



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)



Q1 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 : Q1



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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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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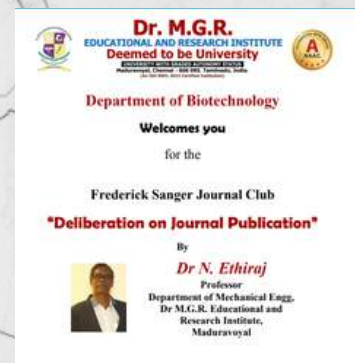
EVENT CORNER

The department conducted a program on title Applied soft computing and vision machine techniques for 6 days(2021-03-22 to 2021-03-27).On first day, Dr. T. Thyagarajan, Professor & Dean,Department of Instrumentation Engineering, MIT, Anna University who delivered a lecture entitled "MODELLING AND CONTROL OF NON-LINEAR SYSTEMS USING SOFT COMPUTING TECHNIQUES". Dr. NilanjanDey, Associate Professor, Department of Computer Science and Engineering, JIS University, Kolkata, was the resource person for the second session, which began at 12 p.m. on the same day. "Computer-Aided Diagnosis in Medical Imaging Applications,

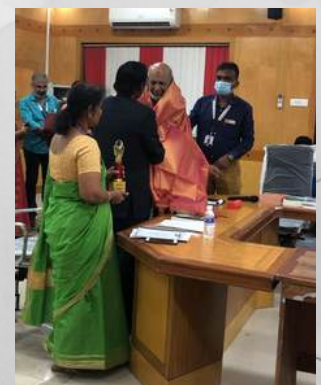


Challenges, and Future Prospects," he presented. Third Session - Hands on training was given at 2-3.30 pm by the resource person Mr. Shabarinath Premlal, Founder, Respro Labs. He has dealt with Python coding. On March 22, 2021, between 12:00 p.m. and 1:00 p.m, the Department of Biotechnology of Dr. M.G.R. Educational and Research Institute had a Journal Club meeting through Google Meet.

Dr.N. Ethiraj Professor, Department of Mechanical Engineering, Dr. M.G.R. Educational and Research Institute, addressed the gathering with the different publication platforms available. On March 3rd 2021 at 11am



The Department of Biotechnology conducted the year's seminar. Dr. Dr. A Abdul Rahman Eminent Scientist, Department of Mechanical Engineering, Sri Sairam Engineering College, Chennai was the featured speaker at the conference titled "Waste to Wealth."





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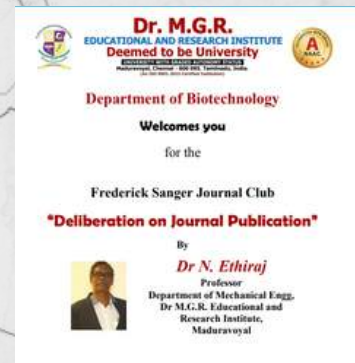
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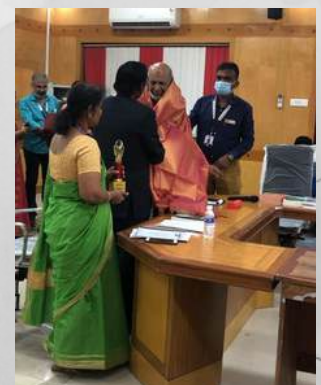


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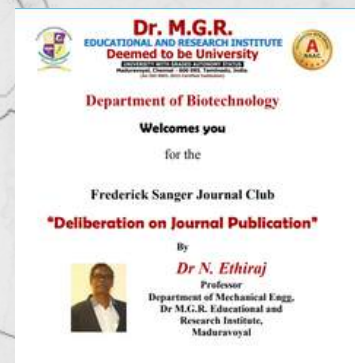
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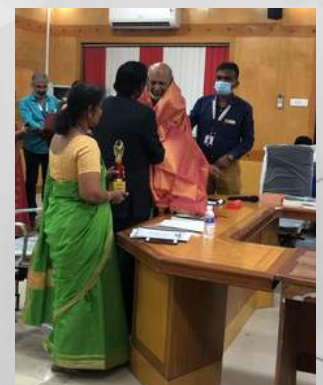


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SEMESTER TOPPERS

3rd year



S Roshini

3rd year B.tech
Biotechnology



C. Pranjitha

3rd year B.tech
Biotechnology



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