

A Report
On
Industrial Visit
to The Krishna District Milk Producers,
Vijayawada

**Organised By Electrical and Electronics Engineering Department K L
University**

Venue: The Krishna District Milk Producers, Vijayawada, India.

**Managed By: Mr. M Srikanth, Mr. K P Prasad, Mrs. B jyothi (Faculty of
Department of Electrical and Electroncis Engineering)**

Date: 27th March 2018 Time: 10:00 am to 01:00 pm

Department of Electrical and Electronics Engineering of K L E F Organised industrial Visit on a date of 27th march 2018 for 70 students of 5th semester @ The Krishna District Milk Producers, Vijayawada to understand actual industrial application of Subject Generation and Transmission which is offered in 5th semester by K L University.





History

Krishna District with its rich heritage and abundant natural resources is famous for Dairying and Agriculture from the beginning. Krishna District extends over an area of 8727 sq.kms with a coastline of 88 Kms. The district has 967 inhabited villages. It has 33% of urban population being second highest in the State next to Hyderabad. The district is divided in to Delta and Upland Zones. Endowed with rich varieties of soils the district occupies an important place in agriculture.

The Dairying and Agriculture activities have gained momentum with the construction of the dam across the river Krishna by Sir Arthur Cotton. Even now Krishna District occupies an important place with reference to Dairying in Andhra Pradesh. It has total cattle population of 8,81,502 out of which breedable cattle are 4,52,209 (cows 38,505 and buffaloes 4,13,704). It has the distinction of starting dairy activities under organised sector in A.P. in the early sixties of 20th century. The first powder plant of South India was established in Vijayawada.

With all its inherent features and natural resources, Krishna District is still continuing as the leader in dairying, maintaining International Standards, and won ISO 9001:2000 and HACCP certification-for its Milk Products Factory. The present turnover of the union business is around Rs.120 Crores.

DETAILS OF VISIT

Product Range:- Krishna Milk product range includes milk powders, milk, butter, ghee, cheese, MastiDahi, Yoghurt, Buttermilk, chocolate, ice cream, cream, shrikhand, paneer, gulabjamuns, flavoured milk, basundi, Krishna Milk Pro brand and others. Krishna Milk PRO is a recently launched brown beverage just like bournvita and horlicks offering whey protein, DHA and essential nutrients. → Krishna Milk launched India's first sports drink, Stamina, which competes with Coca Cola's Powerade and PepsiCo's Gatorade. Krishna Milk offers mithaimate which competes with Milkmaid by Nestle by offering more fat at lower price. → Krishna Milk introduced Kool Koko, a chocolate milk brand extending its product offering in the milk products segment. Other Krishna Milk brands are Krishna Milk Kool, a low-calorie thirst quenching drink; Masti Butter Milk; and Kool Cafe, ready to drink coffee. Krishna Milk icecreams are made from milk fat and thus are icecreams in real sense of the word, while many brands in India sell frozen desserts made from vegetable fat. → Krishna Milk sugar-free Pro-Biotic Ice-cream won The International Dairy Federation Marketing Award for 2007. Anand Plant Produces Milk Powder and Butter.

SUMMARY OF VISIT:

We arrived at KRISHNA MILK at 10:00 AM. After that we gathered at the front gate and visited various sections of KRISHNA MILK .we started with the animation movie for showing glimpse of Krishna Milk dairy from its beginning at Krishna district at auditorium of dairy memorial. It also gave introduction of company profile and its present functioning in dairy industry for different milk products. The technical team has explained automation of dairy through presentation containing many functional block diagrams and existing computerized controlled machineries.

After that the students visited 4 different sections of KRISHNA MILK Dairy Plant:

- 1) Butter plant, where the students were informed of butter production in KRISHNA MILK.
- 2) Milk powder plant, where the students visited manufacturing as well as packing and dispatching functions of KRISHNA MILK
- 3) Refrigeration Unit, where student were getting a knowledge about refrigeration system.
- 4) Milk process unit, where the students were informed of pasteurized milk production Process

In Overall observed Krishna Milk factory where one can see machineries at work and how Krishna Milk products are processed and packed. On the way to the factory, you are captivated by the sight of huge milk silo units which quickly become the best feature of our entire visit

PRODUCTION DEPARTMENT:-

MILK POWDER → Processing Of Milk Powder Contains Classifier Unit, Pasteurizer Unit, Separator, And Powder Packing. → Classifier Unit separates solid impurities from flow of milk. Before that milk was kept at low temperature in tank. → Pasteurizer Unit performs pasteurizing process continuously on milk so that milk was disinfected from bacteria. → A steam Boiler passes heat to the milk and water content was evaporated from milk. After that Separator separates powder and stores to tank. → Powder packing Unit packs that powder into Printed packing boxes

BUTTER

Butter was made from cream made continuously from machine. Salt as Preservatives and color as additives are added to the butter continuously. After that it was packed on automatically Packing Machine. Capacity of butter plant is 25 tons per day.

KNOWLEDGE OF G and T SUBJECT:

We see at industry much equipment, it related to G and T Subject. → Pasteurized Milk Storage Tank- 10 Nos each have capacity of 35729 lits. → Pasteurizer – 3 nos each have capacity of 1700 litres → Separator – 2 nos → Butter milk tanks & Can washer– 5 nos → Weight balance tank & collection tank → Butter milk heating equipment In Krishna Milk 40% electricity consumed by refrigeration plant so refrigeration plant very important unit In Krishna Milk, this refrigeration plant work on base of Vapour compression refrigeration system (VCRS) and refrigerant used for chilled the milk in required temperature.

Refrigeration system has capacity to produce 500 TR of refrigerants for milk processing at 20°C and 200 TR for Ice Cream at -400°C and the system is fully automated without Ice Bank Tanks in order to provide instant cooling to save energy.