

ARAI Academy Short Term Training Programmes

Automotive Research Association of India (ARAI), established in 1966, is the leading automotive R&D organization of the country set up by the Automotive Industry with the Government of India. ARAI is an autonomous body affiliated to the Ministry of Heavy Industries, Government of India. The Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India, has recognized ARAI as a Scientific and Industrial Research Organisation (SIRO). Further, ARAI is a prime Testing and Certification Agency notified by Government of India under Rule 126 of Central Motor Vehicle Rules, 1989.

In addition to utilizing state-of-the-art technology, laboratories and highly-trained personnel, ARAI recognizes the need to develop a new generation of engineers to meet the demands of the automotive industry, not just in India but across the globe. ARAI Academy is a Skill Development initiative of ARAI. It is classified into divisions, viz Learning Centre, Training Centre. Learning Centre has embarked upon a programme of building up human resources by commencing educational programme (Graduate, PG Diploma, Post Graduate & Doctoral) with specialization in Automotive Engineering. It has tied up with SRM (Chennai), KARE (Krishnankoil), COEP Technological University (Pune), Christ (Bengaluru), Chitkara University, (Chandigarh), MIT World Peace University, (Pune), RIT, (Sangli), SIT, (Pune), JSPM University (Pune) and other Universities.

Training Centre has devised various Proficiency Improvement Programmes (PIPs). It gives engineers, faculty and students knowledge and technical expertise in a wide range of automotive disciplines. It helps in understanding systems view point for automotive design and manufacture, with specific skills in formulating automotive engineering solution in terms of their function and performance. Customized training programmes called Domain Training Programmes (DTPs), where training is imparted at Customer's site / ARAI are also becoming more popular. ARAI Academy has developed high quality e-learning modules called "ePIPs" on various Automobile Engineering subjects. These highly interactive e-Modules hosted on ARAI's own Learning Management System (LMS) <https://elearning.araiindia.com/> help users access these courses anytime & anywhere. With this, ARAI Academy has become global with 360 blended training approach.

TRAINING PROGRAMMES

| TITLE OF THE PROGRAMME | DATE | DURATION | VENUE |
|--|--|----------|--------------|
| Thermal Management of EV Battery | 29 th – 30 th April 2024 | 2 days | ARAI Academy |
| Crash Safety of Vehicle and Bharat NCAP | 2 nd – 3 rd May 2024 | 2 days | ARAI Academy |
| Fundamentals of Automotive Electricals & Electronics | 9 th – 10 th May 2024 | 2 days | ARAI Academy |
| Battery & BMS of Electric Vehicle | 16 th - 17 th May 2024 | 2 days | ARAI Academy |
| EV Charging Infrastructure (Charging Infra + Swapping) (Online 12 hrs) | 29 th – 30 th May 2024 | 2 days | ARAI Academy |

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| Modeling & Simulation of EV by using MATLAB-Simulink | 6 th - 7 th June 2024 | 2 days | ARAI Academy |
| Noise & Vibration Applications in Automotive Engineering | 13 th – 14 th June 2024 | 2 days | ARAI Academy |
| Advances in Manufacturing and Assembly Processes on Lightweight Designs | 20 th – 21 st June 2024 | 2 days | ARAI Academy |
| EV Motor Design | 4 th – 5 th July 2024 | 2 days | ARAI Academy |
| Automotive Lighting | 18 th – 19 th July 2024 | 2 days | ARAI Academy |
| Thermal Runaway for EV Batteries | 26 th July 2024 | 1 day | ARAI Academy |
| EMC for Automotive Application | 1 st – 2 nd August 2024 | 2 days | ARAI Academy |
| Electric Vehicle Technology | 8 th – 9 th August 2024 | 2 days | ARAI Academy |
| Testing of Seating Systems | 23 rd August 2024 | 1 day | ARAI Academy |
| EV Powertrain | 2 nd September 2024 | 1 day | ARAI Academy |
| Hybrid Electric Vehicles | 19 th – 20 th September 24 | 2 days | ARAI Academy |
| AI/ ML for Engineering Application | 26 th – 27 th September 24 | 2 days | ARAI Academy |
| EV Battery Technology and Circular Economy (Online 12 hrs) | 3 rd – 4 th October 24 | 2 days | ARAI Academy |
| High Voltage Safety for Electric Vehicles | 17 th – 18 th October 2024 | 2 days | ARAI Academy |
| EV Testing & Certification | 14 th – 15 th November 24 | 2 days | ARAI Academy |
| Crash Safety | 21 st – 22 nd November 24 | 2 days | ARAI Academy |
| Vehicle Dynamics | 5 th – 6 th December 2024 | 2 days | ARAI Academy |
| Automotive Testing & Certification | 19 th - 20 th December 2024 | 2 days | ARAI Academy |
| Electric Vehicle - NVH | 9 th – 10 th January 2025 | 2 days | ARAI Academy |
| Battery & BMS of Electric Vehicle | 23 rd – 24 th January 2025 | 2 days | ARAI Academy |
| Fuel Cell | 7 th February 2025 | 1 day | ARAI Academy |
| Automotive Embedded System | 6 th - 7 th March 2025 | 2 days | ARAI Academy |

PROFICIENCY IMPROVEMENT PROGRAMMES (PIPs) TO BE PLANNED

| | | | |
|---|---------------|--------|--------------|
| Latest Trends in After Treatment Systems | To be decided | 1 day | ARAI Academy |
| Tyres | To be decided | 1 day | ARAI Academy |
| Electric Vehicles Batteries and Energy Storage Systems | To be decided | 1 day | ARAI Academy |
| Failure Analysis (including Auto & Engine components) | To be decided | 2 days | ARAI Academy |
| Engine Technology | To be decided | 2 days | ARAI Academy |
| Engine Design & Development | To be decided | 2 days | ARAI Academy |
| Alcohol Mobility | To be decided | 1 day | ARAI Academy |
| Automotive Aerodynamics and Styling | To be decided | 2 days | ARAI Academy |
| Automotive Research & Development | To be decided | 2 days | ARAI Academy |
| Automotive Sensors & Actuators | To be decided | 2 days | ARAI Academy |
| ECU & Diagnostics | To be decided | 2 days | ARAI Academy |
| Flex Fuel Vehicle | To be decided | 1 day | ARAI Academy |
| '3Q' Success Mindset for '10X' Leadership | To be decided | 2 days | ARAI Academy |
| Automotive Product Design and Development | To be decided | 2 days | ARAI Academy |
| Emission Control & Aftertreatment Devices | To be decided | 2 days | ARAI Academy |
| Advance Automotive Technology | To be decided | 2 days | ARAI Academy |
| Vehicle Body Engineering | To be decided | 2 days | ARAI Academy |
| Dual Fuel Technology for Automotive and Genset Applications | To be decided | 1 day | ARAI Academy |
| Concept in Advanced Driver Assistance System (ADAS) | To be decided | 2 days | ARAI Academy |
| Engine Testing & Certification | To be decided | 2 days | ARAI Academy |

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|--|----------------------------|-----------|--------------|
| Simulation for Electric Vehicle | To be decided | 2 days | ARAI Academy |
| Powertrain Technology | To be decided | 2 days | ARAI Academy |
| Automotive Transmission Design (including EV Powertrain & DVP) | To be decided | 2 days | ARAI Academy |
| Hydrogen Powering Tomorrow: IC Engine Innovations | To be decided | 2 days | ARAI Academy |
| IC Engine Combustion Technologies | To be decided | 2 days | ARAI Academy |
| ONLINE PROGRAMMES | | | |
| Automotive Engineering | To be decided | One month | Online |
| Hybrid Electric Vehicle (xEV) | To be decided | One month | Online |
| DOMAIN TRAINING PROGRAMMES (DTPs) | | | |
| Engine Design & Development | BSVI Regulations | | |
| Engine Testing & Certification | Automotive NVH | | |
| Automotive / Vehicle Testing & Certification | Automotive Engineering | | |
| Fundamentals of Automotive Electricals and Electronics | Testing of Seating Systems | | |
| Engine Performance & Troubleshooting | Automotive Transmission | | |
| Electric Vehicle | EV / HEV Technology | | |
| New Automotive Technology | Engine Technology | | |
| EV Products and Technologies | Vehicle & Engine Testing | | |

| e-PROFICIENCY IMPROVEMENT PROGRAMMES (ePIPs) <i>(Internet based - Anytime, anywhere)</i> | | | |
|--|--|--|---|
| Title of ePIP | Duration | Fees (Rs) Corporate (Individual) <i>GST Extra</i> | Fees (Rs) Corporate - Bulk Licenses (minimum 15 per corporate) <i>GST Extra</i> |
| Reliability Engineering | Course access- 60 days Course time – 5 hrs. | 7000 | 50000 |
| Engine Electronics and Management System (EEMS) Jointly with RBEI | Course access–60 days Course time – 15 hrs. | 20000 | 150000 |
| Fuel Cell Technology | Course access- 60 days Course time – 2 hrs. | 3000 | 20000 |
| Real Driving Emission | Course access- 60 days Course time – 5 hrs. | 7000 | 50000 |
| Emission Type Approval (BS-VI): 2 Wheeled Vehicles | Course access- 60 days Course time – 2 hrs. | 4000 | 30000 |
| Emission Type Approval (BS-VI): 3 Wheeled Vehicles | Course access- 60 days Course time – 2 hrs. | 4000 | 30000 |
| Emission Type Approval (BS-VI): Light Duty Vehicles | Course access- 60 days Course time – 2 hrs. | 4000 | 30000 |
| Selective Catalytic Reduction (SCR) | Course access- 60 days Course time – 2 hrs. | 4000 | 30000 |
| Combustion in IC Engines | Course access- 60 days Course time – 1.5 hrs. | 3000 | 22500 |
| Emission Measurement Techniques | Course access- 60 days Course time – 1 hr. | 2000 | 15000 |
| HC/CO Emission Formation | Course access- 60 days Course time – 1.5 hrs. | 3000 | 22500 |
| NO _x Emission Formation | Course access- 60 days Course time – 1 hr. | 2000 | 15000 |
| PM Emission Formation | Course access- 60 days Course time – 2 hrs. | 4000 | 30000 |
| Diesel Particulate Filter | Course access- 60 days Course time – 2 hrs. | 4000 | 30000 |
| Hybrid Electric Vehicles Architecture | Course access- 60 days Course time – 2.5 hrs. | 5000 | 50000 |

Note: ARAI reserves the rights to change the dates, schedule, contents, speakers, venue, etc. for the programme without any notice.

For further information & registration of Training Programmes,
please contact Mr. Rajesh Patil, Dy. General Manager, ARAI Academy
at +91 2135-630790 /91/ 95 or +91 2135-396690/91/95 or
email: patil.pga@araiindia.com; training.pga@araiindia.com;

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ARAI Academy: ARAI Forging Industry Division, Plot No. B-16/1, MIDC, Chakan, Taluka Khed, Pune-410 501.

Websites: www.araiindia.com & <https://academy.araiindia.com>

E-LEARNING ONLINE COURSES (e-PIPs)



Highlight

- ✓ Latest and up-to-date content
- ✓ Highly interactive, engaging and effective
- ✓ Real-life industry examples
- ✓ Hands-on practice in virtual environment
- ✓ Pre and Post assessments to assess learner's knowledge
- ✓ Certificate on passing the Final Assessment

Benefits:

- ✓ All online courses are flexible in nature i.e. 24 x 7 operational
- ✓ Easy to monitor learner's activity to know their course current status
- ✓ Very engaging which improves learner's knowledge absorption and retention
- ✓ Revisit topics instantly and at your own pace
- ✓ Certificate which help learner's for their career advancement



Reliability Engineering
Course Seat Time: 5 Hours



Combustion in IC Engines
Course Seat Time: 1.5 Hours



Engine Electronics & Management Systems (EEMS)
Course Seat Time: 15 Hours



Emission Measurement Techniques
Course Seat Time: 1 Hour



Fuel Cell Technology
Course Seat Time: 2 Hours



HC/CO Emission Formation
Course Seat Time: 1.5 Hours



Real Driving Emissions (RDE)
Course Seat Time: 5 Hours



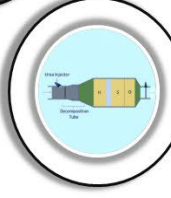
NO_x Emission Formation
Course Seat Time: 1 Hour



**Emission Type Approval (incl. BS-VI):
2, 3, 4 Wheeled Vehicles**
Course Seat Time: 2 Hours each



PM Emission Formation
Course Seat Time: 2 Hours



Selective Catalytic Reduction (SCR)
Course Seat Time: 2 Hours



Diesel Particulate Filter
Course Seat Time: 2 Hours



Hybrid Electric Vehicles Architecture
Course Seat Time: 2.5 Hours

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