CPE, RUSA & DBT Star College Scheme Beneficiary



PSGVP Mandal's S. I. PATIL ARTS, G B PATEL SCIENCE & STKV SANGH COMMERCE COLLEGE, SHAHADA 425409, (DIST.NANDURBAR), (M.S.), INDIA.

Profile of The Department 2016-2021

Vision

To articulate Sound Pillar level Knowledge in Microbiology for Inter-Disciplinary Education and Research Program in Clinical, Industrial, Molecular, Applied Microbiology and Immunology

Mission

To promote Technically Sound Educationin Microbiology Focused for Gaining Proficiency in the Subject to Withstand the Upcoming Global Challenges



Name of the Department	:	Microbiology
Year of Establishment	:	1989

1. Details of the Programs Offered by the Department

Sr. No.	Program level	Name of the program / Course	Duration	Entry Qualification	Medium of Instruction	Sanctioned Student Strength	Number of Students Admitted
1	UG	Microbiology	3 years	H S C or Equivalent		120	114
2	PG	Microbiology	2 years	B. Sc. .Microbiology	English	30	30
3	Ph.D.	Microbiology and Biotechnology	Research work	M.Sc.	0	08	08
4	UG	Certificate Course	01	S.Y.B.Sc.		60	30

2. Teaching posts (sanctioned and filled):

Post	Sanctioned	Filled
Professor	02	02
Associate Professor	01	01
Assistant Professor	01	01
Visiting faculty	04	03

3. Faculty profile with name, qualification, designation, experience etc:

Name	Qualification	Designation	Specialization	Experience
Prof. Dr. A.H.Jobanputra	M.Sc. Ph.D.	Professor and Head	Microbiology	26 (UG) 15 (PG)
Prof. Dr. R. Z. Sayyed	M.Sc. Ph.D.	Professor	Microbiology	18 (UG) 16 (PG)
Dr. V. M. Chaudhari	M.ScSET.	Associate Professor	Microbiology	22 (UG) 15 (PG)
Dr. M. M. Jogi	M.Sc. Ph.D. M.B.A.	Assistant Professor	Microbiology	23 (UG) 15 (PG)
Mr. R. D. Mali	M.Sc.(SET)	Asst. Prof	Microbiology	03
Ms. J. N. Patil	M.Sc.	Asst. Prof.	Microbiology	01
Ms. D. Y. Chaudhari	M.Sc.	Asst. Prof.	Microbiology	01

4. Non-teaching staff: Lab Assistant - 01 and Lab Attendant - 01,

Year	No. of students admitted				
	UG	PG			
2016-17	218	21			
2017-18	337	39			
2018-19	342	43			
2019-20	335	42			
2020-21	329	61			
2021-22	273	61			

5. Students Admitted Year wise (2016-2022)

6. The Ratio of Teacher to Students: 1:220

7. Class wise Result

Year	T.Y. B.Sc.			M.Sc. (Part-II)		
	Registered students	Pass students	Percentage of passing	Registered students	Pass students	Percentage of passing
2016-17	31	20	65	17	15	82
2017-18	39	24	61	04	03	75
2018-19	46	35	76	20	17	85
2019-20	46	45	99	19	19	100
2020-21	88	86	97.7	23	23	100

8. Number of students passed in NET/SLET/GATE etc. (Last 5 years)

Year	Names of students qualified	Exam qualified
2016-17	Mali Ramakant Devidas	SET

Sr. No.	Name of the student	Year	Class	Rank
1	Patil Nikita Ashok	2018	T.Y.B.Sc	I Gold Medal
2	Khan Aisha Asrar	2018	T.Y.B.Sc	II Silver Medal
3	Patil Rupali Ravindra	2019	M.Sc.	II Silver Medal
4	More Puja Krishna	2019	M.Sc.	III Bronze Medal
5	Pardeshi Shubhangi Kishore	2020	T.Y.B.Sc	II Silver Medal
6	Khan Aisha Asrar	2020	M.Sc.	II Silver Medal
7	Sindhi Gayatri Shankarlal	2020	M.Sc.	III Bronze Medal
8	Patil Jagruti Nimba	2021	M.Sc.	I Gold Medal
9	Raput Nikita Indrasingh	2021	M.Sc.	II Silver Medal

Meritorious Students - UNIVERSITY RANK HOLDERS

9. Faculty awarded Ph.D. during the assessment period

Sr No	Name of Research Student registered	Title of the research	Date of Declaration
1	Dr. V. M. Chaudhari	Studies on physiological and biochemical Characteristics of Pigment Producing Soil and effluent isolates.	2018

10. Faculty on Academic Bodies of Parent and other University

Name of the Faculty	Academic Body	University/Institute
Prof. Dr. A. H. Jobanputra	Board of Studies	KBC North Maharashtra Univ., Jalgaon
Prof. Dr. R. Z. Sayyed	Board of Studies	KBC North Maharashtra Univ., Jalgaon
	Board of Studies	Sathye College (Autonomous), Mumbai

	Faculty	KBC North Maharashtra Univ., Jalgaon
Dr. V. M. Chaudhari	Board of Studies	KBC North Maharashtra Univ., Jalgaon
Dr. M. M. Jogi	Board of Studies	

11. Awards/honours received by individual teachers

Name of the Faculty	Name of the Award	Year	Award Agency
Prof. Dr. A. H. Jobanputra	Best Teacher	2020	KBC NMU, Jalgaon
Prof. Dr. R. Z. Sayyed	Fellow Indian Phytopathological Society	2021	Indian Phytopathological Society, New Delhi
	Research Excellence (Publication)	2020	KBC North Mah. Univ, Jalgaon, India.
	Outstanding Achievement Award	2020	Kalp Lab, Mathura, India
	Springer-Society Award	2020	Society for Environmental Sustainability, Lucknow.
	Award for Excellent	2020	Society for Environmental Sustainability, Lucknow.
	Excellence in PGPR Research Award,	2019.	Asian PGPR Society & National University of Uzbekistan
	Prof. Man Mohan Sharma Award	2018	Marathi Vigyan Parishad, Mumbai.
	Excellence in PGPR Research Award,	2017	Asian PGPR Society & Instt. of Biology, Indonesia
	Best Teacher Award	2016	North Maharashtra University, Jalgaon.

12. Infrastructural facilities

- a. Library: Departmental Library is maintained by the staff. It contains 63 reference books, 26 text books, 11 periodicals.
- b. Internet facility for staff and students: Wi-fi facility is available in the Department
- c. Laboratories:

Name of facility	Name of Laboratory	Area

Microbiology Department	Robert Koch Laboratory	26X32 sq.ft
(UG Laboratories)	A.M. Chakrabarty Laboratory	26X32 sq.ft
Microbiology Department	Alexander Flemming Laboratory	12.6X32 sq.ft
(PG Laboratories)	Maud Menten Laboratory	12.6X32 sq.ft
	Research Laboratory	13X16 sq.ft
	Preparation Room	13X16 sq.ft
	ICT Classroom & Library	12X32 sq.ft
	Office	12X32 sq.ft

All the laboratories are well-equipped with equipment for UG and PG students and for research. Microbial cultures are procured from NCIM apart from the isolates of the Department and maintained by sub-culturing from time to time. Ready-to-use user friendly kits of Genei are purchased for Molecular Biology and other experiments. There is availability of sufficient glassware, media, chemical and solventsfor running the curricular and co-curricular experiments.

13. Faculty recognition as PG Teacher and M.Phil / Ph.D.Guide

Name of the Faculty	Recognition	University/Institute
Prof. Dr. A. H. Jobanputra	PG Teacher Ph.D. Guide in Microbiology	
Prof. Dr. R. Z. Sayyed	PG Teacher Ph.D. Guide in Microbiology and Biotechnology	KBC North Maharashtra University, Jalgaon
Dr. V. M. Chaudhari Dr. M. M. Jogi	PG Teacher Ph.D. Guide in Microbiology	

14. M.Phil / Ph.D. students Guided and working

Guided =08; Working = 05

Sr No	Guide	Name of Research Students	Title of the research topic	Date Completed
1.		Dr. Swapnil Satish Joshi	Studies on Production and Application(s) of Microbial Lipase	07-05-2021
2.		Dr. Rajendrabhai	Studies on the Biotransformation of	29-04-2018

		Daulatbhai Vasait	Cephalosporin C	
3.		Dr. Varsha Madhukar Chaudhari	Studies on the Physiological and Biochemical Characteristics of Pigment Producing Soil & Effluent Isolates	29-04-2018
4.	Prof. Dr. A.H.Jobanputra	Dr. Manjula P. Patil	Biodegradation of Methomyl Oxime Carbamate insecticide using local isolates	27-02-2019
5.		Dr. Ashwini Ghanshyam Patil	Studies on the use of Consortia of Plant Extracts on the pathogenic bacteria in dental lesions for the preparation of sustainable Cost Effective Product	20-03-2016
6.		Dr. Vidya Resa Kothari	Studies on Oil & Petroleum Biodegradation Potential of Natural Isolates their genetic characterisation	06-11-2015
7.		Mrs. Mariya Husain	Isolation & Characterization of Feather degrading microorganism(s) from Khandesh region	Ongoing
1	Prof. Dr. R.Z.Sayyed	Hitendra Prakash Jadhav	Studies on the hydrolytic enzyme(s) produced by rhizospheric microorganism(s) to combat phytopathogens.	07/06/2021
2		Mahesh Shivaji Sonawane	Studies on bacterial biodiversity and search for siderophore producer in the gut of insect from Western Ghat	06-02-2020
3		Harshal Madhukar Bhamare	Studies on production and possible applications of microbial laccase	06/02/2020
4		Sonal Jayesh Wani	Evaluation of Microbial Degradation of Poly-β-Hydroxy Butyrate (PHB)	04-09-2017
5		Mohamad Sohel Sagir	Studies on production formulation and application of biocontrol trait of local PGPR isolate	18-08-2017
6	Prof. Dr. R. Z. Sayyed	Poonam Ramesh Patel	Studies on heavy metal resistant PGPR for their possible application in bioremediation	10-09-2013
7		Nilesh Suresh Gangurde	Studies on production and biodegradation of poly B hydroxyl butyrate (PHB) from <i>Alcaligenes</i> & <i>Pseudomonas</i> sp.	31-12-2012
8		Ms Dipali Dilip Jamadar	Studies on Exopolysaccharide: A biopolymer from <i>Rhizobium</i> sp and it's applications for plant growth promotion	2012

9	Mitesh H Khairnar	Genetic diversity and plant growth- promoting activities of rhizobia associated with fenugreek (<i>Trigonella</i> <i>foenum-graecum</i>) cultivated in different parts of India	On-going
10	Kaveri Sanjay Palekar	Studies on Pink Pigmented Facultative Methylotrophs (PPFMs) Associated with Rice	On-going
11	Varsha Sachin Mistry	Production and Applications of Bio- surfactants in Bioremediation of heavy metal and hydrocarbon contaminated soil and effluent	On-going
12	Shashikant Anant Joshi	Evaluation of Plant Growth Promoting and salinity ameliorating of salt tolerant rhizobacteria from saline soil	On-going
13	Vipool Aanand Thorat	Impact of Abiotic Stresses on Rhizospheric Microbiome and Metabolome and Sorgoleone Synthesis by Roots of Sorghum bicolor	On-going

Sr. No.	Name of the Staff member	Title of the Project	Funding agency	Grant Received (Lacs)	Status
1	A.H.Jobanputra	Scale up of For Biotransformation of Rifamycin B to S using bacterial isolate	UGC	7.51347	completed
2	A.H.Jobanputra	Screening of Siderophoregenic isolates from local soil and their type determination	UGC-WRO	0.70	completed
3	A.H.Jobanputra	Studies on the Physiological and biochemical characteristics of <i>Chyrseobacterium</i> <i>indologenes</i> .	UGC-WRO	0.35	completed
4	Dr. R. Z. Sayyed	DBT Star College Scheme for Strengthening of Life Sciences (Coordinator of the scheme)	DBT	104	completed
5	Dr. R. Z. Sayyed	Development of singe Technology having multi-potential of plant growth promotion, disease control and 3bioremediation	UGC, New Delhi (Major Project)	10.24	completed
6	Dr. R. Z. Sayyed	Molecular approaches for improving the production of PHB	DST (Young Scientist)	20.38	completed
7	Dr. R. Z. Sayyed	College with Potential for Excellence	UGC	145	completed
8	Dr. R. Z. Sayyed	Hydrobiological Studies and Assessment of Biodiversity of Zooplankton and Microbes from Dams and Lakes of Nandurbar District of Maharashtra	UGC, New Delhi (Major Project)	10.79	completed
9	Dr. R. Z. Sayyed	Development of siderophore based biocontrol agents for controlling diseases in banana	BARC DAE-BRNS (Young Scientist)	9.50	completed
10	Dr. R. Z. Sayyed	Development of Protocol for the production of EPS : A biopolymer	UGC-WRO	0.50	completed
11	Dr. R. Z. Sayyed	Development of efficient methods for production and recovery of PHB: A biodegradable polymer	UGC, New Delhi Major Project	6.27	completed
12	Dr. R. Z. Sayyed	Cloning of PHB synthesis genes of <i>A. eutrophus</i> in <i>E. coli</i> for the improved production of PHB	DST (Young Scientist)	11.94	completed
13	Dr. V. M. Chaudhari	Development of protocol for the Production of	UGC-WRO	1.30	completed

				Biopigment				
14	1	Dr. V. Chaudhari	М.	Isolation characterizati antifungal from lactic ac	compounds	UGC-WRO	0.45	completed

15. Areas of research interest

- Biotransformation of Antibiotics
- Bioremediation of Pesticides and Hydrocarbons
- Plant-Microbe Interactions
- PGPR in stress management
- Microbial Polymers
- Biopigments
- Distillery Effluent Remediation

16. Research projects ongoing/completed in assessment period: NIL

17. Books Authored/ Edited by faculty

SI. No	Faculty	Title	Publisher, ISBN	Year
1.	Prof. Dr. R. Z. Sayyed	Antioxidants in Plant-Microbe Interaction	Springer-Nature, India 978-981-16-1349-4	2021
2.		Microbial Surfactants Volume I: Production and Applications	CRC Press, Taylor & Francis, USA 978-0367-52118-9	2021
3.		Soil Bioremediation: An Approach Towards Sustainable Technology	Wiley Blackwell, US 978-1-119-54795-2	2021
4.		Plant Growth Promoting Rhizobacteria for Sustainable Stress Management Vol 1 Rhizobacteria in Abiotic Stress Management	Springer-Nature Singapore 978-981-13-6535-5	2019
5.		Plant Growth Promoting Rhizobacteria for Sustainable Stress Management Vol II Rhizobacteria in Biotic Stress Management	Springer-Nature Singapore 978-981-13-6985-8	2019
6.		Plant Growth Promoting Rhizobacteria (PGPR): Prospects for Sustainable Agriculture	Springer, Singapore 978-981-13-6789-2	2019
7.		Renewable Resources and Environment	Discovery Pub. Delhi 978-93-5056-893-4	2018
8.		Alcaligenes faecalis for plant nutrition and disease control	Lambert Pub, Germany 978-3-330-06195-8	2017

9.	Recent Trends in PGPR Research for Sustainable Crop Productivity	Scientific Publ., Jodhpur 978-81-7233-990-6	2016
10.	Advances in Bio-Medico Science	Excell India Publ, New Delhi 978-93-85777-30-1	2016
11.	Advances in Plant Sciences	Pathak Sara Pub, Ahmadabad 978-1-73032-656-1	2016

18. Publications by Faculty

Name of Faculty	Publications in peer reviewed journals	Books/ Chapters	Citations	h- index	i10 index
Prof. Dr. A. H. Jobanputra	25(05)	07(05)	116	7	4
Prof. Dr. R. Z. Sayyed	178(56)	59(50)	4583	32	81
Dr. V. M. Chaudhari	10(07)	07	41	3	2
Dr. M. M. Jogi	06(02)	-	-	-	-
TOTAL	69	26	4740	-	-

19. Seminars/ Conferences/Workshops Organized/ attended

Sr. No.	Title	Date	Level	Name of Coordinator /Organizer
	BREECH International Conference in Biotechnology, Dehradhaun	01-04-2021	International	Prof. A.H.Jobanputra (Invited Talk)
	International conference on Sustainable Agricultrue and Ecotourism	28-08-2021	International	Prof. A.H.Jobanputra (Invited Talk)
	Recent Trends in biodiversity Conservation & Sustainable Development	02-02-2016	National	Prof. A.H.Jobanputra (Lead Lecture and Chairman)
1	6 th National PGPR Conference- Barkatullah Univ., Bhopal	03 & 04 Sep 2021	National	Prof. R. Z. Sayyed (Organizing Chairman)
2	International Conference on Sustainable Agriculture and e- cotourism, Udayana Univ, Bali, Indonesia	28-30 Aug 2021	International	Prof. R. Z. Sayyed (Organizing Coordinator)
3	6 th International PGPR	18-22 Aug 2019	International	Prof. R. Z. Sayyed

	Conference, National Univ. of Uzbekistan, Tashkent, Uzbekistan			(Organizing Co- Chairman)
4	5 th National Conference on PGPR for Sustainable, AN University, Guntur	23-25 Feb 2019	National	Prof. R. Z. Sayyed (Organizing Secretary)
5	4 th National Conference on PGPR, Mizoram Univ, Mizroam	11-12 May 2018.	National	Prof. R. Z. Sayyed (Organizing Secretary)
6	Syllabus framing workshop for M.Sc. I	16-07-2018	University	Prof. R. Z. Sayyed (Organizing Secretary)
7	Webinar – COVID-19: Forthcoming challenges	12-07-2021	National	Prof. A. H. Jobanputra (Coordinator)
8	International Microorganism Day	17-09-2021	International	Prof. A. H. Jobanputra (Coordinator)

20. Membership of the Professional bodies/ Journals

Name of Faculty	Name of the Body/ Journal	Position held		
Prof. Dr. A. H. Jobanputra	Organisation of Women Scientists for Developing World (OWSDW)	Life Member		
o obanpari a	Association of Microbiologists of India (A.M.I.)	Life Member		
	Biotechnology Research Society of India (B.R.S.I.)	Life Member		
	Microbiologists Society, India (M.B.S.I.)	Life Member		
	Asian PGPR Society	President		
Prof. Dr. R. Z.	Prof. Dr. R. Z. Association of Microbiologists of India (A.M.I.) Sayyed Biotechnology Research Society of India (B.R.S.I.)			
Sayyed				
	Microbiologists Society, India (M.B.S.I.)	Life Member		
	Indian Phytopathological Society (I.P.S.)	Life Member		
	Asian PGPR Society for Sustainable Agriculture (APSSA)	Life Member		
Dr. M. M. Jogi	Association of Chemistry Teachers, KBCNMU	Life Member		
	Association of Microbiologist of India	Life Member		

21. Seminars/ conferences/ workshops organized by the Dept:

Sr. No	Name of Conference/ Seminars / Workshops	No. of Participants	National/ University	Dates
1	Syllabus restricting workshop at MSc I (MB-BT-BC), PSGVP Mandal's ASC College, Shahada	30	University	18 th Jul 2018
2	Covid19:Forth coming Challenges	63	University	12 July 2021

22.Give details of student enrichment programmes (special lectures/workshops/ seminars) with external experts:

For enrichment of the students Guest lectures are arranged.

- 1) Dr. Parveen Rahi, NCCS, Pune delivered a lecture on "Research Carrier in Microbiology
- 2) Dr. Avinash Sharmam, NCCS, Pune Delivered lecture on Identification and Preservation of Microbial cultures
- 3) Mr. Mitesh Khairnar, NCCS, Pune Delivered a talk on Ribotyping and MALDI-TOF methods for identification of Microbial cultures
- Dr. Vishal Patil, RMO, Dhule, Delivered a talk on Covid19: forthcoming Challenges during Webinar organized on Inaugural Function of MBSI, Student Unit.
- 5) Mr. Bhushan Karode, Director, Enzyme-Bioscience Pvt. Ltd. Surat, delivered a talk on Enzyme Production in industry.
- 6) Mr. Hemant Patil, Research Scientist, Wockhardt Ltd. Aurangabad delivered a talk on R and D in Industry.

23. Participation of Students in Various Activities:

Name of event	No of participants
YUVARANG 2021	06
AVISHKAR-2018	08
AVISHKAR-2019	08

Students have been actively participating in the events organized under Student Unit of Microbiolist Society of India and bagged awards at National level for Rangoli Contest, Video Making Contest, Poster contest, Probiotic Food Making Contest, Essay Contest, Best Gram Staining slide making contest etc. International Microorganism Day, World Rabies Day, Antonie van Leeuwenhoek Anniversary etc.were celebrated to learn the significance of the days.

- 24.List the teaching methods and Innovative Practices adopted by the faculty:
- Interactive lecture method using blackboard, Group discussions, Problem solving sessions, Seminars, HA,
- Use of LCD Projector for PG Students to support lectures.
- Animated Videos were demonstrated
- Online Lectures were conducted during the pandemic using Zoom and Streamyard platforms and training for the same was given to the students.
- Students were guided to appear for online examinations.

25. Research Collaborations and Linkage:

- Research collaboration with Microbial Cell Center, NCCS, Pune
- Green Earth Pvt Ltd, Nagpur
- Shri Satpuda Copoerative sugar Mill, Purushottam Nagar, Shahada
- S I Biozyme Pvt Ltd, Shahada
- Linkage with Microbiologist Society of India under which various student oriented activities are conducted (2020-21, 2021-22)

26.List of distinguished Alumni of the department during the assessment period (maximum 10):

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Sr. No.	NAME	MOBILE NO.	Passing Year	REMARKS IN ANY
UG				
1.	Pardeshi Shubhangi Kishore	8766772194	2020	SILVER MEDALIST IN UNIVERSITY EXAM APR- MAY 2020 EXAM
2.	Bhavsar Mayuri Omprakash	9109601999	2020	SINCERE AND WELL DISCIPLINED
3.	Marathe Kalyani Ramesh	7066004695 3	2020	WELL-DISCIPLINED AND REGULAR
4.	Tamboli Kiran Prakash	7385023538	2020	ACTIVE IN EXTRA-CURRICULAR ACTIVITIES
5.	SATHE MANISHA RAJU	9423247488	2020	SINCERE IN STUDIES, AMONG TOP 5 IN COLLEGE
			PG	
1.	KHAN AYESHA ASRAR	9130208937	2020	SILVER MEDALIST IN UNIVERSITY EXAM APR- May 2020 Exam
2.	Sindhi Gayatri Shankarlal	8766669346	2020	BRONZE MEDALIST IN UNIVERSITY EXAM Apr-May 2020 Exam

3.	Pendharkar Sneha Pitambar	9503786667	2020	DID PGDMLT
4.	PATIL SHUBHANGI VASANT	7020575739	2020	QC MICROBIOLOGIST, GLEMARK LIFE SCIENCES, ANKALESHWAR
5.	PATIL DEVYANI DEVICHAND	9604211302	2020	SINCERE AND WELL DISCIPLINED

27. Alumni Activities conducted Year wise

Activity	Dates	Speaker/Guide	No.of
		Alumni	participants
Guest Lecture	2019	Mr. Hemant Patil	30
Guest Lecture	2019	Mr. Bhushan Karode	25

28. SWOC analysis of the department and Future plans:

Strengths

- Facilities for UG, PG and Ph. D. education
- Qualified, experienced & research-spirited faculty
- University recognized well equipped research laboratory
- Good research outcome with less availability of funds
- Active participation in Social activities (Blood Donation, Voter Awareness Day, Tree Plantation, Samata Rally, Election Duties etc.
- Voluntary involvement of students in co-curricular & extra curricular activities.
- Organization of "Talent search and chemistry ability test" to motivate knowledge in chemistry.

Weakness

- 70% population of the area is a tribal in habitat.
- Students are weaker in language of medium of instructions.
- Non availability of major industries in the vicinity.
- Non availability of sophisticated analysis facilities nearby.

Opportunities

- Well-groomed campus and supportive management.
- Better job opportunities in industrial sectors.
- Industrial and academic collaboration.
- On Campus placement for students.

Challenges

• To make available research funds from various agencies.

- Soft skill development programs for students.
- Awareness programmes on issues like Food adulteration, Organic Farming, Water Potability, Health & hygiene in nearby villages.
- Development of e-learning resources.

Future plans of the department:

- Promote more research activities.
- Adopt e-learning pedagogy.
- Industrial collaboration for enhancing employability.
- Introduction of Certificate Courses.
- Skill enhancement by hands on training.
- Organize workshops and Conferences for students.
- Extend community services at regional level.
- Increase progression to higher education and placement.