PG & RESEARCH
DEPARTMENT OF BIOTECHNOLOGY

Islamiah College (Autonomous)
Vaniyambadi - 635 752

100 YEARS of educational excellence

A REPORT OF

10 Days Internship Programme for III B.Sc. Biotechnology students

At

Vanitech Pvt. Ltd, Vaniyambadi

Date: 22.12.2021 to 31-12-2021

December 2021

10 DAYS INTERNSHIP PROGRAMME AT VANITECH, VANIYAMBADI

INTRODUCTION

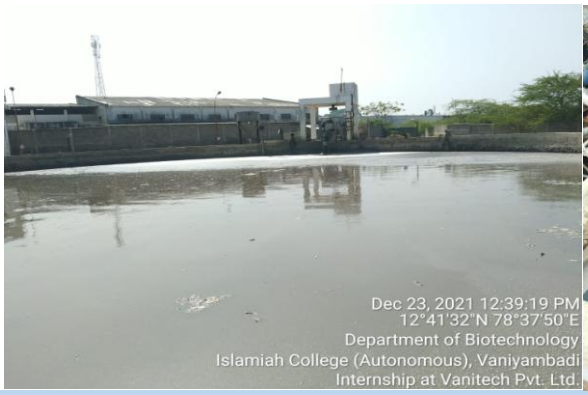
Department of Biotechnology, Islamiah College (Autonomous), Vaniyambadi deputed 48 students of III B.Sc. Biotechnology to ten days Internship Programme to VANITECH, Pvt. Ltd. which is located in Valayambattu. The Internship programme was organized with prior permission and guidance of our Principal and Management. The team members of the company performing an excellent service in converting Effluent to Affluent. The process of purifying effluent waste waters from tanneries located in and around Vaniyambadi is done here. The team members of the company are industrious in purifying the water. Let's have a detail view about the process and experience in upcoming leaf. The peasants who are working near sludges are supportive souls for our region. By the sweat of the worker's brow, we are leading a healthy life. They are the real heroes and inspiration for upcoming generations.

DETAILS OF OUR JOURNEY - DAY 1

On the first day, all the students along with Dr. H. Abdul Jaffar Ali, HoD of Biotechnology and Dr. N.P.M. Mohamed Tariq and Dr. M. A. Farook (Mentor) reached the Vanitech Pvt Ltd at 10.00am and we were received by Mr. Nazeer, Manager, Vanitech Pvt Ltd. The Internship programme was inaugurated by Mr. Nazeer, in the presence of Dr. H. Abdul Jaffar Ali, Dr. N.P.M. Mohamed Tariq and Dr. M. A. Farook in the meeting hall of Vanitech. After a formal prayer and welcome address, Mr. Nazeer started his presentation with introduction and motivational quotes. He explained the overall picture of tannery effluent treatment in his power point presentation. He delivered information about the stages of passing water and usage of chemicals. He explained four different stages of treatment such as Physical method, Chemical method, Biological method and Mechanical method.

DAY 2

On the second day, well-knowledged and experienced staff of Vanitech had interaction with the Students. The students were taken to a huge tank with the capacity of 40 lakh liters known as ETP plant. The students were explained ETP (Effluent Treatment Plant) process design for treating the industrial waste water for its reuse or safe disposal to the environment. Agitators present in many sizes and varieties, depending on the application were shown to them. In this session, they came to know about ETP plant and how it is monitored.



DAY 3

On the third day, the structure and features of huge and modified tanks are explained. It is followed by the process of Physical method where, the divider in tank to separate the water was also explained.

DAY 4

On the fourth day, the usages of chemicals Aluminium Sulphate and Aluminium Chloride were explained. Pouring the chemicals in pipeline, use of rotator fixed in the center of the tank and the use of 0.03 microns of filters were explained.

DAY 5

On the fifth day, use of aeration tank after the process of chemical method was taught. At this point, O_2 is made to flow continuously at concentrated level. Various pipelines at the bottom of the tank connected for the flow of O_2 gas and chemical reactions takes place were also shown and explained.

DAY 6

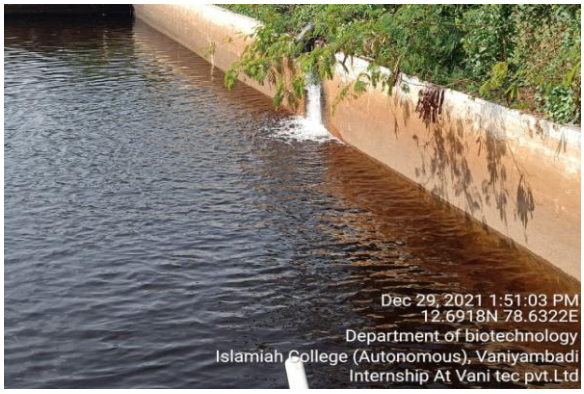
On the sixth day, collection of water in small tank was explained. Through the pipeline the water passes to the big microns RO (Reverse osmosis) section at a particular force and filtered. Reaching of water to 0.001 microns sized filter paper chamber through biological process was shown.

DAY 7

On the seventh day, they had a look at all motors present in Chemical method, Physical method, Biological method and Mechanical method. Motor is used for the continuous supply of oxygen in circular motion. The connections of pipes are laid in underground. These machines work for 24 hrs. The machines are not stopped. It works whole day. So this is a restless process.

DAY 8

On the eighth day, they learnt important biological process. They also learnt the minute filters placed at the 0.001 microns size, Nano technology used here, use of Chlorine to spoil a filter . So (SNPS) chemicals are used to settle down chlorine at the bottom using motor, the water passes through the filter and continuous flow of O_2 is passed. The students understood the use of Nitrosomonas bacteria to degrade the waste particles. Finally they observed that 75% of water as purified.



DAY 9

On the nineth day, they learnt mechanical method of treatment. They learnt about the processing of 25% of unpurified water by mechanical method. Use of Cooling tower, steam bath and centrifuge were explained. They observed the purified water from that 25% of remaining waste.

DAY 10

On the tenth day, dumping of waste was explained. They were explained proper disposal of final waste at the back side of the company. In this end of the day, Dr. H. Abdul Jaffar Ali, HoD of Biotechnology and Dr. N.P.M. Mohamed Tariq concluded the programme by proposing formal Vote of Thanks to the Vanitech Office bearers. The Vanitech Manager distributed the certificates to the Students.

CONCLUSION

Internship programme was successfully organized with the support and encouragement of the Management and the Principal. The programme accomplished by the Co-operation of Staff members and the Students. The internship brought positive change in thinking and bioremediation of effluent to the Students. Students experienced good friendly bondage among themselves. The Internship completion certificates would be much useful for the future career.

Co-ordinator Chief Chemist-cum-Process Incharge Head

Principal