

EMPLOYABILITY MPROVEMENT PROGRAM



ISO 29990: 2010

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RECOGNIZED BY:





wrells unth legartment of industrial Policy and Promotion Ministry of Commerce and Industry Government of India

Ministry of MSME, Govt. of India



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We are India's first company to introduce electric vehicle technology training and development program back in 2016.

We are EV specialized Training & Development and consultancy company which offers end-to-end learning and development solutions to the industry, academia and individuals (students and working professionals) along with consultancy services in Lithium Battery Project Development, BMS testing setups and Lab infra setups.

VISION

To be innovative and sustainable global organization which offers one stop learning solutions platform in EV technology worldwide

MISSION

To be innovative and sustainable global organization which offers one stop learning solutions platform in EV technology worldwide



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FROM THE DESK OF DIRECTOR

Since the advent of this leading company, AUTOBOT India (ABI) has the vision to provide quality technical training and development and act as a rostrum for best practices in electric vehicle engineering, and a mission to develop human potential to its greatest degree. In accordance with this vision, ABI has maintained an exemplary record of training contribution for achieving excellence in training, and knowledge building. A sincere effort has now begun to restore the vantage position of ABI as the top EduTech company in Mobility Technology in India.

AUTOBOT India owes a lot to its participants for all its international reputation and national standing. The participants usually come from varied educational and cultural backgrounds. The programs are designed to instill knowledge development, critical problem solving, hands-on learning, innovation, leadership, teamwork and global focus into its participants. Be it the core electric vehicle technology and engineering, consulting and teaching, we have excelled in each and every field.

ABI has an excellent training and development record. The exposure provided at this place trains not just for technological superiority, but also for an overall understanding of the EV and associated World. The Employability Improvement Program (EIP), EV Bootcamp and Knowledge Improvement Program (KIP) programs are continuously monitored and frequently revised to incorporate cutting edge technological case studies, theories and practicals. Latest technologies and integrated training platforms are employed for effective delivery and the curriculum emphasizes practical orientation.

Employability Improvement Program (EIP) is one of the very unique courses which have been designed in consultation with EV expert and the industry recruiters to offer the latest EV tech exposure with capstone projects to develop industry demanded skills with practical exposure to candidate to grab the best career opportunity in the EV industry with the help of XploreLader (XL) placement drive platform by AUTOBOT India.

I heartily welcome EIP participants to come to this platform and get the best out of each other. Through this brochure, I offer a special invitation to all-electric vehicle enthusiasts and the aspirants! Do Come to the campus and test the transforming environment which has been designed to build the best EV engineers who know and expect nothing less than the best and are not afraid of any real challenge. I hope that participants will transform themselves like never before. We will be happy to see you successfully placed in your EV career.

Let it be my privilege to welcome you to the world of AUTOBOT India.

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ASHWINI TIWARY DIRECTOR - AUTOBOT INDIA PVT. LTD.



MESSAGE FROM HOD - TRAINING AND DEVELOPMENT

The automotive industry is evolving rapidly, vehicles have become more autonomous & technically advanced that they are capable of higher performance, easy to optimize fuel efficiency and zero-emission to prevent environment. With the help of Government initiatives and the Industrial revolution, the electric vehicles will become safer, economical, easy to repair and handle.

The expertise in assembly, design, simulations, battery chemistry, electric motors, and advanced computer systems is becoming highly valued. The boom in EV has opened opportunities for the automobile industry, entrepreneurs, R&D, employability and higher education.

Indian automotive sector is on the threshold of rapid growth and is passing through a transitional phase, ever since the policy of zero-emission was introduced. The new EV technology has made the engineering domains highly complex and has thus posed multiple challenges to the industry professionals to perform and deliver results in their domain of R&D, product development, manufacturing, testing and servicing and maintenance.

The industry professionals have started realizing that their success in the increasingly complex and fast-changing technological environment much depends upon a holistic approach of learning and up skilling to deal with and solve problems.

The AUTOBOT India, being one of the pioneering EV specialized company with his deep understanding of the mobility technology came forward to develop the EV specialized engineers with our cutting edge training and development certification courses with global training standards to ensure the training quality and focused employability development to support the emerging EV industry.

ABI has a dedicated pool of intellectual capital by way of its faculty members who have rich and diversified experience of EV technology, research, teaching and the automotive world. They make the learning experience in the classroom and on workshop floor interesting, interactive, and memorable. Faculty members are deeply involved in organizing seminars, workshops, conferences and EV technology programs for up-gradation of knowledge and skills of working professionals. ABI has a rich resource base by way of a library having e-resources as also hard copies of an EV technology books and journals, design and simulation software. AUTOBOT India is one of the premier and pioneering sought after EduTech company imparting E-mobility technology training that provides distinct experience and exposure to prepare future value-based and specialized EV professionals who can contribute their best to growth and development of Indian and global automotive sector.



"Without your involvement, you can't succeed, with your involvement you can't fail" - APJ Abdul Kalam

SANJEEV BAHADUR HEAD OF THE DEPARTMENT - TRAINING AND DEVELOPMENT B. TECH IN ELECTRICAL ENGINEERING, DELHI COLLEGE OF ENGINEERING M.TECH IN ELECTRICAL ENGINEERING, IIT DELHI, MBA IN INTERNATIONAL BUSINESS



CERTIFICATION AND RECOGNITION

We and our courses are recognized, accredited and certified under various certification bodies like Automotive Skill Development Council (ASDC), Ministry of Small and Medium Enterprises (MSME), Department of Industrial Policy and Promotion(DIPP), Startup India, Skill India and ISO 2999:2010 from the USA.



AUTOBOT India Pvt Ltd programs hold the specialized international ISO 29990:2010 certification for Professional Training and Development and R&D in Electric Vehicle technology. Our ISO certificate is acceptable and valid globally.



AUTOBOT India holds the MSME certificate to promote the EV training and development programs in India and also to empower SME's in EV technology knowledge and skill development to support Make in India mission.



AUTOBOT India is recognized by the ASDC as its expert panel member for Electric Vehicle curriculum development for the Automotive industry promoted by SIAM, FADA and ACMA, NSDC under the Ministry of Skill Development and Entrepreneurship.

INDUSTRY ENDORSEMENT



ARINDAM LAHIRI

CEO - AUTOMOTIVE SKILL DEVELOPMENT COUNCIL (ASDC)

ASDC is happy to learn about the launch of Electric Vehicle Training Center. This effort by AUTOBOT India to pro actively address the need for skilled manpower for the sector will go a long way in the growth of EVs in India. Congratulations to the team.

JITENDRA NALWAYA VICE PRESIDENT - BSES YAMUNA POWER LTD.

I congratulate AUTOBOT to start such initiatives which is very much required in order to provide well trained manpower in E mobility space. This will surely make a positive impact in overall growth of this sector.





RAMESH LAKRA DIRECTOR - QUANTEON POWERTRAIN

Opening of EVLTC to provide domain extensive training in EV Technology to develop future job ready manpower. EVTLC will be a milestone in Indian Electric Vehicle History Well done AUTOBOT India.

NIDHI RAJAN HR MANAGER - MAGNA STYER

Program on EV powertrain design and testing by AUTOBOT India was a very interactive program for our engineers and also the quality of the training content was informative and speakers were having their subject expertise.





+50 MORE CAREER TRANSITION STORIES



It was a great experience working with AUTOBOT India. We got a detailed training session about the mechanical and electrical components. They are able to clear our doubts easily. It feels awesome working with the professor. They provide quick response for our doubts and problems. They also help us for our personal innovations.

KRISH BHAGAT UNIVERSAL COLLEGE OF ENGINEERING, MUMBAI

t type

What we learn in our Engg College it is essential but the fact is, it is out dated as well as so to keep up with the new technology this sort of workshop does help you to enhance your skill and chances of getting hired by good companies so if you're passionate about it just go and enjoy.

DEVENDRA MAHADIK VIDYAVARDHINI COLLEGE OF ENGG. VASAI It was a great experience working with AUTOBOT India. We got a detailed training session about the mechanical and electrical components. Practical experience was awesome with the team. They are able to clear our doubts easily. The professors are crystal clear with the basic with the topics. It feels awesome working with the professor. They provide us quick response for our doubts and problems. They also helps us for our personal innovations. Over all we can say they are very helpful nature faculty.



TIMONIALS

UTOB

CHANDERSEN YADAV K.R. MANGALAM UNIVERSITY

It was a very good experience working under the guidance of AUTOBOT India. They teach us everything from designing to fabrication which is required to make an electric vehicle. I am glad that I have done my summer training from AUTOBOT India.





LAUNCHED INDIA'S FIRST AND



SPECIFICATION

MOTOR	:1000 W - BLDC
TRANSMISSION	:Single speed Gearbox - 1:10
BATTERY	:48V 52 Ah, Lead Acid
RANGE	:50 Km
GROSS WEIGHT	:142 Кд
OVERALL DIMENSION	:1800 x 900 x 900 Mm
LOADING CAPACITY	:600 Kg
MAX. SPEED	:25 крh





BIGGEST EV BOOTCAMP



SPECIFICATION

MOTOR	:1000 W - BLDC
TRANSMISSION	:Single speed Gearbox - 1:10
BATTERY	:48V 150 Ah, Lead Acid
RANGE	:90 Km
GROSS WEIGHT	:155 Kg
OVERALL DIMENSION	:2100 x 1100 x 950 Mm
LOADING CAPACITY	:1000 Кд
MAX. SPEED	:28 крh













EMPLOYABILITY IMPROVEMENT PROGRAM

EIP refers to the Employability Improvement Program, a residential certification program launched by AUTOBOT India, India's first EduTech and a leading technology consulting company in E-mobility. The EIP is being designed to up skill the engineers on the emerging technologies in the E-mobility to support the industry with job-ready manpower.

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EIP is India's first and one of its kind course programs which are recognized under the Government of India EV Mission 2030 and Government of India Skill Development Bodies to support the Government Mission in Employability development for the EV industry.



EVPES ELECTRIC VEHICLE POWERTRAIN AND EMBEDDED SYSTEMS

The Indian Auto industry faces a talent crunch. It gears up for the impending Electric Vehicle (EV) revolution and there just aren't enough engineers with expertise in the field.

"In 2019, current demand pegged at more than 15,000 engineers mostly in electric, electronic and mechanical discipline and likely to touch, 25000 in the next two years or so, provided that only 1000 engineers were employed in 2018 against the demand for 5000 engineers by the auto industry in India for EVs and EV-related projects."

To cater to such a huge skill or employability gap, AUTOBOT India has dedicated spent one year time to design the EIP EVPES for the engineers in consultations with industry experts, EV companies and top recruiters to enhance the candidate's skills to improve cutting edge employability abilities to meet the emerging industry talent demand.

EV-PES course will offer better exposure in the industry to our candidates.





CURRENT TRENDS

The course content is updated as per the ongoing developments in industry, to keep you updated.

FEEDBACK

Because we value your opinion and constantly strive for excellence.

TRAINING EXCELLENCE

Our courses are focused towards individual growth as well as career growth so that participants should achieve the excellence in their future career.

INDUSTRY DEMAND

Our Industrial Networks are consulted time to time to check for skills and knowledge in demand, an to design and modify course around it.

RACTICAL



ASSESSMENTS

Module based assessments of the students is taken. In order to evaluate them on the basis of their involvement and skill up-gradation.

PRACTICAL EXPOSURE

Our unique integrated hands-on modules help to improve the candidate's concept development, critical problem solving, clear understanding of the technology. Modules are being designed up to 60% practical and hands-on activities in the courses.

NOLLOZITA OCASE STUDIES

Updating students on different scenarios and problem statements and how the industry has solved them. Keeping them updated with technology.

TRAINING KIT

Activity based learning and skill development. These are short individual/ group tasks assigned (to be completed within a time frame), under guidance of our trainers.



COURSE

ELECTRIC VEHICLE POWERTRAIN & INTEGRATION

Sr. No.	Name	Training Module Bifurcation				
		Theory (Hours)	Demo (Hours)	Practical (Hours)	Case Studies	Live Projects
01	FUNDAMENTALS OF ELECTRIC VEHICLE EVOLUTION OF EV ECOSYSTEM IN INDIA HOW EV IS PREDICTED TO GROW BIGGER GOVERNMENT POLICIES & STATE POLICIES	06	00	00		
02	BASICS OF CONTROL SYSTEMS & Mathematical Modeling	06	03	00		
03	EV Power & Communication Architecture	04	03	00		
04	EV ENERGY STORAGE TECHNOLOGY	12	00	18		
05	Motor Technology, Driving Techniques & PE Systems	12	00	18		
06	ELECTRIC VEHICLE INTEGRATION	00	0 0	12		
07	Employability Improvement Session	00	00	06		
	TOTAL TRAINING HOURS	40	12	48		
	TOTAL ENGAGEMENT (IN HOURS)	100			08+	05+

ELECTRIC VEHICLE EMBEDDED SYSTEMS

Sr. No.	Name	Training Module Bifurcation				
		Theory (Hours)		Practical (Hours)		Live Projects
01	Basics of Embedded Systems in EV	06	12	12		
02	EV MICRO-CONTROLLERS, SENSOR & Transducers	s 06	06	12		



	inspiring ages					
Sr. No.	Name	Training Module Bifurcation				
		Theory	Demo	Practical	Case	Live
		(Hours)	(Hours)	(Hours)	Studies	Projects
03	EV COMMUNICATION PROTOCOL	09	06	36		
04	SIMULATION-BASED MODELING	03	06	18		
05	Employability Improvement Session	00	06	12		
	TOTAL TRAINING HOURS	24	36	90		
	TOTAL ENGAGEMENT (IN HOURS)	150			08+	05+

IN-PLANT TRAINING AND PROJECT SUBMISSION

Sr. No.	Name	Training Module Bifurcation				
		-	Demo (Hours)	Practical (Hours)	Case Studies	Live Projects
01	Automotive Indian Standards	18	32	00		
02	LIVE EV TRAINING	00	00	50		
	TOTAL TRAINING HOURS	18	32	50		
	TOTAL ENGAGEMENT (IN HOURS)	100			05+	02+

inspiring ages

LEARNING OUTCOME

- Choose suitable drivetrain technology for Indian electric automobile technology.
- Design and development of vehicle chassis, battery pack design and electric vehicle.
- Design and development of efficient lithium battery pack with different size and utility.
- Understand the methods to collect, read and understand CAN, Battery, BMS, MCU and motor data and its significance.
- Working-level knowledge about the integration of Battery Management ECU, Motor Controller ECU & Vehicle ECUs, CAN and LIN protocols.
- Testing, troubleshooting and endurance of electric Vehicle
- Understand the electric vehicle component manufacturer specifications related to the various components/ aggregates in the Electric vehicle
- Understand the functioning of each system, component and aggregate (electrical, mechanical and software) of a vehicle
- Follow standard operating procedure set out for diagnosing faults.
- Conduct inspection of the electric powertrain and aggregates to diagnose.
- Understand the working organizational structure and responsibilities of the Electric Vehicle Industry
- Understand the project tools, project execution and project report development.
- To develop a better approach to communication skills during working hours

KEY SKILLS

- Deep knowledge of Electric Vehicle Technology and its Components
- Industrial design, development and validation protocols
- Focused knowledge on Automotive sensors, transducers, Data acquisition and data processing methods
- Automotive Embedded systems, communication protocols and diagnostics
- Knowledge of various mathematical tools and simulation software
- Knowledge of organizational work flow and documentation

ON JOB TRAINING

- 120+ Hours of practical sessions
- 7+ Industry capstone projects
- Problem-solving practical activities
- Report development and presentation









Mr. Tiwari holds the Bachelor Degree in Electrical and Electronics Engineering with his cross functional experience of over 3 years working in embedded systems, and industrial automations for the various domain application in ICE to EV industry. He has a core domain experience in Powertrain Drives and systems. During his working tenure he was a part of the various EV product development projects from 2 wheeler to 4 wheeler and also projects in warehouse mobility products. He is also specialized in Lithium Battery Testing, BMS Development and R&D Lab Developments.

RAMESH LAKRA of about 20 years. A dedicated



Mr. Ramesh Lakra is an electrical vehicle specialist with expertise for the same of about 20 years. A dedicated motor designer and researcher of electrical vehicles impact on ICE battery technology and its military application and harnessing quantum & amp; plasma energy. He has an experience in the electrical, motor and controller engineering field of study. Mr. Lakra has also presented papers on battery & amp; electric technology for future electric ships in-wheel AFM technology. His electric vehicle related contributions have been recognized by FICCI & amp; Ministry of Science and Technology in India. He has industry knowledge and endorsements in power train and other skills including production floor design of AFM in-wheel motor for EVs and electrical vehicle motor and generator design. His works are very engaging and informative of Electric vehicles. He has got many commendations for his contribution in the field of electrical Vehicles and bringing about this innovation in the market.



RAHUL LAMBA

Rahul has 3 yrs. of experience in EV. Led product development of Li-ion Battery packs for 2, 3 and 4 Wheelers and Buses. Established assembly line for production of Li-ion batteries at various client locations. Benchmarked and evaluated battery packs from global manufacturers for product development. Optimizing efficiency of total drivetrain system including battery, motor, controller to minimize losses for 3 Wheelers in different climatic conditions. Integrated battery packs of various sizes with 6 leading OEMs across the industry. Evaluated and presented the impact of ambient conditions, business use cases on life-cycle of battery packs to Oil PSUs, Private Banks of India. Established battery swapping ecosystem at IIT Madras by partnering with 5 E-Rickshaw manufacturers and evaluated their performance and optimized battery pack algorithms for prolonging the life of Li-ion batteries. Conceptualized and built 1st Indian semi-automatic battery swapper for buses. Designed and developed innovative thermal management solutions for improving performance and life-cycle of batteries



He is having more than one decade of rich experience in Energy Storage System for the Renewable Energy and Electric Vehicles. He has worked on Next-generation electrode materials for Energy (EV) applications -Batteries and Super-capacitors. He is a Scientific Manager on Sustainable Green Technologies and Business management experience emphasis on innovation on urban mobility electrification, advancements in energy storage systems and resource crisis management.





VIJAY R.

Mr. Vijay R has 9 years of experience in Design and Development of Electric Vehicle Projects. Worked with well-known organization like Bharat Electronics Ltd. and Mahindra Reva. His core area of expertise being power electronics, simulations, testing and validation of electric vehicle. Managed tech service and R&D support for Reva electric cars.



ENROLLMENT PROCESS

- Fill up Registration Form with complete personal and academic details.
- Submit the Xerox copy of any Govt. ID Proof and College / School ID Card along with 4 passport size photographs.
- Make the payment through NEFT/ IMPS/UPI/ DD as per the guidelines of training Adviser.
- The student has to pay the full fee in three-phases where the amount of ₹30,000, ₹33,800,
 ₹25000 respectively should be paid by the students or pay the fee in full amount.
- Student has to pay the full fee within 45 days of payment of block amount or cohort start date, whichever is earlier.
- Collect your receipt for fee payment and opt for suitable batch dates from the calendar provided by training Adviser.
- Training will start from 2nd week of July 2020 at AUTOBOT India Learning Centre, Bannerghatta Road, Bangalore.
- For Accommodation, the candidates have to pay full accommodation fee in advance at the time of enrollment. Based on this, we will make arrangements for their accommodation.

BENEFITS TO PARTICIPATING STUDENTS

- The student will be provided Handouts/Study Material discussed in the training program in soft copy and hard copy.
- Course-book, Career Guidance CD (having assistance for the job) & Lab Material would also be provided if required.
- HACKATHON competitions will be held to spot out and Honor the Budding Talents. Students can develop their skill-sets through formalized training programs and capstone projects.
- Career Guidance will be provided during the program on life in the corporate sector since the Students face the most generalized dilemma of what to do after degree program?
- The student will get an opportunity to learn and interact with dedicated and experienced Experts of the organization.
- At the end of the successful completion of the EIP program, AUTOBOT India will provide Global Certification to the participants.



- At the end of the successful completion of the EIP program, AUTOBOT India will provide Global Certification to the participants.
- Opportunity to participate in XploreLader placement drive by AUTOBOT India after the completion of the EIP course.
- Dedicated team for your Soft skill development and mock interview preparation to support you to prepare for the interview.



DOMAIN	FEE (Inclusive of Taxes)	FOOD AND LODGING (Extra)	DURATION
B. Tech	88,500	15,500	O3 MONTHS
Diploma	85,800	15,500	O3 MONTHS

NOTE: The cost of Food and lodging may be flexible depending on the kind of accommodation available as well as individual preferences.



CAREER

In the fast-changing technology environment, it is very important to stay intact upgraded with new skills and knowledge to become unique and to capitalize the job opportunities around you.

With your 3 months, EIP EV-PES certification program you'll be eligible for the following much-demanded job profiles in the EV industry are:











PREVIOUS TRAINING PROGRAMS



Fundamental of Electric Vehicle and Vehicle Testing Magna Steyr India Pvt. Ltd., Kothrud, Pune



Electric Vehicle Battery, Safety and Charging Fiat Automotive India Pvt Ltd, Pune



Automotive Research Association of India (ARAI), Pune



KIP on Lithium Battery: Technology, Safety and BMS Automotive Research Association of India (ARAI), Pune



KIP on Electric Vehicle E-Mobility: Scope, Policy and Technology Automotive Component Manufacturers Association (ACMA)



Fundamental of Electric Vehicle and Vehicle Testing Magna Steyr India Pvt. Ltd., Kothrud, Pune



Electric Vehicle Battery, Safety and Charging Fiat Automotive India Pvt Ltd, Pune



PIP on EV Design, Validation and Certification Automotive Research Association of India (ARAI), Pune



KIP on Lithium Battery: Technology, Safety and BMS Automotive Research Association of India (ARAI), Pune



KIP on Electric Vehicle E-Mobility: Scope, Policy and Technology Automotive Component Manufacturers Association (ACMA)





EV Design and Manufacturing Boot-camp - IICP 2018 Electric Vehicle Technology Learning Centre (EVTLC), Gr. NOIDA



EV Design and Manufacturing Boot-camp - IICP 2018 REVA University, BENGALURU



EV Design and Manufacturing Boot-camp - IICP 2019 EVTLC, Greater NOIDA







EV Design and Manufacturing Boot-camp - IICP 2018 REVA University, BENGALURU



EV Design and Manufacturing Boot-camp - IICP 2019 Volta Automotive, BENGALURU



EV Design and Manufacturing Boot-camp - IICP 2019 EVTLC, Greater NOIDA



EV Design and Manufacturing Boot-camp - IICP 2019 Volta Automotive, BENGALURU



EV Design and Manufacturing Boot-camp - IICP 2019 Volta Automotive, BENGALURU





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