

PROGRAMME REPORT

2022-2023

**Department of Biotechnology
Mar Ivanios College (Autonomous)**

Conference Report: International Conference on Current Trends in Life Science for a Sustainable Future

August 4th to 6th, 2022

The International Conference on "Current Trends in Life Science for a Sustainable Future" was held from August 4th to 6th, 2022. This event was jointly organized by the Departments of Zoology, Botany, and Biotechnology at Mar Ivanios College. The conference aimed to address the latest advancements and research in life sciences that contribute to sustainability and a better future.

Inaugural Session

The conference commenced with an inaugural session that included a welcome address by the organizing committee. Distinguished guests and keynote speakers highlighted the importance of sustainable practices in life sciences. The opening remarks set the tone for the conference, emphasizing the critical role of life sciences in achieving sustainability goals.

Student Presentations

One of the main attractions was the student presentation segment. Students presented their research projects and findings, which led to vibrant discussions and knowledge exchange. The enthusiasm and active participation of the students were commendable. These presentations covered a wide range of topics, showcasing the diversity and depth of research being conducted in life sciences.

Networking Opportunities

The conference provided ample opportunities for networking, enabling students and researchers to connect with professionals from academia and industry. These interactions were invaluable for career growth and collaborative research opportunities. Participants had the chance to discuss their work, share ideas, and explore potential collaborations.

Participation

The conference saw active participation from approximately 60 students from various departments. This provided an excellent platform for students to engage with experts, present their research, and gain insights into current trends and future directions in life sciences. The diversity of topics and the quality of research presented underscored the importance of interdisciplinary approaches in tackling sustainability challenges.

The conference concluded with a vote of thanks by Deepthi Ma'am, who expressed gratitude to all the participants, speakers, and organizers for their contributions to the success of the event. She emphasized the importance of continued research and collaboration in life sciences to achieve sustainable development goals. The event was a resounding success, fostering a spirit of inquiry and collaboration among the participants and highlighting the pivotal role of life sciences in building a sustainable future.



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Academic Field Visit Report: Thenmala Eco-Tourism

Coordinator: Dr. Lini.N

Introduction

A field trip to Thenmala Eco-Tourism was organized on July 30th, 2022, for the second-year students of the Biotechnology Department at Mar Ivanios College. The trip aimed to provide students with an immersive experience in nature and an opportunity to learn about ecological conservation and sustainability.

Participants

The trip saw the participation of approximately 40 second-year students, who were led by Dr. Lini and Dr. Suju Skaria. Their guidance and knowledge enhanced the educational aspect of the trip, making it both enjoyable and informative for the students.

Activities and Zones Explored

The students explored various attractions at Thenmala Eco-Tourism, including:

- **Adventure Zone:** Offered thrilling activities that emphasized the importance of adventure and physical fitness in natural settings.
- **Leisure Zone:** Provided a serene environment for relaxation and appreciation of nature's beauty.
- **Culture Zone:** Presented insights into the local culture and traditions, highlighting the harmonious relationship between humans and nature.

Educational Insights

Throughout the trip, students received valuable information about the local flora and fauna, conservation efforts, and the importance of maintaining ecological balance. The educators provided in-depth explanations, making the learning experience enriching. Key educational takeaways included:

- Understanding the diversity of local plant and animal life.
- Learning about sustainable tourism practices and their impact on conservation.

- Gaining insights into the efforts required to preserve natural habitats.

Memorable Experiences

The trip was filled with happy moments and memorable experiences. Students captured numerous photographs, engaged in fun activities, and bonded with their peers and teachers. The natural beauty and well-organized activities made the day both educational and enjoyable. Some of the highlights included:

- Interactive sessions with local guides who shared their knowledge about the ecosystem.
- Participating in adventure activities that fostered teamwork and personal growth.
- Enjoying the scenic landscapes and capturing the essence of Thenmala through photography.

The field trip to Thenmala Eco-Tourism was a successful and impactful experience for the second-year students. It provided a perfect blend of education and enjoyment, fostering a deeper appreciation for nature and the importance of ecological conservation. The trip left the students with lasting memories and valuable lessons about living in harmony with nature. This experience emphasized the significance of preserving our natural environment and inspired students to contribute positively to ecological sustainability.



Academic Tour Report: Visit to Munnar Ripple Tea Factory

1st October 2022

Coordinator: Dr. Deepthy Alex

A visit to the Munnar Ripple Tea Factory was organized on October 1st, 2022. This excursion provided students with a unique opportunity to explore the intricacies of tea production and to enjoy the picturesque surroundings of Munnar. The experience was both educational and enjoyable, leaving lasting memories for all participants.

Participants

The trip included 34 S6 students from the Department of Biotechnology at Mar Ivanios College, accompanied by their teachers. The presence of the teachers added an educational dimension to the trip, ensuring that students gained valuable insights into tea production and the local culture.

Guided Tour of Ripple Tea Factory

Students were given a guided tour of the Ripple Tea Factory, where they learned about the various stages of tea production. From plucking the tea leaves to processing and packaging, the entire process was explained in detail by the factory staff. The tour provided an in-depth understanding of the tea industry, including:

- The history of tea cultivation in Munnar
- The different types of tea produced
- The economic importance of tea production to the local community

Educational Insights

The detailed explanations by the factory staff helped students grasp the complexities involved in tea production. This included understanding the nuances of tea leaf selection, the various methods of processing, and the quality control measures in place to ensure the production of high-quality tea.

Scenic Beauty of Munnar

Apart from the factory tour, students enjoyed the breathtaking beauty of Munnar. The lush green tea plantations, mist-covered hills, and cool climate made the trip a memorable experience.

Students captured numerous photographs of the scenic landscapes and their experiences at the tea factory. These photographs served as cherished memories of their time in Munnar.

The visit to the Munnar Ripple Tea Factory left students with a deeper appreciation for the tea industry and the natural beauty of Munnar. The educational insights gained from the factory tour, coupled with the picturesque surroundings, created lasting memories for all participants. This trip exemplified the perfect blend of learning and leisure, making it a significant educational experience for the students.

Orientation Lecture Report: Scope and Opportunities in Biotechnology

29 November 2022

Cordinator : Dr.Deepthy Alex & Dr.LiniN

Introduction

On 29 November 2022, an orientation lecture was held for first-year biotechnology students at Mar Ivanios College. The lecture, titled "Scope and Opportunities in Biotechnology," was delivered by Dr. Renjith P. Nair, a renowned scientist from the Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Trivandrum. The event aimed to provide students with an overview of the vast potential and various career paths within the field of biotechnology.

Speaker Profile

Dr. Renjith P. Nair is a distinguished scientist at SCTIMST, Trivandrum, with extensive experience and expertise in biotechnology. His research and contributions have significantly advanced the field, making him a valuable resource for students aspiring to pursue careers in biotechnology.

Lecture Content

Introduction to Biotechnology

Dr. Nair began the lecture by defining biotechnology and highlighting its interdisciplinary nature, encompassing biology, chemistry, physics, engineering, and computer science. He emphasized the importance of biotechnology in various sectors, including:

- **Healthcare:** Development of new therapies, diagnostics, and medical devices.
- **Agriculture:** Enhancements in crop yield, pest resistance, and nutritional value.
- **Environmental Protection:** Bioremediation and sustainable practices.
- **Industrial Processes:** Bioprocessing and the production of biofuels and biochemicals.

Career Opportunities

Dr. Nair detailed the diverse career opportunities available in biotechnology, such as:

- **Research and Development:** Innovating new biotechnological applications and products.
- **Clinical Research:** Conducting trials to test new drugs and treatments.
- **Quality Control:** Ensuring products meet required standards and regulations.
- **Regulatory Affairs:** Navigating the legal and regulatory landscape.
- **Bioinformatics:** Analysing biological data using computational tools.

He encouraged students to engage in research projects and internships to gain practical experience and enhance their skills.

Emerging Trends and Future Prospects

The lecture concluded with an overview of emerging trends and prospects in biotechnology, including:

- **Personalized Medicine:** Tailoring treatments to individual genetic profiles.
- **Genetic Engineering:** Advancing gene editing technologies like CRISPR.
- **Sustainable Bioprocessing:** Developing eco-friendly production methods.

Dr. Nair's insights and guidance were invaluable for first-year students, offering a clear understanding of potential career paths and the importance of innovation and ethical practices in the field. The orientation lecture by Dr. Renjith P. Nair successfully inspired and motivated the students to explore and excel in their biotechnology studies and careers. The event provided a comprehensive overview of the field, highlighted the interdisciplinary nature and vast opportunities, and underscored the importance of practical experience and ethical considerations in biotechnology. The students left with a better understanding of the scope and opportunities in biotechnology, equipped with knowledge to guide their academic and professional journeys.



Career Guidance Session Report: Opportunities in Life Sciences

11 November 2022

Coordinator: Dr. Deepthy Alex & Dr.Lini.N

Introduction

On 11 November 2022, a career guidance session was conducted at Mar Ivanios College for students interested in life sciences. The session, titled "Opportunities in Life Sciences," was led by Dr. Aneesh Nair, a respected scientist from NIIMS Medicity. The purpose of the session was to provide students with an understanding of the various career opportunities available within the life sciences sector.

Speaker Profile

Dr. Aneesh Nair is a distinguished scientist at NIIMS Medicity, with a wealth of experience in the field of life sciences. His expertise and professional journey make him an excellent guide for students seeking career advice and insights into the life sciences industry.

Participation

The session saw active participation from approximately 120 students, making it a highly engaging and interactive event. The large turnout reflected the growing interest among students in exploring the vast opportunities within the life sciences sector.

Session Content

Introduction to Life Sciences

Dr. Nair commenced the session by defining life sciences and highlighting its significance in understanding biological processes and improving human health. He provided an overview of the various disciplines within life sciences, such as:

- **Microbiology:** Study of microorganisms and their effects on humans, animals, plants, and the environment.

- **Biotechnology:** Application of biological systems and organisms to develop or create products.
- **Biochemistry:** Exploration of chemical processes within and related to living organisms.
- **Pharmacology:** Study of drug action and the interactions between drugs and living organisms.

Career Paths in Life Sciences

Dr. Nair detailed the numerous career paths available in life sciences, including roles in:

- **Research and Development:** Innovating new scientific discoveries and technologies.
- **Clinical Trials:** Testing and validating new medical treatments.
- **Quality Assurance:** Ensuring the quality and safety of products and processes.
- **Regulatory Affairs:** Managing compliance with laws and regulations.
- **Sales and Marketing:** Promoting and selling life science products and technologies.

Essential Skills for Success

The session highlighted the essential skills required for a successful career in life sciences, such as:

- **Analytical Thinking:** Ability to critically analyze data and solve problems.
- **Laboratory Skills:** Proficiency in conducting experiments and handling scientific equipment.
- **Data Analysis:** Competence in interpreting and utilizing scientific data.
- **Scientific Communication:** Effectively conveying scientific information through writing and presentations.

Dr. Nair urged students to stay informed about current developments and to continuously update their knowledge to stay competitive in the field.

The career guidance session led by Dr. Aneesh Nair was highly informative and beneficial for the participating students. His insights into the various opportunities and career paths in life sciences, along with practical advice on skill development and academic advancement, provided a valuable roadmap for students aspiring to excel in this field. The session was well-received, inspiring students to pursue their

interests in life sciences with a clear understanding of the possibilities and challenges ahead. The event successfully motivated and guided students, equipping them with the knowledge and confidence needed to navigate their future careers in life sciences.



Alumni Webinar Orientation Report: Career Guidance Talks on "Careers in Biotechnology Abroad"

Coordinator: Dr. Deepthy Alex

Introduction

On the 5th and 12th of November 2022, a series of career guidance webinars were organized featuring distinguished alumni from Mar Ivanios College. The sessions, titled "Careers in Biotechnology Abroad," aimed to provide valuable insights and guidance to students pursuing or interested in careers in biotechnology and related fields. The webinars featured two expert speakers: Alen Paiva, a Research Associate at Blue Rock Therapeutics in Toronto, Canada, and Ajith S.R., a Laboratory Scientist at the National Veterinary Service in Cambridge, UK.

Participation

The sessions saw active participation from approximately 100 students in the Department of Biotechnology at Mar Ivanios College. The large turnout reflected the keen interest among students in exploring international career opportunities within the biotechnology sector.

Expert Speaker 1: Alen Paiva

Speaker Profile

Alen Paiva, an alumnus of the Department of Biotechnology at Mar Ivanios College, has carved a successful career in biotechnology. His current role at Blue Rock Therapeutics, a company known for its innovative approaches to regenerative medicine, provided a practical perspective on the industry's demands and opportunities.

Webinar Content

Transition from Academia to Industry

Alen shared his experiences transitioning from academic studies to a professional setting. He discussed the various roles and responsibilities of a Research Associate at Blue Rock Therapeutics, providing a real-world view of working in a biotech company.

Roles and Responsibilities

He provided an in-depth look into his daily responsibilities and the collaborative nature of research in a biotech environment. Alen emphasized the importance of teamwork, effective communication, and the ability to adapt to rapidly changing scientific landscapes.

Essential Skills for Biotechnology Careers

Key skills required for a successful career in biotechnology were discussed, including:

- **Technical Skills:** Proficiency in laboratory techniques and familiarity with the latest technologies in the field.
- **Critical Thinking:** Ability to analyze data, design experiments, and solve complex problems.
- **Problem-Solving Abilities:** Innovating and troubleshooting in research settings.
- **Communication Skills:** Effectively presenting research findings and collaborating with multidisciplinary teams.

Q&A Session

The talk was well-received by the students, who were inspired by Alen's journey and insights. Many students actively participated in the Q&A session, seeking further guidance on specific aspects of career planning and development. Alen addressed questions about internship opportunities, navigating the job market, and the importance of continuous learning and networking.

Expert Speaker 2: Ajith S.R.

Speaker Profile

Ajith S.R., another esteemed alumnus of Mar Ivanios College, currently serves as a Laboratory Scientist at the National Veterinary Service in Cambridge, UK. His role in one of the leading veterinary services in the UK provided students with a unique perspective on career opportunities in the field of veterinary biotechnology.

Webinar Content

Career Path and Professional Journey

Ajith shared his professional journey from Mar Ivanios College to his current position in the UK. He discussed the steps he took to secure a position abroad, including advanced studies, skill development, and networking.

Roles and Responsibilities

Ajith elaborated on his responsibilities at the National Veterinary Service, highlighting the importance of precision, ethical practices, and collaboration in veterinary biotechnology. He

emphasized the role of laboratory scientists in ensuring animal health and safety, contributing to public health, and advancing veterinary science.

Opportunities in Veterinary Biotechnology

Ajith detailed the various career opportunities in veterinary biotechnology, including research, diagnostics, and regulatory affairs. He also discussed the importance of staying updated with the latest developments in the field and the need for continuous learning.

Q&A Session

Ajith's talk also included a highly interactive Q&A session. Students inquired about the challenges and rewards of working abroad, the process of securing positions in international organizations, and the skills necessary to succeed in veterinary biotechnology. Ajith provided practical advice and encouraged students to be persistent and proactive in their career pursuits.

The series of career guidance talks by Alen Paiva and Ajith S.R. were highly informative and motivating events. They provided students with a clearer understanding of the biotechnology industry and the various pathways they could take to achieve their career goals, both locally and internationally. The personal experiences and professional advice shared by the speakers were invaluable, leaving a lasting impact on all attendees.

The events successfully inspired students to pursue their interests in biotechnology with a better understanding of the industry's expectations and the steps needed to build a successful career. The insights shared by Alen Paiva and Ajith S.R. will undoubtedly guide students as they navigate their academic and professional journeys in biotechnology.

CAREER GUIDANCE ONLINE
DEPARTMENT OF BIOTECHNOLOGY
MAR IVANIOS COLLEGE

Hear from our alumni!

Presents
'Careers in Biotechnology abroad'

ALEN PAIVA
Research Associate
Blue Rock Therapeutics
Toronto, Canada
5th November 2022, 10 AM IST

AJITH SR
Laboratory Scientist
National Veterinary
Service Cambridge, UK
12th November 2022, 6PM IST

Workshop Report: High Risk Obstetrics: Advanced Infertility

Coordinator: Dr. Lini.N

Date: 6th November 2022

Venue: Mascot Hotel, Thiruvananthapuram

On the 6th of November 2022, Pran Fertility and Well Woman Centre organized a workshop titled 'High Risk Obstetrics: Advanced Infertility' at Mascot Hotel. The workshop aimed to delve into advanced aspects of obstetrics related to high-risk cases and infertility treatments. Students from our department actively participated in this enriching event, gaining valuable insights and practical experience.

The workshop was led by experts from Pran Fertility and Well Woman Centre, renowned for their expertise in managing complex obstetric scenarios and advanced infertility treatments. Key highlights of the workshop included:

- **Case Studies:** Detailed analysis of complex obstetric cases and their management strategies.
- **Multidisciplinary Approach:** Emphasis on the importance of collaboration across medical disciplines in addressing high-risk obstetric cases.
- **Hands-on Sessions:** Practical demonstrations using advanced medical equipment and techniques relevant to obstetrics and infertility treatments.
- **Simulation Exercises:** Interactive exercises aimed at enhancing understanding and skills development among participants.

The active participation of students was notable throughout the workshop. They engaged enthusiastically in interactive sessions and appreciated the hands-on experience provided, which offered them a practical perspective on the challenges and advancements in the field.

Overall, the workshop on 'High Risk Obstetrics: Advanced Infertility' proved to be highly informative and beneficial. It provided participants, especially students, with a deeper understanding of the complexities involved in managing high-risk pregnancies and advanced infertility cases. The combination of theoretical insights and practical experience facilitated a comprehensive learning experience, bridging the gap between academic knowledge and practical medical application.



Debate Report: Science in Everyday Life

Coordinator: Dr. Lini.N

Date: 29th November 2022

Topic: Science in Everyday Life

On the 29th of November 2022, a lively debate took place on the topic 'Science in Everyday Life.' The event aimed to stimulate critical thinking among students regarding the pervasive influence of science in daily living, examining both its benefits and potential drawbacks. Participants were divided into two teams, A and B, each presenting arguments either in favor of or against the role of science in everyday life.

Team A (Pros of Science in Everyday Life):

- **Healthcare Advancements:** Team A emphasized the transformative impact of scientific research on healthcare, citing advances in vaccines, medical treatments, and diagnostic tools that have improved public health outcomes.
- **Technological Innovations:** They highlighted how technological innovations derived from scientific discoveries have revolutionized communication, transportation, and access to information, enhancing efficiency and convenience in daily life.

Team B (Cons of Science in Everyday Life):

- **Environmental Degradation:** Team B argued that industrial and technological progress driven by science has contributed to environmental pollution, deforestation, and climate change, posing significant risks to the planet's health.
- **Social Isolation:** They raised concerns about the potential for technology, a product of scientific advancement, to exacerbate social isolation by reducing face-to-face interactions and fostering dependency on virtual communication.

The debate was marked by rigorous arguments and counterarguments from both teams, supported by compelling evidence and real-world examples. The interactive format allowed for spontaneous questions and rebuttals, fostering a dynamic and engaging exchange of ideas.

After careful deliberation by the judges, Team A was declared the winner of the debate. Their well-structured arguments and persuasive presentation of the positive impacts of science in everyday life resonated strongly with the audience and judges alike.

The debate on 'Science in Everyday Life' proved to be an intellectually stimulating and educational event. It encouraged participants to critically evaluate the multifaceted role of science in contemporary society, while also honing their public speaking, critical thinking, and teamwork skills.



Charity Biryani Fest for Fund raising in Support of Social Needs

Date: 17th February 2023

Event: Charity Biryani Fest

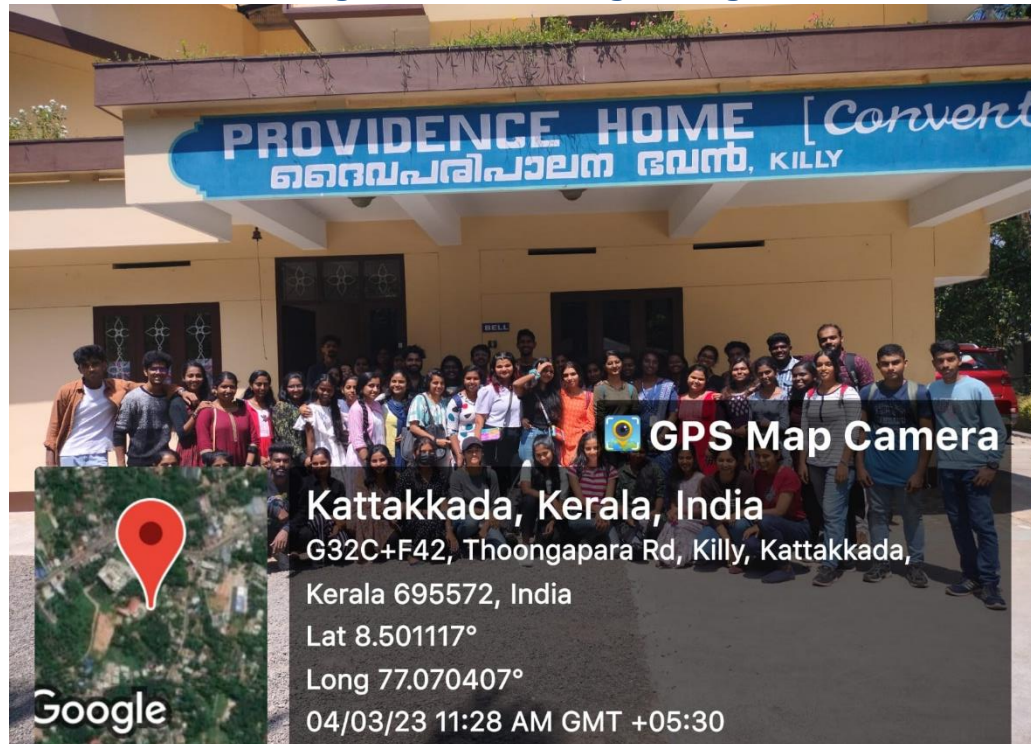
On the 17th of February 2023, our department organized a Charity Biryani Fest on campus with the aim of raising funds for Providence Home Killi Kattakada, a charitable institution dedicated to helping individuals in need. This event exemplified our commitment to social responsibility and community service, combining philanthropy with culinary delight.

The Charity Biryani Fest garnered enthusiastic participation from students who eagerly contributed to its success. Beyond enjoying delicious biryani, students were driven by the opportunity to support a worthy cause. The event was meticulously planned, with students assigned to various roles including cooking, serving, and managing different aspects of the fest.

Teams were organized to ensure seamless coordination, from preparing the food to decorating the venue and welcoming guests. The fest was not only a fundraiser but also a communal gathering that fostered a sense of unity and shared purpose among participants.

The funds raised through the fest were donated to Providence Home Killi Kattakada, reinforcing our commitment to making a positive impact on the community. This initiative highlighted the importance of compassion and collective effort in addressing social challenges.

In conclusion, the Charity Biryani Fest was a remarkable success, blending the joy of sharing a meal with the fulfilment of supporting a charitable cause. It underscored our department's dedication to social work and demonstrated our students' ability to organize and execute meaningful events for the greater good.



Workshop Report: Phytochemical techniques

Coordinator: Dr.Lini.N

Date: 20th February 2023

Event: Workshop on Phytochemical Techniques

On the 20th of February 2023, a workshop on Phytochemical Techniques was conducted for students at the Tropical Botanical Garden and Research Institute (TBGR). The workshop aimed to equip students with practical knowledge and hands-on experience in various phytochemical techniques essential for the analysis and extraction of plant compounds.

Led by experts from TBGR, renowned for their expertise in phytochemistry, the workshop offered a blend of theoretical insights and practical demonstrations. Key highlights of the workshop included:

- **Theoretical Foundation:** Detailed explanations of essential extraction methods such as solvent extraction, steam distillation, and Soxhlet extraction, crucial for isolating phytochemicals from plants.
- **Practical Demonstrations:** Hands-on sessions illustrating the extraction processes, emphasizing critical steps and best practices to achieve optimal results.
- **Analytical Techniques:** Introduction to analytical methods like chromatography and spectroscopy for the identification and quantification of phytochemicals.
- **Hands-on Experience:** Participants engaged in practical exercises using techniques such as Thin Layer Chromatography (TLC) and High-Performance Liquid Chromatography (HPLC), gaining firsthand experience under expert guidance.
- **Interactive Learning:** Q&A sessions facilitated dialogue between students and experts, clarifying doubts and providing deeper insights into the techniques.
- **Group Activities:** Collaborative activities and discussions reinforced learning, fostering a supportive learning environment.

The workshop received enthusiastic participation from students eager to deepen their understanding of phytochemical analysis techniques. The practical sessions were particularly well-received, offering participants tangible experience that complemented the theoretical knowledge shared.

Overall, the workshop on Phytochemical Techniques at TBGR was a comprehensive learning opportunity, combining theoretical foundations with practical applications. It provided students with invaluable skills and insights into the field of phytochemistry, preparing them for future research and professional endeavours.



Institute Visit Report: SCTIMST, Thiruvananthapuram

Date: 28th February 2023

Venue: Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST),
Thiruvananthapuram

On the 28th of February 2023, students from the Biotechnology Department embarked on a visit to the Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) in Thiruvananthapuram. This visit was organized to provide students with an immersive experience at a leading medical research institute, enabling them to gain practical insights into cutting-edge technologies and research in the field of medical sciences.

Objectives of the Visit:

- **Explore Facilities:** To familiarize students with the research facilities and departments at SCTIMST.
- **Gain Insights:** To understand the latest advancements in medical science and technology through firsthand observations.
- **Real-World Applications:** To connect academic studies with real-world applications in medical sciences.
- **Career Exploration:** To inspire students and deepen their understanding of career opportunities in medical research.

The visit commenced with an orientation session led by a senior faculty member of SCTIMST. This session provided a comprehensive overview of the institute's history, mission, and its significant contributions to medical research and healthcare advancements. Students were then guided through various research laboratories where they witnessed ongoing projects in biomedical engineering, clinical research, and public health.

Interactive sessions with researchers and scientists allowed students to engage in discussions about current research trends, challenges in medical science, and the pivotal role of interdisciplinary collaboration in driving innovation. Demonstrations of advanced medical technologies and equipment further enriched their understanding of how theoretical knowledge translates into practical applications in healthcare.

Throughout the visit, students encountered numerous captivating research projects ranging from medical device innovations to bioinformatics and clinical trials aimed at enhancing healthcare outcomes. The exposure to these diverse research initiatives sparked enthusiasm among students, motivating them to consider future careers in medical research and pursue further studies in specialized fields of interest.

The active participation and keen interest demonstrated by the students underscored the success of the visit in achieving its educational objectives. Such visits play a crucial role in bridging the

gap between theoretical learning and real-world applications, thereby shaping the career aspirations of students in the dynamic field of medical sciences.



Institute Visit Report: Coffee Research Institute, Chettali, Karnataka

Date: 1st March 2023

Venue: Coffee Research Institute, Chettali, Karnataka

On the 1st of March 2023, a group of students and faculty members from our institution embarked on a visit to the Coffee Research Institute located in Chettali, Karnataka. This visit was organized with the objective of providing students with practical insights into coffee cultivation and research processes, fostering educational enrichment and camaraderie among participants.

The visit commenced in the morning with a warm welcome from the institute staff, who provided an insightful introduction to the institute's history, mission, and primary research areas. The itinerary began with an engaging tour of the coffee plantations, where students were introduced to different coffee plant varieties, optimal growth conditions, and the various stages of cultivation. The lush green surroundings and the aroma of coffee plants offered a captivating firsthand experience.

Subsequently, the group proceeded to the research laboratories, where scientists showcased ongoing research endeavors. Demonstrations encompassed studies aimed at enhancing coffee yield, effective pest control strategies, and efficient disease management techniques. These hands-on demonstrations equipped students with a practical understanding of the scientific methodologies integral to coffee production.

Throughout the visit, students actively participated in interactive sessions, posing questions, engaging in discussions with researchers, and sharing insights. Faculty members facilitated these interactions, ensuring that students maximized their learning opportunities. Beyond the educational agenda, the visit provided numerous moments of enjoyment and camaraderie. Participants shared meals, participated in group activities, and captured memorable moments through photography, enhancing the overall experience.

The scenic beauty of the institute's surroundings and the pleasant weather further enriched the visit, contributing to a stimulating and enjoyable learning environment. Overall, the visit to the Coffee Research Institute proved to be highly beneficial for all participants. Students gained a comprehensive understanding of coffee research and cultivation processes, reinforcing their theoretical knowledge with practical insights. Additionally, the visit underscored the pivotal role of research in advancing agricultural practices and fostering sustainable growth.

Moreover, the shared experiences during the visit strengthened bonds between students and faculty members, cultivating a sense of community and collaboration within our institution.



Institute Visit Report: NIIST, Thiruvananthapuram

Date: 17th March 2023

Venue: National Institute for Interdisciplinary Science and Technology (NIIST),
Thiruvananthapuram

On the 17th of March 2023, a group of students and faculty members from our institution embarked on a visit to the National Institute for Interdisciplinary Science and Technology (NIIST) in Thiruvananthapuram. This visit was meticulously planned to acquaint students with the field of bio nanomedicine, explore the expansive facilities of the institute, and facilitate interactions with eminent researchers, including the Managing Director of NIIMS.

The visit commenced in the morning with a warm reception from the institute's staff, who provided an informative overview of NIIST, its mission, and its significant research domains. The itinerary commenced with an enlightening class on bionanomedicine, an emerging discipline that integrates biology, nanotechnology, and medicine. Led by experienced researchers, the session delved into foundational concepts, current research trends, and potential applications of bionanomedicine in healthcare. Discussions encompassed nanomedicine development, innovative drug delivery systems, diagnostic advancements, and the role of nanotechnology in personalized medicine, offering students valuable insights into this cutting-edge field.

Following the class, the group embarked on a comprehensive tour of the institute's facilities. NIIST houses diverse scientific departments encompassing chemistry, physics, biology, and engineering. Each department showcased ongoing research initiatives, state-of-the-art laboratories equipped with advanced technology, and specialized instrumentation. This immersive tour provided students with a firsthand glimpse into the collaborative and interdisciplinary nature of modern scientific research.

A significant highlight of the visit was the interactive session with the Managing Director of NIIMS, where students engaged in a stimulating Q&A dialogue. This session offered students a unique opportunity to pose questions, seek advice on academic pursuits, and gain valuable insights into potential career paths within the life sciences and biotechnology sectors.

The visit to NIIST proved to be both educational and inspiring, significantly enriching students' understanding of nanomedicine and its multifaceted applications in healthcare. The interactions with esteemed researchers underscored the institute's commitment to advancing scientific knowledge and fostering future leaders in the field of interdisciplinary sciences.



Erudite Lecture Report: The Sub-Zero Microbiome

Coordinator : Dr.Lini.N

Date: March 8, 2023

Venue: B-HUB, Mar Ivanios Vidya Nagar, Nalanchira, Thiruvananthapuram

On March 8, 2023, a prestigious Erudite Lecture on 'The Sub-Zero Microbiome: Seasonal Dynamics of Sub-Zero Active Bacterial Communities in Arctic Tundra Soils' was conducted at B-HUB, Mar Ivanios Vidya Nagar. The lecture was delivered by Prof. Max M. Häggblom, Distinguished Professor and Chair of the School of Environmental and Biological Sciences, Rutgers the State University of New Jersey, USA. This event was jointly organized by the Department of Biotechnology, the Department of Botany, and the Department of Zoology of Mar Ivanios College, in collaboration with KSCSTE, the Department of Environmental Sciences at the University of Kerala, and Rutgers State University of New Jersey.

The session drew attendance from 110 delegates in the life sciences field from Trivandrum city and surrounding areas. Prof. Häggblom's lecture provided profound insights into the unique bacterial communities thriving in the Arctic region, their adaptations, and the seasonal dynamics influencing their activity.

The world we inhabit is replete with mysteries, particularly in the complex ecological systems that govern our planet. The study of sub-zero active bacterial communities represents a frontier that promises to deepen our understanding of how life flourishes in extreme environments. Prof. Häggblom elucidated that these communities exhibit remarkable adaptability, adjusting their metabolic and activity levels in response to fluctuating temperatures and varying sunlight availability to ensure survival. This adaptability underscores the resilience of life forms in extreme conditions.

The event commenced with a warm welcome address by Dr. Sarika, scientist at KSCSTE, followed by a presidential address from Prof. Dr. Jijimon K Thomas, the Principal of Mar Ivanios College. The inauguration was graced by Padma Shri M. Chandra Dathan, Mentor, Science, Government of Kerala, and felicitated by Prof. Salom Gnana Thanga V., Head of the Department of Environmental Sciences at the University of Kerala. Programme Coordinator Dr. Lini N. introduced Prof. Häggblom to the audience, and Dr. Suju Skaria, Head of the Department of Botany, delivered the vote of thanks.

The event was enriched by the presence of esteemed dignitaries including Dr. Vijayakumar, Scientist at KSCSTE, Fr. Soji Muruppel, Bursar of Mar Ivanios College, Dr. Deepthy Alex, Head of the Department of Biotechnology, faculty members, and students from various institutions and colleges. The programme was supported by funding from the Kerala State Higher Education

Council, underscoring its significance in advancing scientific discourse and academic collaboration.



Essay Competition on Gender Equality

Coordinator : Dr.Lini.N

Date: October 13, 2023

On October 13, 2023, an essay competition on the compelling theme of 'Gender Equality' was organized. This event was designed to stimulate critical thinking, promote awareness of gender-related issues, and cultivate a culture of inclusivity and respect among students.

Objectives:

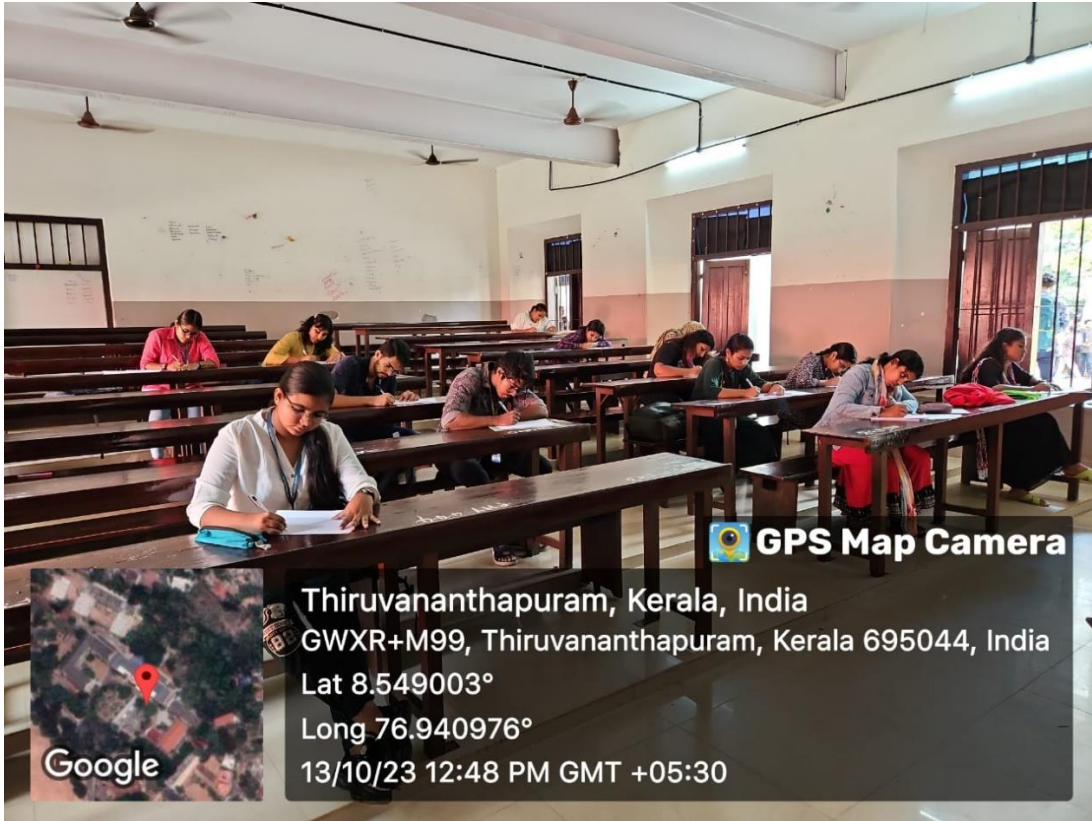
- **Stimulate Critical Thinking:** Encourage students to express their views and insights on gender equality.
- **Promote Awareness:** Enhance understanding of gender-related issues.
- **Encourage Participation:** Foster healthy competition and active engagement among students.
- **Recognize Excellence:** Acknowledge exemplary writing and insightful perspectives on the topic.

The participants were divided into groups to facilitate a structured evaluation process. Essays were submitted through a Google form, ensuring efficiency in submission and evaluation. Each essay was assessed based on criteria such as originality, clarity of thought, coherence, relevance to the topic, and the ability to provide compelling arguments.

Dona Mercy Kurien, from the English Department, emerged as the winner of the competition. Her essay distinguished itself with insightful analysis, eloquence, and a powerful articulation of gender equality issues. The winner was formally announced during the Association Day celebrations, where Dona Mercy Kurien was honored with a special gift in recognition of her outstanding contribution.

The event not only celebrated academic excellence but also fostered a sense of community and shared purpose among students. By participating, students actively contributed to a broader discourse on gender equality, reinforcing the importance of collective action and understanding. The competition successfully heightened awareness of gender equality issues among participants and the wider student community, prompting deep reflection on the roles individuals play in promoting equality.

Overall, the enthusiastic participation and engagement of students underscored the significance of ongoing dialogue and action towards achieving gender equality in society.



Awareness Campaign on Drug Impact

Coordinator: Dr. Lini.N

Date: August 23, 2023

On August 23, 2023, the National Service Scheme (NSS) organized a significant awareness campaign led by volunteers from the Botany and Biotechnology Department. This campaign was strategically aimed at schools and colleges to educate a wide spectrum of young students about the detrimental impact of drug abuse.

Objectives:

- **Raise Awareness:** Inform students about the physical, mental, and social consequences of drug use.
- **Educate:** Highlight the dangers of drug abuse and promote healthy lifestyle choices.
- **Engage:** Conduct interactive workshops and sessions to actively involve students in learning.
- **Empower:** Provide resources and guidance on resisting peer pressure and making informed decisions.

Volunteers conducted informative sessions that included real-life stories and case studies to illustrate the potential risks and long-term effects of drug abuse. Workshops featured role-playing activities to help students understand and practice responses to peer pressure situations. Interactive Q&A sessions provided a platform for students to ask questions and share their concerns in a supportive environment.

To supplement these activities, pamphlets, brochures, and posters were distributed, containing detailed information about different types of drugs, their effects, and available resources for support and assistance.

Feedback from students and teachers indicated a positive reception to the campaign. Participants expressed a better understanding of the risks associated with drug use and acknowledged the importance of making informed choices. Many appreciated the comprehensive approach taken by the NSS volunteers and the impact of their efforts.

The NSS event on August 23, 2023, successfully achieved its goal of raising awareness about the impact of drugs among school and college students. The active participation and positive feedback underscored the significance of such initiatives in educating young minds and promoting healthy lifestyles. Continued efforts through regular awareness campaigns are essential to further amplify the impact and reach of this critical cause.



GPS Map Camera



Thiruvananthapuram, Kerala, India

HV8P+2Q7, Triveni Ln, Karyavattom, Thiruvananthapuram, Kerala 695581, India

Lat 8.565183°

Long 76.886688°

23/08/23 05:21 PM GMT +05:30

Biotech FEST Laboratory Visit

Date: June 19, 2023

On June 19, 2023, as part of Biotech FEST, students from the Department of Biotechnology visited a cutting-edge laboratory at Karyavattom. This visit was meticulously planned to immerse students in various biotechnological techniques and research methodologies, aiming to bridge the gap between theory and practical application.

Objectives:

- **Hands-On Experience:** Provide students with practical insights into biotechnological research and applications.
- **Educational Enrichment:** Complement theoretical knowledge with real-world laboratory practices.
- **Exploration:** Explore diverse sections of the laboratory dedicated to molecular biology, genetic engineering, and bioinformatics.

The visit commenced with a comprehensive tour guided by experienced lab technicians and researchers. They provided detailed explanations of the laboratory's equipment and showcased ongoing research projects. Students engaged in hands-on sessions, gaining proficiency in operating advanced laboratory instruments such as PCR machines, spectrophotometers, and centrifuges.

Interactive discussions and presentations covered pertinent topics including genetically modified organisms (GMOs), biopharmaceuticals, and environmental biotechnology. Students actively participated, asking questions and delving into the practical applications and ethical considerations of biotechnological advancements.

The lab visit during Biotech FEST on June 19, 2023, proved to be a resounding success for students from the Department of Biotechnology. It offered a multifaceted learning experience that significantly enhanced their understanding of biotechnological practices. The event underscored the importance of such initiatives in bridging academic learning with practical skills, preparing students for future challenges in the field of biotechnology.

Continued collaboration with research laboratories and regular lab visits will further enrich the educational journey of biotechnology students, ensuring they remain at the forefront of innovative research and technological advancements.



Orientation Session on Drug Enforcement

Coordinator : Dr. Lini.N & Dr.Deepthy Alex

Date: July 21, 2023

On July 21, 2023, the Department of Biotechnology organized a crucial orientation session featuring Mr. Shibu, CI of Excise from the Excise Enforcement and Anti Narcotic Special Squad, Trivandrum. The session was dedicated to enlightening students about the challenges and initiatives of law enforcement in tackling drug-related issues.

Objectives:

- **Awareness:** Educate students about the role of law enforcement in combating drug abuse and trafficking.
- **Informative Insight:** Provide an overview of the Excise Enforcement and Anti Narcotic Special Squad's mission, strategies, and legal responsibilities.
- **Empowerment:** Raise awareness about the legal, social, and health consequences of drug use and abuse.

Mr. Shibu began by outlining the mission and operational strategies employed by the squad to curb drug trafficking and misuse. He emphasized the legal framework underpinning drug enforcement, detailing relevant laws and penalties associated with drug offenses. Students gained insights into the severe repercussions of drug abuse on physical health, mental well-being, and societal cohesion.

The session underscored the importance of preventive measures and community engagement in combating drug abuse. An interactive Q&A session enabled students to engage directly with Mr. Shibu, seeking clarification on enforcement protocols and legal intricacies. This dialogue fostered a deeper understanding of the complexities involved in tackling drug-related challenges.

The orientation session on July 21, 2023, proved highly informative and impactful for students of the Department of Biotechnology. It equipped them with essential knowledge about anti-narcotic enforcement efforts and reinforced the significance of informed decision-making and responsible behaviour. Such educational initiatives play a pivotal role in empowering students to contribute actively to societal well-being by promoting drug-free communities.

Continued sessions on critical topics like drug enforcement will further enhance student awareness and foster a proactive stance against substance abuse within our communities.

Seminar Report: Privacy, Cybersecurity, and Social Media Awareness

Date: July 31, 2023

Organizers: Kerala Women's Commission in collaboration with the National Commission for Women

Introduction: On July 31, 2023, the Kerala Women's Commission, in collaboration with the National Commission for Women, organized a seminar aimed at addressing critical issues concerning privacy, cybersecurity, and the responsible use of social media. The seminar targeted female college students, aiming to educate them on their rights to privacy, cybersecurity threats, and challenges posed by social media misuse.

Key Sessions and Discussions: The seminar commenced with an insightful discussion on the concept of privacy in the digital age. Cybersecurity experts elaborated on various cyber threats, including hacking, phishing, and identity theft, using real-life examples to underscore their impact on individuals. Participants received practical guidance on enhancing personal cybersecurity, such as creating robust passwords and recognizing phishing attempts.

Focus on Social Media Misuse: A significant portion of the seminar was dedicated to addressing the misuse of social media platforms. Topics like cyberbullying, harassment, and the dissemination of misinformation were highlighted, emphasizing the importance of digital literacy and responsible social media usage among attendees.

Interactive Engagement: The seminar fostered interactive engagement through a lively Q&A session, allowing students to voice concerns and seek clarifications on privacy and security issues encountered online. This interactive format enhanced participant engagement and made the information more accessible and actionable.

Impact and Conclusion: The seminar successfully heightened awareness among female college students about their digital rights and the potential threats they may face online. Participants left equipped with practical strategies and a deeper understanding of cybersecurity measures and responsible social media practices.

Future Directions: Moving forward, continued efforts in educating and empowering students on these critical topics will be essential. The seminar's success underscores the importance of ongoing initiatives to ensure that students navigate the digital landscape safely and confidently.

In conclusion, the seminar organized by the Kerala Women's Commission and the National Commission for Women on July 31, 2023, served as a pivotal event in promoting privacy rights, cybersecurity awareness, and responsible social media behavior among female college students.

Alumni Webinar Report: College Selection and Entrance Exam Preparation

Coordinator: Dr.Lini.N

Date: August 16, 2023

Talk by Alumni Anjana V S

On August 16, 2023, an enriching webinar was organized featuring Anjana V S, a distinguished alumna of our institution. The session was tailored to assist current students in navigating the college selection process and excelling in entrance exams. It aimed to provide comprehensive guidance on choosing colleges wisely and preparing effectively for competitive entrance exams.

Key Highlights: The webinar commenced with a warm welcome and an introduction to Anjana V S, highlighting her academic journey and notable achievements. Anjana delivered a thorough overview of various colleges, detailing their academic strengths, program offerings, and unique opportunities for students. She emphasized crucial considerations such as faculty expertise, research facilities, campus culture, and placement records when selecting a college.

Anjana shared valuable insights into preparing for entrance exams, discussing common question formats and effective problem-solving strategies. She recommended resources and study materials essential for exam readiness, drawing from her personal experience and successful methods.

Strategies for Success: The session included practical strategies for excelling in entrance exams, including time management techniques, effective study habits, and the significance of consistent practice. Anjana provided firsthand insights into her own preparation journey and the tools she utilized to achieve academic success.

College Selection Insights: Anjana also shed light on the selection process at various colleges, outlining the evaluation criteria and weightage assigned to different components such as written tests and interviews. This information enabled students to make informed decisions aligned with their career aspirations and interests.

Interactive Q&A: The webinar concluded with an interactive Q&A session, allowing students to engage directly with Anjana and seek personalized advice on college selection and exam preparation strategies. This segment facilitated meaningful dialogue and further enriched the learning experience for participants.

Conclusion: The alumni webinar hosted by Anjana V S on August 16, 2023, proved highly beneficial for students, equipping them with essential knowledge and practical strategies to navigate the college selection process and excel in entrance exams. The event underscored the value of alumni engagement in supporting student success and fostering career readiness.

Future Engagement: Continued engagement with alumni through similar initiatives will play a pivotal role in enhancing students' readiness for higher education and career advancement. Such interactions empower students with valuable insights and mentorship, preparing them to achieve their academic and professional goals effectively.



Skill Enhancement Session Report: Career Opportunities in medical coding

Coordinator: Dr. Lini.N

Topic: Growth and Opportunities of Medical Coding

Date: September 14, 2023

On September 14, 2023, a skill enhancement session titled "Growth and Opportunities of Medical Coding" was conducted, drawing active participation from students and teachers eager to explore this emerging career path. The session aimed to provide comprehensive insights into the field of medical coding, elucidating its career prospects and dispelling common misconceptions.

Key Highlights:

The session commenced with an introduction to medical coding, emphasizing its crucial role in the healthcare industry. Participants gained a clear understanding of how medical coding translates medical procedures and diagnoses into universally recognized codes, essential for billing and data analysis.

Career Prospects and Advancements:

Detailed insights were provided into the growth opportunities within the medical coding industry. The speaker outlined potential career advancements and specialized areas within medical coding, highlighting the increasing demand for certified professionals. Participants learned about the benefits of pursuing a career in medical coding, including job stability and professional growth.

Addressing Misconceptions:

Common misconceptions surrounding medical coding were addressed during the session. Participants gained clarity on the nature of medical coding work, its scope, and the distinction between medical coding and medical billing. This segment aimed to dispel uncertainties and provide a realistic portrayal of the profession.

Industry Trends and Future Outlook:

The session explored current trends and future predictions for the medical coding industry. The impact of technological advancements and regulatory changes on the profession was discussed, offering insights into how the field is evolving. Participants received guidance on the skills and knowledge areas essential for staying competitive in the dynamic healthcare landscape.

Interactive Q&A:

An interactive Q&A session enabled participants to seek clarification on specific aspects of medical coding and receive personalized advice. This segment facilitated meaningful dialogue and enhanced participant engagement, addressing individual queries and concerns effectively.

Conclusion:

The session on "Growth and Opportunities of Medical Coding" on September 14, 2023, proved to be a valuable and enlightening event for both students and teachers. It provided a comprehensive overview of the medical coding profession, from career prospects to certification processes, and offered clarity on industry trends and advancements. Participants appreciated the informative nature of the session, noting that it equipped them with essential knowledge to consider pursuing a career in medical coding.

