



CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

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Department of Biotechnology Industrial visits

AY 2017-18

S. No	Name of the Industry Visited	Dates of Industrial Visit	Report and Photographs
1	EPTRI, Hyderabad	18-08-2017	Available
2	Prathishta Biotech PVT LTD, Hyderabad	17-02-2018	Available

Industrial visit Report – Environment Protection Training and Research Institute (EPTRI), Hyderabad on

18th, August 2017

Date of Visit: 18.08.2017

Industry : Environment Protection Training and Research Institute (EPTRI)

Place : EPTRI, Gachibowli,

Hyderabad, 500032.Telangana.

Staff Attended :5 Nos.

- 1 Prof AVN Swamy, HOD, Biotechnology
- 2 Dr V. Aruna, Asst Professor
3. Dr. V. Vijaya Laxmi, Assistant Professor.
4. Ms. D. Madhavi latha Kavitha, Lab Tech.

Students Attended: 40 Nos. B. Tech VI Semester Students

About EPTRI:

Environment Protection Training and Research Institute (EPTRI) was set up in 1992 as an independent registered society by the State Government with assistance from the Government of India. The State also provided bilateral assistance for technical collaboration between EPTRI and the Swedish International Development Co-operation Agency (Sida).

EPTRI – a state of the art organisation is abreast of wide-ranging concerns regarding environmental conservation and protection from ozone depletion,

climate change, integrated environmental strategies to clean development mechanisms. It endeavours to create awareness among communities, civil

societies, Government Organizations, NGOs and other stakeholders. It strives to achieve poverty alleviation through employment generation, human development and sustainable environment management.10.30-10.45- Welcome note by EPTRI for

Report;

11.00-11.15- Technology applications in life sciences by Dr P Ratnakar, Tech Mahindra, Hyderabad.

11.15-11.30- Opportunities in Biotechnology by Dr P Ravinder Reddy, Principal, CBIT.

11.30-11.40- Brief introduction by Prof Ram Reddy V Guntaka

12.00-12.45- Keynote address by Prof Rama Reddy on Global advancements in Biosciences and their industrial applications

1.30-2.30- Lunch and interaction

2.30-03.00- EPTRI campus tour.

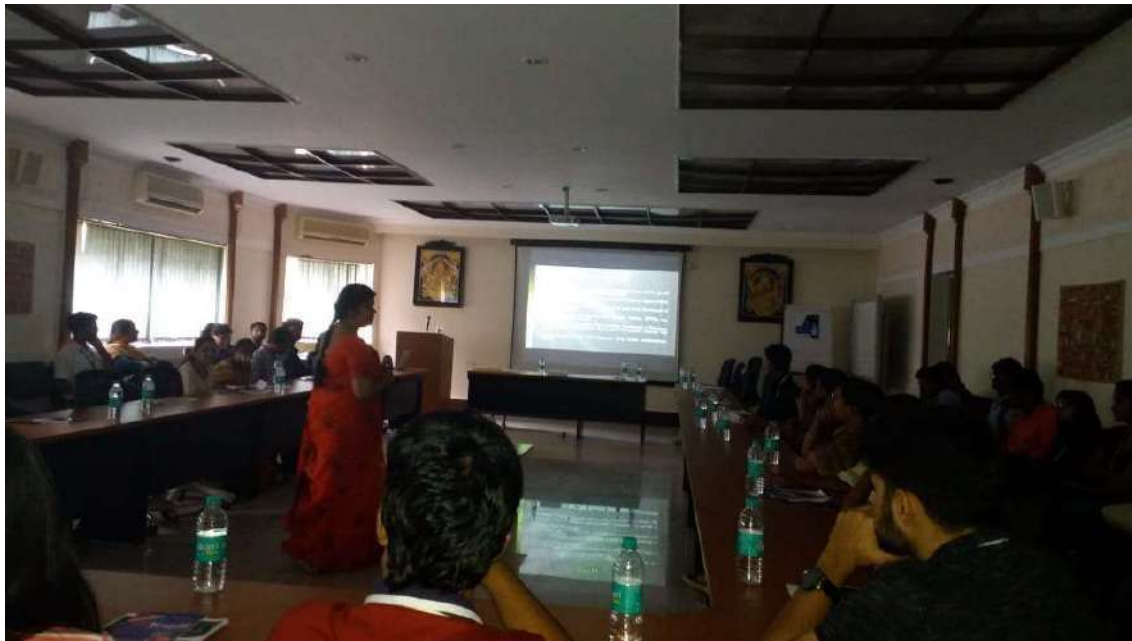
Students visited the following State of art laboratory Facilities in EPTRI:

- 1) GC-MS/MS,
- 2) ICP-OES,
- 3) AAS,
- 4) ED-XRF,
- 5) CHNS,
- 6) TOC,
- 7) Advanced Microbiology facilities.

Students and faculty got the opportunity to interact with eminent scientists and their knowledge is enriched in the areas of

1. Quality Management System – ISO 9001:2015
2. Environmental Management System – ISO 14001:2015
3. Occupational Health and Safety Systems – ISO 45001:2018

Photographs:



Students' interaction with scientist, EPTRI on 18.08.2017

**Industrial visit Report – Prathishta Biotech PVT LTD, Hyderabad on
17th February, 2018**

Duration: 1 day

Industry Name: PRATHISTA Biotech Pvt LTD, Hyderabad, Chowtuppal.

Duration: 1 day

We are the students of **B. Tech Biotechnology** $\frac{3}{4}$ (54 Students) and 7 faculty members visited the Fermentation technology industry PRATHISTA Fermentation technologies PVT LTD in Choutuppal, Nalgonda (dist), Telangana State.

We reached the industry by 10:00AM. Industry manager received us and presented about the inception of the industry, their products and contributions to the society.

After brief introduction with their employees, we divided into two batches to visit the industry.

First, we started to observe the unit operations of upstream processing namely high-volume Aerobic fermenter with capacity of 300,000 litres and its functional process parameters like controlling Temperature, PH, Oxygen concentration, Foam control and addition of buffers. After observing the Unit operations industry personal provided the opportunity to explain the Microbiology unit.

After the Lunch break at 1:30 PM second SESSION of visit started.

In the second session we started to observe the working principles of Downstream processing unit operations like HPLC, vertical leaf filtration, Disc bowl centrifuge, Vacuum drum drying, cake formation and formulation of Lactic acid product.

After the refreshments at 3:30PM we visited the facilities for the effluent treatment and reuse of sludge as organic manure for the rising of plants in the industry premises.

Finally, we enlightened to see the propagation of crops by using plant tissue culture facilities like green house and nursery.

CONCLUSION: After the whole day visit the 50 students Participated and their knowledge is enriched in understanding the curriculum FERMENTATION TECHNOLOGY, BIOPROCESS TECHNOLOGY, BIOREACTIONENGINEERING, DOWN STREAM PROCESSING and PLANT TISSUE CULTURE.

By arranging the industrial visit, the students attained the POs and PSOs.

Photographs



Paper clipping of Students industrial visit



Group photo of Biotech faculty and students with the Prathishta Industry scientists

AY 2018-19

S. No	Name of the Industry Visited	Dates of Industrial Visit	Report and Photographs
1	IIL, Hyderabad	18-03-2019	Available
2	NIAB, Hyderabad	23-10-2019	Available

Industrial visit Report – Indian Immunological LTD, Hyderabad on 18th March, 2019

Date of Visit: 18.3.2019

Industry : Indian Immunological limited

Place : Rakshapuram, Gachibowli,
Hyderabad, 500032.Telangana.

Staff Attended :5 Nos.

1. Dr. V. Aruna, Assistant Professor.
2. Dr. V. Vijaya Laxmi, Assistant Professor.
3. Ms. S. Sumithra, Assistant Professor.
4. Ms. Y. Vineetha, Assistant Professor.
5. Ms. B. Kavitha, Lab Tech. Grade - III

Students Attended: 40 Nos. B. Tech VI Semester Students

About IIL : Indian Immunologicals was setup by The National Dairy Development Board (NDDB) in 1982, with the objective of making vaccines available to farmers at an affordable price.

•The unit was corporatized as Indian Immunologicals Limited in the year 1999. IIL is the market leader in veterinary biologicals in India and operates one of the largest plants in the world for veterinary vaccines.

•IIL has adequate infrastructure and cold chain maintenance capabilities to reach out to the nooks and corners of India. This flexibility in logistics has ensured many products of IIL to occupy top slots in the market.

•IIL started manufacturing human vaccines in 1998 at the specific request of the Government of India.

- IIL is the second company in the world and first in India to launch the purified Vero cell rabies vaccine (PVRV) with the brand – Abhayrab. This led to the discontinuation of use of the older and unsafe sheep brain vaccine (also termed nerve tissue vaccine – NTV) in the Country.

- IIL is a major player in the human vaccine market in India, focusing on the pediatric and rabies vaccine segments.

- IIL is also a major supplier of pediatric vaccines to India's large Universal Immunization Programme.

- IIL pursues not only the mandate of NDDB to provide products and services to enhance the quality of livestock in the country, but also utilizes its technological capabilities for the benefit of the people.

Report: All the students and staff reached IIL by 9:30 am. Completed formality to enter the industry. Dr. V. Surya Prasad, Senior manager, Medical and Veterinary Science gave information about the company and company products. Dr. Sai Krishna, Scientist explained about the human vaccine produced by the company. Dr. Rama Krishna Reddy, Production manager gave information about the Foot and Mouth disease vaccine. He explained in detail about the process, beginning from culture preparation to product formation. We were been given an overview about the preclinical and clinical trials. The marketing name for human vaccines is Abhay and for animal vaccines is Raksha. The tour covered the unrestricted area of the company. It started with warehouse where the procedure of intake of the material and processing was explained in detail. Then Mr. Laxmi Narayana, Chief safety engineer of the plant briefed and showed about various safety aspects followed by the company. Integrated management System, Quality Management System, Environment policy, Pollution prevention, Quality control and Customer satisfaction. IIL has a well-equipped Quality Control department for both Animal Health and Human Health. The facility complies with Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP). Engineering department take care of equipment maintenance, breakdown and prevention. Then visited packaging section, boilers, deep freezer and cold storage of produced vaccines. We visited production unit and observed fermentation process of production of vaccine through transparent glass. Later, we were taken to animals house which was used for clinical trials. Finally, we were given opportunity to see air filtration units which are supplied to production area. Staff and students interacted with MC. Muthiah, Vice president – Human Resources and discussed about the opportunities in IIL.



Industrial visit to M/S Indian Immunological Limited, on 18.3.2019

**Industrial visit Report – National Institute of Animal Biotechnology
(NIAB), Hyderabad on 23rd, October 2019**

Dates of Visit: 23.10.2019

Time: 10am to 3pm

No of Faculty coordinators: 2

No of Students attended: 24 B. Tech Biotech VI Sem Students

About NIAB: NIAB is the premier central govt institute established in 2016 under the aegis of Department of Biotechnology, UoH, Hyderabad. It is a premier institute dedicated for the doing research in animal biotechnology to improve the livestock and production of therapeutics in the prevention of animal diseases.

NIAB offers Projects, internships, workshops and providing a platform to do the advances in animal research which led to the award of PhD.

Techniques demonstrated to the students:

- 1) Operation of confocal microscope
- 2) Phase contrast Microscope
- 3) Inverted Microscope
- 4) FACS
- 5) HPLC
- 6) RT-PCR

Distinguished Lecture:

Our students got chance to listen the distinguished lecture delivered by Dr Bala Subramanian Director Emeritus of LV Prasad Eye Institute, Hyderabad, on advances in Biomedical research and development in India.

He enlightened the students about how India became the global leader in manufacturer and supplier of vaccines and medicines.

Our students got opportunity to interact with eminent scientists and understand the pivotal role of animal biotechnology.

Photographs:







Industrial visit to NIAB on 23.10.2019

AY 2020-21: NIL (Not organized due to COVID-19 Pandemic)

AY 2021-22

S. No	Name of the Industry Visited	Dates of Industrial Visit	Report and Photographs
1	TSMPB, Hyderabad	23-11-2021	Available
2	ALEAP WEHUB, Hyderabad	26-11-2021	Available
3	NIAB, Hyderabad	07-12-2021	Available

Industrial visit Report on Telangana state medicinal plants Board,

Hyderabad, Telangana State, GOI, Hyderabad on 23rd, November 2021

Date of visit: 23-11-2021

Duration: 1day

Industry Name: Telangana state medicinal plants Board, Hyderabad, Telangana State, GOI

As part of Industrial visit, Dept. of Biotechnology has organized a one-day visit to Telangana state Medicinal plants Board, Hyderabad on 23th November of 2021. This programme was utilized by 45 students of 4th years (VII semester) and four faculties including Dr Y. Rajasri, Dr C. Obula Reddy, Dr V. Aruna, Dr. G. Vijaya Laxmi coordinated the visit.

We reached the Moolika vanam (Herbal Garden) by 11:00AM. The Deputy Forest Range officer Mr. Rafiuddin received us and explained about the history, importance of medicinal plants and their use in daily life and geographical location and topography of the Medicinal Plants Board, and has given information about the number of traditional medicinal plant species, herbal products and their medicinal use to the society.

After having the scrumptious herbal tea Offered by forest range officer our exploration of herbal garden of area of 56acres started at 11.30AM. During this long stretch of 5-6 kilometers visit , we explored the different species of medicinal plants like insulin producing plant, artificial sugar producing plant, infertility and nervous disorder treatment plant, Anti snake venom plant, Ashwagandha plant, tulasi plant varieties like Rama, Krishna, Lakshmi Tulasi and Lavanga Tulasi and officer makes us to curious to know about the some of the unknown varieties of plants in custard apple like Rama phalam and hanuman phalam and a rare variety of Tulasi, Lavanga Tulasi and their medicinal use.

After a brief recreation the students started the exploration of herbal garden and played with the plants like Touch me not plant, scientifically named as Mimosa pudica.

Later we started to observe green house facilities and acclimatization process.

With these cherished moments and loaded with abundant charka samhitha Knowledge, the students reached the college by 3.30PM.

Industrial visit Outcome: Through this visit, students' knowledge is enriched about medicinal applications of various species of Medicinal plants and ignited them to compare the uses of medicinal herbs over the chemical synthetics and their side effects.

By attending the industrial visit, the students attained the respective POs and PSOs.

Photographs:







Industrial visit to Telangana state Medicinal Plants Board on 23.11.2021

Industrial visit Report on ALEAP WEHUB, Hyderabad,
Telangana State, Hyderabad on 26th, November 2021

Date of Visit: 26-11-2021

Duration: 1 day

Target students: B. Tech Biotech VII Sem

Industry Name: ALEAP WE HUB, Hyderabad, Telangana

As part of Industrial visit, Dept. of Biotechnology has organized a one-day visit to ALEAP-WE HUB, Pragathinagar, Hyderabad on 26th November of 2021. This programme was utilised by 51 students of 3rd years (5th semester) and five faculties including Dr C. Obula Reddy, Dr V. Aruna, Dr. B. Mishra, Dr. B. Sumithra & Dr. Y. V. Kiran coordinated the visit.

We travelled through the college bus and reached the destination at 11.30 AM. DR ZAHORULLAH S.MD, Chief Innovation Officer of We- HUB addressed the students and presented the orientation about the goals of WE- Hub and different start-ups activities involved with ALEAP in their conference room. He demonstrated about each and every process that are part of ALEAP and detailed about how this incubator fosters different young entrepreneurs especially women to start-up and scale up by providing support in funding, mentoring and for growth. Finally, motivated the students to come up with new innovative ideas and to build their start-ups by synergizing with WE- HUB.

Later, students were formed into three groups and were taken to view & understand actual manufacturing units of ALEAP. The 4 units visited include Biotechnology, Bio - plastics, 3D printing, solar panel assisted food drying and food production unit where biscuits making & packaging were explained. With this, students and the teacher guides returned to college by 4.10 pm.

Through this visit, students gained knowledge about various types of industries and the associated challenges. This also ignited the students with identifying different entrepreneurial opportunities and objectives that enable them to build their start up.

Photographs:



Students observing 3D Printers



Biotech Faculty with ALEAPWEHUB Chief Innovation officer Dr Zahoorullah (Extreme Right)



Our Biotech VI Sem Students at ALEAP WEHUB

Industrial visit Report – National Institute of Animal Biotechnology (NIAB), Hyderabad on 07th, December 2021

Date of visit: 07-12-2021

Duration: 1day

Industry Name: National Institute of Animal Biotechnology, GOI, Hyderabad.

As a part of Industrial visit, Dept. of Biotechnology has organized a one-day visit to NIAB, Hyderabad on 7th December of 2021. We are the students of B. Tech Biotechnology VII Sem and faculty members visited the NIAB, DBT, GOI, Telangana State. This programme was utilized by 25 students of 4th years (VII semester) and Five faculties including Dr C. Obula Reddy, Dr. G. Vijaya Laxmi coordinated the visit.

We reached the Institute by 11:00AM. The scientist Dr BalaDurgaprasada Rao cordially received us and presented the AV about the inception of the NIAB, their research and their immense contributions to the livestock society. After a brief introduction about their scientists Prasad sir, provided us a great chance for our students and faculty to exchange views and ideas with them.

Under the eminence guidance of Scientist in charge we got ever lost chance to observe the small animal house and live demonstration of different routes of administration of injections, collection of Blood and provided an opportunity to students for methodology of handling of Animals.

After refreshments we started to observe the instrumentation facilities in NIAB namely PCR, RT- PCR, Microscopic visualization of developmental stages of embryo, Microinjection, made the students to understand the working principles of different types of SEM, TEM, Confocal and Laser Microscopy and techniques for the purification of proteins like GC-MS, LC-MS, HPLC.

After observing the Instrumentation facilities again scientist in charge made us to interact with the veterinarians to discuss about the uses of maintaining (isolation, vaccination) large animal house facility.

With these cherished moments and loaded with abundant Transgenic animal research, the students reached the college by 3.30PM.

Industrial visit Outcome: Through this visit, students' knowledge is enriched about Animal Biotechnology, and made them to familiar with state of art instrumentation facilities and motivated them towards research in Animal Biotechnology.

By attending the industrial visit, the students attained the respective POs and PSOs.

Photographs:



Faculty and students' interaction with the Scientists of NIAB



Observation of Animal oocytes



Students handling confocal Microscope



Group photo with scientists of NIAB