



Sri Venkateswara University
Tirupati

DEPARTMENT OF MICROBIOLOGY



- **VISION:**
- To build a global standard in microbiology research and teaching and to be a guiding light worthy of emulating.
- **MISSION:**
- To provide wholesome experience and knowledge to students to develop into exemplary leaders of the future in academic and outside arena.
- To pursue and promote world-class research and training at the frontiers of microbiology
- To move up through international and national alliances and collaborative initiatives to excel globally in microbiology and biotechnology research and education

ABOUT THE DEPARTMENT

The Department of Microbiology emerged from the Sri Venkateswara University post graduate Centre, Kavali during 2005. Since 2010, the Department of Microbiology was transferred to College of Sciences, Sri Venkateswara University, Tirupati. The department presently runs four academic programmes M.Sc. Microbiology (Regular & Self-Supporting), M.Sc. Industrial Microbiology (Self-supporting) and Doctoral Programme. The present intake in each Masters programme is 24. The post graduate programme adopts National Education Policy 2020 with Choice Based Credit system (CBCS) in four semesters with 16 theory courses, 7 Lab courses and one project work. The Department has taken special interest in encouraging the students to take up pure, applied and strategic Ph.D. research programmes at local and national level to restore the environmental quality and development of indigenous microbial technology. The Department is undertaking research projects of national importance in the field of microbiology and attracted funds from various agencies. Our students have been placed in various companies and many of them are pursuing their higher education in various universities in India and abroad. We encourage students in doing research, present papers in national and international conferences, publish their findings in journals of repute and also participate in co-curricular and extracurricular activities. The Department has very good infrastructural facilities to carry out teaching and research activities. Laboratories are equipped with microscopes, thermal cyclers, UV spectrophotometer, autoclaves, hot air ovens, bacteriological incubators, BOD incubators, shaking incubators, laminar air flow units, Electrophoresis units, blotting apparatus, transilluminator, TLC instruments, deep freezers, cooling centrifuge, refrigerators, soxhlet apparatus, Rota evaporator and Nanopore Sequencer.

HEAD & BOS OF THE DEPARTMENT :



Prof. CHINTHALA PARAMAGEETHAM, MSc., Ph.D

Dr. Paramageetham Chinthala passed and secured third rank in M.Sc (Botany) from Sri Venkateswara University in 1995. She joined for research in the same Department as CSIR-JRF and received her Ph. D. Degree in 2000. She qualified Agricultural Scientist Recruitment Board (ASRB) National eligibility test, Andhra Pradesh National eligibility test (APNET), UGC-CSIR joint National eligibility test and Graduate Aptitude test of engineering (GATE) in 1995. She was appointed as Lecturer in Government Degree College in 1998 through Andhra Pradesh College Service Commission (APCSE) and worked until 2007. In 2007 she moved to her parent University and joined as Associate Professor in the Department of Microbiology. Since then she was teaching Microbial genetics and Molecular Cell Microbiology. She received UGC - Raman fellowship to

Conduct Post-Doctoral Research in USA in the year 2014 and trained on "Metabolic engineering of Cyanobacteria to produce Fuels and Commodity Products" at Prof. Ruanbao Zhou's Lab, Department of Biology & Microbiology, South Dakota State University, Brookings, USA. She received research grants from different funding agencies like APCOST Govt. of Andhra Pradesh, UGC, DST-SERB and CSIR, New Delhi. She presented research papers in several national and international conferences. She acted as resource person at academic staff College, SV University, Tirupati. She attended winter and summer schools at Indian Institute of Sciences, Bangalore and Madurai Kamaraj University, Madurai. She organized one National seminar and three National workshops. By now six Ph.ds and one M.Phil.'s were awarded and currently 6 members are working for their Ph.D. programme. She published 55 papers in peer reviewed and refereed journals and 15 Book chapters. She also edited one Book on "Recent Trends in Microbial Diversity and Bioprospecting". She is a life member in Association of Microbiologists of India, Mycological Society of India and Lichenologists Association of India. She is an annual member in South Dakota Academy of Sciences, during 2015. She is an executive committee member in Lichenological Society of India. She successfully completed her tenure as Deputy Warden for Women, Co Ordinator for Microbiology and Co Ordinator for Industrial Microbiology. Currently she is heading the Department and appointed as Board of Studies Chairperson for Microbiology & Industrial Microbiology. She is also an executive council member of S.V.University, Ex officio member of academic senate of S.V.University. Her research interests include Extremophiles, Biofuels and Bioactive Compounds.



Dr. Jasti. Pramoda Kumari, M.Sc, M.Phil, Ph.D,

Dr. Jasti. Pramoda Kumari Diploma in Yoga and Allied as an Assistant Professor (Retired) in the Dept. of Microbiology, S V University, Tirupati. After obtaining Ph.D in 1986 from S. V. University, Tirupati, she worked as ICMR-RA, DST- Young Scientist and CSIR – RA from 1986 to 1996. Later, during 1997 to 2006 worked as Academic Consultant in the Departments of Zoology/Sericulture. Published 53 Research Papers in reputed National (35 with rating factor: 46.3 & Impact factor: 0.268) and International (18 with impact factor: 8.956) Journals, guided ten Ph.D's One National Conference MBPHH-2010 was organized and participated and presented papers in several National and International Conferences/Seminars. One Paper was presented in International Conference on Medical, biological and Pharmaceutical Sciences -2012 at Singapore

(Overseas). A book in the name of "Recent Trends in Sericulture" is published and edited. Ph.D Thesis was also published in the form of e book by S.V. University. Thrust areas of research are Proteomics of Probiotics and DNA bar coding. Eleven differently expressed proteins are identified under heavy metal stress. The structure of these proteins is also predicted through homology modelling. Research on Proteomics is accelerating rapidly because of marked advances in protein labelling techniques, mass spectrometry (MS), and bioinformatics. In the year 2013, "Proteomics of E.coli Nissle 1917 under metal stress conditions" a book is published by Verlag publishers, AV Akademiker verlag GmbH & Co.Kg, GERMANY. One more book in the name of " Proteomics of Probiotics" is accepted and yet to be published by Lap Lambert Publications, GERMANY. Completed two individual research projects from UGC, New Delhi. She acted as Reviewer of BANWA-Research Journal, Philadelphia and Current Trends in Biotechnology, India, Referee of the TEPP (DST) Project and Judge for several Technical sessions of the National Seminars

COURSES OFFERED

2005	• M.Sc., Microbiology • Regular Course & Self supporting Course(24 seats in each)
2006	• M.Sc.,Industrial Microbiology • Self supporting Course(24 SSF seats)
2010	• Ph.D .,Programme • Full time/Part- time (As per UGC Norms)
2014	• M.Phil.,Programme • Full time/Part- time (As per UGC Norms)

PLACEMENT RECORD



CURRICULUM DETAILS FOR M.SC., MICROBIOLOGY

	Sl.No	TITLE OF THE PAPER
Semester – I	1.	Introductory Microbiology
	2.	Microbial Physiology
	3.	Biochemistry
	4.	Biophysics and Biostatistics
	5.	Introductory Microbiology & Microbial Physiology (Practical I)
	6.	Biochemistry & Biophysics and Biostatistics (Practical II)
	7.	Human Values and Professional Ethics - I
Semester – II	1.	Molecular Biology
	2.	Recombinant DNA technology
	3.	Immunology
	4.	Medical Microbiology
	5.	Molecular Biology and Recombinant DNA Technology(Practical I)
	6.	Immunology and Medical Microbiology(Practical II)
	7.	Human Values and Professional Ethics - II
Semester – III	1.	Bacteriology and Virology
	2.	Agricultural Microbiology
	3.	a) Industrial Microbiology b) Downstream processing Technology
	4.	Bacteriology and Virology and Agricultural Microbiology(Practical I)
	5.	Food and Dairy Microbiology(Practical II)
	6.	a) Computational biology b) Microbial genomics and proteomics
	7.	Online Courses from MOOS/ NPTEL
Semester – IV	1.	Molecular Cell biology and Technology
	2.	Environmental Microbiology
	3.	a) Pharmaceutical Microbiology b) Industrial based microbial clean Technology
	4.	Molecular Cell biology and Technology and Environmental Microbiology & elective (Practical I)
	5.	Project Work (Practical II)
	6.	a) Bioethics, Biosafety and Intellectual property rights b) Microbial Production of Alcoholic beverages.
	7.	Online courses from MOOCs / NPTEL

CURRICULUM DETAILS FOR M.SC., INDUSTRIAL MICROBIOLOGY

	Sl.No	TITLE OF THE PAPER
Semester – I	1.	Introductory Microbiology
	2.	Microbial Physiology
	3.	Biochemistry
	4.	Biophysics and Biostatistics
	5.	Introductory Microbiology & Microbial Physiology (Practical I)
	6.	Biochemistry & Biophysics and Biostatistics (Practical II)
	7.	Human Values and Professional Ethics - I
Semester – II	1.	Molecular Biology
	2.	Recombinant DNA technology
	3.	Immunology
	4.	Medical Microbiology
	5.	Molecular Biology and Recombinant DNA Technology (Practical I)
	6.	Immunology and Medical Microbiology (Practical II)
	7.	Human Values and Professional Ethics - II
Semester – III	1.	Basics of Industrial Microbiology
	2.	Bioprocessing of Industrial Microorganisms
	3.	a) Pharmaceutical Microbiology b) Downstream Processing
	4.	Basics of Industrial Microbiology and Bioprocessing of Industrial Microbiology(Practical I)
	5.	Industrial Food Microbiology(Practical II)
	6.	a) Computational Biology b) Industrial Biotechnology
	7.	Online Courses from MOOS/ NPTEL
Semester – IV	1.	Animal and plant cell culture
	2.	Industrial based Microbial clean technology
	3.	a) Industrial production of Microbial product b) Industrial Microbial Technology
	4.	Animal and plant cell culture and Industrial based Microbial clean technology (Practical I)
	5.	Project Work (Practical II)
	6.	a) Bioethics, Biosafety and Intellectual property rights b) Microbial Production of Alcoholic beverages.
	7.	Online courses from MOOCs / NPTEL

Ph.D,s Awarded: 16

Post Doc's- 01(CSIR-RA)

UNIQUE FACILITIES

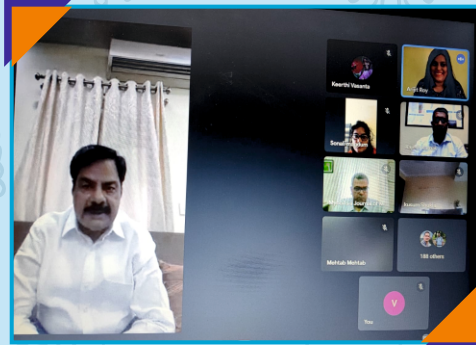


Our Activities

Inauguration of National Workshop



Celebration of world fungus day



Visit to Frontier Technologies



Visit to Mahindra bioenergy plant



Winning the campus Cricket trophy



Students seminar



"Processing of construction and demolition waste through advanced technology"



Visit to Integrated Waste management Park



Visit to Plastic waste Collection and Recycling Centre



Visit to WET Waste processing Unit - ECOFINIX



Winners of Intercollegiate competitions



Receiving Internship Certificates

