

ABOUT BOSCH IN INDIA

Bosch has been present in India for more than 80 years - first through a representative office in Calcutta since 1922, and from 1951 through its subsidiary Bosch Limited. Today, the Bosch Group in India has grown to include 6 group companies of which Bosch Limited is the flagship business entity. Robert Bosch GmbH holds major percent stake in Bosch Limited. Headquartered out of Bangalore, Bosch Limited has its manufacturing facilities in Bangalore, Nashik, Naganathapura, Jaipur and Goa.

These Plants are TS 16949 and ISO 14004 certified. With a presence across automotive technology, industrial technology and consumer goods and building technology, the company has a headcount of over 27,000 associates. It manufactures and trades products as diverse as diesel and gasoline fuel injection systems, automotive aftermarket products, auto electrical, special purpose machines, packaging machines, electric power tools and security systems. In 2013, Bosch in India generated consolidated revenue of nearly Rs 13,200 crores.

Automotive Service Solutions (AS) is a part of Automotive Aftermarket business division in India. AS provide complete service solution for automotive workshops by offering latest workshop/Diagnostic equipment's and giving excellent service and training support. AS contributing to develop the student's skills and knowledge in advanced automotive systems and services by various training and joint certification programs through Bosch training centers and Joint certification training setup at Institutions across India.

OBJECTIVES:

1. Prepare students for industry oriented learning through Bosch automotive training programs with assessment
2. Knowledge sharing on Bosch advanced automotive systems
3. Guest Lectures, Seminars from Bosch professional trainers/experts
4. Advanced and Expert training on Automotive for students in Bosch Training centers
5. Motivate students to work on real time projects with industry
6. Training on real time systems of automotive which helps students to meet the auto industry expectations

OUTCOME/ DELIVERABLES:

1. Skill development of students as a part of their academic will help to fulfill the current industrial need
2. Helps to bridge the gap between Industry and Institution on expected skill level

EXPECTED IMPACT:

1. Fulfillment of skill development to the students required in auto industry
2. Helps to increase the job opportunities
3. Increase the competitiveness among students to bring new development projects in automotive industry

TARGET BENEFICIARIES:

1. Students from Automobile, Mechanical and Electrical and Electronics Engineering
2. Engineering Students from other Institution for service technician training

3. Entrepreneurship training for the students wants to become entrepreneur in Auto service industry

TRAINING PROGRAM MODULES

Bosch Vehicle Diagnosis Kit for Technical Education Institutions

The automotive industry is a rapidly evolving segment. There is a need for approximately 15 million skilled personnel in the next decade. Bosch can help to address this need by providing up-to-date knowledge on latest technologies and offering Custom- made solutions. Globalization and the changing technology landscape demand higher skill levels in the automobile service industry. Though the internet has given additional opportunity to learn about the trend, the challenge is to give students hands-on experience.

Bosch has designed a special training module on Vehicle Diagnosis for the technical students to understand the complexity of modern vehicles and its systems. These training modules will help the student to get the hands on experience on the vehicle system diagnosis and trouble shooting.

1. Vehicle System Diagnosis and Trouble shooting
2. Auto Electrical Systems (Battery, Starter and Alternator)
3. Vehicle Air conditioning Systems and Functions

1. Vehicle System Diagnosis and Trouble shooting

This module talks about modern vehicle architecture and its component. The components are grouped as systems to perform certain functions defined by the vehicle manufacturer like Engine Management system, Battery Management System, Safety systems (ABS, Traction control, Airbag), Power train Module, Body electronics, etc. To understand the design of these systems and function, the Bosch designed world class Diagnosis tool and dedicated ESI [tronic] software which has more than 40000 vehicle system's data.

Key Topics covered in Training

- Basics of Vehicle systems and components
- Vehicle Diagnosis
- Systems related to Diagnosis
- How to trouble shoot a problem in Vehicle by using Bosch Diagnosis tool and Software
- Common Know- how problems during vehicle diagnosis
- Application and usage of guided trouble shooting feature
- Practical training on Vehicle
- Assessment of learning Skill

2. Auto Electrical Systems (Battery, Starter and Alternator)

Like Electronics systems, Auto electrical system plays a vital role from the design stage of a vehicle. Electrical system comprise of Battery, Starter and Alternator. These three elements are like a powerhouse of a vehicle. To understand the components design, testing and troubleshooting on the vehicle by using Bosch advanced auto electrical diagnosis equipment

Key topics Covered in Training

- Introduction on Basic Auto Electrical Systems
- Components and its functions
- Testing the components on vehicle and measure the performance related parameters
- Testing of individual components by using Bosch Diagnosis equipment

- Practical training on vehicle
- Assessment of learning skill

3. Vehicle Air-conditioning Systems and Functions

Every vehicle manufacturer targeting air-conditioning systems availability from a basic variant of the vehicle being launched in the market. It is mandatory for every service engineer to know more about the A/c system function and maintenance in vehicle without affecting the eco system.

Olden days the refrigerant used in the vehicle released in the open air during recycling and service. This leads to affect our eco system adversely. So the modern ecofriendly way of handling vehicle A/c system for refilling, recycling and troubleshooting with Bosch advanced diagnosis equipment.

This training module helps the students to understand

- Vehicle A/c system overview
- Type of Refrigerants
- Air-conditioning system and Maintenance techniques
- Practical training on Vehicle to use Bosch A/C diagnosis equipment
- Assessment on learning outcome

Course Code	Type of Course	Course Title	Duration (Days)
BCS-1	Basic	Training on Vehicle Diagnostics	2 Days
ACS	Basic	Training on Air-conditioning Service	1 Day
AEL	Basic	Automotive Electrical (Starter, Generator, Battery)	2 Days
BB	Basic	Training of Auto Motive Battery	1 Day





