

2018-19

Industrial Visits

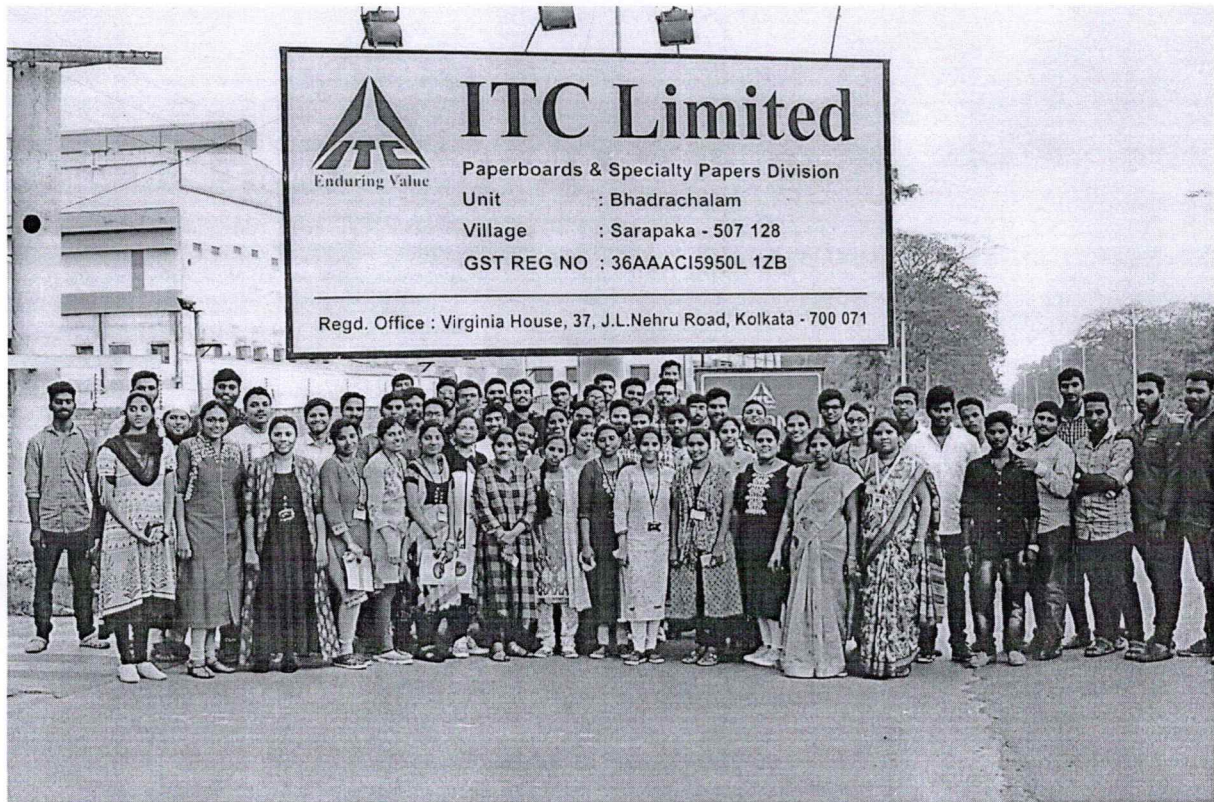
S.No	Date of Visit	Industry Visited	Place	Year & Section
1	03/01/2019	K.C.P Sugar and Industries Corporation LTD	Vyyuru	III/IV EIE Section A 58 students participated
2	04/01/2019	K.C.P Sugar and Industries Corporation LTD	Vyyuru	III/IV EIE Section B 57 students participated
3	02/03/2019	ITC limited, Paperboards & Speciality papers division	Bhadrachalam	IV/IV EIE Section A & B 57 students participated

H. Srinivas
(H. Srinivas)
Incharge

G.N. Swamy
Dr. G.N. Swamy

HOD EIE
HEAD
Dept. of Electronics & Instrumentation Engg
V.R. Siddhartha Engineering College
VIJAYAWADA-520 007

INDUSTRIAL TOUR REPORT (4/4 B.Tech EIE)



For the batch of 2015-2019, the currently studying-outgoing batch have been taken to the ITC PAPERMILL BHADRACHALAM for an insight on functioning of a paper industries about which they have a subject in their current semester. A total number of 57 students have participated in the visit, we were let in to visit the plant in the afternoon. The 62 people were divided into two batches. While entering the plant, we were informed and equipped with suitable safety gear. We were informed that a few years back, the section where the trees are reduced to chip and processed to form the pulp is automated. Hence, we were not taken to that facility but given an oral briefing. We were initially taken to a conference room, a senior engineer belonging to the industry explained us in detail about working of their industry and where they get the wood from. For the wood, they import certain fibres from Canada and other cold countries in the west, and some of them are picked from the

plantations company owns which are spread in around 100 acres. We were informed about the job opportunities they provide to instrumentation engineers. After the presentation, we were escorted to the section where the pulp is pressed. We were shown the dryers and how the dryers extract the moisture from the pulp. After the drying, the paper is sent to finishing section, where it is polished and the output is rolled in huge rolls. These rolls are sent to another facility where the cutting and conversion of this rolls into various forms like books, A4 sheets etc are made. The security was airtight and the safety of the students was taken care of. At the end of the tour, everyone was able to identify and understand the procedure which will make paper.


(Incharge)

ANS
Dr. G. N. Swamy
HOD EBE
HEAD
Dept. of Electronics & Instrumentation Engg
V.R. Siddhartha Engineering College
VIJAYAWADA-520 007

Vijayawada,
Date 28-02-2019

From
Dr.G.N.Swamy
Professor & Head,
Department of Electronics & Instrumentation Engineering,
VR Siddhartha Engineering College,
Vijayawada.

To
The Principal,
VR Siddhartha Engineering College,
Vijayawada.

Subject: Permission for industrial visit-Request-Reg:

Respected Sir,

We got permission from ITC limited-Paper Board & Specialty Papers Division (ITC PSPD) Bhadrachalam for industrial visit, on 2nd March 2019 at 2.00 PM.

We want to take 80 students of B.Tech IVth year Electronics & Instrumentation Engineering and 4 faculty members for visiting the plant.

So kindly grant us permission for visiting the plant.

Thank you Sir,

Yours truly

J/c P. Sarinivas
(Dr.G.N.Swamy) 01/03/19

Professor & Head, Dept.EIE

permitted

JS
4/3/19

HEAD
Dept. of Electronics & Instrumentation Engg
V.R. Siddhartha Engineering College
VIJAYAWADA-520 007

ESTD : 1977



VELAGAPUDI RAMAKRISHNA
SIDDHARTHA ENGINEERING COLLEGE
(Autonomous)

KANURU, VIJAYAWADA-520 007

(Sponsors : Siddhartha Academy of General and Technical Education)
Affiliated to Jawaharlal Nehru Technological Univeristy Kakinada
Approved by AICTE, Accredited by NAAC with 'A' Grade
An ISO 9001 : 2008 Certified Institution

91 866 2582333
866 2582334
866 2584930
866 2582672 (F)

e-mail : principal@vrsiddhartha.ac.in

web : www.vrsiddhartha.ac.in

Ref :

Vijayawada, Dt :

Date 25-02-2019

To

The General Manager,

HR Department,

ITC PSPD,

Bhadrachalam,

Khammam(Dt).

Respected Sir,

Subject: Permission for industrial visit-Request-Reg:

I submit the following few lines for your kind consideration and favorable orders please. It is hear with request to allow 80 students of IV/IV B.Tech and 4 faculty members of E.I.E department from V.R. Siddhartha Engineering College, Vijayawada.

As per academic schedule, we need to attend industrial visit, in this regard we request kind authority to issue favorable orders for visit ITC Limited – Paperboards & Specialty Papers Division (ITC PSPD) Bhadrachalam, On 02 March, 2019.

We shall be ever grateful to your consideration and favorable action please.

Thanking you sir,

H.P. Srinivas
25/02/19



Yours Truly

H.P. Srinivas

(Principal)

PRINCIPAL
V.R. Siddhartha Engineering College
AUTONOMOUS
VIJAYAWADA-520 007

REPORT ON INDUSTRIAL VISIT

K.C.P Sugar And Industries Corporation Ltd.(VUYYURU)

EIE-B

DATE:04/01/2019

INTRODUCTION

This sugar unit is established at Vuyyuru in the year 1941 with a crushing capacity of 600 TCD. The present crushing capacity is 8500 TCD and this is one of the largest sugar factories in the country and also one among the most modern. A State of Art Technology is being continuously tried and incorporated in the plant.

There is a Distillery plant at Vuyyuru Sugar Factory with a capacity of 50 KLPD, upgraded from 25 KLPD. The plant has been designed to produce bio-ethanol to fall in line with the government's policy and to meet the target to reduce the import of crude oil and save foreign

exchange. The sugar unit at Vuyyuru has a cogeneration plant also to produce 15 MW of power per day.it allied business consists of

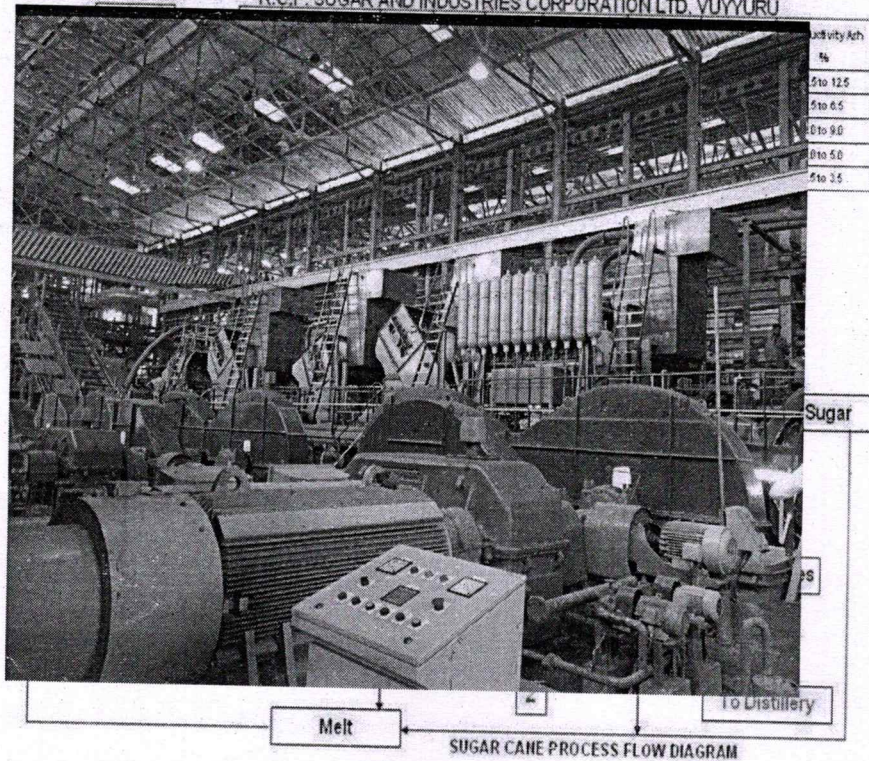
manufacturing and marketing of Rectified Spirit,

Extra Neutral Alcohol, Ethanol, Incidental Cogeneration of Power,

Organic Manure, Mycorrhiza Vam, Calcium Lactate and CO₂. Company

has two sugar factories located in Krishna District , Andhra Pradesh

having an aggregate crushing capacity of 11,500 tons per day.



SUGAR MANUFACTURING PROCESS

Procurement of Sugarcane from the registered areas through Zonal Offices. Weighment of Sugarcane in the Weigh Bridge. Feeding of sugarcane in the Cane Carrier. Preparation of Sugarcane into fine fibers through leveler units. Feeding of prepared Sugarcane into the mills. Extraction of 72% of Juice from the prepared Sugarcane in the first mill. Juice Imbibitions to extract maximum juice in the remaining Fibers. Juice is taken for boiling purpose. Excess bagasse is sold. The Juice extracted from the Mills is measured. Treating of Juice in the Juice heaters. Addition of liquid lime and sulphur-di-oxide in juice Sulphitor. Separation of Clear Juice and muddy juice in the clarifier. Clear Juice is sent for evaporation in the semi-kestners and Evaporators. Extraction of juice from muddy residue through Vacuum Filters. The extraction juice is reduced into Syrup after evaporation of water particles Addition of Sulphur-di-oxide to the syrup in order to improve the colour of the sugar. Syrup is sent to pans for massecuite boiling. Production of massecuites by adding of various types of molasses and syrup. Preparation of A, B &

C massecuite. A massecuite is improved from B massecuite. B massecuite is improved from C massecuite. Separation of C massecuite into C Seed and Final Molasses in the centrifugals. Separation of B massecuite into B heavy and B Seed in the centrifugals. Separation of A massecuite into Whiter Crystal sugar and a heavy and a light in the Centrifugals. The White crystal sugar is dried in the Sugar Hoppers. White crystal sugar is graded in the Graders. The non-uniform size sugar is sent for melting. Graded White Crystal Sugar is sent for weighment and bagging. Graded White Crystal Sugar is sent to sugar godown for stacking. Sale of sugar is based on the allotment given by the government of India.

AUTOMATION

As in many other industries factory automation has been promoted heavily in sugar industries in recent decades. The production process is generally controlled by a central process control system, which directly controls most of the machines and components.


Only for certain special machines such as the centrifuges in the sugar house decentralized plcs are used.

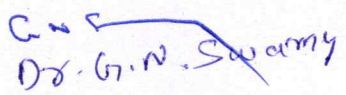
Centrifuges are monitored and operated using scada, so that the workers/technicians can be able to know what is happening without direct interaction with the system. emergency start/stop buttons are provided. All these operations are controlled by plc.

Flow and Pressure measurement plays an important role in sugar industry. As the juice and brown liquid flow is needed to be controlled for effective production of sugar. The controlling can be done using different electronic gauges and control valves connected to plc.



Thank you,
EIE-B


In charge


HOD, EIE
HEAD
Dept. of Electronics & Instrumentation Engg
V.R. Siddhartha Engineering College
VIJAYAWADA-520 007

**VELAGAPUDI RAMAKRISHNASIDDHARTHA ENGINEERING COLLEGE
ELECTRONICS AND INSTRUMENTATION ENGINEERING**

KANURU, VIJAYAWADA-520 007, A.P, INDIA


Phone: 2582333, 2584930 Fax: 0866-2582672


Date: 01-03-2019

Circular

The following staff members are deputed for ITC limited paperboards & specialty papers division, Badrachalam, on 02-03-2019 to accompany 4/4 B.Tech students as part of Industrial visit.

Date	Name of the Faculty
02-03-2019	Md.Firose Shaik, G.Jalalu, P.Sushima Chowdary, K.Prasanthi


M.Srinivas
Coordinator


Dr.G.N.Swamy
HOD: EIE
HEAD
Dept. of Electronics & Instrumentation Engg.
V.R. Siddhartha Engineering College
VIJAYAWADA-520 007

REPORT ON INDUSTRIAL VISIT

K.C.P Sugar And Industries Corporation Ltd.(VUYYURU)

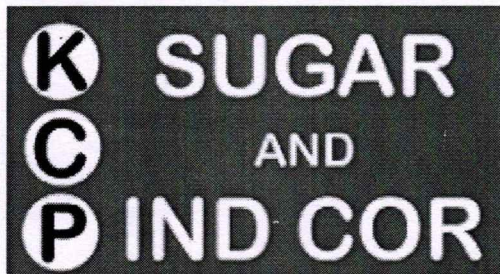
EIE-A

DATE:03/01/2019

INTRODUCTION

K.C.P Sugar and Industries Corporation Ltd is one among the leading sugar manufacturing companies in India . Its allied business consists of manufacturing and marketing of Rectified Spirit, Extra Neutral Alcohol, Ethanol, Incidental Cogeneration of Power, Organic Manure, Mycorrhiza Vam, Calcium Lactate and CO₂. Company has two sugar factories located in Krishna District ,Andhra Pradesh having an aggregate crushing capacity of 11,500 tons per day.

The Company endeavor to give utmost satisfaction to its customers in all spheres of its business activities by achieving the highest standard of quality that meets its customer requirements.



PROCESS

The sugar cane brought from fields goes under two separate washes. The sugar cane should be clean for extracting clean juice. The sugar canes are separated and cutted into pieces using cutters and their structure is broken using crushers where rotating hammers break the cane into small pieces.

The small pieces of canes are loaded into milling tendons which are designed to extract the juice from the crushed sugar cane. In this stage the cane passes through 4 mills where big cylinders compress the sugar canes. The juice and the pulp are separated after this stage. A tank collects the juice extracted.

After some process like sulphatation which bleaches the juice, alkalization, sedimentation etc...

The processed juice now collected into an evaporator it increases the concentration of sugar. The juice passes through 3-4 evaporators. These process results in a brown solution having high concentration of sugar

Sucrose is added to the brown solution due to some chemical reactions which helps in separation of unwanted junk. The remained solution again boils in tanks to form sugar. Workers will monitor how the sugar is crystalizing.

It then passes through a high speed rotating machines. Where the solution is rotated with high speed, due to centrifugal force generated sugar crystals from the brown solution is removed. Where molasses is completely separated. Water sprays are used to cleanup the sugar.

Even after this stage it contains molasses which is removed by some process then the sugar is moved into dryer. The dried sugar passes into packaging section. The sugar produced will be in three different sizes. According to their sizes they are categorized into different grades like L30, M30 and S30.

AUTOMATION

As in many other industries factory automation has been promoted heavily in sugar industries in recent decades. The production process is generally controlled by a central process control system, which directly controls most of the machines and components.

Only for certain special machines such as the centrifuges in the sugar house decentralized PLCs are used.

Centrifuges are monitored and operated using scada , so that the workers/technicians can able to know what is happening without direct interaction with the system. emergency start/stop buttons are provided. All these operations are controlled by plc.

Flow and Pressure measurement plays an important role in sugar industry. As the juice and brown liquid flow is needed to be controlled foreffective production of sugar. The controlling can be done using different electronic gauges and control valves connected to plc.



Thank you,

EIE-A

(Signature)
(Incharge)

CNS
Dr. G.N. Swamy
HOD, EIE

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Dept. of Electronics & Instrumentation Engg
V.R. Siddhartha Engineering College
VIJAYANAGAR, 201007

V.R.SIDDHARTHA ENGINEERING COLLEGE
Department of Electronics & Instrumentation Engineering
Kanuru, Vijayawada- 520007
Ph No: 0866-2582333/2582672

Date: 02-01-2019

CIRCULAR

The following staff members are deputed for the KCP Sugars and Industries Limited, Vuyyuru on 3rd and 4th Jan 2019 to accompany the 3 / 4 B.Tech students as part of industrial vist.

Date	Name of the Faculty
03-01-2019	Sri Mahammad Firose Shaik and Smt.S.Kalapana
04-01-2019	Sri V Naga Prudhvi Raj and Smt Ch. Jaya Lakshmi

[Handwritten signatures and initials]

[Handwritten signature]
M.Srinivas

Industrial Tours Coordinator

[Handwritten signature]
(Dr.G.N.Swamy)

Professor & HOD, Department of EIE

HEAD
Dept. of Electronics & Instrumentation Engg
V.R. Siddhartha Engineering College
VIJAYAWADA-520 007

EIE



V.R.SIDDHARTHA ENGINEERING COLLEGE
Department of Electronics & Instrumentation Engineering
 Kanuru, Vijayawada- 520007
 Ph No: 0866-2582333/2582672

VRSEC/2018/EIE/1021

**Vijayawada,
29-12-2018**

To,
 The Principal,
 V.R.Siddhartha Engineering College,
 Kanuru,
 Vijayawada.

Respected Sir,

Sub: Request for arrangement of two buses to industrial visit – Regd.

We are pleased to inform you that we have taken permission to visit KCP sugars at vyyuru on 3rd & 4th Jan 2019. In this regard we request you to arrange two buses on these dates. We are planning to visit the industry at 09:30 A.M and we will return by 03:30 P.M.

Thanking You,

*Forwarded to
 the Secretary / SAGTE*

[Handwritten signature]

PRINCIPAL
 V.R.Siddhartha Engineering College
 AUTONOMOUS
 VIJAYAWADA-520 007.

G.N.S
 (Dr.G.N.Swamy)
 Professor & HOD,
 Department of EIE
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