Maris Stella College (Autonomous) Department of Botany 2022-2023

Industrial Visit Report 29-03-2023

An industrial tour to a 4 Kids Food factory has been organized by the Department of Biotechnology & Microbiology for the Enhancement of the knowledge on the subject for the students. Head, Department of Biotechnology of Maris Stella College. Dr. G. Kranthi Kumar and Dr. D. Silpa Coordinate the student's group for this industrial visit. A total of 45 students from MBYC & FMBC students participated in this visit on 29.03.23. The industry experts explained about the production of Chocolates, Cake making, Jelly making and also biotechnological and microbiological techniques to the students. The food processing technology and the equipment's also highlights in the visit.

DEPARTURE:

The departure from the Maris Stella College Occurred around 10:15 AM from the campus through a bus for around 45 students.



The students have been introduced to the primary equipment of the factory. They were first taken to the boiler equipment of the factory where the steam for thewhole factory is being supplied from.

The boiler has huge capacity and works under high pressure and can be fatal to the surrounding villages ifproper attention is not given.



CAKE MAKING: (11:45 am to 12:20 pm)

They were first taken to the cake making machine. Theplay where the cake batter is being mixed.

The ingredients included in the cake batter are:

- All purpose flour
- Wheat flour
- Sugar syrup
- Baking soda
- Chocolate syrup
- Vegetable oil

The mixture is then pause on a conveyor belt where it isspread all over and is passed under a roller.

The conveyer belt moves through the oven for about 4minutes and enters into another room where the temperatures go down than the average room temperature.

It is then the baked cake gets it's final finishings.

The cake is passed through the cutters which would cut the widths of the cake.

A preservative syrup is dripped occasionallyonto the divided long pieces.

Preservative Syrup Contents: Glucose Sorbitol, Glycerine

The cake is now folded and the centre is creamfilled with different flavours as per the requirement.

The folded cake is then cut along the length.

MOULDING SECTION: (12:45 pm to 01:00 pm)

Chocolate bars are freezed at lower temperatures in themoulding section.

The Chocolate bars are prepared and packed in this section according to the demand.

JELLY MAKING: (01:00 pm to 01:20 pm)

Important content of the Jelly making is the gelatine. Huge amounts of water is required for this fulfilment of this process.

Finally

The industry experts explained about the microbial communities involved in cocoa fermentation processes are mainly composed of yeasts (in particular Candida, Hanseniaspora, Saccharomyces, and Pichia species), lactic acid bacteria (LAB; in particular Lactiplantibacillus and Limosilactobacillus species).



Faculty and Students of Maris Stella with 4 kids factory Managing Director @ 29-03-2023

Report

Department of Botany of Maris Stella College, Vijayawada were organised botanical tour to kondapalli forest on 3 rd March, 2023 with I B.Sc (CBZ) students. Dr. G. Kranthi Kumar, Head, department of Botany co ordinate the students group (30 students) along with two botany faculty Dr. B. Rajeswari abd J. Swarna latha. Kondapalli is home to reserve forest one of the last remaining pristine forests in the Krishna district, spread over an area of 30,000 acres (120km). A preliminary survey of medicinal plants conducted surrounding forest region of Krishna district of Andhra Pradesh; among these abnormality of wild variegated Andrographis paniculata, Givotea molencuana (thella poniki) are popular. Different views of tropical dry evergreen forest vegetation in the kondapalli reserve forest. A total number of 21 families were recorded. Among them Annonaceae, Cucurbitaceae, Rutaceae, Asclipidaceae, Asteraceae and Poaceae and Lamiacea were studied for the taxonomic purposes.

Some of the important medicinal plants and their uses

1. Areva lanata: Antibacterial, Anti-inflammatory & Diuretic

2. Givotia moluccana: Rheumatism & Digundice

3. Biophytam sensitivum: Arthritis

4. Pavetta indica: Piles

5. Cymbopogan: Digestive tract spams, high blood pressure

6. Catharanthus roseas: Anti-oxidant, Anti-cancerous, muscle pain & Diabetes.



Botany Faculty and I B.Sc. CBZ students at Kondapalli on 3/3/23



I B.Sc. CBZ students collected medicinal plants at Kondapalli on 3/3/23



I B.Sc. CBZ students collected medicinal plants at Kondapalli on 3/3/23





Dr. G. Kranthi Kumar Explaining about medicinal plants at kondapalli on 3/3/2023

Medicinal plants at Kondapalli fort



Medicinal plants at Kondapalli fort

Report

The Departments of Life Sciences, Maris Stella College, Vijayawada is organizing a Three-Day Hands-On Training in Immunological Techniques and Mushroom Cultivation from 15-17 February 2023 to the Life Science Students. The workshop was inaugurated by Correspondent Rev. Sr. Sleeva Thumma, Principal Dr. Sr. Jasintha Quadras, and Vice Principal Ms. K.H. Anuhya. The conveners of the workshop are Dr. Sr. Japamalai, Head, Department of Zoology, and Dr. G. Kranthi Kumar, Head, Department of Botany and Biotechnology. The resource persons for the workshop are Dr. Guravaiah, Director, PEARL Research Lab, Guntur, and T. Jayachad, Director, Thanu Sri Mushroom Cultivation, Vijayawada.

The Three-Day Hands-On Training in Immunological Techniques and Mushroom Cultivation aims to provide students with practical knowledge of various immunological techniques, such as PCR, different types of Eelectrophoresis, ELISA, Vidal, hepatitis B antigen, estimation of blood parameters and cultivation of mushrooms. The workshop intends to engage students of all ages in learning these complex concepts through interactive teaching methods.

In light of the ongoing pandemic, the resource persons emphasized the critical importance of understanding the fundamental concepts of human-microbe interactions, immune responses, and vaccines. The workshop seeks to equip students with the necessary skills and knowledge to tackle these challenges and contribute to the ongoing efforts in managing the pandemic also equip them adequately to become entrepreneurs.



















Maris Stella College (Autonomous), Vijayawada

The Departments of Physics and Life Sciences of Maris Stella College, Vijayawada have arranged a Guest Lecture by an International resource person Dr. Rajkumar, Research Assistant, University of Marburg, Germany and a Guest Scientist PhD Training, University of Saarland, Germany on the topic "Biophysics: Research trends, Job opportunities, and Global Education" on 02.02.2023. He presented a comprehensive overview of the latest research trends, Principles of Physics involved, advancements in the understanding of biological systems and the development of new technologies for studying these systems. He also highlighted the various job opportunities available for professionals in the field, including roles in academia, industry, and government.

In addition to discussing the practical aspects of the field, Dr. Rajkumar emphasized the importance of global education in Bio Physics. He explained how studying and working with experts from around the world can provide a diverse range of perspectives and approaches to problem-solving which can lead to more innovative and effective solutions.

Thus, this guest lecture by Dr. Rajkumar was a valuable opportunity for those interested in the field of Bio Physics to gain insights into the latest developments and future prospects. Faculty members of Physics and Life Science departments and 120 students attended this lecture.









స్టెల్లాలో గ్లోబల్ ఎడ్కుకేషన్ సదస్సు

పటవుట, ఫిబ్రవరి 2 : మారిస్ స్టెల్లా కళా శాలలో ఫిజిక్స్ విభాగం, లైఫ్ సైస్సెస్ సంయుక్త ఆ ధ్వర్యంలో గ్లోబల్ ఎద్యుకేషన్-బయోఫిజిక్స్-టెం డ్స్ అనే అంశంపై సదస్సు నిర్వహించారు. జర్మనీ కి చెందిన మాంర్బర్గ్ వర్మిటీ రీసెర్చ్ సైంటిస్ము డా క్టర్ రాజేకుమార్ మాట్లడుతూ శాస్త్ర సాంకేతిక రంగాల్లో వచ్చే నూతన విధానాలు విద్యార్థినులు అందిపుచ్చుకోవాలన్నారు. బయోఫిజిక్స్ రంగంలో భారతదేశం శాస్త్ర సాంకేతికంగా ముందుండటం లో ప్రముఖ పాత్ర పోషిస్తుందని, ఈ రంగంలో విదృనభ్యసించిన వారికి, ప్రభుత్వ ప్రభుత్వేతర రంగాల్లో ఎన్నో అవకాశాలన్నాయన్నారు. ఫిజిక్స్ విభాగాధిపతి డాక్టర్ లిటిల్ ఫ్లవర్ మాట్లాడుతూ సైన్స్ పరంగా బయో ఫిజిక్స్లో ఎన్నో పరిశోధన లు, ఆవిష్కరణలు జరుగుతున్నాయని, విద్యార్థిను లకు ఈ కోర్సుల వల్ల ఉద్యోగావకాశాలు మెండు గా ఉన్నాయన్నారు. డాక్టర్ సిస్టిర్ జపమూర్తి, డా

క్టర్ క్రాంతి కుమార్, బీఎస్సీ డిగ్రీ విద్యార్థినులు, అధ్యాపకులు పాల్గొన్నారు.

కేజీఎన్లో సెమినార్

వన్ట్ చే: ఔషధ పరిశోధనలపై దృష్టిపెట్టా లని ఇండియన్ ఇనిస్టిట్యూట్ ఆఫ్ కెమికల్ టెక్నా లజీ ముఖ్య శాస్త్రవేత్త డాక్టర్ సురేష్బాబు సూచిం చారు. కేబీఎన్ కళాశాల పీజీ రసాయన విభాగం ఆధ్యర్భంలో గురువారం సహజవనరులతో ఔషధ ఆవిష్కరణలు అంశంపై జరిగిన సెమీనార్కు ఆయన ముఖ్య అతిథిగా పాల్గొన్నారు. ఔషధాలకు సంబంధించి శాడ్ర సాంకేతిక రంగాల్లో వచ్చిన మార్పులను విద్యార్థులు అందిపుచ్చుకోవాల న్నారు. సెమినార్కు అధ్యక్షుడుగా వ్యవహరించిన డ్రిన్ఫిపాల్ డాక్టర్ వినారాయణరావు, వైస్ డ్రిన్సిపాల్స్ పీఎల్ రమేష్, డాక్టర్ ఎం వెంకటేశ్వరరావు, విభాగాధిపతి డాక్టర్ జి.కృష్ణవేణి పాల్గొన్నారు.



సదస్పులో మాట్లాడుతున్న ఫిజిక్స్ హెచ్వోడీ డాక్టర్ లిటిల్ఫ్లవర్, డాక్టర్ సురేష్బాబు

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బయో ఫిజిక్స్ తో మలిన్ని ఉపాభి అవకాశాలు

పటమట(విజయవాడతూర్పు): శాస్త్ర సాంకేతిక విభాగాల్లో వచ్చే నూతన విధానాలను విద్యా ర్థులు అందిపుచ్చుకోవాలని జర్మనీకి చెందిన మార్బర్ట్ యూనివర్సిటీ రీసెర్స్ సైంటిస్ట్ డాక్టర్ రాజ్కుమార్ అన్నారు. స్టెల్లా కళాశాల ఫిజిక్స్ విభాగం, లైఫ్ సైస్సెస్ విభాగం ఆధ్వర్యంలో గురువారం గ్లోబల్ ఎడ్యుకేషన్– బయో ఫిజిక్స్–టెండ్ అంశంపై సదస్సు జరి గింది. ఆయన మాట్లాడుతూ ప్రభుత్వం, ప్రభుత్వేతర రంగాల్లో విస్తృతమైన అవకాశాలు పెరుగుతున్నాయని వివరించారు. సదస్సులో ఫిజిక్స్ విభాగాధినేత డాక్టర్ లిటిల్ఫువర్, డాక్టర్ జపమలై, డాక్టర్ క్రాంతి పాల్గొన్నారు.

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INDUSTRIAL VISIT INDIAN INSTITUTE OF OIL PALM RESEARCH: PEDAVEGI, WEST GODAVARI

21-10-2022





Department of Botany staff Dr. G. Kranthi Kumar HoD, Dr. B. rajeswari, Dr. D. Silpa, & students in the Industrial Visit on 21-10-2022.



Dr. Ramachnadra Rao and Dr. Premalatha explained about nursery management on 21-10-22



Dr. Ramachnadra Rao Sir showed nursery plants in the green house on 21-10-22



Dr. Rama Chandra Rao explaining on mixed cropping in oil palm cultivation on 21-10-22.



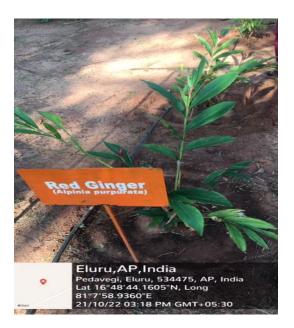
Dr. Premalatha Explaining on soil analysis and usage of instruments in the laboratory on 21-10-22.



Black Turmeric



Long pepper (Piper longum)



Red Ginger



Ti Plant (Croton)

IIOPR Scientists cultivating improved varities like Black turmeric, red Ginger, Long pepper (Piper longum) cocoa, and Ti Plant (Croton) Plants.

Report

The life Science departments of Maris Stella College had organized an industrial visit on 21-10-2022 to Indian Institute of oil palm research, Located in Pedavegi, West Godavri for the students of Botany.

The visit was organized by HoD of Botany Dr. G. Kranthi Kumar. Dr. B. Rajeswari, Dr. D. Silpa and Ch. Rachel Priya were the co-ordinators faculty for the industrial visit. We started travelling from the college campus at 7:00 AM via our College Bus. Totally 60 students along with 4 faculty co ordinators were in the journey.

About IIOPR

Research on Oil Palm under irrigated conditions is practically a new start and the Indian Council of Agricultural Research established the National Research Centre for Oil Palm (later renamed as Directorate of Oil Palm Research) at Pedavegi in West Godavari district of Andhra Pradesh on February 19,1995. In November 2014, the institute was upgraded as Indian Institute of Oil Palm Research (IIOPR) to cater to oil palm research requirements across the country. IIOPR serves as a centre for conducting and coordinating research on all aspects of oil palm conservation, improvement, production, protection, post-harvest technology and transfer of technology.

Group observations in the Industry Visit

- 1. IIOPR Museum
- 2. Molecular Biology Lab
- 3. Plant tissue Culture lab
- 4. Entomology
- 5. Plant Nursery
- 6. Soil Analysis Laboratory

After the visit of all laboratories in the Institute we started for IIOPR in the evening and we reached Maris Stella College at 9:00 PM. The students and faculty were dispersed. We are thankful for all our management members for providing necessary facilities to visit the ICAR-IIOPR. We hope to get more chances further to have such an informative & wonderful experience of visiting different industries.

(Affiliated to Krishna University, Machilipatnam) Science Fair -2022

On 26th & 27th August, 2022, Maris Stella College, Vijayawada, organized a science fair in its College auditorium. A number of students from various classes participated in the exhibition. The chief guest for this exhibition was Sri. Bellam Durga, one of the Deputy Mayor in Vijayawada. Our College Principal Dr. Sr. Jasintha Quadras, Correspondent Sr. Sleeva Thumma and Academic Administrator Dr. Sr. Leena Quadras in the inaugural session. The exhibition started at 10:00 A.M. and was open to all the parents and students of the College. A total of 40 working projects and 20 live models were presented by Botany, Microbiology, Biochemistry and Food Science technology students. The Programme was organized by the life Science departments, 180 students and 10 teaching staff were involved in the science fair. The life science departments i.e. Botany, Biochemistry, Microbiology and Food Science & Technology participated in the Science Fair. Each department exhibited nearly 30 working models. As the exhibition started, various students presented their projects. Fog phonics, Solar irrigation, Soil moisture sensor models was exhibited by the botany department. Finger printing, Influenza and Corona Virus models was models was exhibited by the Microbiology department. BP, Diabetes Check UP, BMI calculation was conducted by the Biochemistry Department. The parents, too, looked at the various models put up by the students. Apart from models, the students also organized visual presentations to help everyone understand the concepts of their working models. Everyone who participated in the exhibition were given certificates and mementoes for their excellent efforts. The exhibition ended with the Principal delivering a speech on the Science fair and congratulating all the students and staff who participated in the exhibition.





Science fair Inaugural session by Dr. Sr. Jasintha Quadras Principal, Rev. Sr. Sleeva tumma



Faculty of Mathematics in the science fair @2022



Navodaya school students in the Science fair @ 2022







వన్ట్ మారు స్టాంతాల నుంచి ముఖ్యమైన బ్లాం దుర్గ క్రాలనీలు, శివారు స్టాంతాల నుంచి ముఖ్యమైన బ్లాం దుర్గ ప్రదేశాలకు నీటీ బస్సులను ఏర్పాటుచేయాలని డిప్యూటీ మేయర్ బెల్లం దుర్గ శుక్రవారం ఆర్టీసీ జోనల్ చైర్ ప ర్సన్ తాతినేని పద్మావతికి విజ్ఞప్తి చేశారు. అనేక స్టాంతాల్లో బస్ షెల్టర్ల ఏర్పాటు, విద్యాధరపురం డిపోలో ఉద్యోగులకు మంచినీటి సౌకర్యం వంటి అంశాలను ఆమె దృష్టికి తీసుకు వచ్చారు. దీనికి పద్మావతి స్పందిస్తూ సర్వే చేయించి ఎక్కడెక్కడ బస్సులు అవసరమో తెలుసుకుని సర్వీసులను పెంచుతామన్నారు.

స్టెల్లా కళాశాలలో సైన్స్ ఫెయిర్

పటమట, ఆగస్టు 26 : మారిస్ స్టెల్లా కళాశాలలోని లైఫ్ సైన్స్ విభాగాల ఆధ్వ రృంలో సైన్స్ఫ్ఫ్ ముర్-2022ను శుక్రవారం నిర్వహించారు. టిన్సిపాల్ డాక్టర్ సిస్టర్ జనీంతా క్వాడస్ ఈ సైన్స్ ఫెయిర్ను ప్రారంభించారు. అనంతరం మాట్లాడుతూ సైన్స్ విద్యార్థినులు కొత్త ఆవి మ్కరణలు, కొత్త పరిశోధనల వైపు ఆసక్తి కనబరచాలని,



నమూనాలను ఆసక్తిగా తిలకిస్తున్న విద్యార్థులు

శాస్త్ర, సాంకేతిక రంగాల్లో వచ్చే ఆధునిక ఆవిష్కరణలు తెలుసుకోవాలని సూచించారు. బోటనీ విభాగాధిపతి డాక్టర్ క్రాంతి కుమార్ మాట్లా డుతూ లైవ్ ప్రాజెక్ట్స్ వర్కింగ్ మోడల్స్ తో టీచింగ్ చేయడం వల్ల సైన్స్ సబ్జెక్ట్స్ పై ఆసక్తి పెరుగుతుందన్నారు. వివిధ అంశాలపై సుమారు 60కు పైగా నమూనాలు ప్రదర్శించారు. స్కూలు, కాలేజీల విద్యార్థినులు పెద్దసంఖ్యలో ప్రదర్శనను తిలకించారు. కరస్పాండెంట్ సిస్టర్ స్టీవా, డాక్టర్ అలీస్, డాక్టర్ శిల్ప, రాజేశ్వరీ ప్రియాంక పాల్గొన్నారు.

Science fair Paper Clippings





15-08-2022





Chief Guest Panabaka Rachana and Correspondent Sr. Sleeva Thumma, Principal Sr. Jassintha Quadras in the Mega plantation drive on 15-08-2022.





Vice Principal Ms. K. H. Anuhya, HoD of Sanskrit Dr. Ramakrishna, P.G. HoD of Mathematics Dr. Sudha, HoD of A& RD Dr. Lakmanswami in the Mega plantation drive on 15-08-2022.





Dean, Sr. Lavanya, Head of Economics Dr. Josphine in the Mega plantation drive on 15-08-2022.



HoD of Computers Lydia and biochemistry Lecturer Dr. Alice in the Mega plantation drive on 15-08-2022.





Physics and Zoology Lecturers in the Mega plantation drive on 15-08-2022.





Telugu and Economics lecturers in the Mega plantation drive on 15-08-2022.



Department of Botany staff Dr. G. Kranthi Kumar HoD, Dr. B. rajeswari, Dr. D. Silpa, K. Priyanka, J. Swarna Latha & students in the Mega plantation drive on 15-08-2022.



Department of botany Intermediate staff K. Priyanka and J. Swarna latha & students in the Mega plantation drive on 15-08-2022.

Department of botany organized a mega plantation drive in Maris Stella College on 15th of August-2022 as a part of Azadi ka Amruth Mahotsav 75th independence Day celebrations. The theme of this programme is "The best time to plant a tree is just now". The student group was led by Dr.G. Kranthi kumar, Head, Department of Botany and other faculty Dr. D. Silpa. Dr. B. rajeswari, K. Priyanka and J. Swarna Latha. The programme was started after the independence day celebrations, the chief guest Panabaka rachana, Correspondent, Sr. Sleeva Thumma, Principal, Dr. Sr. Jasintha Quadras, Vice Principal, K.H. Anuhya planted a Pink trumpet plant near the new building of Maris Stella College. In this Programme various departments heads, faculty and 300 students are actively involved in this mega Plantation drive, we planted 200 herbs and 50 shrubs.

Climate change and global warming are the realities of the twenty-first century. Pollution level in metro cities has touched an all-time high. All these factors take a toll on public health and give rise to various diseases. A simple solution to combat this problem is planting trees. Trees are the lifeline of our planet. Trees produce oxygen which helps purify the air. Trees also provide cool shade from the harsh sun rays. Many trees have medicinal properties. Trees also produce flowers and fruits. We should encourage people to plant more trees and to nurture them. If all of us take a pledge to plant a tree on our birthday then soon we would have a good forest cover. In this Programme we focus only on pollution control plants like Chlorophytum, Acalypha and Ixora plants. The plantation drive was closed by 1:00 pm, faculty and students were dispersed.