



BISHOP COTTON WOMEN'S CHRISTIAN COLLEGE

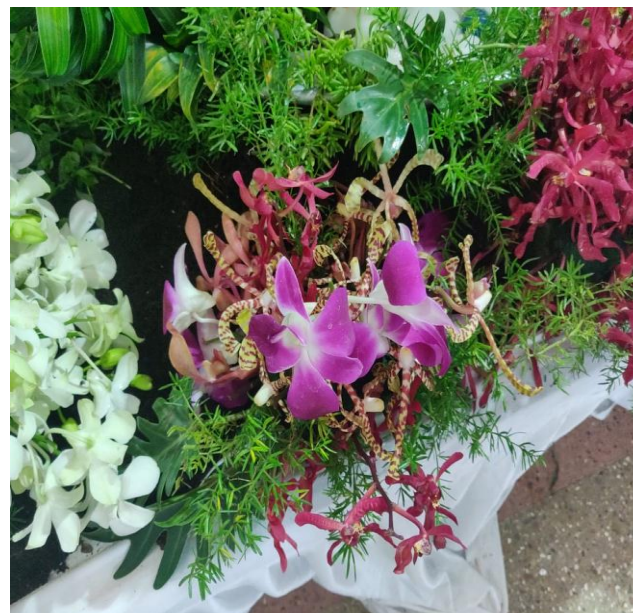
DEPARTMENTAL REPORT – 2019-2020 DEPARTMENT OF BIOTECHNOLOGY

VISIT TO ORCHID SHOW

The department of biotechnology staff along with IIBSC students attended Orchid show, Lalbagh Botanical garden on October 19th 2019. Orchids like *Gombidium*, *Miltonia*, *Dendrobium* and *Cattleya* were on display. Students learnt the shape, color, patterns and the size of the bloom as the easiest way to identify flowers. Most of the plants are propagated through plant tissue culture method. They also purchased different orchids from the stall.



MOMENTOS



ORCHIDS

VISIT TO NCBS-OPEN DAY

The students of II BSc visited NCBS, GKVK Post, and Jakkur on October 23rd 2019

1. Research on *Drosophila* study was carried on immune system because it has 70% of homology with that of human body. The salivary glands of fruit fly were used to study genetic makeup of human. This fly was chosen because of its life span, genetic makeup and physiology. Of late they are used in clinical trials.
2. The process of Skin healing during injury was explained in detail.
3. Effect of pesticides and fertilizers on sensory organs of human being, the scientist was developing cream and gels to reduce the effects of the chemicals. The scientist explained about the adoption of designing coat made up of nanoparticle which protected the body of farmer from harmful effects of chemical when they would come in contact with the pesticide. These nanoparticles have the capacity to break the sulphide bonds that is present in the pesticide.
4. Cell signalling memory synapses, structure of neurons nerves in the body was studied using model with circuits connected with different sounds produced.



NCBS- OPEN DAY

VISIT TO FREEDOM PARK

The program was held on 7th September 2019 at freedom park , focussed on creating awareness program about Plastic Free –Few of the government employees of BBMP sang some patriotic songs, constant announcements were made on waste segregation, few topics about environment sustainability was addressed . Various stall which comprises handmade spoons, jute files, bags, files and folders.



ENVIRONMENT PROTECTION



ELIMINATION OF DISPOSABLES



COCONUT SHELL PRODUCTS



PAPER STRAW PRODUCTS

VISIT TO JNCR

The National Science Day celebrated at JNCR on 28th February 2020. The agenda is to ignite young undergraduate students to take up a carrier in the field of science. Students also participated in quiz competition. Some of the topics covered during the sessions are:

1. Wonder bug *Deinococcus* radiodurant by Dr. Satyajit Mayor, NCBS
2. Cancer Stem Cells by Dr.Sudha Warier, MIRM
3. Seminar of Cell membrane by Dr. Shree. K .Apte, DAE CEBS, Mumbai
4. Ovarian Cancer cells by Dr.Ramray Bhat, Bangalore

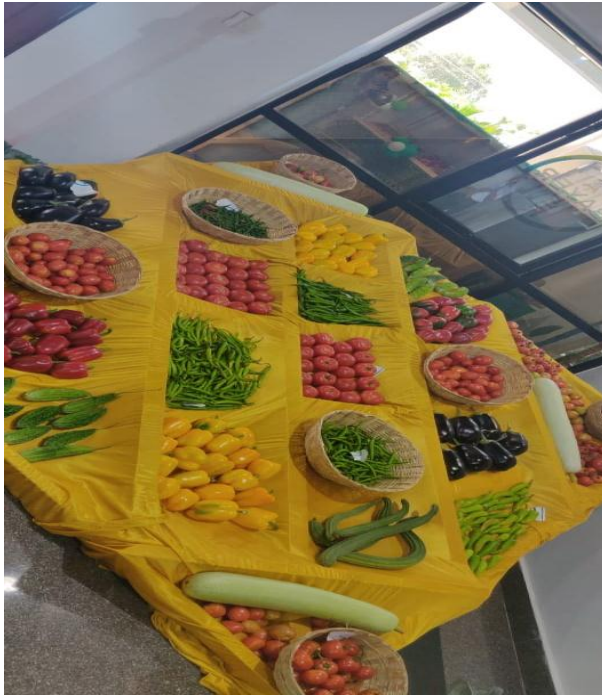
VISIT TO MONSANTO, DODDABALLAPUR

The department of Biotechnology aims to upgrade scientific knowledge among students in relation to curriculum.

Industrial Visit was arranged for CBBt/CZBt students of I, II and III Bsc on February 27th 2019 to Monsanto Company located at **Doddaballapur**. Students were exposed to the field where different varieties of genetically modified plants:

1. Ridge guard
2. Varieties of cucumber
3. tomatoes
4. Green initiatives

They develop best quality seeds by seed chipping technology, they are known for producing different varieties of **corn**, They have patents for **Bt Cotton** and other herbicide tolerant crop plant and also involved in improving seed quality by genetic –recombinant DNA technology. Hybrid plants cultivation, three of chillies levels.



GENETICALLY MODIFIED VEGETABLES



VARIETIES OF CAPSCIUM

CERTIFICATE COURSES CONDUCTED:

1. The Memorandum of Understanding (**MoU**) was executed on 6th day of September 2018 by GLOBAL CONSUMER PRODUCTS PRIVATE LIMITED (GCPPL), J, C.Road, Bangalore. The certificate course was started for 8-10 students per session. The students were deputed to undergo the sensory evaluation of food products and differentiated flavours and aroma of chocolates, wafers and juices. This course is on-going project.

Global Company– SENSORY TRAINING BY R&D TEAM



2. The Memorandum of Understanding (**MoU**) was signed on 6th day of January 2019 by **SHREEDHAR BHAT'S LABROTATORY, Biotechnology-Products, Services and Training Centre Private Limited**, Banashankari II stage, Bangalore. The course was started on January 9th-14th 2019,

Duration- 48hrs

Syllabus-

1. Plant tissue culture -Preparation of Media and autoclaving
2. Cleaning and sterilization procedures
3. Isolation of embryos from the seeds and initiation
4. Sub-culturing
5. Synthetic Seed Preparation
6. ***Agrobacterium*** mediated plant transformation
 - a. Leaf disc preparation
 - b. Co-cultivation
 - c. Selection media transfer

The students was exposed to hands-on experience, they gained practical knowledge about techniques implented and micro propagation, methods of acclimatization of plant ***Stavia***, which is a natural sweetener,



STUDENTS AND TRAINING BY R&D T

Awareness program was conducted on October 24th 2019, Environment Sustainability and Menstruation addressed by

Eminent speakers like Mrs. Veena Prasad, Mr. Vasuki and Ms. Nandini gave an insight into the issue of plastic pollution and stressed on menstruation. They aimed at MOTTO- BYOB-Bring Your Own Bottles. Stalls selling eco friendly products were put up by the NGOs in the campus on the day.





FACULTY DEVELOPMENT PROGRAMME_I PR FOR SPURRING INNOVATION AND CREATIVITY

The Departments of Chemistry, Botany, Biotechnology and Zoology in association with *Centre for Intellectual Property Rights Research and Advocacy (CIPRA)* & *Department for Promotion of Industry and Internal Trade (DPIIT) Ministry of Commerce and Industry*, Government of India, Chair on IPR, National Law School of India University, Bengaluru organized a one day workshop, a Faculty Development Programme on “IPR FOR SPURRING INNOVATION AND CREATIVITY” on 8th February, 2020. 56 faculty members actively participated in the workshop. The speakers covered the topics like CopyRights, Patenting and process.

3. MENTORING ACTIVITIES

The students are mentored, met regularly once in a week to guide them in different aspects of life. The weaker students are identified and remedial classes are conducted on Thursdays or Fridays usually during lunch hour and break time. Emotionally weak students are chosen, they are motivated to face the challenges in life and excel in their studies. The students are encouraged to actively participate all co-curricular activities. The prefects are trained to be a better leader.