GUIDEBOOK FOR MAKING CAREER IN

AUTOMOTIVE & PRODUCT DEVELOPMENT

SELECTING THE BEST INDUSTRY 4.0 COURSE

BY DIYGURU
GUIDE TO SELECT THE BEST COURSE FOR A CAREER IN AUTOMOTIVE AND PRODUCT DEVELOPMENT INDUSTRY.

PREFACE

1. For Students
   ITI / Diploma / B.Tech / M.Tech. / M.S. / Research (Mechanical, Electrical, Electronics & EEE Branch)

   1.1 FUNDAMENTALS: For First & Second-year students, who are new to science and engineering and are looking to boost their CV / Resume to stand out

   1.2 INTERMEDIATE: For Third-year students who are planning about making their career through Campus Placements in Automotive (Original Equipment Manufacturers – OEMS’s & Electric Vehicle) & Product Development Industry.

   1.3 ADVANCED: For Final year students, as they are about to appear for Mechanical Engineering companies interview mainly Automotive / Automation & Product Manufacturing companies.

   1.4 For students who have passed out from Engineering / Technology / ITI / Diploma background and are looking to enter into Automotive or Product manufacturing/development industry.

2. For Professionals

2.1 For Entrepreneurs who are looking to develop an electric vehicle from beginning till the end of the Product lifecycle

2.2 For Working Professionals (Employees, HR’s / Managers / Engineers / Professors) who are looking to upskill themselves in Industrial automation and product manufacturing.

2.3 For Hobbyists who belong from a non-tech background (Commerce / Arts / Law / Hospitality)
For Students
ITI / Diploma / B.Tech / M.Tech. / M.S. Research (Mechanical, Electrical, Electronics & EEE Branch)

FUNDAMENTALS:

For First & Second-year students, who are entering to science and engineering and are looking to boost their CV / Resume to stand out of the crowd in getting Internships and preparing base for making their future in Automotive & Product Development Industry, the best strategy will be to go with the Job oriented Fundamental Certification Courses which includes Fundamentals of Automobile Engineering, Fundamentals of Python for Mechanical Engineers, Motorcycle Engineering Fundamentals, Electrical Machine Fundamentals Training, MATLAB Fundamentals & Additive Manufacturing Fundamentals.

INTERMEDIATE:

For Third-year students who are planning about making their career through Campus Placements in Automotive (Original Equipment Manufacturers – OEMS’s & Electric Vehicle) & Product Development Industry the best strategy,

if they have cleared their Fundamentals Job oriented DIYguru Certification Courses which we have recommended above for sophomore students would be to go with the Job oriented Electric Vehicle Engineering Nanodegree Program, Vehicle Dynamics, MATLAB, CATIA/Solidworks for CAD and ANSYS – CAE for structural analysis and MSC Adams for Multibody Dynamics Analysis like Suspension and other moving automotive body part and finally Automotive Sketching to boost your
knowledge of concepts and software required for Automotive Industry and OEM’s, This will also unable you to boost your resume. Third years is considered vital for your career growth and you can make the best use of time by adding as many certifications in your resume as possible to stand out of the crowd.

ADVANCED:

For Final year students, as they are about to appear for Mechanical Engineering companies interview mainly Automotive / Automation & Product Manufacturing companies, it is best suggested to go with Job oriented Advanced Electric Vehicle Engineering Course and Battery Management System Course if they have already gone there thinking about making their career in EV sector which is growing exponentially and is about to generate 25 lakh jobs by 2025. Electrical & Electronics Engineering students along with Electric Vehicle Fundamental & Advanced Module should go for added Labview Course as well as Specialization in DATA Analytics with Python to have a firm understanding of the subject and open a wide variety of career option in Industrial automation (Industry 4.0)

JOB ORIENTED:

For students who have passed out from Engineering / Technology / ITI / Diploma background and are looking to enter into Automotive or Product manufacturing/development industry making sure that they land a job after doing DIYguru Job oriented course.

The best use of DIYguru platform would be to go with The Job Guaranteed Program or the Job Assistance Program which will enable you to go extensively through the complete set of modules to be completed in a particular time frame.
ENTREPRENEURS:

If you are looking to develop an electric vehicle from beginning till the end of the product lifecycle i.e. right from the planning phase and preparing the basic concept note to market research to designing and analysis of different Electric Vehicle OEM parts and then simulating the components in different software obtaining thermal and fatigue profiles and finally rendering the finished prototype and putting it into manufacturing phase, we have prepared a bundled Industry 4.0 pack which you can buy here – Industry 4.0 Course Package consisting of all required courses with lifetime access.

WORKING PROFESSIONALS (EMPLOYEES, HR’S/MANAGERS/ENGINEERS/PROFESSORS):

who are looking to upskill themselves in Industrial automation and product manufacturing. They can opt for any of the following courses based on their requirements in the industry which they are currently working or looking forward to.

7. MULTI BODY DYNAMICS – https://www.diyguru.org/course/msc-adams-car/
8. BAJA VIRTUALS – https://www.diyguru.org/course/sae-baja-virtuals/
10. LABVIEW – https://www.diyguru.org/course/labview/
11. MATLAB – https://www.diyguru.org/course/matlab-fundamentals/
12. Fundamentals of Automobile Engineering –
https://www.diyguru.org/course/fundamentals-automotive-engineering/
https://www.diyguru.org/course/advanced-electric-vehicle-design-engineering-certification-course/
17. Python for Mechanical Engineers – https://www.diyguru.org/course/python/

3. For Hobbyists:

**Non-tech background (Commerce / Arts / Law / Hospitality)**
All the courses on the DIYguru platform are project-oriented i.e. after successful completion of any course, you are able to create something out of it, for ex. if you are looking to make an electric car/bike of yourself. We would suggest you go with the Electric Vehicle Engineering Course which will enable you to retrofit a petrol/diesel variant into an electric one. If you are looking to design a super finished model of Buggati Veron, go for the Solidworks course. If you are good at arts and sketching go for the Automotive Sketching course.
In case you are looking to repair or troubleshoot your bike/scooter consider opting for Motorcycle Engineering Course. In case you want to start your future journey of beginning a career in Automobile industry you can opt-in this particular manner –

- Fundamentals of Automobile Engineering
- Vehicle Dynamics
- Suspension Analysis
- SolidWorks
- Automotive Sketching
- ANSYS (CAE)
- Electric Vehicle Fundamentals
- Electric Vehicle Advanced

For full details visit: https://www.diyguru.org/careerguide
Electric Vehicle

Occupation Overview
India and Neighbouring Countries

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<tr>
<td>EV Design Engineer</td>
<td>34,450</td>
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<td>Service Mechanic</td>
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<td>BMS Engineer</td>
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<td>Powertrain Engineer</td>
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<td>Manufacturing Engineer</td>
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<td>Production Line Engineer</td>
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<td>Charging Station Engineer</td>
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<td>Dealership Manager</td>
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<td>EV Maintenance Engineer</td>
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| SALARY (INR)*            |           |           |           |           |           |           |           |
| 6-10 Lakh / Yr.          |           |           |           |           |           |           |           |
| 5-7 Lakh / Yr.           |           |           |           |           |           |           |           |
| 5,000 / Hr.              |           |           |           |           |           |           |           |
| 8,000 / Hr.              |           |           |           |           |           |           |           |
| 15-20 Lakh / Yr.         |           |           |           |           |           |           |           |
| 10-15 Lakh / Yr.         |           |           |           |           |           |           |           |
| 4-6 Lakh / Yr.           |           |           |           |           |           |           |           |
| 8-10 Lakh / Yr.          |           |           |           |           |           |           |           |
| 8-11 Lakh / Yr.          |           |           |           |           |           |           |           |
| 10-12 Lakh / Yr.         |           |           |           |           |           |           |           |
| 7-10 Lakh / Yr.          |           |           |           |           |           |           |           |
| 6-8 Lakh / Yr.           |           |           |           |           |           |           |           |
| 15-20 Lakh / Yr.         |           |           |           |           |           |           |           |
| 7-9 Lakh / Yr.           |           |           |           |           |           |           |           |

* As per the research conducted by JP Morgan, India
# COMPANIES HIRING WITH INDUSTRY 4.0 SKILLS

## PROMINENT ELECTRIC VEHICLE COMPANIES

<table>
<thead>
<tr>
<th>Electric Two Wheelers</th>
<th>Electric Three Wheelers</th>
<th>Electric Four Wheelers</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVS Motor</td>
<td>Menza Motors</td>
<td>Hyundai Motor India</td>
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<tr>
<td>Honda Motorcycle &amp; Scooter India</td>
<td>SINA Mobility</td>
<td>Tata Motors</td>
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<tr>
<td>Electrotherm</td>
<td>Hulikkal Electro India</td>
<td>Honda Cars India Ltd.</td>
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<tr>
<td>Tunwal E-vehicles</td>
<td>Tork Motorcycles</td>
<td>Volvo Cars India</td>
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<tr>
<td>UM Lohia Two Wheelers Pvt. Ltd.</td>
<td>Milltex Spero</td>
<td>Mean Metal Motors</td>
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<td>Ather Energy</td>
<td>Volta Motors</td>
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<tr>
<td>Twenty Two Motors</td>
<td>Ajanta Manufacturing Ltd.</td>
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<td>Okinawa Autotech Pvt. Ltd.</td>
<td>GoGreen BOV</td>
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<td>Bajaj Auto</td>
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<td>Shigan EV</td>
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<td>Scooters India Ltd.</td>
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<td>Pi Beam Labs</td>
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<td>Goenka Electric Vehicles Pvt. Ltd.</td>
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<td>Gayatri Electric Vehicles</td>
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<td>Volta Automotive India Pvt. Ltd.</td>
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<td>Pubang Etron Electric Motor Private Limited</td>
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| Electric Buses                        |                                                  |                                                  |
|---------------------------------------|                                                  |                                                  |
| Ashok Leyland                         | JBM                                               |                                                  |
| Goldstone                             |                                                  |                                                  |

**Companies that make Multiple Types of EVs**

- Hero Electric
- Mahindra Electric
- Kinetic Green
- Lohia Auto Industries
- Emflux Motors
- Ampere Vehicles
- Shriram Astral Motors

**EV Components & Support Solutions**

<table>
<thead>
<tr>
<th>EV Component Suppliers</th>
<th>EV Support Solution Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amaron/Amara Raja</td>
<td>TUV Rheinland</td>
</tr>
<tr>
<td>Crompton Greaves</td>
<td>ABB India</td>
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<tr>
<td>Exide Industries</td>
<td>Tata Power</td>
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<tr>
<td>BHEL</td>
<td>Fortum</td>
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<tr>
<td>Elcom International Pvt. Ltd.</td>
<td>NATRIP</td>
</tr>
<tr>
<td>Rotomag</td>
<td>ARCI</td>
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<tr>
<td>Axiom Energy</td>
<td>International Centre for Automotive Technology</td>
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<tr>
<td>ION Energy</td>
<td>ARAI</td>
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<tr>
<td>Napino Auto &amp; Electronics Ltd.</td>
<td>India Energy Storage Alliance</td>
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<tr>
<td>Gegadyne Energy</td>
<td>Sun Mobility</td>
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<tr>
<td>Agastya Automotives Pvt. Ltd.</td>
<td>ACME</td>
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<tr>
<td>Denso India</td>
<td>Lithion Power</td>
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<tr>
<td>Altigreen Propulsion Labs</td>
<td>Hero Future Energies</td>
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COMPANIES HIRING WITH INDUSTRY 4.0 SKILLS

EV & OEM COMPANIES


B - Bajaj Auto | Baleshwar Auto | Banaras Hindu University | Battery Recycling Cos | Baumuller India | Beardsell Limited | Beleyur & Associates | Bestway Agencies Pvt Ltd | BHEL | Bosch India | BPL-FTA Energies Pvt Ltd | Bright Electronics | BRN Dummy AC MOD | Bry Air | BSM Technologies Pvt Ltd | Budding Leaf.


F - FAS Inergeia Solar Pvt Ltd | FCA Engineering India Pvt Ltd | Feed Back Consulting | Fiber opti Ink | Fichtner Consulting Engineers (India) Private Limited | FIDES Electronics | Fireflys Clean Energy Solutions | Focus Solar | Folks Motor (P) Ltd | Force Motors | Fortum India.


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COMPANIES HIRING WITH INDUSTRY 4.0 SKILLS

EV & OEM COMPANIES


I - iacharya silicon limited | IBM | Icarus Propulsion Research Private Limited | Ideal Industries India Pvt Ltd | IFB Industries Ltd | IMC | IL&FS Skills Development Corporation Ltd | India Centre Foundation | India Electronics & Semiconductor Association(IESA) | India Energy Storage Alliance | India Yamaha Motor Pvt Ltd | Indiana LED Lighting LLP | INGENIUM | Injected private limited | International Centre for Automotive Technology | Innovative Honda Pvt Ltd | Ioke motors | ION Energy | IT innovation

J - Janpower India | Jayram Industries India Pvt Ltd | JBM | Jezza motors | jitendra new ev tech | Joegeetha Plastic Pipes | JSR Elastomer India Pvt Ltd | JSW Energy | Jwala Solar


COMPANIES HIRING WITH INDUSTRY 4.0 SKILLS

EV & OEM COMPANIES

- Radiant Solar
- Raghu industrial corporation
- Rajdeep Group of Companies
- Raman Power
- Ranergy Solutions Private Limited
- RAP Motors
- Ravi Renewables
- Raydeon Energy
- RCS Advisors
- Recycling Cos
- Regen Powertech
- Renault Nissan Technology and Business Centre India Pvt Ltd
- Renew Sys
- Republic Motors
- Rexnemo
- Richa Engineering
- Rogers Corporation
- Romai Electric Scooter
- Romax Solutions Pvt. Ltd
- Rotomag
- Rototech Technologies
- Rural Electrification Corporation Limited

- S.K. Engineering
- S.M. Laser Tech
- SA Power Utilities(P) Ltd
- Saatvik Green Energy Pvt. Ltd
- Sameta Metal Pro Pvt Ltd
- Samraj Industries
- Samriddhi Foundation
- Sanjay Technologies
- Sas Infratech Pvt Ltd
- SaveEarth Technologies
- Savita Oil Technologies
- Schneider Electric Infrastructure Limited
- SCI
- Scooters India Ltd
- SemaConnect Systems India Pvt Ltd
- Semco Infratech Pvt Ltd
- Serene Nest
- Shakti pumps India Limited
- Shalimar Enterprises
- Shell India
- Shema E-Vehicle & Solar Pvt. Ltd
- Shigan EV
- Shree Bharat Motors Ltd
- Shri Lakshmi Ganapathy Solar Systems
- Shrid Metal Technologies Pvt Ltd
- Shriram Astral Motors
- Sigma Telecommunication
- Silicon Solar System
- SimplyJITH Investment Corporation Private Limited
- SINA Mobility
- SIRIUS Solar Energy System
- Slidewell Meilleur Tech Pvt. Ltd
- Sloki Software technologies
- Smart Dreams Pvt. Ltd
- Smart Trak
- Smartfence-Solar & Power Fencing
- Soham Ricks haws
- Solar Idea Private Limited
- Solar Promotion International GmbH
- Sonieteck
- Spectra Innovation
- Speedways Electric
- Spero Mobility & Energy Solutions
- Sree Vaishnavi Mata Engineering
- Sri Ravinandana Energy Private Limited
- Sri Savitr Solar Private Limited
- Sritek Electric
- Sujana Group of Companies
- Sumitomo Corporation India Pvt Ltd
- Sundaram Fasteners Limited
- Sun & Wind Inc
- Sun Mobility
- Sunag Engineering Pvt Ltd
- Sungevity Solar Systems Pvt. Ltd
- Sunloop Energy
- Sunshot Technologies Pvt. Ltd
- Suntura Green Energy Pvt Ltd
- SuperEco Automotive
- Supernno industries
- Super Highway Labs Pvt Ltd
- Suraj Kiran Eximport Energy
- Suraj Motor Company
- Surana Solar Limited
- Sure Energy Systems Private Limited
- Suryashakti Enterprises
- Surya Batteries
- Swastik Tradelink