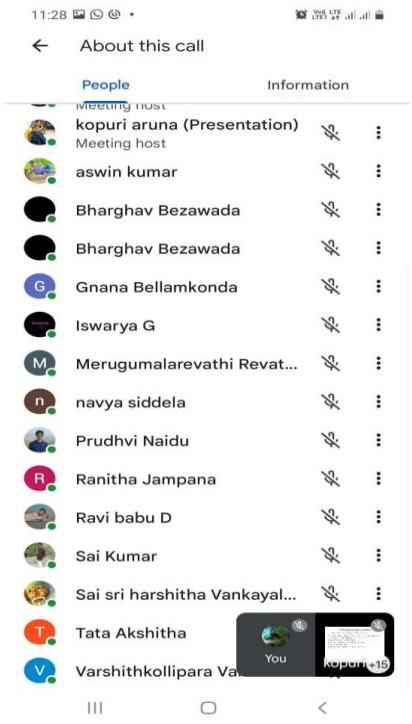
Department of Biotechnology organised a field trip to Agriculture Research Station, Ghantasala on 26/11/2021 to II and III year students. Students learnt about the hybridisation procedures following in ARS Ghantasala on rice follow black gram cultivation.

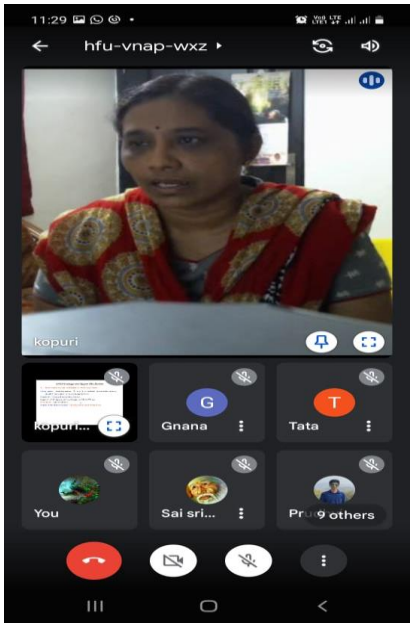
OPEN BOOK SHOW PROGRAMME

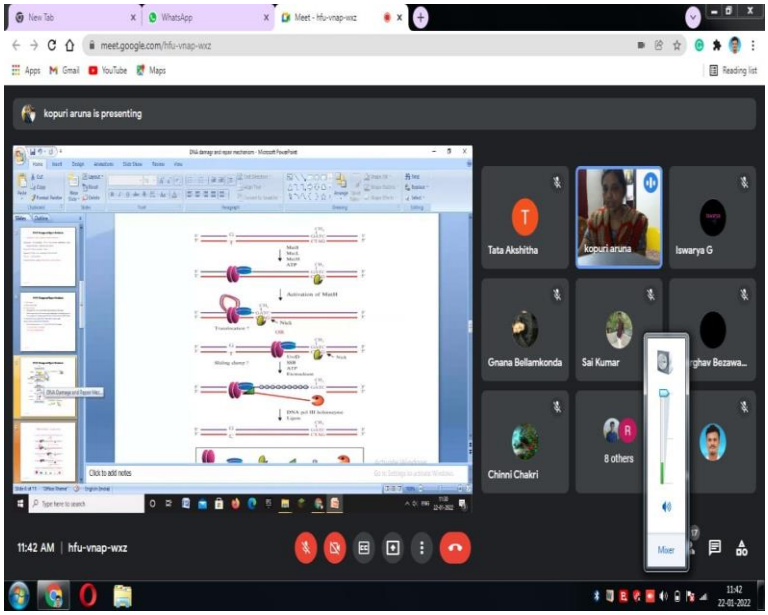
Department of biotechnology organised book show program on 21/1/2022 to 1st year students of biotechnology in our college library. Nearly 12 students participated and learn about the infrastructure facilities provided in our college library like books available resources available journals available etc.. Students must have focus on library and Library resources to gain the knowledge without Adhere to a given single book or a material.

ONLINE GUEST LECTURE

Department of biotechnology organised an online guess lecture to final year and 2nd year students with Dr K. Aruna, lecturer in Microbiology, SRR and CVR College, Vijayawada on DNA damage and repair on 22/2/2022. Nearly 23 students participated and learn about mechanism involved in repair of damaged DNA.

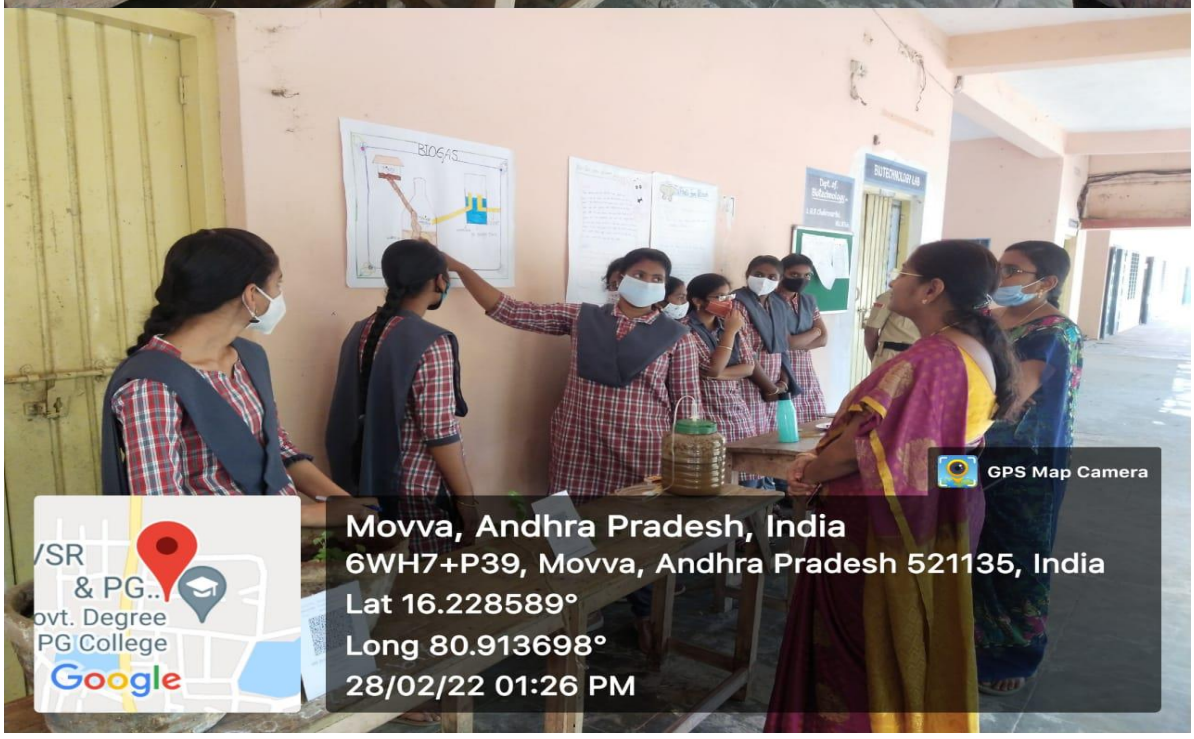






NATIONAL SCIENCE DAY 2023

National science day event was conducted by Department of Biotechnology on 28/02/2023 to kindle the scientific temperament among the students. Students participated and exhibits different models.



WORKSHOP ON REGENERATIVE FARMING

Department of biotechnology organised two days workshop on regenerative farming in Association with Nandi foundation and Mahindra Pride class on 14/3/22 and 15 /3/22. Workshop conducted on 14/3/22, students learn about procs and cons of organic farming by preparing chart models and by participating in debate, group discussion etc.. On the second day of workshop that is 15 /3 /2022 students got knowledge and hands on experience on preparation of different organic fertilizer like panchagavya, jeevamrutham and organic compost etc. Students are very much interested in participating in this workshop and they practice the same to rejuvenate the soil and earth first and third BSc biotechnology and BZC students are participated.


Mahindra
2021-2022
FOUNDATIONAL COURSE IN
REGENERATIVE AGRICULTURE

HANDS ON TRAINING ON SCIENTIFIC BEE KEEPING

Department of biotechnology selected second BSc biotechnology students for hands on training program conducted by KVK Ghantasala in "**scientific bee keeping**" for one week 10 students send to kvk Ghantasala from 25/3/22 to 31/3/ 2022. They explore the knowledge on scientific bee keeping that is apiculture every student get expertise on bee keeping, bee rearing, Honey production and marketing, schemes of AP and Central government provided to develop apiculture in India. By this program students develop skill on bee keeping.


ON SCIENTIFIC BEE KEEPING
Hyderabad

FIELD TRIP TO ARS, VIJAYROY, WEST GODAVARI

Department of biotechnology conducted field trip to ARS Vijaya Roy on 04/04/2022 to know the scientific methods that are following in Maize research on par with maize research, ARS Vijaya Roy, West Godavari is the centre for All India research centre in apiculture. In Vijay Roy students observe different types of honey bees rearing like Apis Serena Indica, mellifera and Tetra gonila beekeeping and types of boxes used for Apiculture to estimate from which frames size the honey production is more. In case of Tetragonila a lot of scientific reasons work in Vijay Roy ARS helps students to develop scientific temperament nearly 40 students from BSc biotechnology and BZC are participated in this program.

EXTENSION PROGRAMME TO INTERMEDIATE STUDENTS

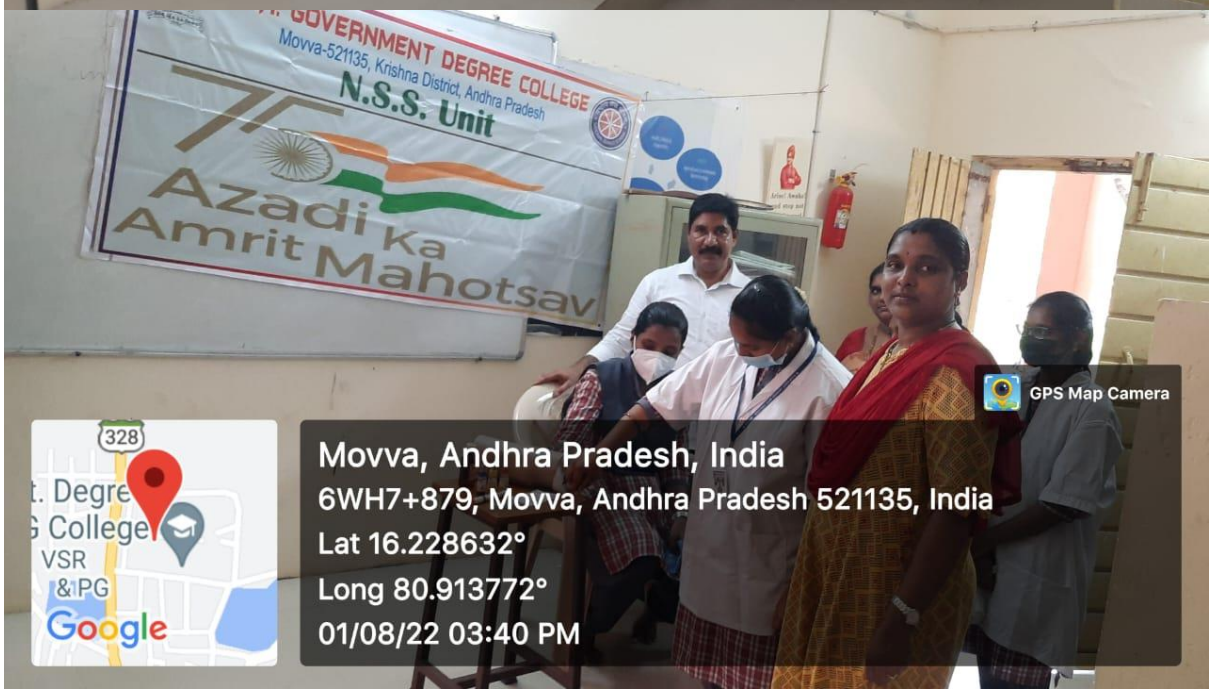
Department of biotechnology organised and extension program to 2nd year BiPC intermediate students on 28/04/2022 on the scope of biotechnology. In this we invite the second intermediate students to the department laboratory visit to know about the equipment and their operation uses of instruments. Students by observing all the equipment they got some knowledge on the topics they are studying in intermediate. This visit makes the student study easy this visit helps the students to opt for BSc biotechnology in their future study.

OAMDC ADMISSION CAMPAIGN

Department of biotechnology organised a campaign program on 30/7/2022 on the essence of biotechnology in our department. This program is a part of improving admissions in biotechnology course students from intermediate and diploma in agriculture or attended to know the benefits of biotechnology today we register four members in OAMDC.

BLOOD GROUP TESTING CAMP

Department of biotechnology organised blood grouping camp in the department in Association with NSS unit in the college on 01/8/2022. Students from biotechnology or involved in testing the blood groups of faculty and other discipline students this program was conducted as a part of Azadi ka Amrit Mahotsav and Har Ghar Ka Tiranga.



PIN A FLAG AS A PART OF HAR GHAR KA TIRANGA

Department of biotechnology performed pin a flag program at our Department on 2/8/2022. Students are actively participated in this program and pin a flag Virtually in our college this program is a part of Azadi ka Amrit Mahotsav and students got participation certificate from Ministry of culture, Government of India.

VSR GOVERNMENT DEGREE AND PG COLLEGE

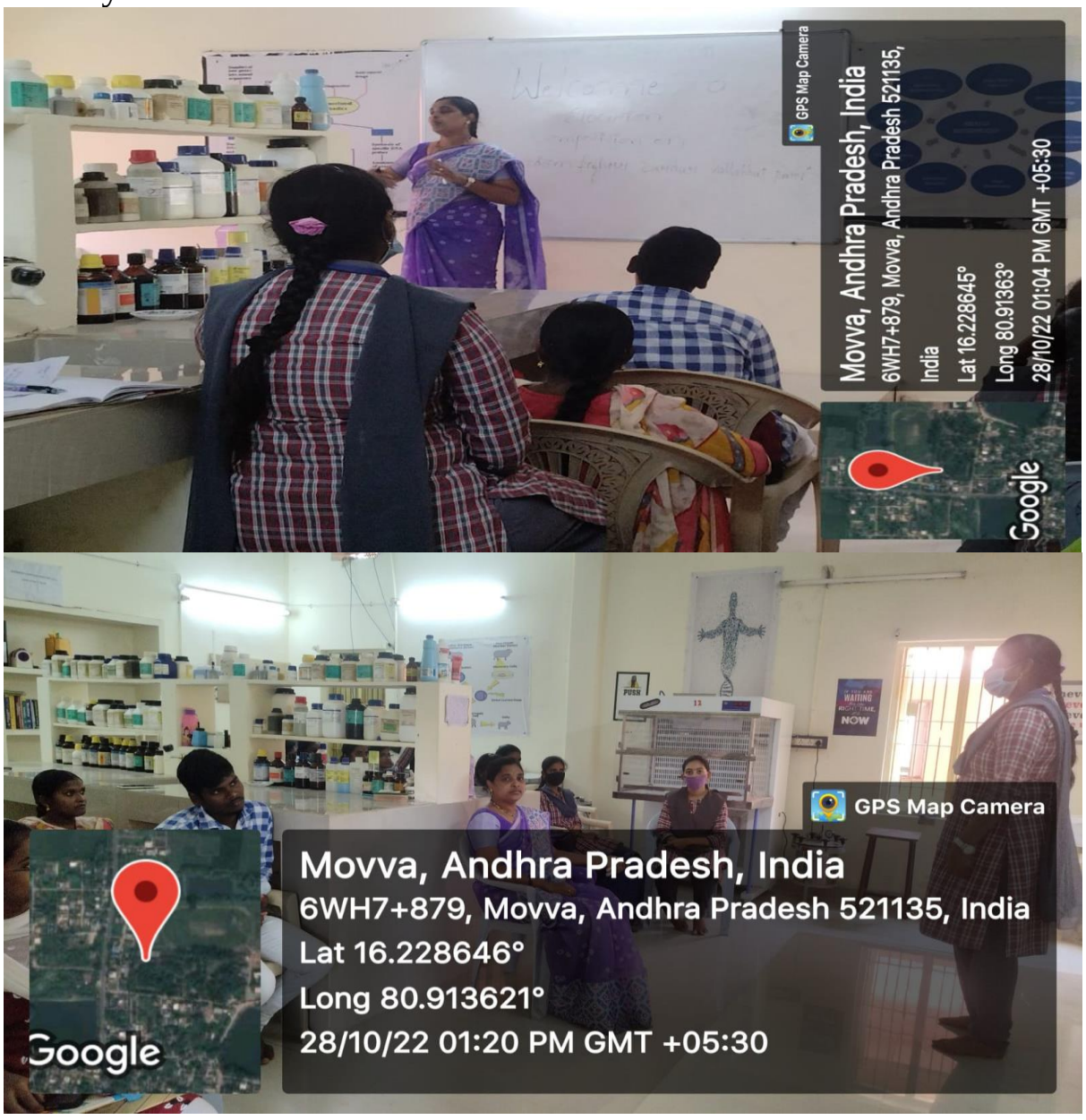
MOVVA

DEPARTMENT OF BIOTECHNOLOGY

ACTIVITIES – 2022 - 2023

SARDAR VALLABHBHAI PATEL'S BIRTH ANNIVERSARY CELEBRATIONS

Department of Biotechnology organised elocution competition to biotechnology students on behalf of Sardar Vallabhbhai Patel birth anniversary as per the instructions of UGC noticed. Department conducted one week of Vallabhbhai Patel's anniversary celebrations why conducting drawing competition rally programs on 28/10/2022 and 31/10/2022. This program was conducted to invite Patriotism and also importance of “Role of Iron Man” in getting freedom to our country.




V.S.R. GOVERNMENT DEGREE COLLEGE
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6WH7+879, Movva, Andhra Pradesh 521135, India
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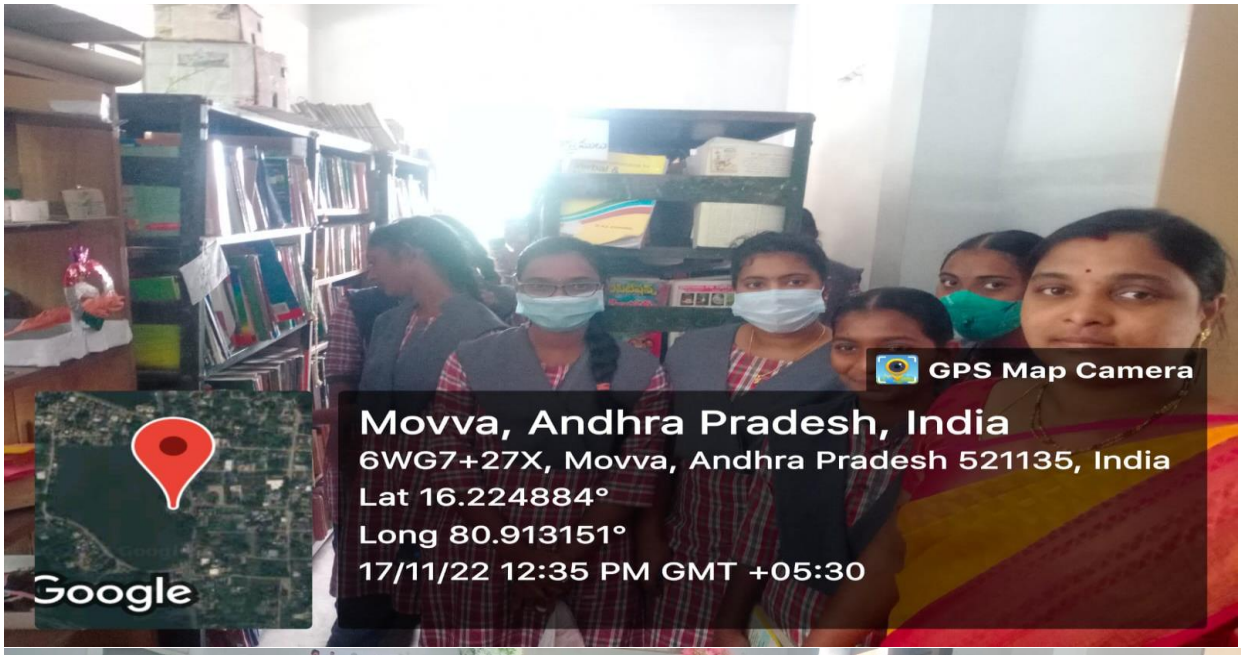
MOVVA MANDAL LIBRARY VISIT

Department of Biotechnology conducted an extension program on 17/11/2022 to Mandal level library visit to educate the students on books available in the library, use of the books of various kinds in competitive examinations and also for MSc entrance examinations. Students got Aware of all kinds of books available in the library. Biotechnology students participated in various programs conducted by Mandal library Mahua as a part of National Library week and they got prices in elocution.



PEER TEACHING AND DEMONSTRATION

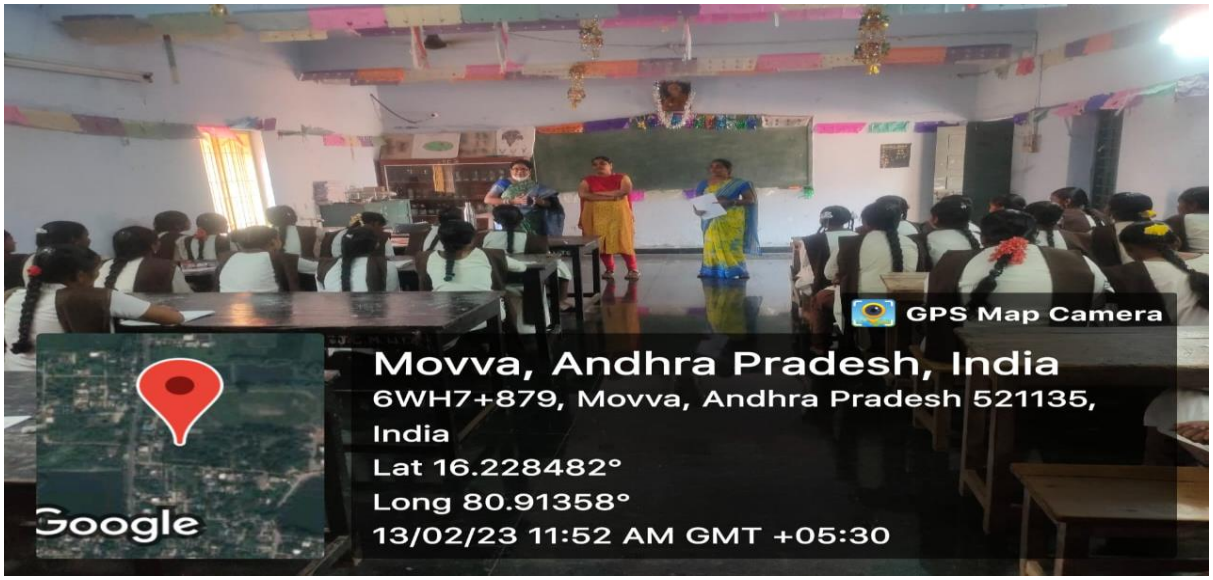
Department of Biotechnology organised Peer teaching and demonstration program on 27/01/2022 to biotechnology 1st year students with 2nd year students on extraction of Starch from potato and amylase activity. Students very enthusiastically participated and learn top their more interest.

FIELD TRIP ON SERICULTURE

Department of biotechnology organised a field trip to vellivolu chellapalli Mandal on 9/02/2023 on sericulture both first year and 2nd year students are participated in the field trip students learn about how to cultivate the silkworms bombyx mori , cocoon extraction etc..

EXTENSION PROGRAMME TO GOVT. JUNIOR COLLEGE, MOVVA.

Department of Biotechnology in association with other science departments participated in extension campaign on 13/2/2023 to govt junior college, movva to enlighten the students on the degree programme, Sope of biotechnology, job opportunities, career opportunities etc.. Students participated very interestingly to know about the path after completion of graduation.



NATIONAL SCIENCE DAY 2023

National science day event was conducted by Department of Biotechnology on 28/02/2023 to kindle the scientific temperament among the students.

Rikas™

Rikas milky mushrooms

Certificate

OF COMPLETION

WE PRESENT THIS CERTIFICATE TO

Kollipara. Varshith

In appreciation for completing the Internship
at mushroom cultivation farm held between
2nd August 2022 to 30th September 2022
by student of VSR GOVERNMENT DEGREE AND PG COLLEGE, MOVVA

KAMESWARI
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Mudunuri. Arthi Chandana

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at mushroom cultivation farm held between
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by student of VSR GOVERNMENT DEGREE AND PG COLLEGE, MOVVA

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Certificate

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WE PRESENT THIS CERTIFICATE TO

Gonthupuli. Iswarya

In appreciation for completing the Internship
at mushroom cultivation farm held between
2nd August 2022 to 30th September 2022
by student of VSR GOVERNMENT DEGREE AND PG COLLEGE, MOVVA

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WE PRESENT THIS CERTIFICATE TO

Ponnuri. Nancharamma

In appreciation for completing the Internship
at mushroom cultivation farm held between
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by student of VSR GOVERNMENT DEGREE AND PG COLLEGE, MOVVA

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WE PRESENT THIS CERTIFICATE TO

Goriparthi. Sai Kumar

In appreciation for completing the Internship
at mushroom cultivation farm held between
2nd August 2022 to 30th September 2022
by student of VSR GOVERNMENT DEGREE AND PG COLLEGE, MOVVA

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WE PRESENT THIS CERTIFICATE TO

Veerla. Kondala Rao

In appreciation for completing the Internship
at mushroom cultivation farm held between
2nd August 2022 to 30th September 2022
by student of VSR GOVERNMENT DEGREE AND PG COLLEGE, MOVVA

KAMESWARI
C.E.O

SANDHYA AQUA EXPORTS PVT. LIMITED (UNIT-II)

Factory : NH-65, Kurumaddali Village, Pamarru - 521 157 Krishna Dist. A.P. INDIA
Ph : +91-8674-253301 Fax : +91-8674-253002, E-mail : sandhyaaquapamarru@gmail.com

CERTIFICATE OF INTERNSHIP COMPLETION

Date: 09.03.2023

TO WHOM IT MAY CONCERN

This is certifying that **Mr. GORIPARTHI SAI KUMAR,** H.NO:2029223044006 , student of **B.Sc (Biotechnology)** from **VSR GOVT DEGREE COLLEGE**, MOVVA, has successfully completed the internship with **SANDHYA AQUA EXPORTS PVT LTD**.UNIT-2, **PAMARRU,** in the field of QUALITY CONTROL from **07.11.2022** to **09.03.2023.**

His performance and conduct during the Internship program have been professional and satisfactory.

During the period of his internship program, he was found punctual and hardworking.

We wish him all the best for his future endeavors.

HR MANAGER

SANDHYA AQUA EXPORTS (P) LTD., PERSONAL DEPT. KURUMADDALI

REPORTING MANAGER - QC

Admn. Off : Plot No. 26, Pandurangapuram, Visakhapatnam-530 003. A.P. INDIA
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CERTIFICATE OF INTERNSHIP COMPLETION

Date: 09.03.2023

TO WHOM IT MAY CONCERN

This is certifying that **Mr.VEERLA KONDALA RAO,** H.NO:2029223044019, student of **B.Sc (Biotechnology)** from **VSR GOVT DEGREE COLLEGE, MOVVA,** has successfully completed the internship with **SANDHYA AQUA EXPORTS PVT LTD.,** in the field of QUALITY CONTROL from **07.11.2022** to **09.03.2023.**

His performance and conduct during the Internship program have been professional and satisfactory.

During the period of his internship program, he was found punctual and hardworking.

We wish him all the best for his future endeavors.

HR MANAGER

REPORTING MANAGER - QC

B.LAKSHMI
(Q.C.Manager)

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PERSONAL DEPT.

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CERTIFICATE OF INTERNSHIP COMPLETION

Date: 09.03.2023

TO WHOM IT MAY CONCERN

This is certifying that Mr. KOLLIPARA VARSHITH, H.NO:2029223044009, student of **B.Sc (Biotechnology)** from **VSR GOVT DEGREE COLLEGE, MOVVA,** has successfully completed the internship with **SANDHYA AQUA EXPORTS PVT LTD.**, in the field of QUALITY CONTROL from **07.11.2022** to **09.03.2023.**

His performance and conduct during the Internship program have been professional and satisfactory.

During the period of his internship program, he was found punctual and hardworking.

We wish him all the best for his future endeavors.

HR MANAGER

REPORTING MANAGER - QC

B.LAKSHMI
(Q.C.Manager)

SANDHYA AQUA EXPORTS
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