

Mrs. Kusum Rawat (MPhil Microbiology)

Present position

- Assistant Professor

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Work Experience

- Teaching: 16 years
- Research/Industrial: 3 years

Personal Profile

- Completed MPhil Microbiology, 2009
- Joined as Assistant Professor at D.E.S FERGUSSON COLLEGE (AUTONOMOUS), Department of Biotechnology, since January 2015 till date
- Worked as Assistant Professor fulltime at M.E.S Abasaheb Garware College, Department of Biotechnology (post graduates & graduates) July 2009 till April 2012.
- Worked as Visiting Faculty at SNTD College of Home Science, Pune July (2011 – December 2013)
- Worked as Visiting Faculty at P.E.S Modern College, Department of Biotechnology, Pune for the period of July 2012 – Dec 2012
- Worked as Lecturer fulltime at V.E.S COLLEGE OF ARTS, SCIENCE AND COMMERCE, , CHEMBUR, MUMBAI, (November-2004 – December 2008)
- Awarded A grade by UGC Academic Staff College, University of Mumbai for Refresher course in Biotechnology-October 2008
- Organized and participated in several conferences, workshops and seminars
- Involved in administrative work at College level
- Guided several UG students for their project work

Course(s) Taught (Only Titles)

1. Bioprocess Engineering and Fermentation Technology
2. Immunology and Virology
3. Medical Microbiology
4. Biophysical and Biochemical techniques
5. Environmental Biotechnology
6. Application in Microbial and Medical Biotechnology
7. Food and Dairy Microbiology
8. Large Scale Manufacturing Processes
9. Bacteriology
10. Microbial Biotechnology
11. Introduction to Microbial World
12. Microbial growth, control and Applications

Field of Specialization/Areas of Interests

- Medical Microbiology
- Microbial Biotechnology
- Bacteriology

Education

- **MPhil (Microbiology):** 2008-2009
Title of the Thesis: “Microbiological study of Urinary Tract Infection wrt(Enterobacteriaceae family) **Name of University / Institution:** The Global Open University, Nagaland
Year of Award: 2009
- **Master of Science (Microbiology):** JULY 2002- MAY 2004
University/College: V.E.S COLLEGE OF ARTS, SCIENCE AND COMMERCE, , CHEMBUR, UNIVERSITY OF MUMBAI
- **Bachelor of Science- (Microbiology & Biotechnology)** JUNE 1999- MAY 2002
College, University, Place: V.E.S COLLEGE OF ARTS, SCIENCE AND COMMERCE, , CHEMBUR, UNIVERSITY OF MUMBAI

Fellowship/Awards/ Certifications/Achievements/Recognitions

- Awarded A grade by UGC Academic Staff College, University of Mumbai for Refresher course in Biotechnology-October 2008

Member of College Committees/ Professional Bodies and Others

College Level	Department level	Others
<ul style="list-style-type: none"> ● D-IQAC (Department-Internal Quality Assurance Cell), NAAC- 4 	UG Exam Coordinator	Member, BOS, Fergusson College (Autonomous)
<ul style="list-style-type: none"> ● F.Y.B. Sc Admission Coordinator 		
<ul style="list-style-type: none"> ● Coordinator for Hands-on workshops ,Green Array Technologies, Pune 	Coordinator , FABIOL (Fergusson Association of Biotechnology of Life Science)	

Employment History

1) **Organization: V.E.S COLLEGE OF ARTS, SCIENCE AND COMMERCE, CHEMBUR, UNIVERSITY OF MUMBAI**

Role : Lecturer

Duration : November-2004 – December 2008

Responsibilities	<ul style="list-style-type: none"> ● Coordinator, various events like Workshops, Conferences, Seminars ● Worked as committee member of Admissions, CAP, Examination ● Coordinator, Annual Magazine – VIVEK ● Member, Placement cell, Career Counseling cell ● Academic work
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2) **Organization : M.E.S, Abasaheb Garware College, Department of Biotechnology**

Role : Assistant Professor

Duration : July 2009 till April 2012.

Responsibilities	<ul style="list-style-type: none"> ● Coordinator, Social Awareness Programme under Biotechnology Association along with Red Cross India ● Coordinator, various events like Workshops, Conferences, Seminars ● Academic work ● Coordinator , “Bioverve”-11 (exhibition), “Brainstorm”-10 (quiz competition), “Mirage”-09 (poster competition)
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- 3) **Organization** : SNDT College of Home Science, Pune
Role : Visiting Faculty, Assistant Professor
Duration : July (2011 – December 2013)

Responsibilities	<ul style="list-style-type: none"> Academic work (M.Sc. Food Microbiology)
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- 4) **Organization** : P.E.S, Modern College, Department of Biotechnology,
Role : Visiting Faculty, Assistant Professor
Duration : July 2012 – Dec 2012

Responsibilities	<ul style="list-style-type: none"> Academic work (M.Sc. Biotechnology) , Bioprocess Engineering and Fermentation Technology
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- 5) **Organization** : D.E.S, Fergusson College (Autonomous), Department of Biotechnology
Role : Assistant Professor
Duration : January 2015 till date.

Responsibilities	<ul style="list-style-type: none"> Various committees of the Department and College Academic responsibilities
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Research Projects

Title of the Project	Name of Funding Agency	Amount (Rs)	Duration (Year) (From To)	Type (Minor/Major)	Outcome
“Optimization of lipase production by microorganism isolated from petroleum contaminated soil”	SHORT TERM RESEARCH PROJECTS under STAR program “College of Excellence” (CE)	Rs 5000/-	2018-19	Minor	Completed the project
“Biochemical characterization of unknown strain P2 isolated from kitchen waste”	DBT Star College scheme	Rs 5000/-	2017-18	Minor	Completed the project

Participation in Conferences/Seminars/Symposia/Workshop:

1. Mrs. Kusum Rawat, attended faculty development workshop on Intellectual Property rights (IPR) conducted on 4th-5th Feb 2020 in Fergusson College (Autonomous), Pune; under DBT STAR college scheme.
2. Mrs. Kusum Rawat, participated in One Day Workshop on Massive Online Open Courses (MOOCs) on SWAYAM supported by MHRD.
3. Mrs Kusum Rawat completed the online activity of The BodhiTree and SAFE Tools for Effective Online Teaching: A Hands-On Workshop held from 18 to 24 June 2020. She completed the 1-day equivalent online work of workshop video lectures. organised by the Teaching Learning Centre (ICT) at IIT Bombay, funded by the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT), MHRD, Govt. of India.
4. Ms. Kusum Rawat completed Five Days Online Faculty Development Program (FDP) on “Precision Medicine” from 19th to 23rd January, 2021 organized by School of Biotechnology and Bioinformatics, D. Y. Patil Deemed to be University, Navi Mumbai.
5. Ms Kusum Rawat completed virtual course on MICROBIAL PROCESS FOR ENERGY RECOVERY FROM ORGANIC WASTES from 15th February to 26th February 2021. This course included 10 online sessions organized by Pune Knowledge Cluster (PKC) in partnership with Agharkar Research Institute (ARI), Pune. The course was designed to provide basic knowledge of different types of microbes and their potential role in anaerobic processes for energy recovery from organic wastes.
6. Ms. Kusum Rawat participated in the Webinar “Urban Biodiversity” on the account of World Environment Day on 5th June 2020 under the aegis of DBT STAR COLLEGE SCHEME, organized by SVKMs Mithibai College (Autonomous), Mumbai
7. Ms. Kusum Rawat participated in the Webinar on "Coronavirus – Pulmonary Cells Interactions: A Therapeutic Perspective" by Dr. Prajakta Oak, Senior Scientist, Piers Pharmaceuticals, Freising, Germany held on 6th June, 2020 organised by VES College of Arts, Science and Commerce, Mumbai, organized by Microbiology Department ‘Inspire Me Webinar Series’
8. Ms. Kusum Rawat successfully participated in the Three Days National Workshop titled “Blended Learning Approaches in Biosciences” on 28th June -30th June, 2020 organized by Microbiologist Society, India.
9. Mrs. Kusum Rawat has participated in the One-day National Online Seminar on “Research Writing and Enhancing Visibility” held on 21st May, 2020 organised jointly by IQAC & Library, supported by RUSA organized by S. P. Mandali’s Ramnarain Ruia Autonomous College, Mumbai.
10. Mrs Kusum Rawat participated in the lecture on “An insight on first made in India COVID-19 tests kit by Pune based Mylab”, conducted by Mylab Discovery Solutions on 23rd May 2020 in collaboration with K.J. Somaiya College of Science and Commerce, Mumbai.
11. Ms. Kusum Rawat participated in the Webinar on ‘Arboviruses’ by Dr. Finny Varghese, Post-doctoral Researcher, Dept. of Medical Microbiology, Radboud University Medical Centre, Netherlands held on 23rd May, 2020 organised by VES College of Arts, Science and Commerce, Mumbai, organized by Microbiology Department ‘Inspire Me Webinar Series’
12. Mrs Kusum Rawat and Dr. Sonali Joshi participated in the webinar on: **Covid19: Evolution, Diagnosis and Therapy**” under DBT Star College Scheme, organized by the Department of Microbiology, Fergusson College (Autonomous), Pune held on May 30th 2020.
13. Ms. Kusum Rawat participated in the Webinar on "Defining Epigenetics: Heritable punctuations in DNA-language" by Dr. Subhojit Sen, Faculty UM-DAE Centre for Excellence in Basic Science,

School of Biological Sciences on 30th May, 2020 organised by VES College of Arts, Science and Commerce, Mumbai, organized by Microbiology Department 'Inspire Me Webinar Series'

14. Ms. Kusum Rawat participated in the virtual symposium on "COVID-19 Disease Control - Opportunities and Challenges for Vaccines, Bio-therapeutics and Diagnostics" organized by Centre for Bio – Separation Technology (CBST) at Vellore Institute of Technology (VIT), Vellore, India during 9th - 10th July 2020
15. Ms. Kusum Rawat participated, one-day webinar on Mental Health of a Woman on 8th March 2021 organised by Fergusson College (Autonomous), Pune

Events Organized/Coordinated:

Sr. No	Name of the Event	Name of organizing Institute/ College/ University	Nature of contribution	Dates
1.	Genovation , Exhibition (School children)	Department of Biotechnology , Fergusson College (Autonomous)	Coordinator	2016
2.	V.V. Apte Memorial Endowment Prize, namely, the Best out of Fest Waste 2020 and the Model Making Competition 2020.	Department of Biotechnology , Fergusson College (Autonomous)	Coordinator	2020
3.	A Parent Teacher's meeting	Department of Biotechnology , Fergusson College (Autonomous)	Coordinator	2018 – 2020
4.	The E-Poster Competition Covid-19	Department of Biotechnology , Fergusson College (Autonomous)	Coordinator	28th April- 10th May, 2020
5.	World Environment Day	Department of Biotechnology , Fergusson College (Autonomous)	Coordinator	5th June,2020
6.	"The Infotainment - Video Making Competition 2020 "	Department of Biotechnology , Fergusson College (Autonomous)	Coordinator	month of July 2020
7.	Envengers' Club, FABIOL "The National Biotechnology Day"	Department of Biotechnology , Fergusson College (Autonomous)	Coordinator	26th February 2021 and 26th February 2022

8.	Envengers' Club, FABIOL celebrated, "The National Science day",	Department of Biotechnology , Fergusson College (Autonomous)	Coordinator	28th February 2021 and 28th February 2022
9.	Envengers' Club, FABIOL celebrated, "World Water Day" on the Instagram page – @envengersclub	Department of Biotechnology , Fergusson College (Autonomous)	Coordinator	22nd March 2021,
10.	The Late V.V.Apte Memorial Collage competition	Department of Biotechnology , Fergusson College (Autonomous)	Coordinator	5 th March, 2019.
11.	STATE LEVEL SEMINAR SPONSORED BY SPPU, UNDER QUALITY IMPROVEMENT PROGRAMME , One day state level seminar on 'Recent Advances in Stem Cell Biology and Regenerative Medicine'	Department of Biotechnology , Fergusson College (Autonomous)	Organizing Member	On 23rd February 2018
11.	Board of Studies (Biotechnology)	Department of Biotechnology , Fergusson College (Autonomous)	Organizing Member	14 th February 2019
12.	Board of Studies(Biotechnology) syllabus for T.Y.BSc and M.Sc – II	Department of Biotechnology , Fergusson College (Autonomous)	Organizing Member	13th February 2021

Course Content Developed (e-content)

Course content developed for subjects Medical Microbiology, Immunology, Introduction to diagnostic techniques, Applications in Microbial and Microbial Biotechnology , Introduction to microbial world, Microbial growth ,control and Applications , Food and Dairy Microbiology.

