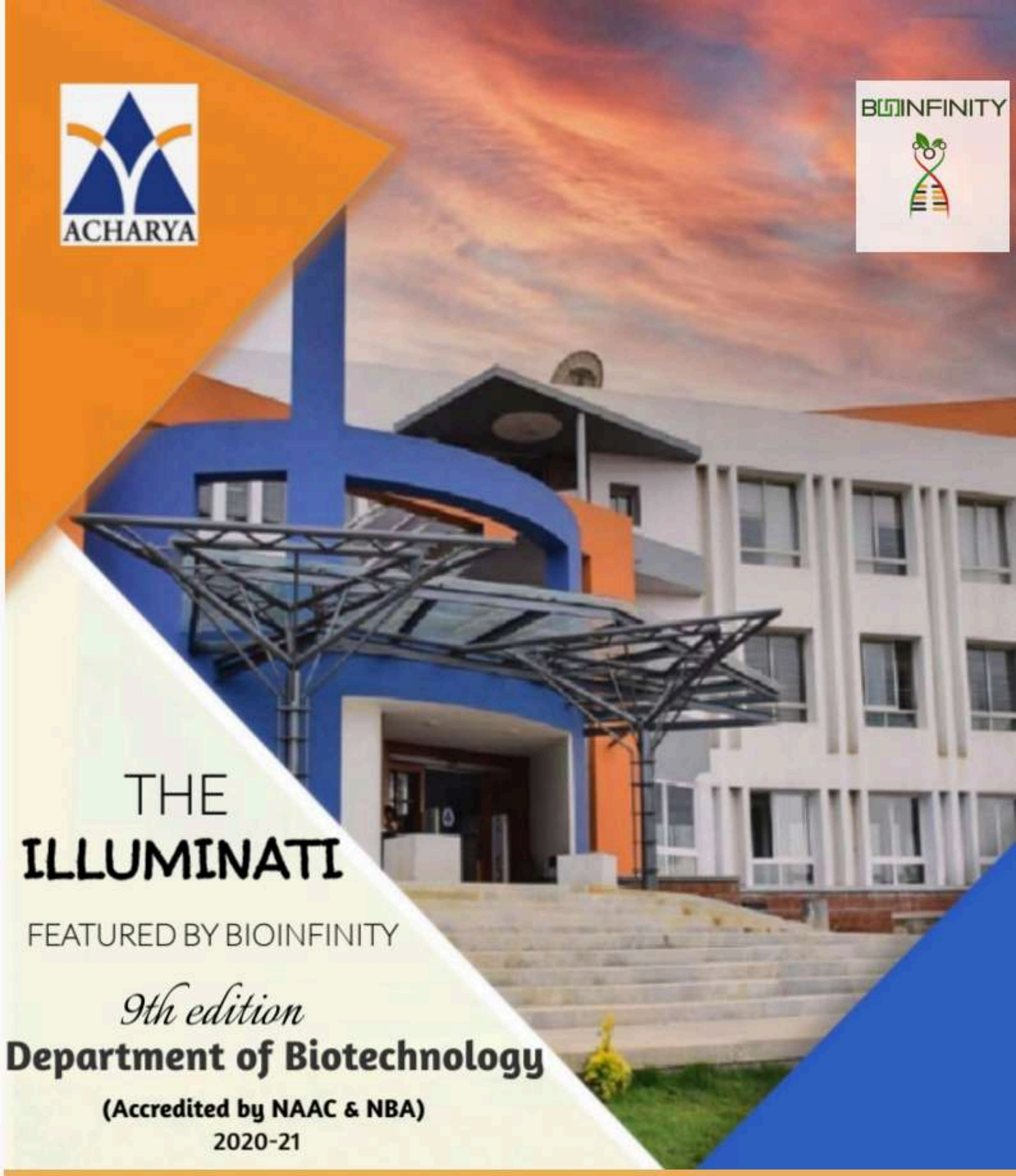

THE ILLUMINATI

FEATURED BY BIOINFINITY

9th edition

Department of Biotechnology

(Accredited by NAAC & NBA)

2020-21

Acharya Institute of Technology

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Campus Director
Acharya Institutes

The world has been transformed by information technology. Now biology is becoming the new information technology. Biotechnology is a rapidly changing field that continues to transform both in scope and impact. Big data which is now considered as the new gold is fueling the breakthroughs in biotechnology esp. In human health via the genome data. In biotechnology exponential technologies like gene sequencing accelerate health care. Biotechnology is the reason now we have Organoids for drug screening and CRISPR-Cas9 for gene therapy.

Further, the advances in biotechnology and material science are opening now oppurtunities in the field to build environment. With the evolution of computer chips creating synthetic life could be easily within our grasp soon. Biotechnology along with AI and life science is giving birth to future Superintelligence!

I encourage all the contributors to illuminati to translate their ideas into reality.

Dr. Rajath Hegde. M. M

Principal

Acharya Institute of Technology

I am happy to learn that Department of Biotechnology Acharya Institute of Technology, is publishing a department magazine – "Illuminati".

The College Magazine provides a forum for students to showcase their academic, extracurricular and cultural activities. Such an endeavour to promote creativity and self- expression among students is a laudable effort.

The concept of biotechnology compasses a wide range of procedures for modifying living organisms according to human purposes, cultivation of the plants, and improvements to these through breeding programs that employ artificial selection and hybridization. I believe publishing department magazine provides an opportunity to collate and share emerging information that is relevant for the professional performance.

I heartily congratulate the faculty, staff and students for bringing out 'Illuminati' and convey my wishes and hope that this edition of departmental magazine would be a great success in spreading professional knowledge and competencies.

Prof. Marigowda C K

Vice-Principal,
Acharya Institute of Technology

I heartly congratulate the department of Biotechnology, AIT for bringing the 9th edition of the department magazine Illuminati.

I am very much sure that it will provide a good platform for the students and faculty to expand their scientific, technical knowledge and hidden literary talent which will strengthen the 360-degree development of students.

I take this opportunity to congratulate the editorial board for bringing out this magazine as per schedule, which in itself is an achievement considering the effort and time required.

I wish all our students soar high in uncharted skies and bring glory to the world and their profession with the wings of education!

Dr. Suneetha T B

Head of Department
Department of Biotechnology
Acharya Institute of Technology

Enzymes - plainly the most important biotechnology of our era - already permeate many industrial processes. Unlike fossil fuels, they carry chemical programming which drives complex reactions are complex, are renewable, and work at ordinary pressures and temperatures.

We are ready for another biotechnology industrial revolution in this world. We must address individually and collectively, moral and ethical issues raised by cutting edge research in artificial intelligence and biotechnology, which will enable significant life extension, designer genes and memory extraction.

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FROM THE EDITOR'S DESK

We are delighted to bring forward the eighth edition of "ILLUMINATI", a brainchild of the Biotechnology Department. We've broken free from our limitations in this edition, broadened our horizons, and stretched our creativity in this magazine. Illuminati has a distinct touch of blessings obtained from leaders in the spheres of biotechnology an education, thanks to the tremendous support of our management and principal.

The motto of Acharya is 'Nurturing Aspirations and Supporting Growth' and true to its motto the aspirations of every stake holder is encouraged and supported. Our alumni too affirm this by sharing their experiences at their alma mater. The readers will enjoy seeing the energy of our zillennials for their contributions as authors and student editors as they leaf through the pages of Illuminati. Our students' ability to meet the obstacles of learning in several verticals is exceptional. They are able to strike a balance between learning the fundamentals and diving into the breadth of developments. May our students recognise the importance of creativity and innovation in laying the way for a future that has yet to be realised as a result of this endeavour to conceptualise and write original articles/artwork for the departmental magazine. We are grateful to everyone who helped us publish this edition, whether directly or indirectly, and to all of our readers for keeping our spirits alive.

Warm Regards
Editor's Desk

Institutional Motto, Vision and Mission

Motto

"Nurturing Aspiration and supporting Growth"

Vision

"Acharya Institute of Technology, committed to the cause of sustainable value-based education in all disciplines, envisions itself as a global fountainhead of innovative human enterprise, with inspirational initiatives for Academic Excellence".

Mission

"Acharya Institute of Technology strives to provide excellent academic ambiance to the students for achieving global standards of technical education, foster intellectual and personal development, meaningful research and ethical service to sustainable societal needs".

Departmental Motto, Vision and Mission

MOTTO

"Nurturing Aspirations Supporting Growth"

VISION

Department of Biotechnology strives to provide a platform for students in various frontiers of Biotechnology by inspiring the next generation to achieve academic and research excellence for the betterment of mankind and society.

MISSION

The Biotechnology Department committed to produce quality Biotechnology engineers, providing excellent analytical and entrepreneurial skills to achieve proficiency in industry and research fields for the betterment of mankind and society.

PROGRAM SPECIFIC OUTCOMES (PSO)

PSO 1

Understand the fundamental concepts of biological sciences required to become successful professional, researcher and entrepreneur

PSO 2

Recognize and analyze biological data using *Insilco* approaches

PSO 3

Identify and design bioprocess systems to solve problems related to agriculture, food, pharmaceutical and environment considering the ethics and IP issue

ACHARYA

WHERE THE

WORLD COMES

TO LEARN

PROGRAM OUTCOMES

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

- **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 .

- 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.

- 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.

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

- 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.

- 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.

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

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

- 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.

- Projectmanagement 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.

- 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.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

Knowledge and skill

Graduates
in Biotechnology work
collaboratively, creatively, and
communicate effectively
in applying discipline-specific
knowledge in basic sciences, chemical
engineering and biotechnology.

Team Positions

Graduates
in Biotechnology students serving in
entrepreneurial
ventures and fostering activities that
support sustainable economic development
that enhance the quality of life of people in
the state, across the country and
around the globe.

Professionalism

Graduates
in Biotechnology recognize the
need for excellence and
proficiency required for
high quality industrial,
academic and other
professional areas.

Contribution

Graduates
in Biotechnology exhibit
broadened perspective
regarding social issues,
responsibilities, ethics and
professionalism.

Post Covid Development

- Prastuthi Elish
3rd sem

Abstract:

This article provides a brief overview of the developments that happened Post the attack of Covid-19. First, the source and the origin of the disease is explained. It explains about the animals that could be the potential carrier of the disease. Later on, it explains about the developments of different types of vaccines that helped fight the disease. It explains the potency of each vaccine. Further, it explains about how most countries responded to the virus. It explains about the developments and improvements were made specifically in India. To conclude with, it explains about how each one was impacted by the disease and how each one has equally strived to overcome this disease.

Keywords-

Virus, Covid-19, WHO (World Health Organization), vaccine, administration, efficacy, dose, disease, development

The transmission of viruses from animals to humans has become more frequent in the recent years. Several diseases like Ebola, Zika, Swin flu have originated from animal species either wild or domesticated. One such virus that paved its way to the human population is the coronavirus that causes COVID-19. The virus is named as SARS- CoV- 2. The COVID-19 disease originated in the year 2019 in Wuhan city of China. It has spread to several other nations all around the world and has not been contained till date. There have been several debates about the source from which the virus originated. Scientists suggest that there are 2 possible spots from where the virus might have begun it's spread.

Spot 1 :The Huanan Sea Food Market

The Huanan Sea Food markets is said to be the most famous animal markets in Wuhan with about 600 stalls. This market sold various animals like bamboo rats, hedgehogs, hog badgers that were considered to have been the potential carriers of the virus. These animals were used for consumption and to make medicines. The contact between the people and these animals became the cause for the entry of the virus into human population. The market was eventually closed by the Chinese government after it became the prime suspect for the cause of the spread of this virus .

Spot 2: The Wuhan Institute of Virology

The Wuhan Institute of Virology is the one of China's leading coronavirus research institute. The researchers of this institute were known to travel to caves to collect the samples of bats and study them. Scientists all round the globe suspected that there could have been an accidental leak of these samples that caused the spread of the virus. However, this hypothesis most famously called the laboratory hypothesis was dismissed by the World Health Organization (WHO).

The World Health Organization concluded that the virus that caused COVID-19 most likely originated in bats and was passed down to humans via other animals. As of now researches and scientists haven't been successful in finding out the animal that could possibly be the intermediate host between the bat and the humans. Attempts are being made by many countries to find the intermediate carrier so that the spread could be stopped.

In March 2020 the WHO declared that COVID-19 had become a pandemic. With such a wide reach the world had to brace itself for impact. Lockdowns were imposed, economies crashed down and travel was shut down bringing loss to most nations in the world.

The development of the Covid-19 vaccine was the first resort for many countries to save people's lives.
Scientists from different countries started studying about the nature of the virus and how a vaccine could be developed.

There are two main goals in the vaccine development

1. Safe to be used by human population

2. Effectiveness against the pathogen

Before the vaccine is administered to humans they are tested on animals typically on mice.

In the tests conducted, the researchers look for side effects within the mice which could range from mild skin irritation at the site of injection to death.
Blood samples are then taken from the mice to analyze the number of antibodies produced. . Sufficient number of antibodies being produced after the administration of the vaccine indicates the effectiveness of the vaccine.

After several trials and testing different countries came up with different vaccines like mRNA vaccine, vector vaccine etc. out of which the mRNA vaccine is considered to be the most effective in fighting the spread of the COVID-19 disease.

The mRNA vaccine

The virus makes its entry through its spikes. So researchers took the virus' RNA and isolated the part that produces spikes of the virus.
Using this part they created a messenger RNA (mRNA) that could enter our cells and give them instructions to produce a copy of the spikes which is in a harmless form. So whenever our cells encounter the spikes of the virus it would recognize it as foreign and kill it.
In simple words just like a policeman is given the photo of a thief so that it would become easy for him to recognize the thief and arrest him, the mRNA gives the photo of the spike of the virus to our cells so that whenever it encounters the spikes of the virus it recognizes it through the photo given and kills it. These type of vaccines were not used on humans until the onset of the Covid-19 pandemic.

Types of mRNA covid vaccines developed

1. Pfizer- BioNTech
2. Morderna(one of the first ones to be approved globally)

The Vector vaccine : In this type of vaccine, genetic material from the COVID-19 virus is placed in a modified version of a different virus (viral vector). When the viral vector gets into your cells, it delivers genetic material from the COVID-19 virus that gives your cells instructions to make copies of the S protein. Once your cells display the S proteins on their surfaces, your immune system responds by creating antibodies and defensive white blood cells. If you later become infected with the COVID-19 virus, the antibodies will fight the virus.

Most commonly administered vector vaccines:

1. Covishield-:

It was manufactured at the Serum Institute of India, Pune in collaboration with AstraZeneca and University of Oxford. This is a vector vaccine in which the vector involves modifying a chimpanzee adenovirus whose unmodified version causes common cold in humans . As per the GOI, the interval between the first and second doses of Covishield is from 4 to 8weeks with an efficacy rate of 70%. variant of the virus

2. Johnson and Johnson's Janessen vaccine :

It was manufactured by Janssen Pharmaceuticals Companies of Johnson & Johnson, US. In this vaccine the vector is Ad-26. Only one dose of this vaccine is given. Everyone ages 18 years and older should get a booster dose of either PfizerBioNTech or Moderna at least 2 months after receiving the Johnson & Johnson's Janssen vaccine.

3. Sputnik V:

It was manufactured by the Russian state institute Gamaleya National Research Centre of Epidemiology and Microbiology in 2020. It was the first registered vaccine against COVID-19. In this vaccine the vector is Ad- 5 and Ad-26. Efficacy against infection of over 80% .There are two dosages for the vaccine. The Sputnik light vaccine is a type of suptnik v vaccine that is considered to be the most effective against the omicron variant of the virus.The Whole virus vaccine use a weakened (attenuated) or deactivated form of the pathogen that causes a disease to trigger protective immunity to it. There are two types of whole virus vaccines. Live attenuated vaccines use a weakened form of the virus, which can still grow and replicate, but does not cause illness. Inactivated vaccines contain viruses whose genetic material has been destroyed by heat, chemicals or radiation so they cannot infect cells and replicate, but can still trigger an immune
response.

However, even as the vaccine's ability to prevent infection decreases with time, COVID-19 vaccination continues to reduce the risk of hospitalization and death when people become infected with COVID-19. Other improvements Post-Covid With the entry of the Covid-19 virus, the foundations of healthcare systems of various countries all round the globe were shaken. No country was prepared pre-handedly for something as dangerous as this virus to enter and take people's lives. The deadly virus and it's behavior was new and foreign to us. However, we have learnt to fight this virus by making many developments in our healthcare systems and technology. One of the major development in technology for India was

1. The Aarogya Setu app :

The Aarogya Setu mobile app which assisted in syndromic mapping, contact tracing and self-assessment was widely used throughout the country. The app reached more than 100 million installs in 40 days. On 21 May 2020, the Airport Authority of India issued a Standard Operating Procedure (SOP) stating that all departing passengers must compulsorily be registered with the Aarogya Setu app. Such technology platforms were used to supplement the response management, which included delivery of essential items in containment zones, tele-consultations with patients, bed management and real-time monitoring and review by the authorities.

2. CoWIN app :

CoWIN (Covid Vaccine Intelligence Network) is an Indian government web portal for COVID-19 vaccination registration, owned and operated by India's Ministry of Health and Family Welfare. It displays booking slots of COVID-19 vaccine available in the nearby areas and can be booked on the website. As of now, three vaccines can be registered on the platform in the country Covishield, Covaxin and Sputnik V.

Investment in India's healthcare sectors:

1. Medical infrastructure in Tier II(cities with population in the range of 50000 to 100000) and III cities(cities with population in the range of 20000 to 50000): The shortfalls such as the required number of beds or the accessibility of advanced equipment that were highlighted during the worst-hit times of the pandemic are highlighting the need for a healthcare system that is 'emergency-proof' for such situations in the future. Hospital chains and specialty centres are coming forward to build more capacities, especially in Tier II and III cities. Numerous hospital chains have started expanding in these cities by setting up small clinics and associating with reputed local doctors. This is also aligned with government efforts to increase the number of hospital beds per thousand population and close the accessibility gap mainly in sub-urban and rural parts of the country.

Most commonly administered whole virus vaccine is

1. Covaxin-

This vaccine is India's first indigenous Covid-19 vaccine. It was manufactured by Bharat biotec in collaboration with Indian Council of Medical Research (ICMR) - National Institute of Virology (NIV).It is a 2-dose vaccination regimen given 28 days apart. COVAXIN demonstrated 77.8% vaccine efficacy against symptomatic COVID-19 disease. The efficacy against severe symptomatic COVID-19 disease is shown to be 93.4%. This vaccine was the second most commonly administered in India after the Covishield vaccine. Covaxin was officially approved for children aged 2 to 18 and from January 3, 2022, and children aged 15 to 18 can get the Covaxin first dose of vaccine.

The Protein sub-unit vaccine .

A subunit vaccine will only include specific components originating from disease-causing bacteria, parasites, or viruses. These components, otherwise known as antigens, are highly purified proteins or synthetic peptides that are significantly safer than whole-pathogen vaccine approaches.

Since the antigens alone in a subunit vaccine are insufficient to produce high immunogenicity, non-immunogenic materials known as adjuvants are typically incorporated into the vaccine formulation to improve the immune response and enhance the vaccine's efficacy.

Types of protein sub-unit vaccines are:

1. Novavax Inc. is an American biotechnology company based in Gaithersburg, Maryland. The

Novavax COVID-19 vaccine, sold under the brand names Nuvaxovid and Covovax ,is a subunit COVID-19 vaccine developed by Novavax and the Coalition for Epidemic Preparedness Innovations. It was approved by the European Union at the end of 2021 and by Canada in February 2022. Reports suggest that it will soon be approved by the US. This type of vaccine contains part of the coronavirus spike protein. You need 2 doses of the Novavax vaccine, given at least 3 weeks apart. May need booster doses as it does not produce an effective immune response compared to other vaccines. Trials are going on to make covaxin avaible for in India. Reports say hcbd that they will become available in next few months .

2. Corbevax:

It is a protein subunit COVID-19 vaccine developed by Texas Children's Hospital Center for Vaccine Development and Baylor College of Medicine in Houston, T On 28 December 2021, India approved the vaccine for emergency use. Apart from adults it could be administered by the people under the age group of 12 to 18 years, thus making it the second approved vaccine for children in India. This vaccine is given under two doses with a gap of 4 weeks between two doses.

DNA- based vaccine :

A DNA vaccine is a type of vaccine that transfects a specific antigen-coding DNA sequence into the cells of an organism as a mechanism to induce an immune response. DNA vaccines work by injecting genetically engineered plasmid containing the DNA sequence encoding the antigen(s) against which an immune response is sought, so the cells directly produce the antigen, thus causing a protective immunological response.

Types of DNA based vaccines

1. ZyCoV-D :

It is a DNA plasmid-based COVID-19 vaccine developed by Indian pharmaceutical company Cadila Healthcare, with support from the Biotechnology Industry Research Assistance Council. On 20 August, India's drug regulator authorized the vaccine for people aged 12 and older. The efficacy figure of 67% came from trials involving more than 28,000 participants.

Close to a dozen DNA vaccines against COVID-19 are in clinical trials globally, and at least as many again are in earlier stages of development. If DNA vaccines prove to be successful, this is really the future of vaccinology because they are easy to manufacture. Recently, the GOI has approved vaccination of pregnant women against COVID-19 based on the recommendations from NTAGI. The approved vaccine for pregnant women in India are Covishield, COVAXIN and Sputnik V.

The vaccines that have been manufactured have proven to be very much effective. In India the 3rd wave of the Covid-19 disease did not hit people with severity as most of the citizens had already administered the vaccine and become immune to severe COVID-19 unlike the second wave which brought massive sickness and took many lives. Cases have by far come down post vaccine administration as it lowers the risk of getting and spreading the virus.

Recent data suggest COVID-19 vaccines become less effective at preventing infection or severe illness over time, especially for people aged 65 years and older. This is why booster shots are recommended for people aged 12 years and older who have completed their primary vaccination series.

However, even as the vaccine's ability to prevent infection decreases with time, COVID-19 vaccination continues to reduce the risk of hospitalization and death when people become infected with COVID-19. Other improvements Post-Covid With the entry of the Covid-19 virus, the foundations of healthcare systems of various countries all round the globe were shaken. No country was prepared pre-handedly for something as dangerous as this virus to enter and take people's lives. The deadly virus and it's behavior was new and foreign to us. However, we have learnt to fight this virus by making many developments in our healthcare systems and technology. One of the major development in technology for India was

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2. Health insurance awareness:

There has been an increased awareness of health insurance products in the past few years and more people are investing in health insurance with each passing year.

3. Oxygen supply infrastructure:

In May 2021, India found itself at the global epicenter of the COVID-19 pandemic. As the second wave struck, the demand for medical oxygen soared ten-fold and tragic scenes unfolded as people struggled to access the life-saving commodity. Only a few hospitals had in-house facilities to produce this precious gas; most depended on oxygen cylinders or liquid medical oxygen (LMO) that was delivered from elsewhere.

The government responded in several ways: additional tankers were airlifted from abroad, tankers used for liquid argon and nitrogen were converted to carry oxygen, and the railways innovated to introduce special Oxygen Express trains. In addition, hospitals in over 550 cities and districts were geo-mapped and an online system established to track the real time movement of the commodity.

Over the last few months India has been developing a medium-term strategy to achieve oxygen self-sufficiency and national and state governments have made considerable progress. In addition, many plants have been set up in states and through public sector undertakings and corporate sponsorships.

Conclusion:

Much has changed after the virus paved it's way to our nation and many other nations. Many of us suffered the loss of our loved ones to Covid-19. Fear dwelt among us for the last 2 years. The concept of Lockdown was introduced to us. We weren't able to lead normal lives. It affected the mental health of many people. However, it thought us many lessons too. It thought us to maintain personal hygiene which should have been maintained otherwise.

It improved the technology in most countries too. Most countries now know how to handle and prevent the spread of such virus if encountered in the future because a reality check was given to the healthcare systems. A sense of awareness was developed in the minds of people. The fear overcame us in the beginning, but now it could be said that we have overcome the fear.

BIO-NUTRIENTS

- Niveditha H
3rd sem

Abstract :

The study reports to identify current proof and gaps in the field of long term space nutrition. The general concepts of this is to develop wholesome produced microorganisms that provides nutrition for human consumption following long-term storage, improvement and growth. Long duration mission beyond low-earth orbit will requires advances in food technologies to mark the documented problem of degradation. The results suggest that it is possible to lable short-term unfavourable environmental factors and nutritional deficiences by adopting effective dietary measures, selecting the right type of food and addition, and engaging in specific maintained food production and eating practices. But, to support self-sufficiency during long-term space study, the most desirable and sustainable space nutrition systems are likely to be carry primarily by fresh food production, natural unprocessed foods as diets.

Keywords:

Muscleatrophy, carotene and zeaxanthin.

Intoduction: Long-term transportation system has been a topic of intense research. Nutrition became a commercial life to facilitating Earth exploration and discovery of a new world. Space exploration in the mid-20th century also greatly benefited from the advancing trends in food industry.

Looking into the future the variety of new techniques and technologies continue to be researched to make use of resources from the control space environment to provide a certain rate of space nutrition. Humans have been involved in manned spaceflight for the past five decades, the International Space Station as the main destination for short-term missions. Long-term human presence in space also motivated missions to the Moon and Mars. To investigate the best way for astronauts to maintain optimal nutritional intake during long-term life were new forms of foods and food allocation strategies for deep-space manned missions so that funtional food can be formulated and processed for consumption by astronauts in outer space. The processed space food cannot provide the full range of diverse nutrients necessary to help astronauts effectively resist bone loss,muscle atrophy, cardiovascular, dysfunction, upright intolerance and other physiological challenges associated with the extreme environment in space. While exercise and medical support are both necessary to overcome some of these challenges, special nutritional resources are vital for in-fight adaptation and post-fight recovery.

To repay for the above deficiences in the existing space nutrition system, which depend on processed food ,fresh food materials are necessary.

Nutrition:

Nutrition has many important functions in space travel, from providing enough nutrients and meeting the metabolic needs of a healthy body to enhancing an individual's emotional well-being. Space nutrition should meet the daily human needs like protein, fat, and sugar as well as inorganic elements, trace elements, fats-soluble vitamins, and various water soluble vitamins. In-fight nutrition requirements are set by the WHO according to the daily requirements of people on earth. The biology experiment called BIO-NUTRIENTS. The way of testing to use microorganisms that produce nutrients on-demand and off-earth that will be critical for human health in space.

Bio-nutrients experiment:

The specially produced yeast and its powdered food source are held in the container to the left and cover holds a membrane that allow carbon dioxide from yeast to escape. There is a clear tube at right which protects the another filter system leading into the compartment with microorganisms. To activate the yeast and to begin the experiment, astronauts on board the space station will inject water through the filter, making it sterile. The water will dissolve the nutrient powder and the yeast will grow and multiply in this liquid environment ,producing an important nutrient for human health.

Here, NASA scientists come with an new multi-year mission for planning ways to supply foods on Mars or Moon ,where the astronauts need a way to get the right nutrition in space .So ,the scientists are testing an early version of potential solution to get a microorganisms which provides a vital nutrients so that whenever astronauts needed can make use of them. The same kind of system designed in space even in remote areas of our planet which helps us to provide nutrition for people .

Take a organisms already present in a food , modify it so that it produces an essential nutrient, and build the hardware to let astronauts grow yeast in space. The nutrients that the yeast will produce in this experiment are called beta carotene and zeaxanthin. These are antioxidants usually found in vegetables and they helps for keeping eyes healthy. Many nutrients has a limited shelf-life.

MUSHROOMS ROLE AS BIOREMEDIATION AGENT

- KANISHKA RAJESH
8th sem

One of the major environmental problems facing the world today is the contamination of soil, water and air by toxic chemicals as a result of industrialization and extensive use of pesticides in agriculture. Incineration is currently the most effective and common remediation practice but is costly in terms of money and energy used. A rapid cost effective and ecologically responsible method of clean-up is Bioremediation which utilizes micro-organisms to degrade toxic pollutants in an efficient economical approach. Toxic chemicals are degraded to less harmful forms. The ability of fungi to transform a wide variety of hazardous chemicals has aroused interest in using them for bioremediation. Mushroom forming fungi, are amongst nature' s most powerful decomposers, secreting strong extra cellular enzymes due to their aggressive growth and biomass production. These enzymes with carbon sources such as sawdust, straw and corn cob can be used to enhance degradation rates by these organisms at polluted sites.

This paper highlights the use of fungal mycelia in bioremediation and studies on the uses of mushrooms for bioremediation.

INTRODUCTION:

Environmental pollution has been rising in the past few decades due to increased anthropogenic activities. Bioremediation is an attractive and successful cleaning technique to remove toxic waste from polluted environment. Bioremediation is highly involved in degradation, eradication, immobilization, or detoxification diverse chemical wastes and physical hazardous materials from the surrounding through the all-inclusive and action of microorganisms. Bioremediation is the most effective, economical, ecofriendly management tool to manage the polluted environment. All bioremediation techniques have its own advantage and disadvantage because it has its own specific applications. Mushroom has been used for consumption as product for a long time due to their flavor and richness in protein. Mushrooms are also known as mycoremediation tool because of their use in remediation of different types of pollutants.

.Mycoremediation is a form of bioremediation in which fungi-based remediation methods are used to decontaminate the environment. Fungi have been proven to be a cheap, effective and environmentally sound way for removing a wide array of contaminants from damaged environments or wastewater. These contaminants include heavy metals, organic pollutants, textile dyes, leather tanning chemicals and wastewater, petroleum fuels, polycyclic aromatic hydrocarbons, pharmaceuticals and personal care products, pesticides and herbicides in land, fresh water, and marine environments. The byproducts of the remediation can be valuable materials themselves, such as enzymes,

Mycoremediation can even be used for fire management with the encapsulation method. This pellet is introduced to a substrate in the burnt forest, breaking down the toxins in the environment and stimulating growth. Mycoremediation is a cheaper method of remediation, and it doesn't usually require expensive equipment. For this reason, it is often used in small scale applications, such as mycofiltration of domestic wastewater, and industrial
effluent filtration. According to a 2015 study, mycoremediation can even help with the polycyclic aromatic hydrocarbons (PAH) soil biodegradation.

APPLICATIONS:

- Used as versatile in chemical degrading abilities.
- Used for utilizing non-invasive species.
- Used for the removal of contaminated water bodies of pharmaceutical effluents.
- Used in mycofiltration of domestic wastewater.
- Used as hyperaccumulators.
- Used for eradicating heavy metal contamination.

Scope:

Replacement for Styrofoam blocks in packaging.

Waste from grain processing pressed into a mold and inoculated with
mushroom culture.

Fully colonized grain then dried under heat.

Shroom packaging fully biodegradable.

Limitations:

Change in weather and climate.

Natural disasters, specifically drought and forest fire.

Invasive non native fungi.

Predators (slugs, deer, squirrels, turtles)

Too high a concentration of toxin in soil.

It is a slow process and difficult to manage.

CONCLUSION:

Analysis regarding the case studies with focus on the impacts of environment, society,
and cost.

- Cost effective process.
- Eco-friendly process.
- Successfully able to remove PCBs (Polychlorinated biphenyls) from the soil.
- Effective method. Minimal site disruption.

Case study 2: The mechanism of thorium biosorption by Rhizopus Arrhizus:

- Thorium biosorption uptake is very rapid in aqueous solution.
- Cost effective process.
- Eco-friendly process.
- Effective method.
- Complete destruction of a wide variety of contaminants.

Economic viability:

Mycoremediation is a waste management technique which involves the use of biological organisms to remove or neutralize pollutants from the contaminated site.

Non-Scientific Articles

Profundity of the folk dance "YAKSHAGANA"

Dance is the "rhythmic and expressive body movement usually coordinated into a pattern and preformed with music". Dance is perhaps the oldest of the art, one of the oldest form of folk dance is Yakshagana.

The word Yaksha mean Demi-Gods and Gana mean song, it is a traditional theater which was originated in coastal district of Karnataka. This dance form includes dance, music, drama, dialogue, costume, makeup and stage it is simply called as "Aata" (meaning "The Play"). This theatre style towards the south from Dakshin Kannada to Kasaragod of Tulu Nadu is called "Thenku Thittu" and towards north from Udupi to Uttara Kannada it is called as "Badaga Thittu". The play begins at night and continues till the next day.

The makeup of Yakshagana is rich and closely related to the ornamentation found in sculptures. The Facial makeup varies simple to intricate designs depending upon the role they play, it consists all natural items such as Kumkum, Haladi and kajal mixed with the coconut oil.

Yakshagana ornaments are made up of light wood, mirror and coloured stones. The costume consist of "kirita" upon the head, "Kavacha" that decorates the chest "Buja Keerthi" that decorates the shoulders and "Dabu" around the waist. The attire basically looks luxurious and traditional.

The lively performance is full of dance and drama and poetic songs sung by the "Bhagavata"(Narrator), the background music played by a group of musicians known as "Himmela". The prasangas or stories are mostly based on the Hindu epics such as The Mahabharata, The Ramayana and The Puranas. In yakshangana the men portray both male and female characters, now a days most women's portray both the male and the female characters. This dance form consists of around 15 members including the musicians, the actors and the narrator.

Traditionally the performance are staged in the open air over a period of dusk to dawn. The stage is called as "Rangasthalla". There are about 30 professional Mela(troupes) and about 200 amateur troupes performing this ancient art.

Yakshagana is gaining popularity outside India. The amateur groups have successfully staged the performance in the USA, Canada etc.

Yakshamitra in Canada, yaksharanga in the USA , yakshaloka in boston these are the few examples of international troupes.

The call for granting the recognition of the " state art of Karnataka" to Yakshagana has been turning into a crescendo.

"The Light Dreamer"

As star seeds of yonder being,
We can paint well with wounds in hum.
Write poems to break the stereotype,
Sing our lines, with beckoning sounds high and low.
Not leaning on points of grime and dark.
Enroute roads with enriched love and hate.
" Perfection,is very impressionistic ".
Engrave the page with our name.
The experience draws a perfect shape over the life.
Emotions travel throughout the life,
One pauses when you decide to start another one.
So we grow steady and tall to look up to,
the society with jumbled emotions.
Just as an grown up to see the vast shadow, and
Many more question waves left for you and I !
Falling to rise, being born again.
Meanwhile ;
Priorities, Life, Age all change.
Entangled in different dimensions, yet
Forgiving and Forgot for happiness.
Problems in life are early morning dew,
Myths are not always false.
Magic itself is clueless to take place,
So what good are we without a mic ?
To write for likes without an insight .

- Varsha R
5th sem

07

First Sunday of May

Based on partially true events

The title might sound like the beginning of a summer vacation.

But this was the day that changed the lives of mine and a million others.

It was the day we wrote our NEET exam.

With a million dreams, or one dream that branched into a million, we sat at that exam table trying to remember all those little facts from our preparation over the preceding months. This article or essay or whatever you may call it, is not about what happened in that paper, but what it led to, and where it has brought me today.

The Results were announced and I was depressed. If you think I'm exaggerating... you have no idea what I went through. Its because I passed... but I couldn't really get into any medical institute without having to pay a fortune. That moment When you put all your efforts but it's just not enough.

Yep, that's what I was going through.

I had all my future built upon this one thing and now the rug was pulled from under my feet. I was at a loss. Not knowing what to do now.

You know how everything in this world is relative. Like darkness and light. My moment of despair proved to be a moment of delight for some. The next few days were filled with incoming calls and advices on what next... for my life. I'd rather listen to the astrologer at this point (Oh you're a Gemini... this was bound to happen).

I really wish I could curse in this part. But in the middle of all this chaos, the words of my school counsellor kept lingering in my mind.

"This world has something for everyone... so if you didn't get what you wanted... maybe you were looking for it in the wrong place."

She mentioned this in a completely unrelated situation but it seemed to make sense here. While I was pondering over all the life choices that had brought me to this point, Khal Doggo, my puppy, nudged a basketball towards me, calling me to play. Basketball, one of the many things I had to sacrifice for this exam, seemed to call me back with arms wide open.

For a moment my puppy felt like Pikachu surging its thunderbolt attack towards me. It was at that instant, I finally decided what I was going to do. Channeling all this negativity into motivation I decided to change tracks and move forward.

I still had to do a degree because of my Mother's Education Policy which states that 0 degree = 0 place in house That's when I decided to take Biotechnology, because a major part of it is Biology so all my learning can still be put to effect (and my CET marks didn't disappoint me as much).

College life thus began, which I entered hoping for the worst... but it actually surprised me because I was not alone. I happened to meet many others with lost dreams who have come here looking for a new hope. I wanted to make the best of my time here and leave this place with 0 regrets. joined the basketball team, luckily I hadn't lost my flow. I went on to play several matches for the college. Basketball helped me boost my morale and brought me out of the umbrella of emotions.

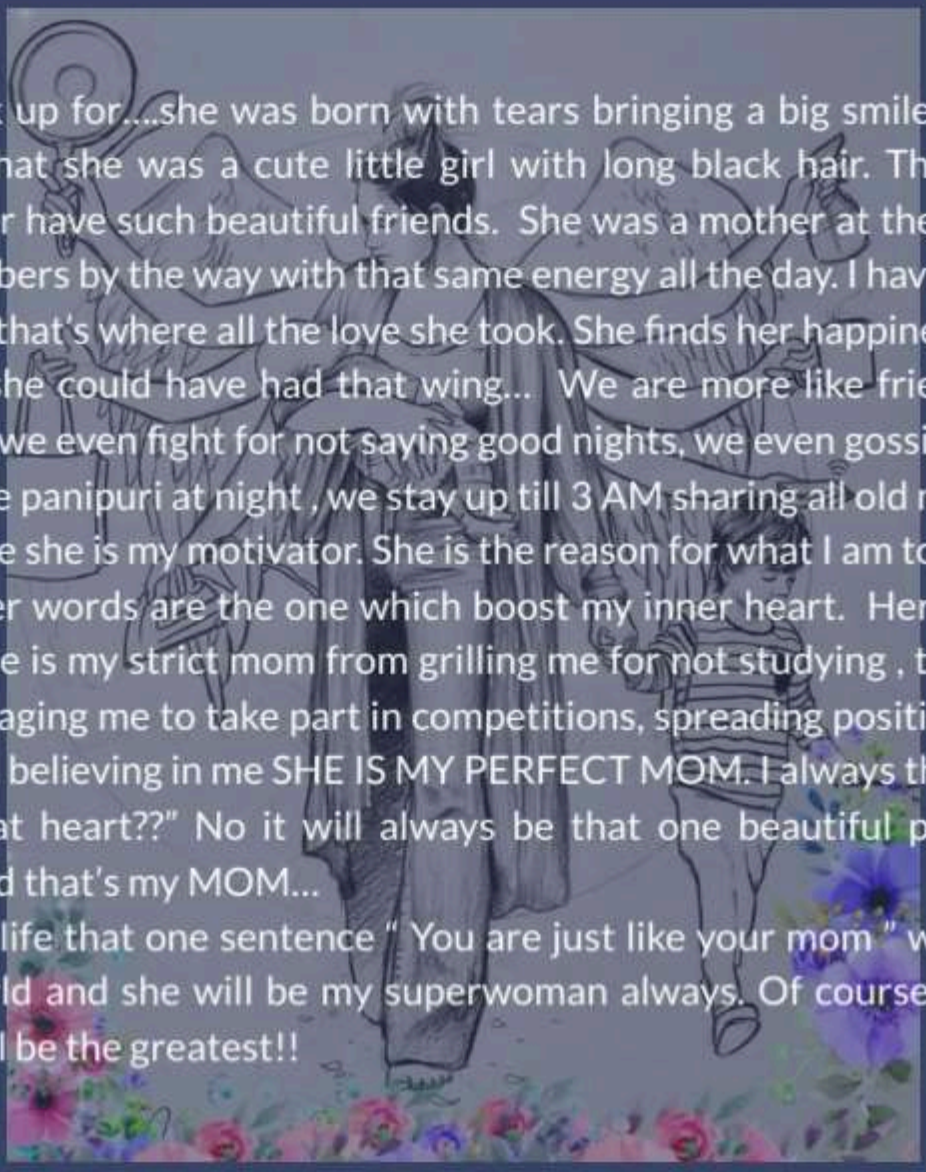
My grades weren't that great but that didn't stop me from doing what I wanted to. Eventually, life happened.

I may not be saving lives and making pots of money, but at the least, I'm happy with where I am. So what exactly am I trying to say through this article. Honestly, even I don't know.

I started a sentence, and I didn't know where it was going. I just went on adding events along the way and ended up here.

S Kamalesh
7th sem

SHE
" MY SUPERWOMAN"



The woman I look up for....she was born with tears bringing a big smile on my granny's face. I was told that she was a cute little girl with long black hair. The beauty of her innocence lead her have such beautiful friends. She was a mother at the age of 26!! She cooks for 10 members by the way with that same energy all the day. I have never seen her saying no to cook that's where all the love she took. She finds her happiness in every little thing and I wish she could have had that wing... We are more like friends!! We share every little thing , we even fight for not saying good nights, we even gossip , we go for day outs, we even have panipuri at night , we stay up till 3 AM sharing all old memories.....But more than all these she is my motivator. She is the reason for what I am today . Every time I am depressed her words are the one which boost my inner heart. Her advices are the best .Of course she is my strict mom from grilling me for not studying , teaching me how to behave, encouraging me to take part in competitions, spreading positive vibes, getting me all that I need , believing in me SHE IS MY PERFECT MOM. I always think of " Can I be my mom with that heart??" No it will always be that one beautiful person with that beautiful heart and that's my MOM...

Whatever I am in life that one sentence " You are just like your mom " will make me feel on top of the world and she will be my superwoman always. Of course all mothers are great but mine will be the greatest!!

"BLESSED WITH THE BEST"

- Varshitha P
3rd sem

"THE RISE OF AN ARTIST"

Hi myself Kiran A.K.A Sakriya, I am 20 years old. "I have a Therapist, her name is Music ".Music is always there for me in my Sad and Happy times. These all started 2 years back when I was studying in PU. Listening to great musicians and songs, I also wanted to sing and express my thoughts and feelings from their songs. Practicing for many times and experiments, I got to know that singing was not for me. Passed through several research and exploring, A Culture called RAP I got introduced to. RAP Rhythm And Poetry. I felt RAP is the thing for me, because here we don't need to sing and a very plus point that we can write our own lyrics. I was always wanted to put out my stories, my vision of life, and experiences. This made me more excited. Writing my own lyrics, telling my own story would make a much more impact and it started. Every time I write lines on paper!!, You know a bunch of feelings every minute, dropping them on the paper made me feel free.

From writing poems in my free time to now keeping a specific time to especially write poems, there is a long journey and much experiences. Music has made me more confident and helped me to easily deal with the feelings. From all these , I suggest you guys to find a way to express your thoughts and things. And I am sure that everyone has some stories to tell.!

Keep hustling, chase your dreams, what ever you choose the hunger to achieve it matters. Stay strong.

- KIRAN B S

3rd SEM

"MY JOURNEY WITH BOOKS"

One of my favorite memories of lockdown is how much time I spent reading. Whenever I got a new book I couldn't put it down. Mahapalayana by K.P Poornachandra tejaswi , was the first book i read , its where my journey with books started. Its a story of a great escape and survival , crossing more than 4000 miles from North siberian Russian camp to Himalayas of India.. when they begin their escape ,its a gang of seven members and in midway they also come across a orphan girl of 15 , who also joins them to save herself from the communist army. The will of this girl to survive and run to freedom despite all the hardship she went through left me speechless. What left me in awe is the amount of detailed planning they undertook in secret under the hawk-eyed security in the prison before the escape. I was really amazed at their spirit ,grit and determination. A man can do anything if he really wants something and that something should be ' Desire to find his Freedom '. It was the fight between man and nature , the journey to freedom and survival.

After completing this book ,I read many novels, autobiographies, travel stories and my journey with books is never ending . Books continue to help me with my personal growth every day, it made me earn new things ,grow and expand my views on life. There is so much I have earned about life and myself by just reading . My friends ask me " Why do you love books and reading so much," and I truly believe that there can never be just one answer to that question. But if I had to answer, it would be, that books quench my thirst for wisdom. I don't ever want to stop learning.

- Medha
7th sem

International Women's Day is celebrated on March 8th . The day marks a call to gender equal world – free of bias, stereotypes and discrimination.

WOMEN'S DAY

Not just one or two, there are so many reasons to celebrate women and they are not tied to whether or not she has ever dated, fallen in love, got her heart broken, or committed to anyone at any given point of time, or irrespective of who she is married to or how they look like. We can and should celebrate woman for so much more than their love lives or their appearance. Quite often, we meet amazing women in our lives who are great people and great people to us and among the first thing that cross our mind is the thought "I hope she ends up or settles with someone great" or " I hope she's taken by the best" and while this seeming a common thought.

It adds to the idea that women and relationships are inseparable. The idea that great women exist to become part of great relationship is flawed. They don't need the title of "girlfriend" , "wife" , and/or "mother" before we decide to see how great they are and acknowledge all the ways in which they make the world a better place for us to live in. Because she balances everything well, it is for us to celebrate for how much she does at once, how she keeps so much of her world and the worlds that she feels a responsibility to keep it together. She is hard working, she understands when to stop and does not exert herself to the point of inefficiency. She understands and corrects, also multi-tasks as any boss should. We might have heard of many stories about how women were denied to be granted a job opportunity because of the assumption that they would have to complete all the household works take care of her kids, husband, parents and they would not be able to multi-task. "They should just stay home" is the common tagline used for most of the women who tend to work. Throughout human history, traditional gender roles have often defined and limited women's activities and opportunities. Many religious doctrines stipulate certain rules for women. With restrictions loosening through the centuries, in may societies, women have gained access to careers beyond the traditional homemaker and also the ability to pursue higher education. Woman should not be defined by her relationship status or whatever other expectations society used to freely place on all of womankind. She should be celebrated instead for being who she is, for meaning what she does, and for impacting the world in the way she does.

- Vaishnavi P

3rd sem

LOVE FOR NCC

NCC is not about uniform or uniformity but it is about unity.

Everybody has various reasons to join NCC, some of them are inspired to join the the defence force of the nation, desire to serve the country, to proudly march on the parade grounds in Delhi for the occasion of Republic Day. But when it comes to us, we think it was the curiosity as to what NCC was all about and how captivating the uniform looked. The same curiosity pushed us to take a leap of faith and register ourselves for the NCC selections. After an exhausting afternoon of selections, the results were pretty pleasing. This selections day gave us a teaser as to how our next 3 years of NCC life would look like. National Cadet Corps (NCC)is one of the leading youth organizations in our country, contributed in spreading national harmony and reliability amongst the youth and trains lakhs of students under its fold. It plays an important role in building up the values of good personality, discipline, hard work and in molding them into energetic and responsible citizens of the country. NCC motto is unity and discipline.

We still remember the first time we wore our uniform, we could instantly feel the proudness and the sense of belonging in our hearts although we hadn't yet learned how to wear our uniform right. This particular day was quite memorable as it brought us closer to the NCC family as we were already starting to feel the sense of togetherness. As drops of sweat dripped on our parade ground due to the groping parade practices, ragdaas by our senior and other physical activities, taught us a lot about discipline, punctuality, patience and to be humble. NCC also helped us to think faster on our feet and to finish the assigned task in limited period of time and helped us to polish our leadership skills/ qualities.

NCC is an experience which will stand you in good steed in all walks of lives. Our experience in NCC is definitely incomplete without the NCC camps. From the 5am alarm clocks, waiting in queues to brush our teeth, to having our breakfast/lunch/dinner, to being present on time, to wearing our uniform in 15 min, to energetically shout ek..dho..ek.. taught us a lot about time management, to be alert and observant, to pay attention at all times. Amongst all this we still had our fun. We got a glimpse about the defence system our country, the life of a solider and how things work in a battle field. The camp taught us to interact with different people from all around the country and make heartfelt connections with them. It also taught us that the real happiness lies in helping others. It is one of the remarkable experience which both of us cannot forget.

NCC provides us a great opportunity to serve our country and to quench the thirst of our patriotic hearts. NCC is a incredible journey , it is depends upon you how much you are going to learn from it and adopt the things, achievements, officer like qualities which a civilian cannot do in their life because those are the opportunities which you got, to make something different in you.

JAI HIND

- Monisha Prashanth and C Y Aditi
3rd sem

ಯಾವ ಹೆಜ್ಜೆ !?

ಯಾವ ಹೆಜ್ಜೆ
ಹೊಸ ಹಾದಿ ತೆರೆಯುವುದೊ

ಯಾವ ಮನ ಮೋಡ
ಬದುಕ ಬಾನಲಿ ತೇಲಿ
ಹನಿಯಾಗುವುದೊ

ಯಾವ ಭಾವ ರಾಗ
ಸಂಗಮ ಸೆಲೆಯಾಗಿ
ಸುಳಿವುದೊ

ಯಾವ ಪದಗಳು
ಕವಿತೆಯಾಗಿ
ಹೊಮ್ಮುವುದೊ

ತಿಳಿಯದ ತಿಳಿಮನವೇ
ತೇಲಿ ಬಿಡು
ಬದುಕ ಬಾನಲಿ
ಹಗುರ ಹೂವಾಗು

ಕರಗುವುದೆ
ಬಾಳ ಸಾರ್ಥಕತೆ
ಕೊರಗುವ ಮಾತೇಕೆ?

ಸಂಭ್ರಮಿಸು
ವಿಶಾಲವಾಗಲಿ ! ಸಾಗಲಿ
ನಗುವಿನೊಡನೆ ನೋಟದ ಓಟ
ಅದ್ಭುತವಾಗಿದೆ
ಈ ಜಗದ ಪ್ರತಿ
ಸೃಷ್ಟಿ ! ಆಟ!

ಡಾ. ಸುನೀತ ಟಿ ಬಿ
ಜೈವಿಕ ವಿಭಾಗದ ಮುಖ್ಯಸ್ಥರು

"GIRL"

There's always a phase
Where every girl fails
Deep in her thoughts ,
her heart feels
But there's always a
smile that heels

Saw that love in her eye
More than that her emotions fly!!
Every time you say a girl is high
Where did that humanity die??

All that she do
Just for the sake of you
Before your thoughts fly
Give her a chance to say
goodbye!

- Varshitha P
3rd sem

" FINDING LIGHT "

I embrace the possibility
that this earth we in habbit ,
it is just a different sky.

Where we are hollow stars.
And in this earthy firmament
to find a true friend ,
is much the same as earning the celeste glare,
whose life will brim our soul with light.

- Shruthika V
3rd sem

STUDENTS AWARDS

PROJECT FUNDING-KARNATAKASTATE COUNCIL FOR SCIENCE AND TECHNOLOGY(KSCST) for B.E Program-2018-19

PROJECT TITLE- SYNTHESIS AND INCORPORATION OF NANO-MATERIALS INTO WOUND HEALING SCAFFOLD

Team Members (Final Year)

Mr. Mukund Balaji N

Mr. Piyush Pal

Ms. Srijana Dey

Under the Guidance

Dr. Suneetha TB
Head of the Department

Sanctioned Amount from KSCST Rs. 10,000/--

ORAL PRESENTATION IN NATIONAL / INTERNATIONAL CONFERENCE/ JOURNAL

NATIONAL CONFERENCE ON "EMERGING MULTI DISCIPLINARY TRENDS IN BIOTECHNOLOGY & ENGINEERING: A FUTURE PERSPECTIVE"
23rd & 24th August 2019, Bangalore, India.

NANO ENABLED SOLUTIONS IN HEMOSTASIS
Final Year Students

Mr. Vivek G

Mr. Md Naveed Ashraf

VIRTUAL INTERNATIONAL CONFERENCE ON
"RECENT ADVANCES IN CHEMICAL AND BIOLOGICAL SCIENCES (VIRACBS - 2020)"
7-9th December 2020, Bangalore, India.

POLYMERIC BASED BIOMARKERS- AN FEASIBLE APPROACH FOR CANCER DETECTION

Dr. Suneetha TB
Head of the Department

Mr. Vivek G

Ms. Harshitha M

Md Naveed Ashraf

STUDENTS AWARDS

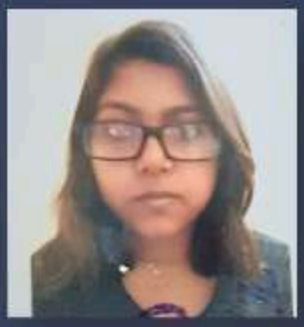
PROJECT FUNDING -KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY(KSCST) for M.Tech Program-2019-20

PROJECTTITLE- SYNTHESIS AND INCORPORATION OF NANO-MATERIALS INTO WOUND HEALING SCAFFOLD

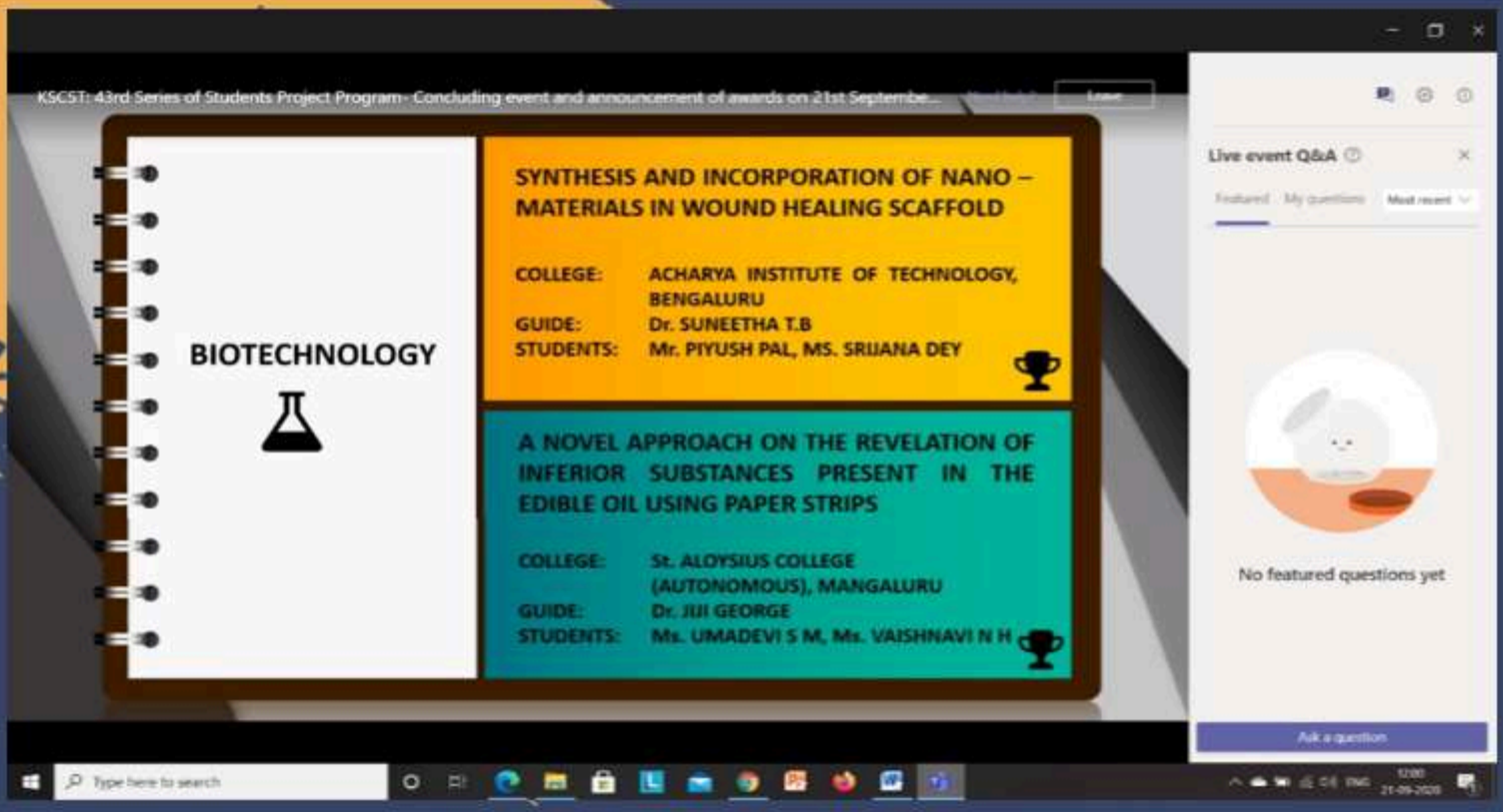
Team Members (Final Year)

Dr. Suneetha T.B.
Head of Department

Mr. Piyush Pal t



Ms. Srijana Dey



PROJECT FUNDING

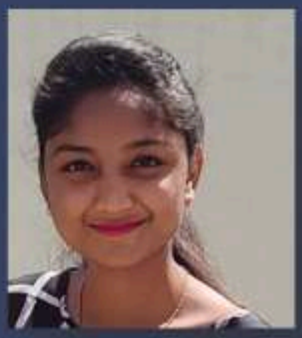
INSTITUTION'S INNOVATION COUNCIL
MHRD'S INNOVATION CELL, AICTE

PROJECT TITLE- ACCELERATED WOUND HEALING BY NANO-BANDAGES (N-BANDAGES)

Team Members (Final Year2020-2021

Mr .Mukund Balaji N

Ms. Harshitha M



Ms. Sushmitha Nayak

Under the Guidance :

Dr. Suneetha TB
Head of the Department

No of rounds cleared :
IDEA > PROTOTYPE > RUBRIC MODEL > BUSINESS MODEL
Awaiting for results on Final Round of the competition for a cash prize of maximum
10,00,000/-

Achievements

Doctoral Degree Awarded

It is our pride and privilege to inform you that **Mrs. Ashalatha**, Assistant Professor, Department of Biotechnology, Acharya Institute of Technology has been awarded the **"Doctor of Philosophy" (Ph.D.)** in the Faculty of Life Sciences from **Visvesvaraya Technological University (VTU)** at the 19th annual convocation on 8th Feb 2020, for her research work titled **"Denovo Sequencing and Transcriptome analysis for the identification of Putative genes and pathways for major alkaloids from Coscinium fenestratum (Gaertn) Colebr, By Next Generation Sequencing"** under the guidance of Dr. Gopinath.S.M.

We heartily congratulate Dr. Ashalatha for her pronouncing achievement and for adding assets to the repute.

Achievements

Team Vikaasasheel Bharat
From left to right Milan M, Koyal Y, Dr.
Suneetha TB (mentor), Nikhilesh Janak Katira

Team: Vikaasasheel Bharat (Nikhilesh Janak Katira, Milan M., Koyal Y.)

Guide: Dr. Suneetha T.B.

We participated in Chhatra Vishwakarma Awards 2020; a competition held by AICTE under the mentorship of our HOD Dr. Suneetha T B. The theme being "India's Economic Recovery Post Covid; Reverse migration and Rehabilitation Plan to support Atmanirbhar Bharat". There were 8 subcategories to choose from and we chose the sub category "Re-skilling and Up-skilling for Ensuring Livelihood". The name of our project was "Vikaasasheel Bharat". The idea was to design a self-sustaining smartphone application which would connect the reverse migrated workers, small scale industry, large scale industry and government agencies. There were 3 rounds, college convention, state convention and national convention. We were one of the final 85 teams selected for the final round i.e., the national convention, under our subcategory we were one of the 11 teams.

INTERACTION WITH OUTSIDE WORLD & AWARDS RECEIVED

SWEDEN INDIA SCIENCE SAMBHAM

Mr. Mukund Balaji N

Our Final Year Student, BT Dept, Mr. Mukund Balaji N was selected to be associated with Sweden Alumni Network India (SANI) and successfully arranged and co-ordinated the prestigious event "**SWEDEN INDIA SCIENCE SAMBANDH**" bringing together the highest science scholars of SWEDEN and INDIA on a common platform for discussions on various science and current affairs.

INTERCOLLEGE DUET DANCE COMPETITION

Ms. Sushmitha Nayak

Our Final Year Student, Sushmitha Nayak M participated in Intercollege Fest organized by Siddhaganga Institute of Technology and secured 1st place in Duet Dance on 27th February 2020

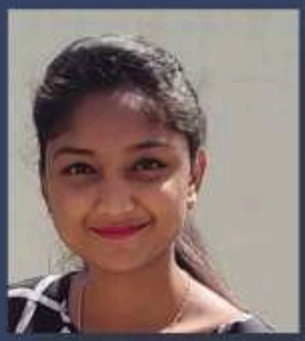
PROJECT FUNDING

KARNATKA STATE COUNCIL FOR SCIENCE AND TEDHNOLOGY - KSCST 2020-21

PROJECT TITLE- SMARTYIELD PREDICTOR- SPY

Team Members (Final Year2020-2021)

Mr. Mukund Balaji N



Ms. Sushmitha Nayak

Under the Guidance

Dr. Suneetha TB
Head of the Department

Sanctioned Amount from KSCST Rs. 7,000/-

SRISTI-BIIS AICTE Appreciation Award for 2021-22.

Student: Aayush Joshi
Guide: Dr. Suneetha T.B.

Aayush Joshi received a grant of up to Rs 1 lakh for Biotech Innovation Ignition School (BIIS) -8 project of his research work under the mentorship of HOD **Dr. Suneetha T.B.**

The Biotechnology Industry Research Assistance Council (BIRAC) of Students Innovations for Translation & Advancement of Research Explorations (SITARE) Aayush recognized as BIRAC's SITARE-Appreciation award in this year,

Across India only 10 students are selected and provided grant support of up to Rs. 1 lakh each to encourage their inquisitiveness and sustained efforts.

Based on the proposals submitted by students from all over India, they choose the top 50 students and hold a workshop and training for 20 days. After the 20-day workshop, they will choose the top 10 students and ask them to choose a grass-root innovation, which the selected student will validate.

SANCTIONED FUNDED PROJECT

KARNATKA STATE COUNCIL FOR SCIENCE AND TEDHNOLOGY – KSCST 2020-21

Final Year M.Tech Student Project fund 2019-2021

Sl no.	Name of the PI	Title	M.Tech Student name	Agency /Funding Body	Status
1	Dr. Suneetha TB	Potential use of algae biomass for lipid production from waste water treatment as a biofuel feedstock	Amarnath	KSCST	Received 7,000/-
2	Dr. Suneetha TB	Nanotheraphy for wound healing	Verlaxmi	KSCST	Received 7,000/
3	Dr. Suneetha T.B.	Synthesis of superabsorbent polymer using agricultural biomass for the slow release fertilizer delivery in soiL	Jansi	KSCST	Received 6,000/

Under the Guidance

Dr. Suneetha TB
Head of the Department

INTERNATIONAL JOURNAL PUBLICATION

Under the guidance of **Dr. Suneetha T.B, HOD of Biotechnology Dept.**
Published some Research Papers :

Paper Title	**"Recent Advancements of Microbes in Plastic Degradation"**
Journal Name	**International Journal of Creative Research Thoughts**
Date and Impact Factor	**September 2020 and 7.97 in Vol 8, Issue 9**
Participants	**Dr. Suneetha T.B, Mukund Balaji N, Ketki Potekar**

Paper Title	**"Multi-functioning Sensor for Detection of COVID- 19"**
Journal Name	**International Journal of Engineering Research and Technology**
Date and Impact Factor	**Jul 2020 and Vol 9, Issue 7**
Participants	**Dr. Suneetha T.B, Mukund Balaji N**

Paper Title	**Compatibility of nanoparticles with wound healing biopolymeric scaffolds**
Journal Name	**International Journal of Modern Engineering Research**
Date and Impact Factor	**May 2020**
Participants	**Dr. Suneetha T.B, Nilakshi Mazumder, Srijana Dey, and Piyush Pal**

Paper Title	**REVIEW ON GOSSYPIBOMA: THE RETAINED SURGICAL SPONGE**
Journal Name	**International Journal of Creative Research Thoughts**
Date and Impact Factor	**11 Nov 2020**
Participants	**Vivek G, Harshitha M, Md Naveed Ashraf, Suneetha TB**

Dr.Suneetha T B
Head of Department

Paper Title :	Blended Diesel with Rapeseed Oil : An Alternative Substitute for Conventional Fuel
Journal Name :	INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS

Paper Title :	Biodegradable PVA Scaffolds by Designing and Fabricating the Prototype of Lab Scale Reactor
Journal Name :	American International Journal of Research in Formal, Applied & Natural Sciences
Link	http://iasir.net/AIJRFANSpapers/AIJRFANS19-403.pdf

Paper Title :	Compatibility of nanoparticles with wound healing bioplymeric scaafolds
Journal Name :	International Journal of Multidisciplinary Educational Research
Link	http://ijmer.in/issues/volume9/volume9-issue5(7).aspx

Paper Title :	A review on microalgae as a biofuel feedstock
Journal Name :	International Journal of Creative Research Thoughts
Link	https://ijcrt.org/archive.php?vol=8&issue=5&page=6

Paper Title :	Compatibility of Nanoparticles with Wound Healing Biopolymeric Scaffolds
Journal Name :	International Journal of Multidisciplinary Educational Research
Link	http://ijmer.in/issues/volume9/volume9-issue5(7).aspx

Paper Title :	Engineered Microbiome – The Successor of Medicines
Journal Name :	International Journal of Pharmaceutical Sciences Review and Research
Link	https://www.globalresearchonline.net/pharmajournal/vol62iss2.aspx

Paper Title :	Multi-Functioning Sensor for Detection of COVID 19
Journal Name :	International Journal of Engineering Research & Technology
Link	https://www.ijert.org/multi-functioning-sensor-for-detection-of-covid-19

Paper Title :	REVIEW ON GOSSYPIBOMA: THE RETAINED SURGICAL SPONGE
Journal Name :	INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS
Link	http://ijcrt.org/viewfull.php?&p_id=IJCRT2011311

Paper Title :	cystic Fibrosis: A Problem Approach
Journal Name :	International Journal of Clinical Biochemistry and Research
Link	http://doi.org/10.18231/j.ijcbr.2021.015

Paper Title :	"Accelerated Wound Healing By N-Bandages Incorporated With Herbal and Nano-Materials"
Journal Name :	International Journal of All Research Education and Scientific Methods (IJARESM),
Link	http://www.ijaresm.com/uploaded_files/document_file/Suneetha_T.B,_Sushmitha_Nayak_M,_N_._Mukund_Balaji_vk8d.pdf

Paper Title :	EPITOME OF PROSTATE CANCER: A REVIEW
Journal Name :	World Journal of Pharmaceutical Research
Link	DOI :10.20959/wjpr20219-21054

Dr. Ismail Shareef
Associate Professor

Paper Title :	Phytofabrication of cupric oxide nanoparticles using Simarouba glauca and Celastrus paniculatus extracts and their enhanced apoptotic inducing and anticancer effects
Journal Name :	Applied Nanoscience
Link	https://link.springer.com/article/10.1007/s13204-021-01753-3

Paper Title :	Phytosensitization and Cytotoxic Studies of Anacardium occidentale L. on Cancer Cell Lines – A Herbaceutical Approach
Journal Name :	International Journal of Current Microbiology and Applied Sciences
Link	https://www.ijcmas.com/9-2-2020/Amar%20Shankar,%20et%20al.pdf

Paper Title :	Silver Nanoparticles from Cow's Milk to Combat Multidrug-Resistant Gram-Negative Bacteria from Clinical Isolates
Journal Name :	Proceedings of the National Academy of Sciences, India Section B: Biological Sciences
Link	https://link.springer.com/article/10.1007/s40011-019-01160-3
Author	S M Gopinath, Ismail Shareef. M

Paper Title :	Phytobioactives from Alstonia scholaris-An Elixir against Cancer
Journal Name :	Our Heritage
Author	S M Gopinath, Ismail Shareef. M

Paper Title :	Silver Nanoparticles from Cow's Milk to Combat Multidrug-Resistant Gram-Negative Bacteria from Clinical Isolates
Journal Name :	Proceedings of the National Academy of Sciences, India Section B: Biological Sciences
Link	https://link.springer.com/article/10.1007/s40011-019-01160-3
Author	S M Gopinath, Ismail Shareef. M

Dr. Ashalatha

Assistant Professor

Paper Title :	Antibacterial and Cytotoxicity effect of nano graphene oxide for dental application
Journal Name :	GIS SCIENCE JOURNAL
Link	https://drive.google.com/file/d/1NMf5nRq2j9HAmUbL1D6g1klJC4LbR5Qy/view

Paper Title :	BIOENGINEERING ORGANS BY DECELLULARIZATION AND 3D BIOPRINTINGAN OVERVIEW
Journal Name :	INTERNATIONALJOURNAL OF MULTIDISCIPLINARYEDUCATIONALRESEARCH
Link	http://s3-ap-southeast-1.amazonaws.com/ijmer/pdf/volume9/volume9-issue6(5)-2020.pdf

Paper Title :	Advances in wound healing and wound care technologies-A Review
Journal Name :	IJPSRR, www.globalresearchjournalonline.net
Link	https://globalresearchonline.net/journalcontents/v62-1/30.pdf

Paper Title	"A Review-the Detection Techniques For Diagnosis Of Renal Cell Carcinoma", International Journal of Current Research and Review (IJCRR)
Journal Name	International Journal of Current Research and Review (IJCRR)
Link	https://ijcrr.com/uploads/3847_pdf.pdf
Authors	Ashalatha,Shilpa Sivashankar

Authors	Gopinatha S M, Ashalatha
Paper Title	Transcriptome mining and functional annotation of Coscinium fenestratum (Gaertn.) Colebr by Next Generation Sequencing
Journal Name	Research Journal of Biotechnology
Link	https://worldresearchersassociations.com/Archives/RJBT/Vol(15)2020/January2020.aspx

Dr. Shilpa Sivashankar
Assistant Professor

Paper Title :	Cystic Fibrosis: A Problem Approach
Journal Name :	International Journal of Creative Research Thoughts
Link	https://ijcrt.org/papers/IJCRT2107187.pdf

Paper Title :	A Review-the Detection Techniques For Diagnosis Of Renal Cell Carcinoma
Journal Name :	International Journal of Current Research and Review
Link	https://ijcrr.com/uploads/3847_pdf.pdf

Paper Title :	Amperometric Biosensors as an Analytical Tool in Food, Dairy and Fermentation Industries
Journal Name :	International Journal of Pharmaceutical Sciences Review and Research
Link	http://dx.doi.org/10.47583/ijpsrr.2020.v65i01.010

Paper Title :	Magic Touch 'Nano Skin' in Healing Burns and Wounds: A Revolution in Therapeutics
Journal Name :	International Journal of Multidisciplinary Educational Research
Link	https://www.researchgate.net/publication/344170800_MAGIC_TOUCH_'NANO_SKIN'_IN_HEALING_BURNS_AND_WOUNDS_A_REVOLUTION_IN_THERAPEUTICS

Paper Title :	Nanopackaging of Food-An Overview
Journal Name :	Research Journal of Pharmaceutical, Biological and Chemical Sciences
Link	http://www.rjpbcs.com/pdf/2020_11(4)/%5B1%5D.pdf

Paper Title :	Biotechnological Applications of Electrochemical Biosensors-A review
Journal Name :	Research Journal of Pharmaceutical, Biological and Chemical Sciences
Link	https://www.rjpbcs.com/pdf/2020_11(3)/%5B10%5D.pdf

Paper Title :	**Transdermal Drug Delivery for Controlled Drug Administration-A Review**
Journal Name :	**International Journal of Pharmaceutical Sciences Review and Research**
Link	http://globalresearchonline.net/journalcontents/v61-1/18.pdf

Paper Title :	Electrochemical Biosensors and Transdermal Drug Delivery System as an approach to diagnose and treat Hypertensive Heart Disease-A Review
Journal Name :	International Journal of Engineering and Techniques
Link	http://www.ijetjournal.org/volume6/issue1/IJET-V6I1P3.pdf

Dr. Thriveni
Assistant Professor

Paper Title :	Curcumin and capsaicin modulates LPS induced expression of COX-2, IL-6 and TGF-B in human peripheral blood mononuclear cells
Journal Name :	Cytotechnology
Link	https://link.springer.com/article/10.1007/s10616-019-00338-x#:~:text=Conclusion,mRNA%20expression%20and%20protein%20expression.

Ms.Liny P
Assistant Professor

Paper Title :	Nanocomposites – An Overview of classification and Applications
Journal Name :	International Journal of Emerging Technologies and Innovative Research
Link	https://www.jetir.org/view?paper=JETIR2110498

Paper Title :	A review on biodiesel and its production technologies
Journal Name :	International Journal of Creative Research Thoughts,
Link	https://ijcrt.org/papers/IJCRT2109140.pdf

Paper Title :	Review on Potential sources and applications of Bioplastics.
Journal Name :	International Journal of Advanced Research ,

Paper Title :	Potential role of Punica granatum juice for treating Dengue fever on Cyclophosphamide induced swiss albino mice ready for communication
Journal Name :	International Journal of Advanced Research,
Link	http://dx.doi.org/10.21474/IJAR01/12031

Mr. Pruthuish R
Assistant Professor

Paper Title :	Genistein: A Potent Anti-Breast Cancer Agent
Journal Name :	Curr. Issues Mol. Biol
Link	https://doi.org/10.3390/cimb43030106

Paper Title :	Everything Old Is New Again: Drug Repurposing Approach for Non-Small Cell Lung Cancer Targeting MAPK Signaling Pathway
Journal Name :	Front. Oncol.
Link	https://doi.org/10.3389/fonc.2021.741326

Paper Title :	Synthesis, Computational Pharmacokinetics Report, Conceptual DFT-Based Calculations and Anti-Acetylcholinesterase Activity of Hydroxyapatite Nanoparticles Derived From Acorus Calamus Plant Extract
Journal Name :	Front. Chem
Link	https://doi.org/10.3389/fchem.2021.741037

Paper Title :	In-Silico Evaluation of Anti-Cancerous Activity of Herbal Plant Extracts
Journal Name :	Bulletin of Environment, Pharmacology and Life Sciences

Ph.D Research Scholar Details of Dr.Ismail Shareef. M

Sl. No	Name of the Research Scholar	USN	Guide Type	Registered on	Title of the thesis	Thesis Submitted	No. of Papers Published	Final Viva-Voce	Status
1	Amar Shankar	1AY13PGN03	Co-Guide	4/12/2013	Evaluation and characterization of bio-active compounds from the selected medicinal plants against cancer	Yes	2	Finished	Awarded 19/12/20
2	Amulya G	1AY16PGJ09	Guide	5/2/2016	Synthesis, Characterization and Anticancer activity of Metal oxide nano particles	Yes-24/1/2022	3	Awaiting	Pending
3	Akshata G Athreya	1AY16PGJ04	Guide	5/2/2016	Synthesis and Characterisation of Nanomaterials for tackling Multi Drug Resistance (MDR) from clinical isolates	Yes-30/9/2021	3	Awaiting	Pending

Mr. Amar Shankar

Ms. Amulya G

Ms. Akshata G Athreya

EVENTS

KISAN DIWAS: It was hands on training one week program which happened from 14th December to 23rd December 2020. It was based On Bioaugmentation, Hydroponics &Recycling of plastic for making aesthetic garden.

Chief coordinator was Dr. Shilpa Sivashankar ;

Coordinator was Dr. Ashalatha.

Student Coordinators were Dilip and Kiran.

14/12/2020 - Bioaugmentation: Hands on working on isolation of organism

15/12/2020 -Hydroponics Farming

16/12/2020 -Bioaugmentation: Characterization of isolated culture and Culturing

17/12/2020 -Eco-friendly reusable of plastics for Farming

18/12/2020 -Bioaugmentation: Mass culture of isolated strains.

21/12/2020 -Bioaugmentation: Lab scale final product preparation of eco-friendly products.

22/12/2020 -Bioaugmentation: Seed preparation and sowing with prepared eco-friendly products

23/12/2020 -Inauguration of PTC Lab by Dr. M R Prakash, Principal AIT

-Welcome Address by HOD

-Talk on "Medicinal Plant Breeding" by Dr. Channayya Hiremath, Scientists, CIMAP

-Exhibition of models related to the training

-e-Quiz

-Vote of Thanks

PARTICIPATIVE DEMOCRACY AND DIGITAL LITERACY:

This was the webinar conducted on 31st march 2021 in order to enhance the participation in democracy and to motivate the individuals to use digital tools more ethically through media and digital literacy. The volunteer students were given a platform to share their experiences.

The speakers were

- Ms. HARSHITA V-"Participatory Democracy"
- Mr. SACHIN A T- "Media & Digital Literacy"

BEING QUI VIVE SINCE THE PANDEMIC ERA - WHERE THE SINGLE HELIX (CORONAVIRUS) INTERACTED WITH THE DOUBLE HELIX (HUMAN):

It was a webinar that took place on 20TH and 21ST MAY 2021 with objectives of educating the public about the precaution, preparedness, awareness needed during the COVID times, ayurvedic cure for COVID, volunteer help during COVID, precautions taken in UK ,making of vaccine and the need for the vaccine during COVID, fabrication of COVID detection kits and mechanism.

The speakers were

- Dr. Ramesh Nagalamadugu, (MD Ayurveda, Mitra Arogyadama, Hesaraghatta Main Road, Bangalore)
- Mr. Anil Kumar. G, (Lead Architect at enVista, Covid volunteer)
- Ms. Yashaswinin C,(Alumni, Alumini Pursuing master degree in Cancer Biology)
- Dr. Prashanth BV, (MBBS, MD)
- Dr. Maneesh Paul, Campus Director Acharya Institutes)
- Mr. Amarnath KP,(Alumni, Senior Research Associate, Gangagen Biotechnologies Pvt Ltd).

"CONTEXT OF ENGINEERING TO MEET SUSTAINABLE DEVELOPMENT GOALS":

This was the webinar organized in the department of Biotechnology in collaboration with placement cell on July 10th 2021. Webinar had objectives to achieve clean and safe environment by reducing poverty, hunger and child mortality, improve primary education, promote gender equality ,maternal health and combat major endemic diseases. The speakers were Mr. V.K.KRIPANAND (CEO of Vibsmart Koncepts Pvt Ltd. Founder and Director of see beyond technologies Pvt Ltd)

CAMPUS TO CAREER:

It was webinar arranged in Department of Biotechnology with Acharya Alumni association on 7th august 2021 with objectives to know about the career requirements, upgrading & highlighting the skills by Mr. MILIND SAGAR (Senior Associate Scientist in In- Vivo Pharmacology, Syngene International Ltd.).

NEW INNOVATION IN EFFLUENT TREATMENT AND REVIVAL OF ECOSYSTEMS :

Webinar organized by The Zero Waste Society of India IISc Campus, Bangalore in Association with Acharya Institute of Technology , East West Institute of Technologyand BNM Institute of Technology on September 25th 2021 to create awareness on effluent treatment.

The speakers were

Mr. K R RAGHUNATH (managing director Kis group) He gave information about zero chemical treatment.

PROF. SAYALI SANDEEP JOSHI (CEO Shrishti Eco Research Institute). He gave information about Bioremediation .

Mr. VINAY KUMAR (Director – Technical; Adachi Svipegreen Private Limited). He gave information about Radical Bubble Technology.

KANNADA RAJYOTSAVA:

It was a acharya celebration and our departmental students were also part of cultural events like Yakshaghana and dance. It was all about fun and enjoyment.

"2ND SEASON KISAN DIVAS -2021" AND "FARMERS DAY CELEBRATION":

It was a workshop on "Extraction of Essential oils from Herbals and value addition" on December 23rd 2021 with objectives - trends in the extraction of essential oils from herbal sources, Deeper understanding into the extraction of essential oils, Demonstration of extraction from different herbs ,Various ways to bring on value addition to extracted essential oils.

The workshop was conducted by

Dr. V. S. Pragadeesh (Analytical Chemistry Scientist, CSIR-CIMAP, Bengaluru).

This hands-on training program helped students to understand more about hydroponics and aeroponics systems of farming which can be used as a substitute for the traditional farming method. With the shift to these modern farming techniques, the water requirement can be cut down drastically. Using
the knowledge that students received from theory classes in the practical application was a very pleasant experience. This also gave the insight to cultivate daily required vegetables by these modern farming technologies in the minimal space available. Also using plastic wastes to create an aesthetic garden made students think creatively and even better results were obtained. The bioaugmentation process in which we isolated rhizobium and mixed it with the soil sample to increase the ratio of nitrogen-fixing bacteria in a sample obtained was also a new experience.

INTEGRATIVE THINKING TO INTEGRATIVE HEALTH-LEADERSHIP of ancient Vedic wisdom for post covid world":

This was the webinar organized on world diabetes day that is on November 14th. The event was organized in association with forum Bio infinity and women's cell. Dr. ARUN KUMAR GARG was the speaker. Dr. Arun started with the importance of Yoga for a bliss mindset and building immunity during COVID, Pre-COVID and Post-covid. He also stated the crucial need of 5P's prevention,

protection, promotion, prayer and philanthropy for an individual to build good leadership qualities. He also introduced the concept of best of east and best of west for a good leader. He also stressed on intake of a balanced diet while emphasizing the vegetarian diet. Dr. Arun very clearly stated that there is immense need for the population of the world wide to cut down on the processed sugar and salt intake. Everybody in the world needs to progress towards eradicating Diabetes. He also stressed and stated "India should one day turn Diabetic free country" because India is a land of where veda's originated. The vedas help in consuming the proper intake of food with a balanced diet.

HEALTH THROUGH BIOTECH:

It was a Five days webinar organized under the forum bio-infinity from 23rd-28th November 2020. The speakers were:

- Vinita Sethi (senior vice president, chief public affairs, Apollo hospitals group, India) – Future of health care " Last mile continuum of care"
- Jayantha Roy (JRMC Global centre for human excellence and leadership, Asia, mid-east, Africa) – Health "The importance of being healthy"
- Dr. Kaushik Murali (Med Edu ,Admn, Quality, Sankara eye foundation India regional chair young India) - Health wellness
- B S Ajay Kumar (Chairman and CEO, health care global enterprises) – excellence of case of HCG
- Dr. Rajan Chakrabarti (Vice president , scientific outreach-biologics, The United States pharmacopeia) – Challenges with quality affordable medicines.
- Shabnam Weber (President , THAC; founder of The academy of tea Canada) – Marketing T to new generation.
- Dr. AArohi Kulkarni (Principal technologists, Praj Industries Ltd) – Multiple innovation frame work "the entire cycle of C2C".
- Anoop Penupolu(vice president Sironix arthroscopy solutions) – Health wellness balancing work.

INDUSTRIAL VISIT:

It was a visit to CSIR-CIMAP Research Centre Allalasandra, GKVK Post Bengaluru-560 065 on 28th February 2022 by 3rd semester students .This visit was an extension of a talk and one day Hands on training by Dr. Pragadees Analytical Chemist, CSIR CIMAP, on the occasion of Kisan Diwas celebration in our campus where students were familiarized with Extraction of essential oils in lab scale, further to enhance their knowledge regarding the large-scale extraction this visit have filled the gap. of text


Higher studies and
Placements
Made with VISME

NAMES	HIGHER STUDIES
Vivek G	Sheffield Hallam University (Jan 2022 - May 2024)
Sushmitha Nayak.M	University of Technology Sydney(Nov2021)
Payal Singh	MSc biotechnology (Ramaiah college of Arts,Science and Commerce)
Harshitha Manjunath	Technical university of Munich (March 2022)
Arindam Bhuiya	GATE-Agarthala
Chethan N	Preparing for KPSC Exams-December 2021
Harshitha M	Technical university of Munich (March 2022)
Kanishka Rajesh	GATE
Manoj A	Preparing for KPSC Exams-PSI December 2021
Mukund Balaji N	IELTS
Payal Singh	MSc biotechnology (Ramaiah college of Arts,Science and Commerce)
Sanjay Datha H D	MBA, Dayananda Sagar
Sharmila K	CAT
Shashank P	UPSC/RR INSTITUTE AP
Shravya Shetty	GATE
Sneha B Doddi	KEA/MBA
Surabhi Sai P R	GATE/MPH
Sushmitha Nayak M	University of Technology Sydney(Nov2021)
Vivek G	Sheffield Hallam University (Jan 2022 - May 2024)
Issa Abdunasir Ali	MBA, Malaysia (2(

NAMES	PLACEMENT
Ketki Potekar	Amazon
Soumili Bose	Biotechnika
Pooja K	Prado Preclinical Research and Development Organization Pvt Ltd
Argha Banik	JOB-WB
Mohammed Naveed Ashraf	Climber Knowledge/Byjus/OSB Agencies Pvt Ltd
Gokul H S	SHILPA MEDICARE, DABASPETE
Swathi K B	VERVE CONSULTANCY
Raviraj Birajdar	ENTREPREUNER-START UP-IMPS
Sourav Gangadharan	NSE/BSE TRADING
SNEHA B DODDI	OG Healthcare
Vivek G	OG Healthcare
SWATHI K B	OG Healthcare

For further details contact :

Dr. ISMAIL SHAREEF. M
Deputy Director
Placement Department
Acharya Institutes
email:ismailshareef@acharya.ac.in

Alumini talk

Hello - To all my Reader,
Hope your doing great in your life. And your are new born birds now who are on the way to learn how to fly in the sky . Before share my experiences of studying in Acharya Institute let me introduce myself
to you. Myself Farheen Fatma an alumini of Acharya institute. I am B.E Biotechnology graduate passed out in the year 2018. I have been a part of this institute since 2011 when I have joined it for Diploma in Biotechnology. I am born and brought in Kolkata . And came to Bangalore for studies and since then have been a part of Bangalore. The people of this city is quite welcoming. In all this year of my stay here I never felt I am outsider here .
Nelson Mandela once said, "Education is the most powerful weapon which you can use to change the world."
And being part of Acharya gave me that power to do that .It was a great experience to learn and grow yourself and it gave me memory to cherish for lifetime. My experience at acharya was full of learning and grooming. Being a popular college It gave me an opportunity to meet different kind of people from around the world and learnt many things from them. I am thankful to all the faculties, mentors and entire biotechnology department for providing us with quality education and giving us the insight to working in industrial while we were still in college .They have supported us be it Ganesha Pooja, Teacher's day, fresher / farewell day celebration or attending of conferences, industrial visit they were always there for us for guiding and making us confident to face the world. Overall it was a great experience and lifetime memory to cherish.
I am still in contact with my professor and they are still there to guide me . And even since the time I moved out from college I am ready to help them as well as my juniour in all possible way I can.
Before I conclude this, just a piece of advice for the reader :
"Believe in yourself and your capablilities. It may seems things are not workingout today but tomorrow everything will make sense".
"Live for the moment as it is never going to return."
All the best for your future.

Farheen Fatma

Diploma batch – 2011-2014

BE batch – 2014-2018

Present – Working as Microbiologist in TUV SUD Southasia Put ltd.

ALUMINI TALK

I am from Jharkhand. I am working in Biocon from past 7-8 years as a senior research scientist in oncology. I have around 10 years of research experience in the field of *In-Vivo* oncology with various R&D and CROs based Indian and MNC Pharmaceutical companies. I have published research articles in peer reviewed journals. Presently in Biocon we are working on antibodies, focusing mainly on immuno-oncology.

Previously, I was associated with Sai Life Sciences (Pune) as Research Associate, Dabur Research Foundation (Delhi) as Senior Research scientist and Sphaera Pharma (Gurgaon) as Research Biologist. I have expertise in pre clinical oncology mouse models such as Syngeneic, Xenograft, Metastasis models (ectopic and orthotopic) and Patient Derived Xenograft of various cancer cell types for the screening of novel potent anti-cancer molecules.

College life

I thoroughly enjoyed my time in Acharya. I decided to stay in hostel for all four years as I had great friends and I did not want to miss any part of the hostel life. We used to play cricket in the stadium, had lots of fights, I was a last bencher too! Our faculties were very encouraging and were filled with care. My final year project was with IISC which was around 6-7 months.

I earned my M.Tech (Biotechnology) from Amity University and B.E. from AcIT, Bangalore. I was awarded First class with distinctions in graduation and post-graduation. I worked as project trainee in pioneer research Institutions like **IISC**, Bangalore and **National Chemical Laboratory**, Pune.

During academics, I worked on Biosynthesis of nanoparticles using micro organisms as well as purification and characterization of vinca alkaloids from endophytic fungus isolated from *Catharanthus Roseus* and its conjugation with nanoparticles

To my juniors – We have to set short term small small goals first and work on it in order to achieve it rather than thinking of big milestones. It depends on the individual's skills and interest. Marks should not be a barrier to achieve your goal. Whatever you do, do it with your complete interest and concentration.

Milind Sagar

Batch: 2005-2009

Alumni Talk

Hello all!

I have completed 8 successful years in Acharya institutes of technologies campus. I did by diploma, BE and M.tech in Acharya.

Life in Acharya

The reason I joined acharya was because this was the only college which introduced diploma in Biotechnology at the time. For me acharya was like the second home. All the faculties were very much supportive and treated every student as their own child. During my diploma I participated in the chef master program and also in the Acharya Habba. It was a wonderful experience. There's no doubt why everyone says student life is the best life, it's because you get to experience and learn a lot of things and also indulge yourself in various other cocurricular activities. You can do it all!

Life after Acharya

Obtaining a job after my masters was not much difficult. I am currently working in upstream labs where all the laboratory experiences in college have helped a lot. It feels as though I am still a student who aspires to learn more and more everyday. My seniors still guide me with things, nothing really changed.

To all my juniors

Never think that biotechnology is a small field. Even though biotechnologists are paid less when compared to many other IT sectors, we enjoy our work. One day BT sector will blow up massive. Practical knowledge in the field is really important and it comes with hard work. Attend various online courses and gain as much knowledge as you can. Use your time productively and everything will happen in a smooth flow. Do not shift the stream thinking there is no scope. All the very best to all my juniors.

Mr. Amarnath

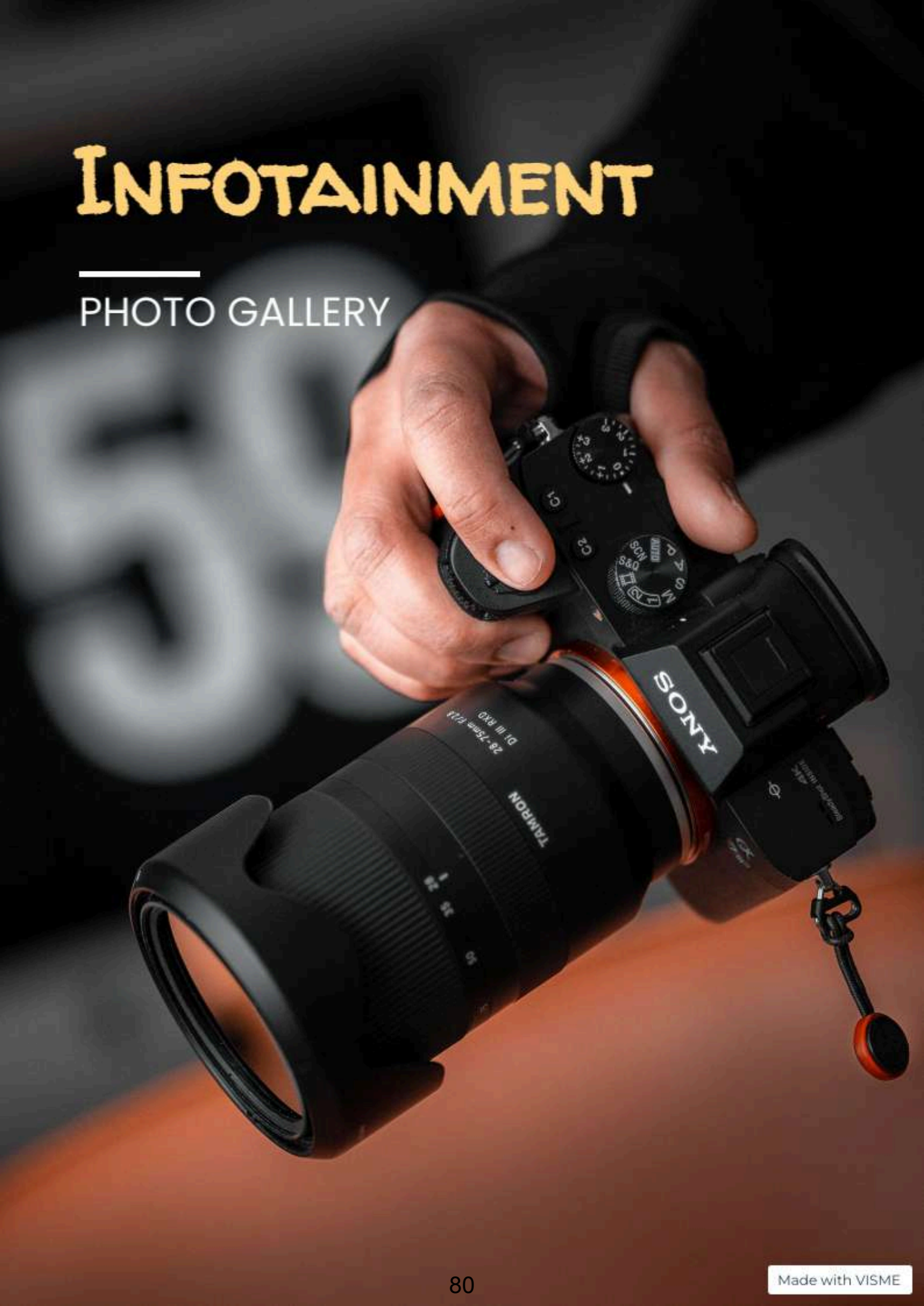
Diploma; BE Biotechnology; M.tech

Batch: 2019 - 2020

Present designation : Senior research associate

INFOTAINMENT

PHOTO GALLERY



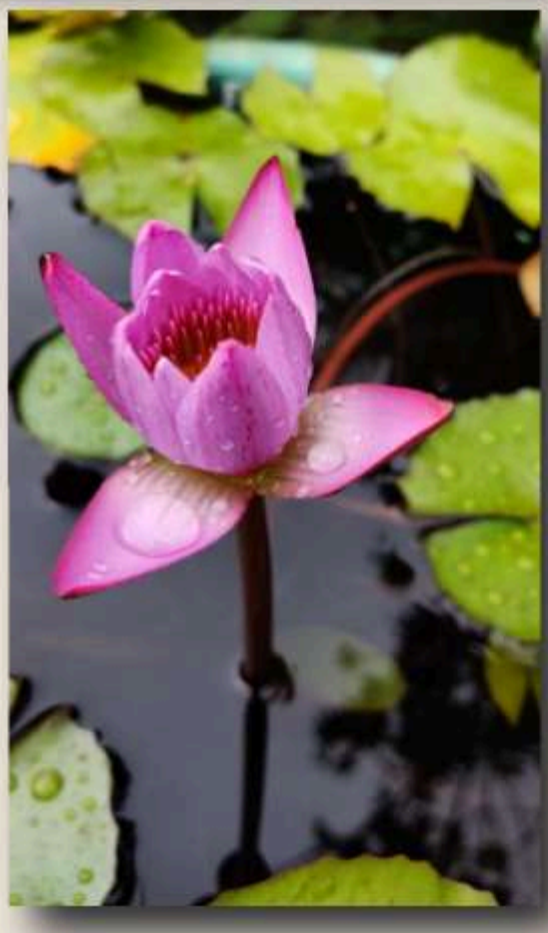
Smile like every flower do.....

Lijo Paily

3rd sem

There are so many beautiful reasons to be happy.

Abhishek R
3rd sem



Every little thing matters!!

Varshitha P

3rd sem

When life gets blurry
adjust your focus.

Vaishnavi P
3rd semester

"What sunshine is to flowers, smiles are to humanity.

Lijo Paily
3rd semester

Flower whispers
"Beauty" to the world
even as they fade ,wilt
,fall.

- Lijo Paily
3rd sem

Take the risk or lose the
chance

- Vaishnavi P
3rd sem

High Tides And Good Vibes

-Revanth C G

3rd Sem

No bird can fly without opening its wings.

- Aishwarya D

3rd sem

Team Members

7th sem Students
2020 - 2021

5th sem students 2020 - 2021

3rd sem Students 2020 - 2021