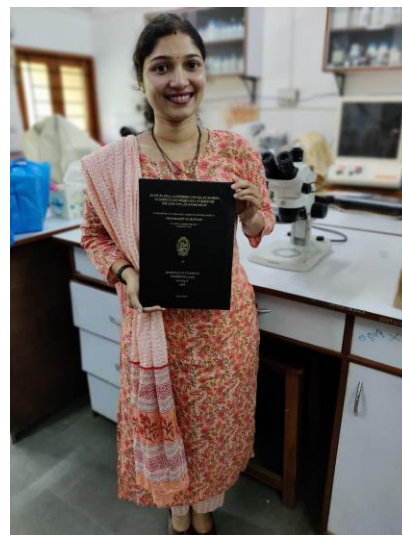




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## Congratulations to Dr. Sankrita Shankar Gaonkar

Many Congratulations to our alumni and faculty member **Dr. Sankrita Shankar Gaonkar**, Assistance Professor in Botany for her **Ph. D. degree**. She has successfully defended her thesis on 29th November 2021. She was fortunate to get the guidance of Prof. Bernard F. Rodrigues who is known for his mycorrhizal research worldwide. Her comprehensive work includes **studies on arbuscular mycorrhizal (AM) fungi in mangroves of Chorao Island, Goa and Pichavaram Forest, Tamil Nadu**. Her research work is published in international peer reviewed journals. She had completed her graduation from Parvatibai Chowgule College in 2012 and post-graduation from Goa University in 2014. Soon after her post-graduation, she enrolled for Ph. D course at Goa University in 2014 after qualifying Ph. D. entrance test (PET). Simultaneously while doing Ph. D, she has also worked as JRF and SRF under ISRO sponsored project on biophysical characterization of Indian mangroves using remotely sensed data for three years.



This project as well as Ph. D. University fellowship momentarily served her financial needs while doing Ph. D. She quotes from her experience "Every research student, faces many ups and downs while perusing their research dream like experimental failures, delay in publication, financial crisis, lack of facilities and family pressure. However, the determination, self-belief and thrust for knowledge is what made me to keep going." She wishes to learn more and contribute to science. Best wishes for her future.

**Dr. Sankrita Shankar Gaonkar** bagged **Third place** in Solo Singing competition, 'Voice of Quepem', held on 2nd January 2022.



Celebrating Creativity In Science

India International Science Festival (IISF) is an initiative of Ministry of Science and Technology and Ministry of Earth Science of Government of India in association with Vijnana Bharati which is a science movement with swadeshi spirit lead by eminent scientists of the country. The main purpose of IISF is the celebration of science by all. Engagement of common people with science in a joyful and entertaining manner is essential for the healthy, prosperous and meaningful life. Through its creative programs and activities, IISF provides opportunities to people and scientific fraternity in the country and abroad to come together, work

and activities, IISF provides opportunities to people and scientific fraternity in the country and abroad to come together, work together and experience the joy of doing science for the wellbeing of India and humanity.

The 7<sup>th</sup> edition of IISF - IISF 2021 - is being held in the western region of the country at Panaji, Goa from December 10 to 13, 2021. The Ministry of Earth Sciences, Ministry of S&T and Vijnana Bharati along with the Government of Goa are the organisers of IISF 2021. National Centre for Polar and Ocean Research (NCPOR) of Ministry of Earth Sciences, an institution situated in Goa, is the nodal agency to organise the IISF 2021.

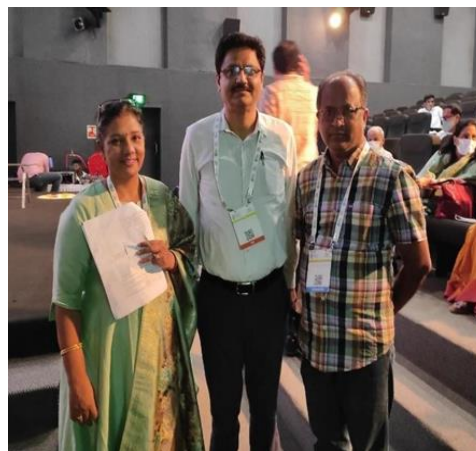
The theme of IISF 2021 is 'Celebrating Creativity in Science, Technology and Innovation for Prosperous India'. IISF 2021 will have twelve programs including the mega science and technology expo and these programs are designed on the basis of event theme. As we are celebrating the 75<sup>th</sup> year of Swatantrata all the programs will reflect the spirit and idea of Aazadi ka Amrit Mahotsav.

ECO FEST was one of the many events held on the 10<sup>th</sup> of December at Kala academy, Panjim. ECO FEST is an initiative to sensitize the people and empower the society to actively promote knowledge about eco- centric/sustainable community development at all levels and to become proactive practitioners of eco- friendly lifestyles through an immersive and hands-on experience. The objective behind this festival is to develop curiosity and inspire young minds. The event started with the exhilarating inaugural followed by a series of talks and webinars on various topics.



## Faculty Achievement

Dr. Uma Masur was Organizing Committee member at India International Science Festival- 2021. Performed in the capacity of compere for Inaugural, Valedictory as well as all technical sessions for National Social Organisations and Institutions Meet (NSOIM) conducted between 11-13 th December, 2021, Panaji, Goa. Focal theme of the event was 'Scientific and technology intervention for Self-reliance and prosperity beyond 2021,75 th year of Independence' It was an excellent opportunity to conduct such a program in the presence of Dr. Shekhar Mande DG CSIR, Dr. Vipin Kumar, Director, NIF, Rajive NP coordinator NSOIM. Dr. Shashi Bala Singh, Director NIPER Hyderabad, Dr. Indu Puri, DST-SEED Delhi and Dr. Indira Murty, MoES were also part of this event.





**Dr. Uma Masur** was selected as **best and outstanding contributor** and **received certificate of excellence** in reviewing the **research papers and manuscripts** for the International Journal of Life science and Pharma Research for the year 2020-2021.



## Students Achievements

### STAR MAKING COMPETITION

The **star making competition** was organized by the **crafters club**. The students that participated from the Botany department were Pearlita Fernandes and Shanel Barreto.

The theme of the competition was **'Wealth out of Waste'**. The competition went on from 3 pm to 5 pm. It took place in woods. The participants made use of scraps available from *cocos nucifera*. Sheets of spathe were cut and stuck on the frame of the bamboo star.

Palm leaves were laced and added to the center while dried palm caps were placed at the margin. The sides of the star were laced with palm leaves. Upon judging, **Pearlita** and **Shanel** secured the **1st place**.



### PAINTING COMPETITION

T.Y.B.Sc student Srujana participated in the painting competition which was organized by Art Club. The task was to draw the painting without using hands.



### GRAFFITI COMPETITION

It was organized by Nebula club. Participants were Prem Kumar, Asmeeta Chari, Aishwarya More, Shreya Naik, Wendy Gracias, Sushma Yadav and Shanel Barreto. The competition being on "social media". The participants were given 3 hours to complete their art. It took place in woods. Each department was assigned a table and the tops were painted. The art depicts how one gets pulled into the cloud of social media that they don't realize until very late.



### TREASURE HUNT COMPETITION

Treasure hunt was organized by Adventure Club. T.Y.B.sc students like Shreyanka, Melshawn and Pearlita participated in the treasure hunt event in the college premises. It was all about fun and adventure to find out the clue and reach the destination.

## FASHION SHOW

Fashion Show was organized by the fashion club. The theme for the event was 'Universe'. The participants from the Botany department were Aloysia Carneiro, Deepti Naik, Shanel Barreto, Soham Dessai, Krutika Devashetti, Wendy Gracias, Shreya Naik, Shannon Vaz, Ritu Arlekar and Pearlita Fernandes. The show was narrated beautifully by Pearlita.

The wonderful and creative props were made by Asmeeta Chari, Shreyanka Duradundi, Prem Kumar, Sydney Rodrigues, Saloni Surlakar, Aishwarya More, Prachi Naik, Mauli Shirodkar, Sushma Yadav, Srujana Naik, K.M. Dharni, Sweetambika Yadav, Mahadev K. along with the participants. Aloysia Carneiro provided the song and choreographed the walk. It was judged by miss Saroj Usgaonkar Dept. of Philosophy, Sonu Kumar - model and actor, Shreya Bhandari- model.



## Young Innovators Fest 2021

The Institution's innovation council and BRANDEMA of Parvatibai Chowgule College of Arts and Science (Autonomous), with office of student's affairs, organized young innovator's fest on 18<sup>th</sup> December 2021. It was a very first innovators fest held in the campus which invited young and budding entrepreneurs to showcase their talent and put forward their products. There were more than 15 stalls put up, each one having a unique collection of products. Stalls had resin art, wooden handicrafts, handmade items, canvas paintings, pencil art, jewellery, mushroom cultivation kit, handmade soaps, macrame art, planters and many more.

The event was inaugurated by offi. principal Dr. Shaila R. Ghanti (Convener), Dr. Uma Masur (Co-Convener), Sir Malcolm Afonso and welcomed by organizing committee and team BRANDEMA commenced to open the stalls for visitors.

Enthusiastic students of department of Botany had participated in this event. The T.Y B.Sc. students had put forth handcrafted natural herbal soaps, planters, wooden art etc. The soap was the star product as it drew lot of attraction of the customers. S.Y B.Sc. Students had put stalls with jewellery, canvas art and other handmade products.

It was a great opportunity for every participant to display their hard work and dedication. The event came to an end by clicking a group picture of the participants along with the organizers. The event was a success as many students, teachers and visitors gave positive response to the stall's setup by the students.





Handmade products

IIC members along with participants

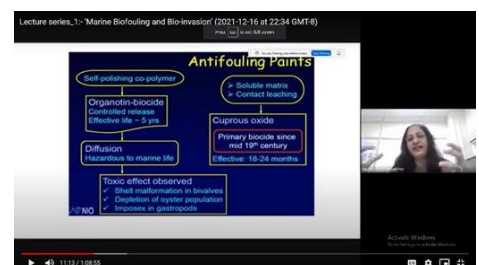
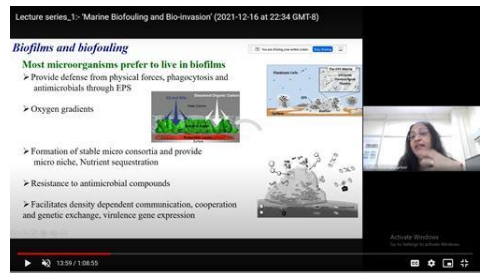
## Departmental Activity

### Lecture Series on Marine Biofouling and Bio-Invasion

Department of Botany had organised an online lecture series talk by Dr. Lidita DS Khandeparkar (Ph.D. Principal Scientist (Headquarters, Goa) Department Biological Oceanography (BOD) NIO-Goa. entitled “**Marine Biofouling and Bio-invasion**’ on 17<sup>th</sup> December 2021 from 12:00 pm – 1:00 pm. Her studies is a comprehensive work on microorganisms in marine biofilms and their relevance in microbe-metazoa interaction.

This research has implications in the control of biofouling, development of eco-friendly antifouling products. She elucidated that bacterial metabolites have significant role in piloting the population of benthic invertebrates to their settlement habitats using different biochemical signals.

In her talk she mentioned that there is dynamic global problem like bio invasion which is a threat to the ocean health. She elaborated on how planktons know where to settle and form the biofilms, which is one type of protection mechanism from harmful chemical signals. She also mentioned about the eco-friendly technology to overcome biofouling and bio-invasion process. She enlighten us with her great work.



## Pineapple Leaf Fiber (PALF) an excellent natural fiber material for trending clothes in fashion industry

Pineapple is a native plant of America, first seen by Columbus and his companion in November 4, 1493, at an Island of West Indies. When the new world was discovered, pineapple has been spread all over South America coastal region as well as in tropical regions. A Spanish government officer, De Oviedo, came to America in 1513; he handed over first written documents of some varieties of pineapple, and he added some Indies varieties also. The plant is called “pineapple” because of its fruit which look like pine cone. The native Tupi word for the fruit was anana, meaning “excellent fruit;” this is the source for words like ananas, common in many languages. The pineapple is an old emblem of welcome and can often be seen in stamped decorations.

The Portuguese contributed their important role in introducing the fruit throughout the whole tropical regions and major parts of world like south and east coast of Africa, Madagascar, south India, China, Java, Philippines, and Malaysia. Nowadays, varieties of pineapple plants are available which are used in various applications such as edible, medicinal, and industrial applications. For ex, bromelain is an enzyme extracted from its leaves and helps in respiratory ailments. A mixture of pineapple juice and sand is powerful cleaner for boat decks. Dehydrated waste material of pineapple is used as bran feed for cattle, chicken, pigs, and so forth but the most important use where researchers find out, use of pineapple is its nature fiber from the leaves.



(a) Pineapple field



(b) Fruit of pineapple



(d) Pineapple leaf fibres



(c) Fibres from pineapple leaves

As we know, Synthetic fibers are petroleum-based, non-degradable, and their disposal causes a problem, so a need to look for alternative fiber has risen. Pineapple leaf fibers have a high cellulose content, are widely available Synthetic fiber composites are used in diversified applications because of their high strength-to-weight ratio. The energy associated with the production of synthetic fibers and their non-degradable characteristics is a major factor of concern looking from an environmental point of view. Natural fibers are derived from plants and animals, are biodegradable, and have properties similar to synthetic fibers. Pineapple leaf fibers (PALF) are obtained from pineapple leaves and can be effectively used as a reinforcement in the polymer matrix. PALF-based composite can be used in automobile, aerospace, sports, biomedical and furniture industries. Utilizing pineapple leaves for producing fibers which will be used in composites will not only reduce the associated environmental problems but also will give lucrative income opportunities to farmers and industries



The advantage of natural fibers is their continuous supply, easy and safe handling, and biodegradable nature. Although natural fibers exhibit admirable physical and mechanical properties, it varies with the plant be used in fashion industry source, species, geography, and so forth. Pineapple leaf fiber (PALF) can be used in making natural fiber which will help in making different types of outfits. Which is one substitute for other chemically treated clothes



Designers clothes made out of PALF

### EDITORIAL TEAM:

**Teacher in-charge:** Ms. Sushama Pradeep Salgaonkar.

**Students of Botany:** Ms. Asmita Chari, Ms. Shanel Barreto, Ms.Sadiya Khan.

The opinion and news appearing herein are those of the editors and not necessarily those of Principal or The Management.

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