

# BIRLA वृत्तांत

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## B.K.Birla College

## **The Need for Equal Balance of Environment**

### **Day 1: 16<sup>th</sup> September 2019**

The ozone layer, a delicate layer of gas, shields the Earth from the harmful rays of the sun. In December 1994, the United Nations General Assembly proclaimed September 16<sup>th</sup> as the “International Day for Preservation of the Ozone Layer or WORLD OZONE DAY”. Every year this day is marked in remembrance of the date in 1987 when United Nations signed the Montreal Protocol on Substances that Deplete the Ozone Layer. In this regard we at B. K. Birla College, Kalyan celebrate “World Ozone Day”, every year on 16<sup>th</sup> September.

According to the United Nations, the theme for this year, ‘32 Years and Healing’, celebrates over three decades of international cooperation to protect the ozone layer and the climate under the Montreal Protocol.

This year too, Department of Environmental Sciences, B. K. Birla College, celebrated the day with Two Days Festival called ‘OZONE FEST’ on 16<sup>th</sup> and 17<sup>th</sup> September 2019.

On 16<sup>th</sup> September a special guest lecture by Dr. Ritesh Vijay, Regional Head, National Environmental Engineering Research Institute was organized at 10.30 am. Dr. Ritesh Vijay is a Principal Scientist and Head, CSIR-NEERI, Mumbai Zonal Centre and Centre for Strategic Urban Management of NEERI, Mumbai. He completed his Ph.D. in Environmental Engineering and also completed his M. Tech in Environmental Engineering and B.E in Civil Engineering. His area of research includes liquid waste management, decentralized sewage treatment, river and lake Rejuvenation, in-situ Nallah Treatment, noise pollution, application and development of remote sensing and GIS based tools for environmental science and engineering.

Dr. Ritesh Vijay spoke on “Water and wastewater of Mumbai”. He mentioned that Mumbai receives its water from seven different lakes i.e. Modak Sagar, Tansa, Vihar, Upper Vaitarna, Middle Vaitarna, Tulsi, Bhatsa. He also specified in his presentation the demand for water supply is 4200 MLD and supply is 3500 MLD. Many environmental simulation models which included statistical applications were included in the presentation. Dr. Ritesh explained the importance of these applications in the research of environmental science. The students were encouraged to include these applications in their dissertations. The importance to

include the physico-chemical parameters of water analysis in their basic projects stands a high chance of including extended work in such fields in their future research projects. Sir has worked extensively in applications of geographic information systems for mapping the water resources, anthropogenic wastewater and sewage pipelines from various areas in Mumbai into the Arabian Sea. The changing climate and local weather patterns are responsible to bring back the waste thrown into the sea back to the land. The Government proposals of having new pipeline sewage system have been opposed by NEERI and other environmentally responsible agencies. The opposition came as a positive response from the court and new pipeline was not sanctioned. All the study report for these had been the project of NEERI. Sir also mentioned that he will be very pleased to have students doing their projects for dissertation in association with NEERI. The students from various backgrounds like chemistry, physics, botany zoology, microbiology, biotechnology, environmental science can be involved in such projects.

Dr. Ritesh Vijay then presented various technologies used in waste water treatment i.e. Hydrodynamic and water quality simulation, In-situ treatment technology and Phytorid waste water treatment technology of West Coast and Thane Creek, Mumbai. In Phytorid technology, the system is based on specific plants found in natural wetlands with filtration and treatment capability. The Phytorid technology can be constructed in series and parallel modules/cells depending on the land availability and quantity of waste water to be treated. The system consist of the following three zones: 1] Inlet zone comprising of crushed bricks and different sizes of stones 2] Treatment zone consisting of the same media as in Inlet zone with plant species 3] Outlet zone. The treated effluent is used for Municipal gardens, Fountains, Irrigation. This technology is cost effective, low maintenance expenses, minimum electricity requirement, facilitates recycle and reuse of water, no foul odor and no mosquito nuisance. The most interesting part of his lecture was the video on the actual working site of a nallah of 180 meters which involved these economical ecotechnologies to treat sewage water and convert it to clean pollution free water.

Thus this enriching lecture ended with a positive feedback from students and enterprising offer from Dr. Ritesh Vijay for involving students of B. K. Birla College for future associations with NEERI. Dr. Naresh Chandra, Director, B. K. Birla College, Kalyan addressed the crowd and encouraged the students to do such kind of basic research for the benefit of society.

## **Day 2: 17<sup>th</sup> September 2019**

The day started at 11.00 am with a competition called 'Dark Hour'. It is painting on neon paper. The themes given to students were: - Biodiversity and Impact of Floods. 10 students participated had to do reverse painting with only black color paint. Time limit was one hour. The posters were then observed on black background with reflection from a UV source where the theme would be seen in neon color. The event was judged by Dr. Annika Durve, Assistant Professor, Department of Biotechnology and Dr. Sonali Patil, Assistant Professor, Department of Bio analytical Sciences. Prizes and certificates were distributed to the winners. Participation certificates were distributed to all participants.

After lunch, another event called 'Pirates of Nature' was organized. It was a Nature Hunt. Various clues related to environmental concepts were placed all over the college where students had to find the treasure. 60 students participated in the event out of which 4 students were in the winning team who disclosed the final treasure.

Prizes and certificates were given to winning students. Certificates were given to all participants. Thus with a total of 70 participants, the Ozone Fest was academically enriching for the students.



**Interaction of Dr. Ritesh Vijay with Director and Principal**



**Lecture by Dr. Ritesh Vijay**



**Volunteers for Ozone Fest**

## Pharma Week : A New Trend

Department of Microbiology in association with Department of Bioanalytical Sciences under DBT Star College Scheme has celebrated 'World Pharmacy Week' from 16<sup>th</sup> to 21<sup>st</sup> September 2019. The Celebration was for all the UG and PG students from Chemical, biological and pharmaceutical Sciences background. It included Special lectures by industry professional, Demonstration practicals, aptitude test for TY and PG students and science based competitions. The aim of this celebration was to create awareness about different aspects of the wide field of pharmaceutical sciences and career opportunities after completing education.

### Schedule of World Pharmacy Week

Date	Event	Time
16 <sup>th</sup> September 2019	Poster competition Doodle making	11.30 AM – 1.30 PM 2.00 PM – 4.00 PM
17 <sup>th</sup> September 2019	Biorangoli competition Photography	11.00 AM – 1.00 PM 2.00 PM – 4.00 PM
18 <sup>th</sup> September 2019	Training on pharma instruments	10.00 AM – 3.00 PM
19 <sup>th</sup> September 2019	Demonstration on analytical instruments	10.00 AM – 5.00 PM
20 <sup>th</sup> September 2019	Bio marketing Lecture on Research Methodology	11.00 AM – 2.00 PM 3.00 PM – 5.00 PM
21 <sup>th</sup> September 2019	Treasure Hunt Aptitude Test	11.00 AM – 2.00 PM 11.00 AM – 2.00 PM

On first day of Pharma week, 16<sup>th</sup> September 2019, students have participated in '**Poster Competition**' and '**Doodle Making Competition**'. Students from various colleges like B. K. Birla College, Sonawane College, Smt. C.H.M. College, Ruia College, Ideal College of Pharmacy etc had participated in the competition. The theme of the competition was Digital Pharma. Total 20 and 15 participants enrolled their name respectively for above competitions and two Prizes were given. The students were awarded with cash prize of Rs. 1000/- and Rs. 500/- for first and second Prize respectively.



On second day of celebration, **17<sup>th</sup> September 2018**, ‘**Biorangoli**’and ‘**Photography Competition**’ was arranged. Students from various colleges like B. K. Birla College, Smt. C.H.M. College, Somaiya College, Bandodkar College, Kokangyanpeeth have participated. Total number of students were 25 and 30 respectively. The students were awarded with cash prize of Rs. 1000/- and Rs. 500/- for first and second Prize respectively..



On **18<sup>th</sup> September 2019**, Inter-collegiate Workshop on ‘**Pharma Instruments**’for **UG and PG students** was organized at 4<sup>th</sup> floor, I.T. Building. The students were given demonstration and hands-on training on apparatus like Dissolution, Disintegration, Hardness and Friability instruments. Total 84 students from various colleges like B. K. Birla College, Smt. C.H.M. College, Somaiya College, Bandodkar College, M K University, SUB College, Ideal College of Pharmacy, Pendarkar College, Ruia College, KGRD Pharmacy College, KVPC College, etc. participated for the same. The students were amazed to see these instruments for the first time, as these instruments are procured by very few institutions and are routinely used in pharma industries..

On the next day, **19<sup>th</sup> September 2018**, Inter-collegiate Workshop on ‘**Chromatography and Spectroscopy**’for **UG and PG students** was organized at 4<sup>th</sup> floor, I.T. Building.

Through this workshop we intended to make students aware of various chromatographic and spectroscopic techniques used in pharmaceutical analysis.

This included demonstration on:

- High performance thin layer chromatography
- High performance liquid chromatography
- Gas chromatography
- Fourier Transform Infrared spectroscopy



Total 65 students from participated in the workshop. The students were from B. K. Birla College, Smt. C.H.M. College, Somaiya College, Bandodkar College, M K University, SUB College, Ideal College of Pharmacy, SICES College, Pendarkar College, Ruia College, KGRD Pharmacy College, KVPC College, etc. The student learnt the working of all the above instruments which they had studied theoretically .It was knowledgeable and very interactive session.

On **20<sup>th</sup> September 2019**, ‘**Biomarketing**’ was arranged. The students were made to act or to perform Skit for marketing some Products like Kayamchurna, Zandu balm, NeemFacepack. 25 students (5 teams) participated from various colleges like B. K. Birla College, Smt. C.H.M. College, SonawaneCollege, Bandodkar College etc.The students were awarded with cash prize of Rs. 1000/- and Rs. 500/- for first and second Prize respectively.

The same day, special lecture on the topic '**Research Methodology**' was taken by Dr. SatishSarfare, Associate Professor and Vice Principal, SIES College, Mumbai The lecture has enlightened the student about the brief idea regarding research methodology, idea of writing projects and purpose of critical thinking. The lecture has surely helped them to be aware of necessity of research.

On **21<sup>st</sup> September 2018**, '**Aptitude Test**' for TY and PG students of B.K. Birla College was arranged. 50 Students participated for the same. Dr. Rachel, Project manager, TCS Ltd., Mumbai had been invited to take aptitude test and personal interview of the students. The session was very interactive and the invitee has given the feedback and suggestion to each participant in the form of evaluation. The students got to know the skills and etiquettes to be followed during the interview. This session will definitely help the students to make them more confident in their further life.

Overall,**314 students** from various colleges participated during **Pharma Week**. It was a great experience to see the enthusiasm amongst the students to learn various essential skills. And also it has created the awareness regarding different aspects of pharmaceutical sciences and career opportunities after completing education which is a need of the tomorrow