



Dr. M.G.R.
EDUCATIONAL AND RESEARCH INSTITUTE
(Deemed to be University with Special Autonomy Status)
Maduravoyal, Chennai - 600 095, Tamilnadu, India.
(An ISO 9001-2015 Certified Institution)



Q2 EDITION

DEPARTMENT OF BIOTECHNOLOGY

PRESENT'S

BIOBYTES NEWSLETTER

A QUARTERLY NEWSLETTER

2021

"Only those who dare to fail greatly can ever achieve greatly."



A newsletter is a tool used by businesses and organizations to share relevant and valuable information with their network of customers, prospects and subscribers.



ISSUE NO : Q2



DEPARTMENT OF BIOTECHNOLOGY

DEPT. - ISSUE NO. - DATE / MONTH / YEAR : BT - Q1& Q2 & Q3 & Q4 -

DEPARTMENT VISION AND 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

“Our world is built on biology and once we begin to understand it, it then becomes a technology”



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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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HEAD OF DEPARTMENT

DESK MESSAGE



Dr. Rajeswary Hari

HOD of Department Biotechnology

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 Dept. 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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ACHIEVEMENT

We've seen some of our undergraduate grade students in the first quarter, and Now we are going to see about Mr.Babu who is a third-year student of Btech Biotechnology at M.G.R Education Research Institute. Mr.Babu of third year biotechnology participated at the Smart india hackathon 2021 held as a part of the IIT Allahabad E submit. Smart India Hackathon 2021 was an initiative to provide students a platform to solve some of the pressing problems which we face in our daily life.

This will also help the private sector to hire the best minds from across the entire country.



This is to inculcate a culture of product innovation and a mindset of problem solving. SIH 2021 was held to provide students an opportunity to work on challenges faced within the private sector organisations and create world class solutions for some of the top companies in the world.

RESEARCH & PUBLICATION

Mr. Rohithkumar Reddy from the Department of Biotechnology studying in Dr MGR Educational and Research Institute attended the PhD Public VIVA VOCE examination which was held on the 15th of July 2021 via google meet. It was a focused discussion giving him the opportunity to talk about his PhD thesis in front of a panel of academic experts. The examination was supervised by Dr. Rajeswary Hari, HOD of the Department of Biotechnology. The title of the thesis was Anti cancer activity of Ethanolic extract of Excoecaria allogacha leaves in MCF-7 (Human breast cancer) cell lines.





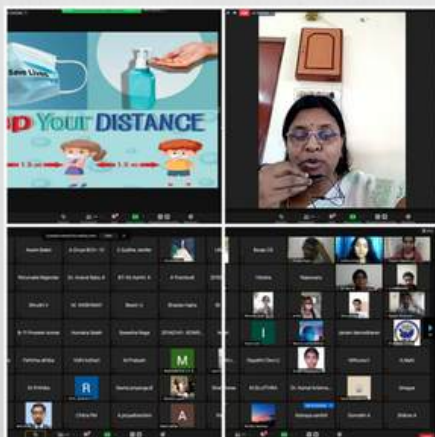
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EVENT CORNER

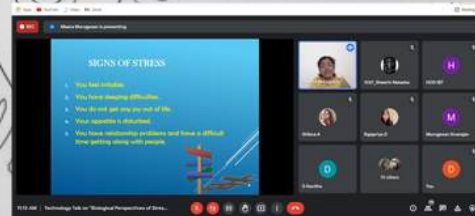
Events and talks are vital because they add extra feathers to our knowledge. Covid is never an impediment to learning, according to the Department. On July 1st, in partnership with MGR COVID '19 COWINWEWIN, the Department of Biotechnology presented an elaborate event titled "ENOUGH OF POLEMIC, TIME TO CHECK PANDEMIC (2021-06-16 to 2021-07-01)." The key speaker Dr. Usha Vijai Raj, practising as a paediatrician and general physician at Govt Kilpauk Medical College, revolved around the context of how to deal with the current Covid-19 crisis and the suitable precautions to be upheld to fight against the gruesome virus in unison! It was then followed by the announcement of the winners of various online contests held in connection with the CoWinWeWin programme for school-aged primary and secondary children.



On 18.06.2021, the Department of Biotechnology of the Dr. M.G.R. Educational and Research Institute held an Alumni Series on "Global Pandemic and its Impacts on Academic and Industrial Sectors in Biotechnology- Problems and Solutions." Mr. Aakash Reddy, a Biotechnology Masters Student at Lund University in Sweden, was the main speaker for this session. In a nutshell, the major speaker discussed how Covid has impacted educational and career opportunities throughout the world.



On the 12th of June, 2021, a cold overcast morning set the tone for a technical discussion on "Biological Perspective of Stress and Resilience" at Dr. MGR Educational and Research Institute university. The keynote speaker is Dr. Meera Muruges, the Vice Principal and Head of the Department of Biochemistry, Soka Ikeda college of Arts and Science for Women, Chennai. The focus of the keynote speaker was on the negative effects of stress on our bodies





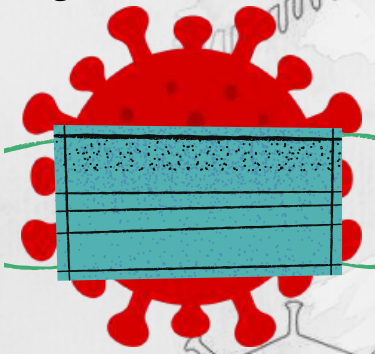
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ALUMNI CORNER

Hello everyone , we know that you all are so excited to know about our department alumni. But due to covid-19 Pandemics we don't have much information about the alumni's. So here we presenting you some interesting info regarding the alumni's.



STAY SAFE STAY HOME

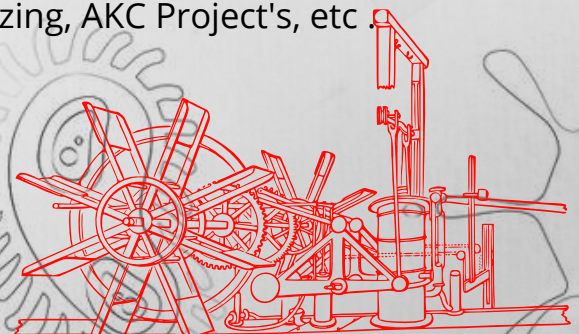
Actullay we department of biotechnology has a plan to conduct alumni interaction for every semester. The purpose of alumni interaction series to gain knowledge about future plans of degree pursuing students.



Every student is a Alumni of their institute like that we can say every one as a good alumni & we have to definitely thank the doctors who are also alumni of their institutes, they are one who serving as god like presence in this pandemic, even our biotechnology department alumni also major helper for this situation that they are induced many researches for covid & got vaccine for it



Even though in this pandemics situation our department students who are going to end their bachelor's degree by this may, have been performed well in every things like campus interview - placement, Project work, event organizing, AKC Project's, etc





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STAR OF Q2



M Srirathi
4th year Biotechnology

We are glad to publish the Star person of our Department that ever passionate Ms. M. Srirathi, Who is studying 4 th year Biotechnology at our esteemed Dr.MGR Educational and Research Institute. She is a most inspiration student of our department that she done many Internships, Social Awareness Activities & Entrepreneurial and Leadership Skills. she attended a Medical Coding Process of the R&D- Coding & Innovations Department Certified Course at Wave Code Logix Private Ltd., Chennai at jan 2021& then she is a MGR GREEN9 ENSAV CLUB - Student Chairman (2020-2021); Creating awareness among people to efficiently consume and conserve energy. she is going to complete her b.tech in this summer next she is planning to study m.tech by participating in GATE exam . We department of biotechnology wishes her a great success in her life.



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