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Vivekanandha Higher Educational Charitable Trust



# VIVEKANANDHA

## ARTS AND SCIENCE COLLEGE FOR WOMEN

(Affiliated to Periyar University; Recognized under section 2(f) & 12(B) of the UGC Act, 1956)  
(An ISO 9001: 2015 Certified Institution)  
Veerachipalayam, Sankagiri, Salem- 637 303, Tamil Nadu, India



## PG & RESEARCH DEPARTMENT OF MICROBIOLOGY



**NEWS LETTER**  
**(2024-2025)**

## ABOUT THE INSTITUTIONS

Vivekanandha Educational Institutions, established by Angammal Educational Trust in 1987, has been a source of hope for students in rural areas in and around Tiruchengode and Sankagiri. Under the visionary leadership of "Vidhya Rathna" Prof. Dr.M.Karunanithi, B.Pharm, M.S., Ph.D., D.Litt, the Institutions has strived to provide quality higher education and develop well-rounded professionals ready to take on the challenges of the modern world. Vivekanandha Educational Institutions was founded to bridge the gap in higher education accessibility for students in rural areas. The Institution boasts state-of-the-art infrastructure and a culture of excellence that sets it apart from others. The focus on developing a strong work ethic among students has enabled them to secure placements in higher positions in various sectors.

## ABOUT THE COLLEGE

Vivekanandha Arts and Science College for Women, Sankagiri, was established in 2004 under Rabindranath Tagore Educational Charitable Trust and later merged in 2014. The College is a proud member of the esteemed Vivekanandha Educational Institutions, Angammal Educational Trust, Krishna Educational Trust, and Rabindranath Tagore Educational Charitable Trust. Chaired by the renowned Educationalist and Philanthropist "Vidhya Rathna" Prof. Dr. M. KARUNANITHI, B.Pharm., M.S., Ph.D., D.Litt, the Institution holds a prestigious position in the educational landscape. Our chairman has steered the Institution towards excellence with dedication and commitment, earning it a unique reputation in the region. It is affiliated to Periyar University, Salem and certified with ISO 9001:2015. The College holds recognition under 2(f) & 12(B) regulations of the UGC Act, 1956. Our College offers seventeen UG programmes, twelve PG programmes, and two research programmes. We believe in providing a holistic educational experience that empowers women to excel in their chosen fields. Our comprehensive curriculum, world-class faculty, and state-of-the-art facilities ensure our students receive the best education possible. From academic excellence to extracurricular activities, we strive to nurture the overall development of our students.

## ABOUT THE DEPARTMENT

The Department of Microbiology was established in 2004 to provide top-notch education in Microbiology. Since its inception, the Department has offered various undergraduate, postgraduate, and research programs. The focus is on cultivating a rich academic and research environment coupled with hands-on experience to prepare the students for a successful career in Microbiology. It boasts a state-of-the-art infrastructure equipped with basic instruments and modern analytical equipment. This allows students to gain practical experience and exposure to the latest technologies in the field. The facilities provided by the Department are crucial in nurturing the students and helping them excel in their academic pursuits. To enhance students' intellectual growth, the Department has initiated various brain-storming activities. These activities aim to showcase students' talents and provide them with a platform to hone their skills. By encouraging active participation in such activities, the Department ensures that the students excel academically and develop essential soft skills required for a successful career. The vision of the Department of Microbiology is to empower women through scientific education and create a robust interface between academic institutions and industries. This collaboration aims to provide aspiring students with leadership opportunities and better job prospects. The mission of the Department is to impart in-depth knowledge of Microbiology to students and provide them with a platform for learning, training, and research in the field. Over the years, it has completed numerous Nationally and Internationally funded research projects. Some projects are ongoing, while others have been submitted for funding by various prestigious agencies and research organizations such as the Department of Biotechnology (DBT), Department of Science and Technology (DST), University Grants Commission (UGC), Indian Council of Agricultural Research (ICAR), and Ministry of Earth Sciences (MoES). This demonstrates the Department's commitment to advancing research in Microbiology. It plays a vital role in gathering and disseminating knowledge to the public, especially in applied Microbiology, such as agriculture and aquaculture. Through cutting-edge research and innovative practices, the Department aims to significantly impact society and contribute to advancing Microbiology as a science. It is at the forefront of academic excellence, research, and innovation in Microbiology. With a strong focus on student development, research collaborations, and knowledge dissemination, the Department significantly impacts the scientific community and society.

## VISION

To emerge as a globally recognized center of excellence in Microbiology by driving groundbreaking discoveries, innovative solutions, and transformative education. We aim to nurture future-ready leaders who can significantly impact public health and environmental sustainability on a global scale.

## MISSION

- To provide transformative education and hands-on training that fosters intellectual growth, critical thinking, and lifelong learning among students.
- To advance the frontiers of Microbiology through cutting-edge research, innovative technologies, and collaborative partnerships, addressing pressing global health and environmental challenges.
- To empower students with the knowledge, skills, and confidence needed to excel in their chosen careers and contribute meaningfully to society.
- To nurture holistic development by promoting creativity, leadership, and self-reliance through a multidimensional educational framework.
- To develop socially responsible, globally competent professionals equipped to lead and make impactful contributions in academia, industry, and research.

## QUALITY POLICY

We are dedicated to delivering world-class education and professional training that align with global academic and industry standards. Our objective is to build a premier center of learning with state-of-the-art infrastructure, focusing on academic excellence, advanced research, and innovation, particularly empowering rural women. By embracing emerging scientific trends and fostering national and international collaborations, we strive to position Microbiology as a dynamic, interdisciplinary field of discovery, innovation, and career growth.

## DEPARTMENT ACTIVITIES

During the academic year 2024–2025, the Department of Microbiology at VIAAS successfully organized a series of academic, co-curricular, and outreach activities. The initiatives began with an institutional visit on 03.09.2024 to the ICAR–Sugarcane Breeding Institute, Coimbatore, coordinated by Dr. R. Dineshkumar and Ms. S. Kousalya, involving 59 participants. On 12.09.2024, a guest lecture titled “*Unlocking Opportunities in Life Science Research: A Roadmap to NET and Fellowships*” was delivered by Ms. S. R. Sruthi, UGC Fellow from Annamalai University, benefitting 250 bioscience students. To commemorate International Microorganism Day, a club activity was held on 18.09.2024 with 175 student participants.

Another institutional visit was arranged on 08–09.10.2024 to CSIR–CSMCRI and ICAR–CMFRI, Rameswaram, involving 50 students. On 24.12.2024, the department observed National Consumer Day through student-led activities, followed by the celebration of Louis Pasteur’s Birthday on 27.12.2024, coordinated by Dr. R. Dineshkumar.

On 17.01.2025, a hands-on workshop on animal handling was conducted by Dr. P. Sudhakar from Swamy Vivekanandha College of Pharmacy, with 180 microbiology students in attendance. A second guest lecture took place on 21.01.2025, delivered by Dr. N. Marimuthu, Scientist-E, Zoological Survey of India, Kolkata, focusing on research tools and career opportunities in bioscience. An awareness programme on HMPV was held on 23.01.2025 in Veerachipalayam village, involving 65 students and coordinated by Ms. S. Kousalya and Dr. B. Shanmugapriya.

The department hosted an alumni meet on 05.02.2025, where alumni Ms. A. Poonguzhali and Ms. T. Divya shared insights on career opportunities in microbiology, attended by 165 students. This was followed by an educational tour to Munnar, Kerala, on 06.02.2025, with 96 participants. Rabies Day was observed on 13.02.2025, and a Cancer Day rally was held on 15.02.2025, with participation from over 170 students.

The year concluded with a prestigious one-week Faculty Development Programme (FDP) from 21–27 February 2025, titled “*Emerging Technologies in Bioprospecting for Health and Environment: Opportunities & Challenges.*” The FDP featured eminent speakers including Dr. Ramesh Subbaiah (Thermo Fisher Scientific, USA), Dr. B. Balasubramaniam (University of Iowa, USA), Dr. N. Geetha (University of Mysore), Dr. K. N. Yogalakshmi (Central University of Punjab), Dr. Ashok Veeramuthu (SIMATS, Chennai), Dr. S. Senthil Prabhu (Dr. N.G.P. College, Coimbatore), and Dr. Ranjith Kumavath (Pondicherry University). Topics ranged from nanobiotechnology, lichens, waste management, to emerging cancer therapeutics.

## FACULTY ACHIEVEMENTS

### PATENTS

Dr. R. Mythili and Dr. R. Dineshkumar were jointly awarded a design patent titled “*Biopesticide Mixing Rod to Identify Chemical Content*” (Application No. 356995-001) on 24th July 2024. The patent, filed in India, reflects their contribution to agro-biotechnology innovations with practical application in biopesticide quality analysis.

## AWARDS & RECOGNITIONS

Dr. R. Mythili received the Young Innovator (Research) Award in January 2025, jointly conferred by Somnogen Canada Inc., Toronto and Nexus India, for her excellence in sustainable bioprocess innovations.

Dr. V. Bharathi was honored with the Faculty Excellence Award 2025 for Research and Publications by SNS Institutions on 28th March 2025, recognizing her impactful contributions to academic publishing.

Dr. R. Dineshkumar received three distinct recognitions—Research Excellence Awards for Higher Publications, Impact Factor, and Funding—awarded by Vivekanandha Educational Institutions, Tiruchengode & Sankagiri in September 2024, acknowledging his consistent performance in high-quality research output and project acquisition.

Dr. R. Mythili was acted as a Guest Editor for journals under Elsevier and Springer, while Dr. R. Dineshkumar was recognized as a Lead Editor for the same. Both were also acknowledged as reviewers by these prestigious international publishers.

## PUBLICATIONS

During the academic year 2024–2025, the faculty members of the Department of Microbiology made significant contributions to scientific research through a wide range of high-impact publications. Dr. R. Mythili published eight research articles in reputed journals focusing on microbial CO<sub>2</sub> sequestration, biopesticide development, antimicrobial resistance, and algal bioresources. Dr. R. Dineshkumar authored ten high-impact papers covering themes such as antimicrobial resistance, carbon management, and bioethanol production, published in journals including *Environmental Science and Pollution Research* and *Waste and Biomass Valorization*. Dr. V. Bharathi published seven articles in diverse journals exploring topics like gastric cancer, antioxidant-rich natural products, and therapeutic potential of polysaccharides. Dr. B. Shanmugapriya contributed to the field of animal nutrition with a publication on broiler chicken growth dynamics in the *Journal of Tianjin University Science and Technology (Scopus)*. These publications reflect the department's strong research focus in environmental biotechnology, pharmacogenosy, microbiology, and applied life sciences.

## BOOK CHAPTERS

During the academic year 2024–2025, the faculty members of the Department of Microbiology demonstrated remarkable scholarly contributions through authorship of books and book chapters in reputed publications. Dr. R. Mythili authored three book chapters in internationally recognized volumes, including *Whole-Cell Biocatalysis: Next-Generation Technology for Green Synthesis of Pharmaceuticals, Chemicals, and Biofuels* published by Taylor & Francis in June 2024, and two chapters on *Innovative Drug Delivery Systems in Cardiovascular Therapeutics* and *Plant Metabolomics for Drug Design* in edited volumes by Bentham Science Publishers in May 2025. Dr. V. Bharathi authored a full-length book titled *Genetics and Evolution of Infectious Diseases*, published by O Saliha Publications in October 2024, contributing to the field of infectious disease biology. Additionally, Dr. B. Shanmugapriya contributed a chapter to the book *Medical Phytochemicals: Exploring Nature's Pharmacy*, focusing on methicillin-resistant *Staphylococcus aureus* (MRSA) and antibiotic resistance, published by INAM Pathipagam in September 2024. These academic contributions reflect the faculty's deep involvement in frontier research and interdisciplinary biomedical sciences.

## RESEARCH GRANT DETAILS

During the academic year 2024–2025, faculty members of the Department of Microbiology secured student research grants from the Tamil Nadu State Council for Science and Technology (TNSCST), reflecting their commitment to promoting research at the undergraduate and postgraduate levels. Dr. V. Bharathi guided a project titled "*Biopesticidal Activity of Bacteriophage against Xanthomonas citri*", which received a sanctioned amount of ₹7,500 under the student project scheme. Similarly, Mr. R. Pandiyan obtained a grant of ₹7,500 for the project "*Isolation, Identification and Characterization of Catharanthus roseus and its Medicinal Application against Bacterial Disease.*"

## FACULTY RESOURCE PERSON DETAILS

As part of academic outreach and professional engagement, Dr. B. Shanmugapriya served as a Chief Guest during the World Breastfeeding Week Celebration held on 08th August 2024. The event was organized by the Department of Biotechnology, Jairam Arts & Science College, Salem-08. Her presence and address as a resource person reflect her active role in community health awareness and inter-institutional collaboration.

## FDP/CONFERENCE/SEMINAR/WORKSHOP PARTICIPATION DETAILS

Dr. R. Mythili and Ms. S. Kousalya attended a national training programme on Chicken IgY Antibody Purification at Dr. N.G.P. College, Coimbatore. Dr. V. Bharathi participated in an FDP on Medical Coding at Periyar University and an FDP on IPR at VICAS, Tiruchengode. She also completed a 7-day online FDP on Professional Development by Star International Foundation. Additionally, she attended the ELEMENTS-2024 virtual FDP on sustainability at Rathinam College. Mr. R. Pandiyan completed an online FDP on Ethics and Teaching Values from the same foundation. Ms. S. Kousalya joined a national seminar on Next Gen Tech at Padmavani College for Women. She also completed a one-week FDP on Healthcare and Data Management at Periyar University. Faculty engagements reflect dedication to continual learning and interdisciplinary skill building. These programs enhanced knowledge in biotechnology, IP rights, sustainability, and pedagogy. Participation strengthened research capacity and contributed to faculty development. Overall, the department demonstrated strong academic involvement throughout the year.

## UNIVERSITY RANK HOLDERS

The Department of Microbiology is proud to announce the outstanding academic achievements of its students in the Periyar University examinations for the academic year 2024-2025. Ms. R. Divya Dharshini, a postgraduate student of M.Sc. Microbiology, secured the Fifth Rank at the university level, reflecting her academic excellence, dedication, and consistent performance. In the undergraduate category, Ms. P. Vijaya Prabha of B.Sc. Microbiology earned

## STUDENTS ACHIEVEMENTS

During the academic year 2024-2025, students of the Department of Microbiology brought recognition to the institution through academic excellence and competitive participation. In addition, Ms. V. G. Bhavadharani and Ms. U. Monika Lakshmi were awarded Third Prize for Oral Presentation in the National Seminar on Next Gen Tech - Revolutionizing Agricultural, Health & Environment. The seminar was organized by the Department of Biotechnology & Microbiology, Padmavani Arts and Science College for Women, Salem, on 09 August 2024. These recognitions showcase the students' abilities in both academic ranking and scientific communication. The department encourages active student participation in research, innovation, and academic competitions. Achievements like these highlight the quality of mentoring, curriculum delivery, and student motivation. Student awards are a testament to the department's emphasis on holistic academic development. Faculty-guided participation in external seminars fosters confidence and career readiness. Such accomplishments contribute to the institution's visibility and prestige at the university level. The department remains committed to nurturing future-ready microbiologists and researchers.

## STUDENTS PARTICIPATION DETAILS

During the academic year 2024-2025, students from the Department of Microbiology actively participated in various academic events at regional and national levels. A total of over 120 undergraduate and postgraduate students attended the National Seminar on Emerging Infectious Diseases and Human Health (NAEIDHH-2025), hosted by VICAS, Tiruchengode on 07-08 January 2025. Earlier, on 09 August 2024, 28 students from III B.Sc. presented and participated in the National Seminar on Next Gen Tech - Revolutionizing Agricultural, Health & Environment at Padmavani Arts & Science College for Women, Salem. Two students, Ms. V.G. Bhavadharani and Ms. U. Monika Lakshmi, received third prize for oral presentations. Additionally, a group of students from II B.Sc. and I B.Sc. participated in a Training Programme on Chicken Antibody Purification at NGP Arts and Science College, Coimbatore, and a Workshop on Animal Handling at Vivekanandha Pharmacy College for Women, Tiruchengode in February 2025. Students also took part in a Quiz Programme marking International Microorganisms Day at K.S.Rangasamy College, Tiruchengode. These engagements demonstrate the department's strong emphasis on academic exposure, scientific communication, and practical skill enhancement through active student involvement across diverse platforms.

## PHOTOGALLERY



**Institute visit at ICAR- Sugarcane & Breeding Institute, Coimbatore on 03.09.24**



**Institute visit at ICAR- Sugarcane & Breeding Institute, Coimbatore on 03.09.24**



**Guest Lecture on Unlocking opportunities in life science research:  
"A road map to NET's and Fellowship"(12.09.2024)**



**Club Activity on International Microorganisms day on 18.09.24**



**Institute visit at CSIR-CSMCRI, ICAR-CMFRI, Madapam Campus, Rameswaram on 08.10.24 & 09.10.24**



**Club activity on National Consumer Day Celebration on 03.09.24**



**Club activity on Louis Pasteur Birthday Celebration on 27.12.24**



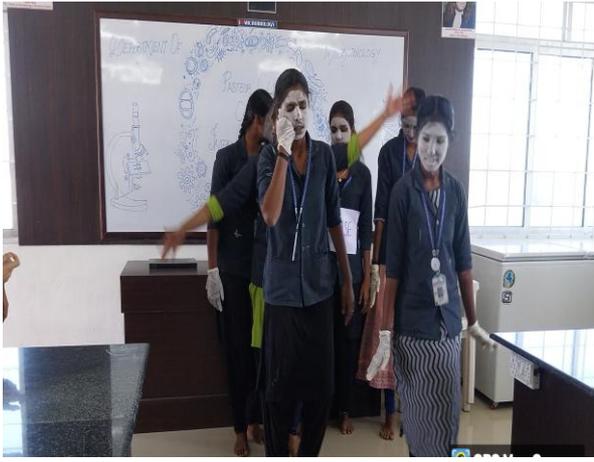
**Workshop on Animal Handling on 17.01.2025**



**Awareness Programme on HMPV for Village People of Veerachipalayam on 23.1.2025**



**Tour to Mysore on 06.02.2025 (Thursday)**



**Club activity on Rabies Day Celebration on 13.2.2025**



**Guest Lecture of Research Tools and Career Opportunities in Bioscience (21.01.2025)**



**MICROBES RULE THE WORLD .....**

**MICROBIOLOGISTS RULE THE MICROBES.....**