

Automobile Mechanics & IC Engine Design (Winter Training Program) 4 Weeks/30 Days



An ISO 9001 : 2008 Certified Company

Accredited by:



**INTERNATIONAL
ACCREDITATION
ORGANIZATION
HOUSTON U.S.A.**

“PRESENTED BY”

**RoboSpecies Technologies Pvt. Ltd.
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WINTER TRAINING PROGRAM

Automobile Mechanics & IC Engine Design

Course Name	: Automobile Mechanics & IC Engine Design
Certification	: By RoboSpecies Technologies Pvt. Ltd. Accredited by International Accreditation Organization, Houston, U.S.A.
Study Material	: Study Material & CDs Free to each participant

Fees & Duration

1. For Automobile Mechanics & IC Engine Design (**Basic**)
Fees : ₹ 7,990/- per candidate
Duration : 30 Days/4 Weeks

BASIC MODULE – Automobile Mechanics & IC Engine Design	
DAYS	TOPICS
Day 1	<p>Introduction to automobile</p> <ul style="list-style-type: none">• Introduction to Extensive Field of automobile Industrial• Application of automobile: Industrial and service.• Introduction to thermodynamics• Basics of system and surrounding• New and Upcoming Technologies
Day 2	<p>Introduction to laws of thermodynamics</p> <ul style="list-style-type: none">• First law of thermodynamics.• Second law thermodynamics.• Third law of thermodynamics.• ZEROTH law of thermodynamics.
Day 3	<ul style="list-style-type: none">• Introduction to fluid dynamics• Types of fluid motion• Equation of continuity• Bernoulli's theorem• Application to Bernoulli's theorem• Proof of Bernoulli's theorem
Day 4	<ul style="list-style-type: none">• Chemical structure of petrol and diesel• Thermodynamic difference between petrol and diesel• Chemical bonding between carbon atom of thermodynamic fuel

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Day 5	<ul style="list-style-type: none">• Kinematics• Inverse of kinematics
Day 6	PROJECT
Day 7	PROJECT
Day 8	<ul style="list-style-type: none">• Introduction to automobile.• Indian automobile industry• Six sigma rating• Types of locomotive engine
Day 9	<ul style="list-style-type: none">• Chassis design• Terminology and types of chassis
Day 10	<ul style="list-style-type: none">• Suspension unit<ul style="list-style-type: none">▪ Weight transfer▪ Jacking force▪ Anti dive and anti squat▪ Camber and caster angle▪ Spring rate
Day 11	<ul style="list-style-type: none">• Types of suspension<ul style="list-style-type: none">▪ Dependent type▪ Independent type• Front and rear suspension<ul style="list-style-type: none">▪ Mc person strut▪ Coil spring
Day 12	<ul style="list-style-type: none">• Brief history of IC engine• Introduction to IC engine.• Explanation to working principal of IC engine
Day 13	PROJECT
Day 14	PROJECT
Day 15	Completion of Basic Module

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DAYS	TOPICS
Day 16	<ul style="list-style-type: none">• Solid axil, leaf spring and coil spring• Beam axil
Day 17	<ul style="list-style-type: none">• Front and rear suspension• Double wishbone• I beam
Day 18	<ul style="list-style-type: none">• Types of IC engine• Petrol engine• Diesel engine
Day 19	<ul style="list-style-type: none">• Two stroke engine with graph• Four stroke engine with graph• Six stroke engine with graph
Day 20	<ul style="list-style-type: none">• IC engine design• New technology of IC engine• Fuel supply system
Day 21	PROJECT
Day 22	PROJECT
Day 23	<ul style="list-style-type: none">• Cooling system in IC engine• Lubrication System
Day 24	<ul style="list-style-type: none">• Steering in automobile• Power steering in automobile• New technology in steering in automobile

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DAYS	TOPICS
Day 25	<ul style="list-style-type: none">● Fuels and oxidizers<ul style="list-style-type: none">▪ Fuels▪ Hydrogen▪ Oxidizers
Day 26	<ul style="list-style-type: none">● Braking in automobile● Discs brakes● Drum brakes● ABS-anti lock Braking system
Day 27	<ul style="list-style-type: none">● Break actuator● Power brake● Master cylinder● Hydraulic brake● Brake fluids
Day 28	PROJECT
Day 29	Completion of Advance Module
Day 30	Certificate Distribution Cum Farewell Ceremony

Number of Projects Covered in BASIC MODULE

1. Hydraulics and Pneumatics.
2. Engine Head Study.
3. Crank Shaft and Piston Case.
4. Differential Mechanism.
5. Oil Pumps and Filters.

WINTER TRAINING PROGRAM

Automobile Mechanics & IC Engine Design

Why Automobile Mechanics & IC Engine Design Training from RoboSpecies Technologies?

1. Our syllabus is professionally designed to cover **Basic** as well as **Advance** aspects of Automobile Mechanics & IC Engine Design
2. Each day of our training is well planned to provide you the **Theoretical** as well as **Practical** Knowledge of the module
3. Each day will come up with **New Practical's & Projects** which makes the training interesting and exciting.
4. Time to time **Practical Assignments** will be provided to the students, which will help them in doing practice at home.
5. **Revision Time & Query Sessions** are provided to the students which help them in clearing their all previous doubts.
6. **Exam** will be conducted at the end of **basic** as well as **Advance** module to test the knowledge level of the students.
7. Time for **Project Work** will be provided to the students, in which students will develop a project of their own choice. This will encourage **Innovative Ideas** among students.

Pre-Requisites

1. Basic knowledge of C\C++ Programming.
2. Basics of Electronics.
3. Eagerness to learn new innovative things.

Who Could Attend this Training?

- Students from B.E/B.Tech/M.Tech/Diploma (ECE/EEE/CSE/IT/MECH) can join this training.
- Anyone who have interest in this field and have pre-requisite knowledge