



# ADHI

COLLEGE OF ENGINEERING & TECHNOLOGY

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## REPORT OF INDUSTRIAL VISIT AT ICF (INTEGRAL COACH FACTORY)

**ORGANISATION NAME:** ICF (INTEGRAL COACH FACTORY), CHENNAI

**Date:** JULY 04th, 2017

**Time:** 10.30- 2.30 Pm

**Venue:** INTEGRAL COACH FACTORY,

**Organizer:** MR. S.MOSES ALEXANDAR

**Faculty Member:** MR.P.SARAVANAN

MR.R.GOPI

MR.S.SENTHIL KUMAAR

MS.B.NALINI

**Attending students:** Mechanical III<sup>rd</sup> Year.

### ABOUT INDUSTRIAL VISIT

Industrial visit was arranged at ICF (INTEGRAL COACH FACTORY), in CHENNAI on 04<sup>th</sup> July, 2017. The main objective of the visit is to make the students aware of various activities related to furnishing works for manufacturing rail coaches. We (faculty) along with 76 students started from the college for the visit at 8.30 a.m. and reached ICF at 10 a.m . The company is located at perambur in Chennai. As soon as we reached the company we were guided by Chennai rail museum co-coordinator.

### ABOUT THE COMPANY

Integral Coach Factory, Chennai, is a premier Production Unit of Indian Railways manufacturing passenger coaches. ICF is the first of its kind to be established after Independence for the manufacture of light weight, all steel and all welded Integral railway passenger coaches. The factory was set up in 1955 with Swiss collaboration.

## **DESIGN FEATURES**

The design concept of the coach stipulates that the roof, side wall, end wall and the underframe are joined together by welding, to form a fully integral coach shell. The end-wall construction has been made especially strong to make it anti-telescopic to ensure maximum safety to passengers. Further, crashworthy features are provided with CBC design to minimize impact on passengers during accidents/derailments.

From the basic design handed down by the collaborators, ICF has diversified having established its expertise and skill in this field, to design and manufacture more than 350 different types of coaches for Indian Railways and export market. Every time a new type of coach is launched, emphasis is laid on improving passenger comfort, passenger safety and higher speeds. ICF follows standard inspection procedures to ensure quality from raw material stage to the finished coach.

ICF has endeavored to meet passengers expectations through innovations like

- Cushioned seats in General Second Class and SLR coaches
- Provision of Controlled Discharge Toilet Systems
- Anti-injury features in the passenger areas of A/C 2-tier and Sleeper coaches
- Enhanced carrying capacity in A/C 2-tier, First A/C and Garib Rath Chair Car
- Provision of forced ventilation, PIS/PAS in AC/DC EMUs for WR and CR
- UIC vestibules in mainline coaches
- Disabled friendly features in SLRD/SRD coaches
- Modular toilets in passenger coaches
- Stainless steel paneling, handholds in EMUs
- Provision of laptop and cell phone charging points in passenger coaches
- Use of stainless steel in Pantry Cars including interiors and the equipment

## **STUDENT FEEDBACK**

The session was highly informative and interesting. This visit will be very useful for carrying out our project work.

## **PHOTO GALLERY**



**Students at latest manufactured Kolkatta metro train location**



**Students visiting at Chennai rail museum**