



AVIT
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY

NEWS LETTER

Volume | 01

January - July
2022

DEPARTMENT OF
BIOTECHNOLOGY
BIOTRACK – 2022



PATRON

Dr.A.S.Ganesan, Honorable Chancellor,
VMRF- DU
Dr. Anuradha Ganesan, Director,
VMRF- DU

DEAN

Dr.Giri Rengasami, CSR,VMRF-DU

PRINCIPAL

Dr. G. Selvakumar, Principal, AVIT.

VICE PRINCIPALS

Dr. L.Prabhu, VP Admin
Dr. S. P. Sangeetha, VP Academics
Dr. S. Vijeyendra Babu, VP Part time Studies

HOD

Dr.R.Devika, HOD, Prof. & Head

FACULTY MEMBERS

Dr. A. Nirmala, Asst.Prof, (Gr-II)
Mrs. M. Subathra, Asst.Prof.
Ms. Sasikala, A. Asst.Prof, (Gr-II)

RESEARCH ASSOCIATES

Dr. R. Balaji

FULL –TIME SCHOLAR

Mrs. A. Parveen, Ph. D. Scholar
Mrs. A.K. Ramya Ph. D. Scholar



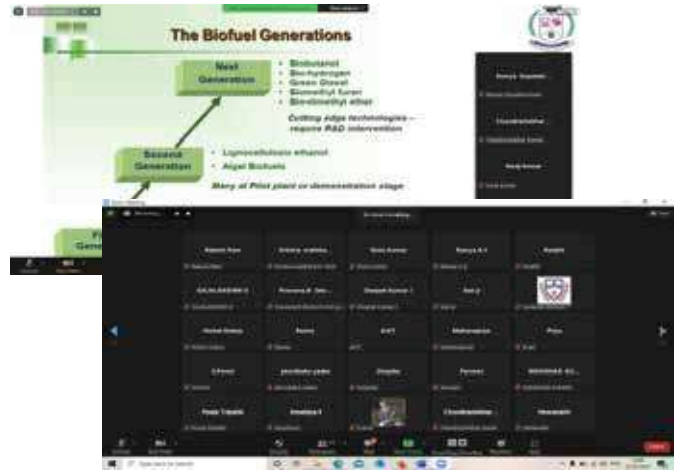
ABOUT THE DEPARTMENT

The Department of Biotechnology was conceptualized and started in AVIT by the year 2004 with an ambition to apply engineering knowledge and to create novel technology. The Department offers Under Graduate, Post Graduate (FT / PT) and Ph.D (FT /PT) Program. The Department has six major laboratories mainly Plant tissue culture, Microbiology, Immunology, Biochemistry, Cell and Molecular Biology and Bioorganic chemistry which imparts training for the students to make them competent and gain thorough knowledge. The Department has extensive research facilities and infrastructure to support ongoing teaching and research initiatives in the area of, clinical biochemistry, Environmental science, Medicinal plants, Nanotechnology, Plant tissue culture etc. The Department organizes guest lectures, seminars, conferences, workshops, hands on training, industrial visits, internships, industrial credit courses to create confidence and explore the recent trends in the young minds. The Department received fund from Department of Biotechnology, Ministry of Earth Sciences, Ministry of Environment and Forests, Entrepreneurship Development Institute of India etc



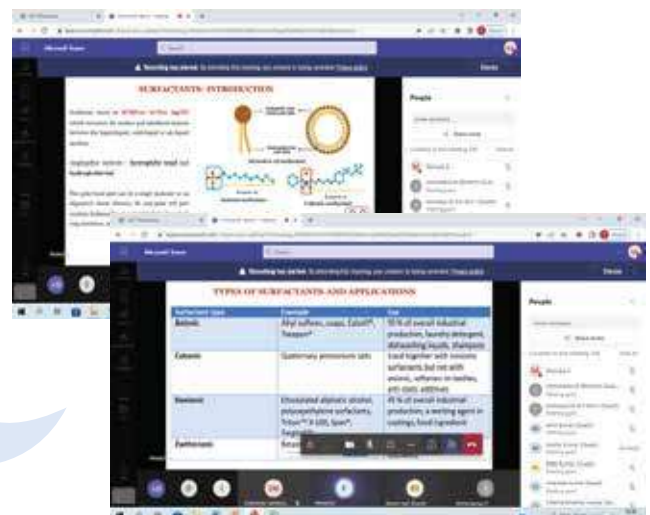
Events organized by Department

A guest lecturer titled "IMPACT OF THERMO CHEMICAL CONVERSION PROCESSES IN WASTE CIRCULAR ECONOMY" on 25.05.2022 for the students of Biotechnology. The guest was Dr.J.Arun, Scientist -C, Centre for waste Management , Sathyabama Institute of Science and Technology, Chennai.



A Guest lecture on "BIOTECHNOLOGICAL APPROACHES FOR CAFFEINE DEGRADATION: FOOD AND INDUSTRIAL APPLICATIONS" on 03.06.2022. Dr. Sathyanarayana N. Gummadi, Professor, Department of Biotechnology, Indian Institute of Technology-Madras, Chennai. Was the guest of honor.

The webinar on "BIO SURFACTANTS A UBIQUITOUS BIOMOLECULE FOR ENVIRONMENTAL APPLICATION" was organized by the Department of Biotechnology, AVIT. The chief guest was Dr. K. Ramani, Associate Professor in the Department of Biotechnology, School of Bioengineering, SRM Institute of Science and Technology, Kattankulathur, on 14.06.2022.



Industrial Visit

Industrial visit to Mediclone Biotech, Pvt. Ltd, Pudupakkam on 07.06.2022.



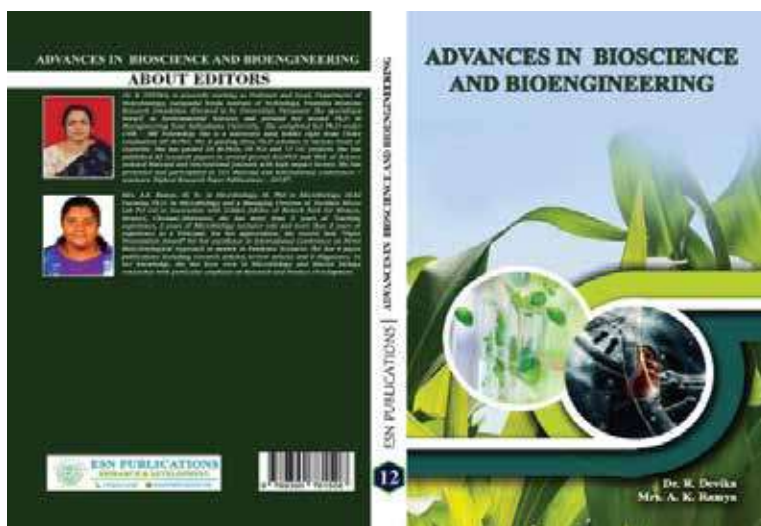
Department of Biotechnology, Aarupadai Veedu Institute of Technology Signed MoU with **VERIDIAN MICRO LABS, GOLDEN JUBILEE BIOTECH PARK**, Chennai on 20.07. 2022.

Publication of Faculty

Name of the Faculty	Paper Title	Journal-Name	Month & Year	Indexing
Subathra M	Biogas production from food waste using nanocatalyst	Journal of Nanomaterials	July 2022	Web of Science
Dr. A Nirmala	Consumer Attitude on Vendors Practices and Safety Aspects of Street Foods in Selected Study Area of Kanchipuram (Dt)	Acta Scientific Microbiology	April 2022	Non-indexed
Ms.Parveen.A & Dr.R.Devika	Halophiles- A Short Review	Indian Journal of Natural Sciences	Feb 2022	Non-indexed
Dr.R.Balaji & Dr.R.Devika	Marine Actinomycetes: A Review	International Academic Journal of Nutrition & Food Sciences	Feb 2022	Non-indexed

Book Publication

Name of the Faculty	Book Name	Publisher	Month & Year	ISBN Number & Indexing
Dr. R Devika & A K Ramya	Advances in Bioscience and Bioengineering	ESN Publication	June 2022	978-93-90781-50-8 Non-indexed



Book Chapter Publication

Name of the Faculty	Book Chapter	Publisher	Month & Year	ISBN Number & Indexing
Subathra M	Hydrothermal gasification of biomass for hydrogen production: Advances, Challenges, and prospects	CRC Press Taylor and Franchise	March 2022	978-0-323-85586-0 Web of Science

Conference Publication

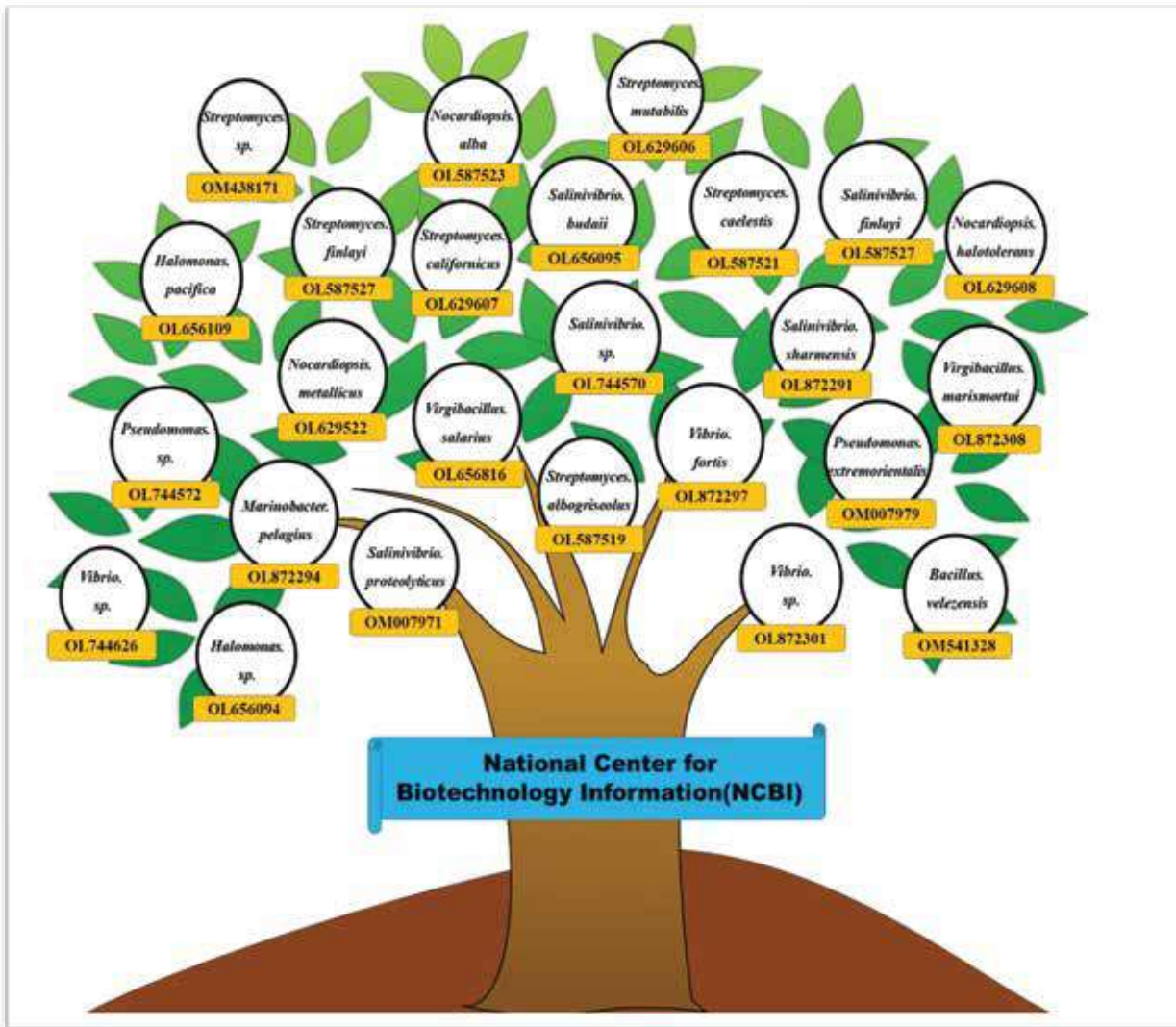
Publication Title	AVIT Author-Name	Year & Month	Organized by	Name of the Conference	National/International
Characterization and strain improvement of Halomonas pacifica AVITB1003 for α -amylase production by random mutagenesis	Devika R	July 2022	AVIT	National Conference on Recent Emerging Science, Engineering & Advanced Research in Communication and Healthcare 2022	National level

Nucleotide Deposition in Gene Bank

S.No	Name of the Strains	Accession No.	Submission Date	Author
01	<i>Corynascus sepedonium</i> AKRF001	ONO59588	29.3.2022	Ramya A K, Sethumadhavan K and Devika R
02	<i>Talaromyces aurantiacus</i> AKRF006	ONO59708	29.3.2022	Ramya A K, Sethumadhavan K and Devika R
03	<i>Amesia atrobrunnea</i> AKRF006	ONO63018	29.3.2022	Ramya A K, Sethumadhavan K and Devika R
04	<i>Microascus gracilis</i> AKRF007	ONO63045	29.3.2022	Ramya A K, Sethumadhavan K and Devika R
05	<i>Curvularia platzii</i> AKRF004	ONO63065	29.3.2022	Ramya A K, Sethumadhavan K and Devika R
06	<i>Bacillus anthracis</i> AVITAKR002	ON063211	29.3.2022	Ramya A K, Devika R and Balaji,R.
07	<i>Bacillus thuringiensis</i> AVITAKR003	ON063216	29.3.2022	Ramya A K, Devika R and Balaji,R.
08	<i>Priestia megaterium</i> AVITAKRB004	ON063226	29.3.2022	Ramya A K, Devika R and Balaji,R.
09	<i>Penicillium citrinum</i> AVITAKRF005	ON063529	30.3.2022	Ramya A K, Devika R and Balaji,R.
10	<i>Fusarium solani</i> AVITAKRF006	ON065539	30.3.2022	Ramya A K, Devika R and Balaji,R.
11	<i>Chaetomium perlucidum</i> AKR006	ON350775	01.05.2022	Ramya A K, Sethumadhavan K and Devika R
12	<i>Bacillus velezensis</i> AVIT001	OM541328	12.02.2022	Ramya A K and Devika R

LIST OF NUCLEOTIDE SEQUENCES DEPOSITED IN NCBI

Dr R. Devika; Dr R Balaji; Dr A.B Sathya; A.K Ramya



PRINCE SHRI VENKATESHWARA ARTS AND SCIENCE COLLEGE
Gowrvakkam, Chennai - 600073.

INSTITUTION'S INNOVATION COUNCIL
in association with
WOMEN EMPOWERMENT CELL
Cordially invites you for a webinar on
Intellectual Property Rights - Policies and Innovation

Resource Person
Dr. R. Devika
Professor & Head,
Department of Biotechnology,
Aarspadal veedu institute of technology,
chennai

1st Aug 2022
@6-7pm

Click to join

Dr. K. Vasudovan
Chairman

Dr. Y. Vishnu Karthik Vice-Chairman
Dr. V. Prasanna Venkatesh Vice-Chairman
Dr. M. Uma Principal

Organized by
Ms A. Neelambigai
Women Empowerment Cell Co-ordinator
IIC team of PSWASC

Faculty as Resource Person

Dr. R. Devika,
Professor & Head,

Served as resource person for webinar on Intellectual Property Right at Prince Venkateshwara Arts and Science College

Nucleotide Deposition in Gene Bank

Year & Month	Name(s) of teachers who received the awards	Designation	Title of the Award (s)	Name of the agency / agencies that awarded	Purpose
Jul-22	Nirmala A	Assistant Professor (Gr-II)	Excellence in reviewing	South Asian Research Journal of Natural product	Reviewer
Jul-22	Devika R	Professor	Excellence in reviewing	International STD Research & Reviews	Reviewer
Apr-22	Nirmala A	Assistant Professor (Gr-II)	Excellence in reviewing	Out standing contribution to quality of journal	Reviewer
Apr-22	Nirmala A	Assistant Professor (Gr-II)	Excellence in reviewing	outstanding contribution to the quality of the journal	Reviewer

Conference Participation By Faculty Members

Name of the Faculty	Date/ No. of days	Title of the Program	Organised by	International / National / State / Local Level
Devika R	22-4-2022 TO 23-4-2022	Endophytic Fungal Diversity From marine algae and its drug development combat in this era	Bannariamman Institute of technology	International
Nirmala A	04-03-2022 to 5-3-2022	Presented a paper in "National conferenc on current Advancement in life science "	SRM Institute of technology	National

NPTEL Completion by Faculty

Name of teachers who attended Faculty Development Programmes (including online programmes)	Title of the Programme	Dates (From – To)	Duration	Organized by
Sasikala A	Physio chemical treatment for waste water treatment	Jan 2022 to April 2022	12 Weeks	NPTEL

Conference Participation By Faculty Members

Nature Of the Program (Ex. Seminar..)	Name of the Faculty	Date/ No. of days	Title of the Program	Organised By	International / National / State / Local Level
FDP	Devika R	July 2022	Innovation	AICTE	National
FDP	Devika R	July 2022	Innovation	AICTE	National
Training	Devika R	Jul-22	use of Plagiarism OURIGINAL (URKUND) Software	VMRF	National
Training	Mohana priya P	18-7-2022 to 21-7-2022	International Training programme on Adaptation of optimized water resource	AARDO	National
Training	Subathra M	27-05-2022	Energy literacy Drive	Energy swarj Foundation	National
Training	Nirmala A	27-05-2022	Energy literacy Drive	Energy swarj Foundation	National
Training	Sasikala A	27-05-2022	Energy literacy Drive	Energy swarj Foundation	National
Training	Devika R	27-05-2022	Energy literacy Drive	Energy swarj Foundation	National

STUDENT ISTE AWARD

Year & Month	Name of the Award	Name of the award/ medal	National	Name of the student
Apr-22	ISTE -Student Award	Best student award -2021	National	AnushiyaS
Apr-22	ISTE -Student Award	Best student award -2021	National	MonishaC



NPTEL by Student

Name of the Course	Date and Duration of the event	Name of Student	Year
Structural Biology	Jan to April 2022	Akshita G KI	V
Structural Biology	Jan to April 2022	Anushiya SI	V
Structural Biology	Jan to April 2022	Monisha CI	V
Structural Biology	Jan to April 2022	Pooja Tripathi	IV
Structural Biology	Jan to April 2022	Amritesh Menon	IV
Applied Environmental Microbiology	Jan to April 2022	Ratnadip saha	III

Training Completed by Student

Organizing agent	Training program	Name of the student	Duration
Biotechnika Info Labs Pvt	CRISPR -Advanced	Ratnadip saha	8-3-2022 to 21-03-2022
Biotechnika Info Labs Pvt	Molecular Biology Techniques	Ratnadip saha	11-2-2022 to 03-03-2022
Ethical EDU fabrica	EDU Fabrica Pvt Ltd	Rishi Kumar	Feb -March 2022

CONFERENCE PARTICIPATION BY STUDENT

Name of Participant	Name of the event	Date and Duration of the event	Level of the Event	Year of study
Shivashankar	National conference on current Advancement in life science	04-03-2022 to 5-3-2022	National	IV year

Student Prize Winners in Sports & Cultural

Name of the Event	Name of the award/ medal	Select appropriate event		Name of the student
		Sports	Cultural	
Throw ball	Secodnprize	Sports		Hemalatha M
Ball batmiton	First prize	Sports		Hemalatha M
Hair style	First prize		Cultural	Hemalatha M
Academic performance	Secodnprize		Academic award	Hemalatha M
Nail art	First prize		Cultural	Machiyile pame
Solosong	Secodnprize		Cultural	Nawazish Ekwai
Short film	Secodnprize		Cultural	Nawazish Ekwai
Throw ball	Secodnprize	Sport		Nawazish Ekwai
waste craft	Secodnprize		Cultural	Praveena
Ball batmiton	First prize	Sports		Praveena
batmiton	First prize	Sports		Praveena
Academic performance	First prize		Academic award	Praveena
Pencil art	Third prize		Cultural	Sumit kumar
Poet recitation	First prize		Cultural	Bittu kumar
anthaksari	First prize		Cultural	chandan kumar
Throw ball	Secodnprize	Sports		Deepika
Academic performance	First prize		Academic award	Deepika
Academic performance	Third prize		Academic award	Deepika
pot painting	Second prize		Cultural	Deepika
Throw ball	second prize	Sports		Deepika
Academic performance	Second prize		Academic award	Ratnadip saha

INNOV AVIT Symposium 3rd Champions



Student & Faculty Activity Zone

SAVE ENVIRONMENT

Pollution is going on
in every city, village, and town

Do not pollute; water and air
don't throw garbage here and there

You can do something now or never
let's save our earth forever

Today our environment is facing pollution
to preserve it we need some solution

It is important for our evolution
to protect it let's start a revolution

Earth comes to an end
save it my friends,
save it my friends!

NAME:- Nawazish ekwal
Department:- Biotechnology
AVIT College, Paiyanoor, Chennai
Tamilnadu



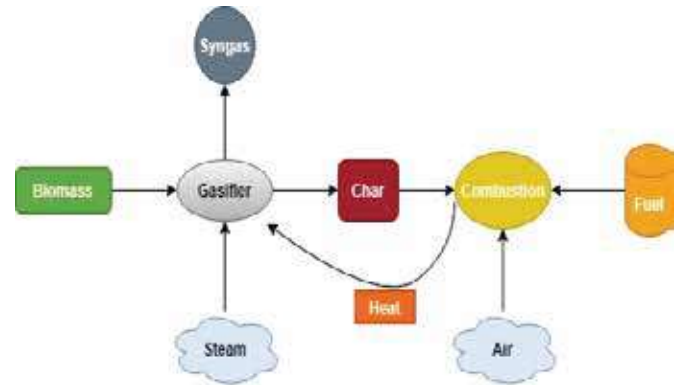
Drawing by Sumit – II year



Drawing by Rishi kumar

Allothermal Gasification

Allothermal gasification process is also called as indirect heating process where two mechanisms will be carried out. The gasification process converts the biomass and steam into syngas and char. The char produced undergoes combustion process with air and fuel and produce flue gas and heat energy which gets transferred to the gasifier through sand placed between the gasifier and combustion chamber



Subathra M – Asst. Professor

Research Bites

AKRAMYA
RESEARCH SCHOLAR
DEPARTMENT OF BIOTECHNOLOGY

Each **MISTLETOE BERRY** can produce up to two meters of a gluey thread called **VISCIN**. It allows the seeds of this parasitic plant to stick to and infect host plants. Since ancient times, mistletoe berries have been explored as treatments for everything from infertility and epilepsy to cancer. But, until now, no one has fully investigated the potential medical or technical uses of the glue itself. A recent paper from McGill University and the Max Planck Institute of Colloids and Interfaces, published in *PNAS Nexus*, suggests that through simple processing, viscin's ultra-stiff flexible fibers, which adhere to both skin and cartilage as well as to various synthetic materials, could have a range of applications—both biomedical and beyond.



Mistletoe is the common name for *Viscum album*. They are attached to their host tree or shrub by a structure called the haustorium, through which they extract water and nutrients from the host plant.

Research team grows **HEART TISSUE ON SPINACH LEAVES**.

A team led by scientists from Worcester Polytechnic Institute (WPI) has successfully turned a spinach leaf into living heart tissue using the tiny network of veins you'd already find in a plant.

To access the fine vascular structure of spinach, the team circulated a detergent solution through the leaves to wash the plant cells away in a process called Decellularisation.








DERMATOGRAPHIA is a condition also known as skin writing. When people who have dermatographia lightly scratch their skin, the scratches redden into a raised wheal similar to hives. These marks usually disappear within 30 minutes. The cause of dermatographia is unknown, but it can be triggered in some people by infections, emotional upset, or medications such as penicillin.

