



**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING**(Autonomous)

L.B.REDDY NAGAR, MYLAVARAM-521 230.A.P. INDIA

Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi

NAAC Accredited with "A" grade, Accredited by NBA

New Delhi & Certified by ISO 9001:2008

**DEPARTMENT OF CIVIL ENGINEERING (C.E Dept)**

<http://www.lbrce.ac.in>, [hdcivil@lbrce.ac.in](mailto:hdcivil@lbrce.ac.in) Phone: 08659-222933, Fax: 08659-222931

## INDUSTRIAL VISITS ORGANIZED

A.Y	PROGRAM	NAME OF INDUSTRY/COMPANY	DATE	NO OF STUDENTS PARTICIPATED
2016-17	B.Tech	Balaji Ready Mix Concrete Plant, Autonagar, Vijayawada	28-09-2016	60
2016-17	B.Tech	Hospital Waste management Facility operated by M/s Safe Environ, near NRI Hospitals, Guntur District and a 12m culvert being constructed near Kuntamukkala on Bhadrachalam highway	22-10-2016	70
2016-17	B.Tech	<b>Pulichintala Hydro Electric Project, Nalgonda District</b>	10.03.2017	80



**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING**(Autonomous)

L.B.REDDY NAGAR, MYLAARAM-521 230.A.P. INDIA

Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi

NAAC Accredited with "A" grade, Accredited by NBA

New Delhi & Certified by ISO 9001:2008

**DEPARTMENT OF CIVIL ENGINEERING (C.E Dept)**

<http://www.lbrce.ac.in>, [hodcivil@lbrce.ac.in](mailto:hodcivil@lbrce.ac.in) Phone: 08659-222933, Fax: 08659-222931

## **INDUSTRIAL VISIT**

*Industry visit details:* Balaji Ready Mix Concrete Plant, Autonagar, Vijayawada

*Date :* 28-09-2016





**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING**(Autonomous)

L.B.REDDY NAGAR, MYLAVARAM-521 230.A.P. INDIA

Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi

NAAC Accredited with "A" grade, Accredited by NBA

New Delhi & Certified by ISO 9001:2008

**DEPARTMENT OF CIVIL ENGINEERING (C.E Dept)**

<http://www.lbrce.ac.in>, [hodcivil@lbrce.ac.in](mailto:hodcivil@lbrce.ac.in) Phone: 08659-222933, Fax: 08659-222931

## Report

The Second year and Fourth year B. Tech. Civil Engineering students (2013 &2015 batch) of Lakireddy Balireddy College of Engineering Mylavaram have underwent an Industrial visit to the **Ready mix concrete plant** at Autonagar, Vijayawada on **28-09-2016**. The students are divided into 8 batches under the control of three faculty members.

There are several advantages of ready mix concrete which is widely used nowadays. (i) high speed of construction (ii) quality production of concrete (iii) efficient reduction in cement used (iv) ease of placing at required location (v) storage space for the raw materials is avoided (vi) reduction of environmental pollution in terms of dust and less cement use.

The Balaji Ready Mix Concrete plant at Autonagar, Vijayawada is operated at a production capacity of 1 m<sup>3</sup> per batch of concrete making. The raw materials for concrete making viz., coarse aggregate, fine aggregate and cement are locally procured. The aggregates are stored in separate chamber. They are mixed with cement falling from silos in a special mixing tank. The mixed concrete is finally collected separately. It is finally transferred to a transit mixer and is sent to the customer.

The industrial visit has given a very good exposure to all the students with regard to mixing and making of ready mix concrete, which is an essential requirement of construction of structures at the site.



**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING**(Autonomous)

L.B.REDDY NAGAR, MYLAVARAM-521 230.A.P. INDIA

Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi

NAAC Accredited with "A" grade, Accredited by NBA

New Delhi & Certified by ISO 9001:2008

**DEPARTMENT OF CIVIL ENGINEERING (C.E Dept)**

<http://www.lbrce.ac.in>, [hodcivil@lbrce.ac.in](mailto:hodcivil@lbrce.ac.in) Phone: 08659-222933, Fax: 08659-222931

## **INDUSTRIAL VISIT**

**Industry visit details:** Hospital Waste management Facility operated by M/s Safe Environ, near NRI Hospitals, Guntur District and a 12m culvert being constructed near Kuntamukkala on Bhadrachalam highway

**Date :** 22-10-2016





**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING**(Autonomous)

L.B.REDDY NAGAR, MYLAVARAM-521 230.A.P. INDIA

Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi

NAAC Accredited with "A" grade, Accredited by NBA

New Delhi & Certified by ISO 9001:2008

**DEPARTMENT OF CIVIL ENGINEERING (C.E Dept)**

<http://www.lbrce.ac.in>, [hodcivil@lbrce.ac.in](mailto:hodcivil@lbrce.ac.in) Phone: 08659-222933, Fax: 08659-222931

## Report

The 3<sup>rd</sup> year B Tech Civil Engineering students of Lakireddy Balireddy College of Engineering, Mylavaram have underwent an industrial visit to the Hospital waste management facility near NRI Hospitals, Guntur District and a 12m span culvert being constructed near Kuntamukkala on Bhadrachalam highway on 22.10.2016.

The Hospital waste management facility is unique of its kind and is the first facility in Krishna and Guntur districts to be operated. The facility collects 1500 kg/day of hospital waste from the hospitals in Vijayawada and Guntur. Around 95% of the hospitals in both the cities are registered with this facility for safe disposal of their hospital waste. The waste is categorized and sent to the facility in different color bags by the hospitals as per the MoEF norms of Bio medical Waste Management and Handling Rules. An incinerator heats the waste to 1100C and the 80 kg/day of ash produced is disposed off in concrete pits lined with polythene sheets. The plastic wastes such as syringes are crushed and sterilized in an autoclave and sent for recycling after sterilisation. The sharp objects such as blades, knives, needles etc are disinfected using hypochlorite solution and disposed off in concrete pits. The wastewater produced from the plant is recycled after initial treatment and is used in the premises for washing and gardening. Usage of personal protective equipment such as goggles, gloves and long boots are mandatory in the facility for ensuring safety of the personnel.

The students later visited the construction of a 12 m span culvert being constructed as a part of road expansion on Bhadrachalam highway near Kuntamukkala. The students studied the reinforcement details of slab and side walls being used for the purpose.

The industrial visit has given a very good exposure to all the students with regard to the guidelines prescribed by the MoEF in India for Bio Medical waste Management and handling and the safety precautions that are to be taken in the operation of such facility. Study of the reinforcement details of culvert have given additional insight to the students with regard to placing of reinforcement in the site construction.



**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING**(Autonomous)

L.B.REDDY NAGAR, MYLAVARAM-521 230.A.P. INDIA

Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi

NAAC Accredited with "A" grade, Accredited by NBA

New Delhi & Certified by ISO 9001:2008

**DEPARTMENT OF CIVIL ENGINEERING (C.E Dept)**

<http://www.lbrce.ac.in>, [hdcivil@lbrce.ac.in](mailto:hdcivil@lbrce.ac.in) Phone: 08659-222933, Fax: 08659-222931

## **INDUSTRIAL VISIT**

Place of Visit: **Pulichintala Hydro Electric Project, Nalgonda District**

Date: 10.03.2017

Target students: 3<sup>rd</sup> and 4<sup>th</sup> B.Tech Civil Engineering students





## **REPORT**

As a part of IE (I) Civil Engineering Student Branch LBRCE activity, an industrial visit to Pulichintala Hydro Electric Project, a 120 MW hydroelectric power station (4 units of 30 MW each), located in Nalgonda District was organized on 10.03.2017. Around 100 B.Tech civil students from 3<sup>rd</sup> and 4<sup>th</sup> year along with 5 faculty members took part in the visit.

The Pulichintala dam built across the Krishna River between areas in Nalgonda on one side and Guntur on the other side, is the third major irrigation project, after Srisailam and Nagarjunasagar. It was opened on 7 December 2013 by Chief Minister of Andhra Pradesh.

The project has a total pondage of 45.77 TMCft out of which 30 TMCft will be live storage while the rest will be dead storage. This dam has a height of 42.23m, length of 2922m, and width of 31m. It gives irrigation facility to 13 lakh acres. It has 24 gates in all with a balancing reservoir of capacity of 45.77 TMCft. The plant is currently under the control of TG (Telengana) GENCO. When water impinges on turbine through a penstock with a high velocity, propeller blades rotate. The 3 phase alternator or simply generator coupled to the turbine produces electric power.

The plant consists of a 3 Phase ac alternator consisting of 48 poles and generates power of 120MW, is currently in designing process. The plant is fitted with 4 Kaplan turbines each having 6 blades capable of producing 30 MW each. Kaplan turbines are widely used throughout the world for electrical power production.

The plant authorities gave a detailed account of various technical issues of the plant such as alternator working process and its parts such as stator, rotor and electromagnetism phenomena, draft tubes, penstocks, working and advantages of Kaplan turbines, pumping system beneath the dam, location of the dam, and principles of energy conversion – hydro – mechanical – electrical and subsequently generation of electricity.

The visit, primarily an educational tour, helped the students and the faculty members to get a very good exposure of the basics behind planning, construction, working and various practical aspects of a hydro electric project. The help and cooperation from the plant authorities was excellent as they explained all the necessary details in a lucid manner.