



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

## DEPARTMENT OF BIOTECHNOLOGY

### Vision

To make the Department of Biotechnology, unique of its kind in the field of research and development activities pertaining to the field of biotechnology in this part of the world

### Mission

To impart highly innovative and technical knowledge in the field of biotechnology to the urban and rural student folks through "TOTAL QUALITY EDUCATION"

### Special Features \ Department Highlights

- The Department of Biotechnology was established in the year 2002. It offers UG and PG programmes in Biotechnology.
- The Department has obtained Permanent Affiliation from Anna University, Chennai for the UG and PG programme.
- The Department is approved as Centre for Research by Anna University, Chennai and also offers Ph.D. /M.S.(Research) programme.
- The Department has received funds more than One Crore for Research projects, from government funding agencies such as AICTE, DRDO, DBT, BARC, TNSCST etc.
- Contemporary research areas like Food and Agriculture, Bioprocess Engineering, Bioenergy, Biopolymers and Computational Biology are the thrust areas of the department.
- The Department is successful in conducting Conferences, Workshops, Faculty Development Programmes and Science awareness programs funded by National agencies like DBT, DST-SERB, National Biodiversity authority etc.
- Department is known for its high-quality publications in the area of Environmental Biotechnology, Drug Discovery, Lichenology, Food Technology, Biopolymers and Biofuel research
- CSIR, JNU and GATE Qualified Faculties.
- Our Alumni have been placed in reputed MNCs like Zifo R&D Solutions, Bharath Biotech, Biocon, Avantor Biosciences, ICON, IQVIA, Dr. Reddy's, Syneos Healthcare and Life science domain of Accenture, TATA Consultancy services, Cognizant Technology Solutions.
- Our Alumni are working in International companies at Shiok Foods Singapore, Sartorius Stedim Biotech, Germany, Regeneron Biopharmaceuticals, Ireland and International Institutes like NUS Singapore.
- Our Alumni are working in Government Institutes like ICMR, NIT, Food Corporation of India (FCI) and Food Safety and Standards Authority of India (FSSAI)
- Our students are currently pursuing higher studies at reputed International Universities like Universit  de Montreal, Canada, Claude Bernard University, Lyon, France and LUT University, Finland

### Value added courses

- The Department of Biotechnology offers Value-Added Courses with a goal to provide learner-centric technical programs.
- These courses create an awareness on the expectations of the industry and augments the employability skills of the students.

The following Value added courses are offered by the Department of Biotechnology:

- Computer Aided Drug Discovery and Development
- Mushroom Cultivation and Biofertilizer Production
- Statistical optimization tools for Biotechnologist

- GMP and GLP practices
- Food Quality Testing and Evaluation

### **Significance of Department**

- Biotechnology has made significant advances in recent years and emerged as a front-line area of research and development, with an overwhelming impact on the society
- Biotechnology harnesses the core principles of biology and engineering to generate controlled processes or products related to the biopharmaceutical, industrial, healthcare, food or agro-industries.
- It covers a broad range of fundamental subjects such as cell and molecular biology, biochemistry, microbiology and core engineering courses like Biochemical Engineering, Genetic & Metabolic engineering, Computational Biology.
- The unique course structure is designed in consultation with clinical, agricultural and industrial experts to provide the cutting edge specialist knowledge and practical skills needed for a career in biotechnology.
- Students will gain extensive research experience through research based teaching in advanced laboratories, hands on computer modeling, internship in industry or medical institutions and carrying out a full semester research project.
- Students will graduate with specialist knowledge and employability skills for a career in further research (such as a PhD) or important placements in academic, clinical, industrial, agricultural or commercial sectors anywhere in the world.

### **Any Achievements (Higher level)**

- **Excellence in International Competitions**
  - Indo Israel Innovation Challenge – Paper Biosensor for Pesticide Detection.
  - Fujiko Cup Quiz organized by Nichi-In Centre for Regenerative Medicine, Japan.
- Consistent award of Research funding from Tamil Nadu State council for Science and Technology (TNSCST) for **Student Projects** worth 1.5 Lakhs
- Funds from Institution of Engineers, India for Student Projects worth 2 Lakhs
- Consistent Student achievements in Competitive Examinations like GATE, CSIR, GAT-B and IIT – JAM and Direct Ph.D admissions at IITs through GATE
- Patents on areas like biofuel conversion, edible cubes, biofilm production and industrial effluent treatment filed by students and faculty members.
- Copyrights filed by students and faculty members on algorithm related to pesticide detection and scientific manuals .
- Winner in National level project Expo competitions – SHRISTI, PSG-Nanochallenge and State level Best Project Award From TNSCST
- Faculty among top 2 % Scientist listed by AD Scientific Index
- MoU with renowned Industries facilitating Student Internship, Training and Technology Development
- Award of Young Scientist Fellowship and INSA Fellowship for faculty members.
- Students awarded with Funded internship opportunities abroad and at reputed Central Institutes such as IIT, NIT and CSIR.
- Prizes won by students in National and International Conferences, NCC B and C Certification, Excellence in International Yoga Competitions and Zonal level Sports competitions.

### **Laboratory Facilities (Additional)**

- Preparative HPLC system for biomolecule separation and purification
- Animal Cell Culture Laboratory.
- Computational Biology Laboratory – Molecular Docking and Simulation studies

**Lab Photos with Current Faculty members**



