

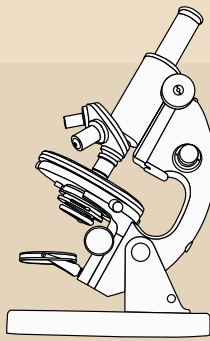
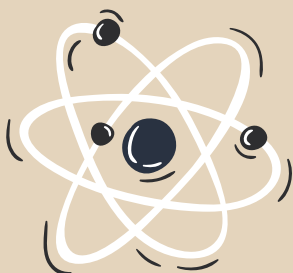
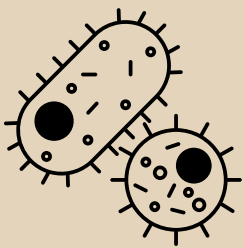


Dr. M.G.R.
EDUCATIONAL AND RESEARCH INSTITUTE
(Deemed to be University with Special Autonomy Status)
Maduravoyal, Chennai - 600 095. Tamilnadu, India.



— DEPARTMENT OF BIOTECHNOLOGY —
PRESENTS
BIOBYTES NEWSLETTER

BT-Q1- 22 MARCH 2022





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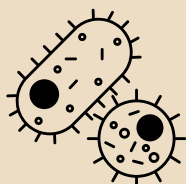
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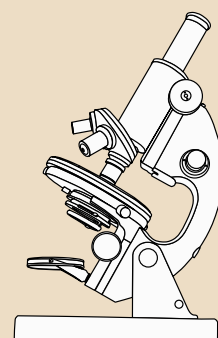
DEPARTMENT VISION & MISSION

VISION

To strive towards the innovative knowledge in the domains of biotechnology for the development of new processes and product useful to the society and enrich economy.

MISSION

- To impart knowledge and skills in the biological sciences to improve human health, protect environment and to enrich economy.
- To provide an outstanding environment to learn for facing the global need in the fields of Biotechnology.
- We focus on excellence in teaching and research as well as to promote entrepreneurship

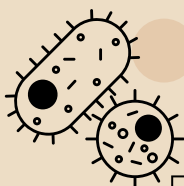




DEPARTMENT OF BIOTECHNOLOGY

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PROGRAM EDUCATIONAL OBJECTIVES OF THE DEPARTMENT

PEO No.	Program Educational Objectives Statements
PEO 1	<ul style="list-style-type: none"> Pursue higher studies or involve themselves in R&D activities in Biotechnology Industries and related organizations
PEO 2	<ul style="list-style-type: none"> Be a successful entrepreneur in creating jobs related to health science and Biomedical Society.
PEO 3	<ul style="list-style-type: none"> Promote ethics, sustainability, social environmental responsibility in their profession and career.

List of Program Outcome for the program Engineering Graduates will be able to:

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

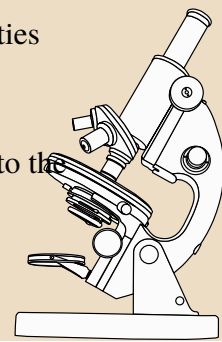
PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.





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PROGRAM EDUCATIONAL OBJECTIVES OF THE DEPARTMENT

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO: 9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

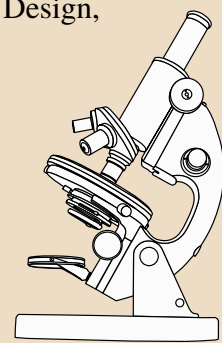
PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change holders (Industry experts, and with the other reputed universities) have been received.

LIST OF PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Ability to Apply knowledge of basic Life sciences for Biotechnological innovation and promoting entrepreneurship

PSO2: Proficiency to develop value-added Biotechnological products through implementation, Design, optimization, and scale-up of Biotechnological processes.

PSO3: Competency to promote Biotechnological research in the fields of biomedical, food and environment-related fields and also to publish papers in highly reputed journals





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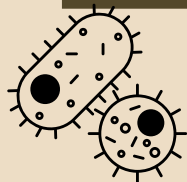
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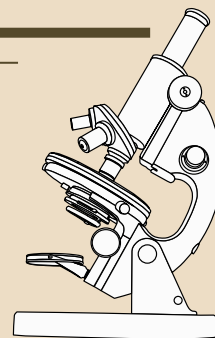
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DESK MESSAGE



Dr. Rajeswary Hari
HOD of Biotechnology Department



The Department of Biotechnology was started in the year 2003 with an objective of generating trained manpower in Biotechnology with disciplinary skills from Chemical engineering, Computer Science and Management Skills. Biotechnology is the application of Biology for industrial purposes such as development of vaccines, biomaterials reducing toxic waste by using microbial or enzyme based processes, development of new drugs for treating emerging and reemerging diseases, development of newer diagnostic methods for diagnosis of human diseases, development of crops with additional productivity or added advantages etc. The Research focus in our Department Involves methods to reduce environmental pollution by using micro organisms, identifying the plant products which can be used to treat diabetes, fasten the wound healing processes; understanding the role of SNP in critical gene in the development of cancer; and monitoring and understanding the mechanisms of antibiotic resistance in bacteria. The Department is supported by grants from the SERB, DST, DBT & CSIR .The department is motivating the students and faculties to actively involve in research programme and also to publish articles in national and international journals & Conference. The Department offers B.Tech and M.Tech Programs in Biotechnology, M.Tech in Medical Biotechnology and Ph.D. programs also.

Rajeswary Hari

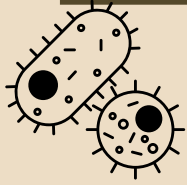
HOD Sign



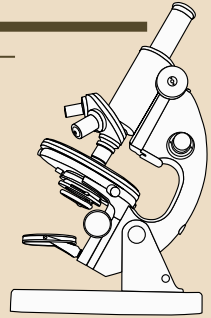
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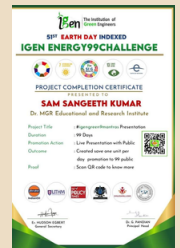
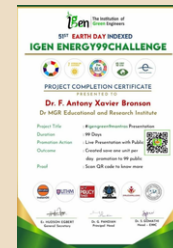
ACHIEVEMENTS



Our student Sai Akshaya from M.tech BT, won gold medal with best female fighter award in a boxing tournament conducted by Combat kinetics an elite academy Tamilnadu "sweet science". Trained for Mixed Martial arts, also learning Muay boran(traditional combat sport) and will be representing Tamilnadu for the National level MMA championship in the month of September.



Dr. Antony Xavier Bronson and Sam Sangeeth kumar (B.tech 2nd yr) Completed IGEN Energy 99 Challenge on the occasion of 51st Earth Day Indexed conducted by IGEN for 99 days to create awareness on Saving Energy and as result saved Energy 1 unit per day to 99 public.



RESEARCH & PUBLICATION



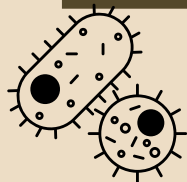
Dr. Vasanth M.P., Department of Biotechnology, successfully completed his PhD paper on "Phytochemical and pharmacological evaluation of VLCO1-A polyherbal formulation in cigarette smoke induced rats" on February 28, 2022, under the supervision of Dr. K.G. Purushotham, Formerly-Associate Professor, Department of Biotechnology, Dr.M.G.R educational and research institute, who is currently the secretary at the Public Health department, Government of Andhra pradesh.



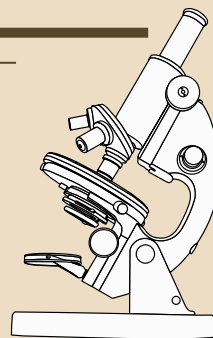
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STUDENT CORNER



We Department of Biotechnology organized the 'National Level Symposium' called "Biosynergy 2022" which we conducted various events covering both technical (Quiz, Poster presentation, Debate, Model making) and Non-Technical (Culinary, Groovin, Word Shuffle, Creative Writing, Sketch up, Connexions).

Debate Winners

1. CH Madhumita (B.Tech 3rd Year)
2. Subhajanani (B.Tech 4th Year)
3. M. Nandhini (B.Sc 2nd Year)

Word Shuffle

1. Yukta (M.Sc 1st Year)
2. M. Nandhini (B.Sc 2nd Year)
3. Fathima atiba (B.Sc 2nd Year)

Quizically

1. Antony Roshan (B.Tech 4th Year)
2. Chaitanya parveena (B.Tech 2nd Year)
3. Magar Vaishnavi (B.Tech 3rd Year)

Poster Making

1. Abeetha Sandhya G/
Madhumitha CH (B.Tech 3rd Year)/
Yukta S (M.Sc 1st Year)
2. Kamali.C (B.Sc 2nd Year)
3. B.S Keerthi Shri, M.Nandhini (B.Sc 2nd Year)

Dance

1. MJ Abdul Basith (B.Tech 2nd Year)
2. V.Varshini (B.Tech 2nd Year)/ Bhavani (B.Sc 3rd Year)
3. Abinisha senthilvel & Subashini.R (B.tech 3rd Year)

Creative writing

1. Aishwarya Arulraj (B.Tech 3rd Year)
2. R. Bhuvaneshwari (B.Sc 2nd Year)
3. Priyanka Balasubramanian (B.Tech 2nd Year)

Sketch up

1. Vinothini Vijayaragavan (M.Sc 1st Year)
2. Yukta.S (M.Sc 1st Year)/Anisha blessy (B.Tech 3rd Year)
3. Archana Jagannath (B.Sc 1st Year)

Few Students from 2nd and 3rd year did an internship from Cambrionics Life Science. They did on topics Molecular Biology, Zebra Fish Handling, and Bioinformatics for 10 days. In molecular biology they did DNA Isolation from plants like stem, leaf, root and leaf. In Bioinformatics they learnt NCBI, ExPasy, Ecocyc database etc., In Zebra fish handling, they observed the growth of an embryo, regeneration etc.,

2nd year Students:

K.N. Sakthi Sree	M. Sindhu Kavi Priya
G. Jeevitha	R. Sindhuja
B. Janani	D. Sushmitha

3rd year Students:

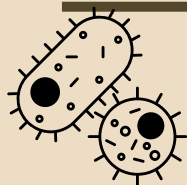
Pranav P	Grace R	
Harrish. A	Srirathi M	
Kishore R	Priya D	Ram Kumar V
Saravana M	Nandhini N	Vaishnavi Devi B
Sanjay Krishna B	Stefana S	Sneha S
Sneha D	Sowmiya R	Divya dharshini V
Kanagavalli B	Abinisha S	
Thamarai G	Subashini R	



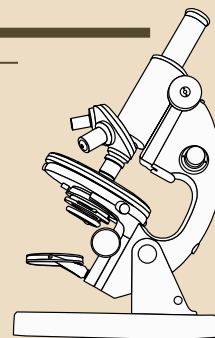
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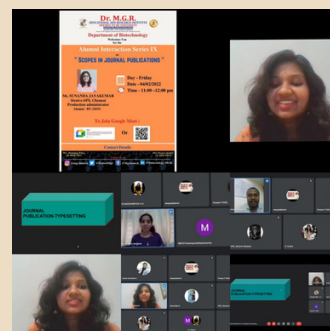
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EVENT CORNER



The "Scopes in Journal Publication" event, which took place on February 4, 2022, was a part of the Alumni interaction series IX. Sheerin Natasha gave the opening speech, and D. Sneha gave the welcome address. The guest, Ms. Sunanda Jayakumar, who is currently employed with Stravie-SPS and is a graduate of the Dr. MGR Educational and Research Institute, was then briefly introduced by Saran Aravinda. The objective is to enable peer-to-peer networking so that current students can widen their horizons and better grasp the career pathways available to them. The students were able to clear their doubts through an interactive session. B. Kanagavalli's vote of gratitude brought the session to a close.



On 11th feb2022, a lecture on "Medicinal Plants" conducted for Biotechnology students, event started with a intro of our Chief Guest Dr.R.Carolina Jeba(Associate Professor, dept of BT), delivered a context of the role and significance of Medical plants with examples and ended with vote of thanks. The success of the event is because of our Staff Coordinator Mrs.shanmugapriya, Faculty of E&T (dept BT).Our anthem "Knowledge is the most powerful weapon known to mankind".

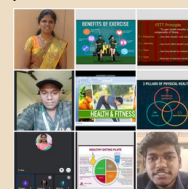


On February 25, 2022, a "interdisciplinary lecture" was held. Dr. Anupreethi, an alumni of the Dr. MGR Educational and Research Institute and an associate professor in the department of physiotherapy, spoke to the audience about "Health and Fitness." This seminar gave the audience members a comprehensive understanding of proper nutrition, nutrient consumption, physical and mental health and ended up being quite engaging and lively.

In order to create awareness among students about their studies and Career abroad,a webinar "Educational and career opportunities abroad" Conducted on 9th Feb,2022 for all the dept students under Faculty of E&T,the key speaker gave context on the topic with the requirements explained in detail and the dept of BT extradition the webinar to AZENT OVERSEAS EDUCATION for benefiting the students. Our goal "Knowledge is the most powerful weapon known to mankind".



On the occasion of "National Science Day"(28th Feb,2022) a very informative webinar conducted for IBT students about Science and its importance, event started with a preamble by our hod mam Dr.Rajeshwarihari about the Chief Guest Dr.Daniel Jabaraj Managing Director, Agri Amigo Private limited Theni ,spoken on biotechnology business opportunities agriculture sectors in detailed manner, then completed with vote of thanks. Event made its success because of the initiative taken by Mrs.shanmugapriya and Dr.Priya.C, faculty of E&T under dept BT. We MGR'ians believe in "Knowledge is the most powerful weapon known to mankind".

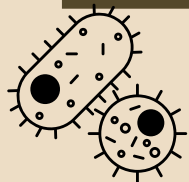




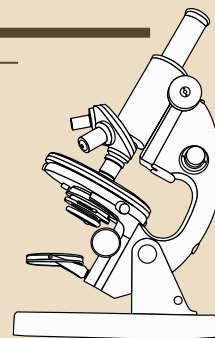
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ALUMINI CORNER



We are pleased to report that all of our alumni students have had very successful lives. Graduates in biotechnology from the batch 2015–2019 Mr.K.Mugesh is pursuing their M.S. degrees in biotechnology (cell and molecular biology) at Wageningen Research and University in the Netherlands and Mr.Vaidyanathan.G.S is pursuing his M.tech in SRM-IST (Food process engineering). Mr. Pruthvi Rajan.K, Bavin.V, and Rachel.S of the same batch are succeeding in their careers despite them.



They have gladly praised our university's facilities, infrastructure, friendly faculties and the range of career-building options accessible to students.

Ms. Jania Das Gupta recounted her priceless memories of the Dr. MGR Institute for Education and Research. She said it was because of the faculty, facilities, and resources at this college, her passion for the biotechnology department has come to life. She was incredibly kind to express that she owes everything she is now to this education and she sincerely appreciates it. She also expressed gratitude for organising the 2009 batch alumni meet.

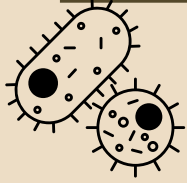




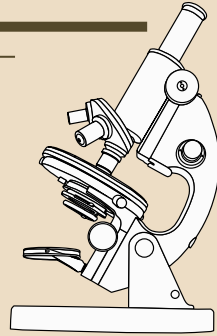
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STAR OF Q₁



Mr.P. Pranav

We are delighted to publish the star person of our department, ever passionate Mr.P.Pranav, studying (UG) 4th year B.tech BT at our esteemed Dr.MGR Educational And Research Institute. Eternally driven to work as an Research Scientist (genetic engineer) and learn as depth about cancer biology through experimentation and also Poly kidney disease (PKD).Other than studies he is an International rated Chess player (rating- 1497) won many awards in Chess National level Tournaments and also conducting Chess classes half time at his own Navdharsh Chess Academy. Done many internships, INFOZIANIT IT SOLUTIONS PVT LTD (python programming), CAMBRIONICS LIFE SCIENCE, Molecular biology & Zebrafish husbandry & Developmental toxicology studies, bioinformatics & Omics approaches , Dr RELA INSTITUTE & MEDICAL CENTER clinical studies. Completed courses through Online on Introduction to Nutrition science & food safety at NSIC TECHNICAL SERVICES CENTRE and Drug Discovery at the hand of COURSERA (online platform). Well skilled in all lab techniques & model and regarding system technology. Apart from academics, he is the Secretary of Biotechnology Association, a member of editorial board of our department (BT) News-letter. He is the 1st UG student to publish a Review papers on "GENE EXPRESSIONS and THEIR SIGNIFICANCE IN ORGANOID CULTURES OBTAINED FROM BREAST CANCER PATIENT-DERIVED BIOPSIES", Acta Histochemica 124(5),p. 151910. in the World famous ELSEVIER Journal and for his publication achievement soon going to receive an award or certificate from College President very shortly. And also his Second Review paper named "PROSPECT AND RETROSPECT OF 3D BIO-PRINTING" Acta Histochemica 124. Impact factor-2.147, was intended to publish with couple of weeks in the same ELSEVIER Journal. Even he is an Poster Designer at ENSAV club and office of International (college) and very good at Tamil,English and Spanish. Organized more than 15 events for college.



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SEMESTER TOPPERS

4th Year



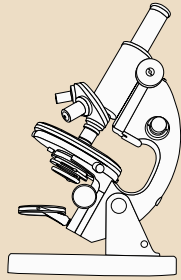
Narendran Ashwanth

4th year B.Tech Biotechnology



S Roshini

4th year B.Tech Biotechnology



3rd Year



P Pranav

3rd year B.Tech Biotechnology



B Kanagavalli

3rd year B.Tech Biotechnology

2nd Year



S Girshani

2nd year B.Tech Biotechnology



V Sneha

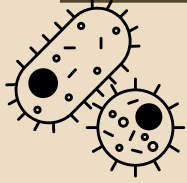
2nd year B.Tech Biotechnology



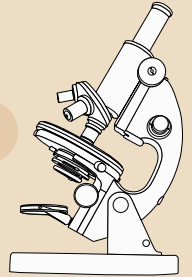
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