

ARAI Academy Short Term Training Programmes

ARAI, over five and half decades, has provided its design and development expertise to the Indian automotive industry, focusing on the testing and evaluation of components and systems to meet national and international standards. ARAI strives to achieve international recognition in these areas. In keeping with the globalization of economy and business, ARAI continues to enlarge its scope of services to meet the requirements of automotive industries around the world.

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 which has completed 15 years on 10 May 2019, is a Skill Development initiative of ARAI. It is classified into three divisions, viz Learning Centre, Training Centre and Knowledge 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), College of Engineering (Pune), Christ (Bengaluru), Cummins College of Engineering for Women (Pune), Savitribai Phule Pune University (Pune), Chitkara University, (Chandigarh), MIT World Peace University, (Pune), MIT ADT University (Pune), RIT, Sangli and other Universities in India & abroad.

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, through optional modules. Domain Training Programmes (DTPs), where training is imparted at Customer's site 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.

PROFICIENCY IMPROVEMENT PROGRAMMES (PIPs)

TITLE OF THE COURSE	DATE	DURATION	VENUE	PROPOSED PARTNER/S
Road Safety Awareness Programs	25 th Oct 21	02 hrs	Online	ACMA, ASDC, SIAM & AICTE
E-Mobility & Charging Infrastructure	26 th – 28 th Oct 21	09 hrs	Online	
Automotive NVH	09 th – 11 th Nov 21	09 hrs	Online	
Road Safety Awareness Programs	12 th Nov 21	02 hrs	Online	ACMA, ASDC, SIAM & AICTE
Advanced Material Characterization and Component Testing	15 th – 17 th Nov 21	09 hrs	Online	
Thermal Management of Electric Vehicle	17 th – 18 th Nov 21	06 hrs	Online	
Electric Vehicles: Development, Validation & Certification	23 rd – 25 th Nov 21	09 hrs	Online	
Benchmarking : An Engineered Approach	26 th Nov 21	06 hrs	Online	
Engine Simulation	29 th – 30 th Nov 21	06 hrs	Online	
Emission Type Approval (including BS-VI) (Blended)	1 st – 3 rd Dec 21	09 hrs	Online	
Reliability Engineering (Blended)	8 th - 9 th Dec 21	04 hrs	Online	
Aluminum Welding	13 th - 14 th Dec 21	06 hrs	Online	
Vehicle Dynamics & Control	14 th – 16 th Dec 21	09 hrs	Online	

Road Safety Awareness Programs	17 th Dec 21	02 hrs	Online	ACMA, ASDC, SIAM & AICTE
Metallurgy for Non-metallurgist	20 th -21 st Dec 21	10 hrs	Online	ASM
Automotive Aerodynamics	28 th – 29 th Dec 21	06 hrs	Online	
Automotive Casting Technology	30 th -31 st Dec 21	10 hrs	Online	ASM
Automotive Testing & Certification	4 th -6 th Jan 22	09 hrs	Online	
Forging Technology	10 th – 11 th Jan 22	10 hrs	Online	
Automotive Propulsion including EV Motors	12 th – 13 th Jan 22	06 hrs	Online	
National Road Safety Month Awareness Programs	14 th Jan 22	02 hrs	Online	ACMA, ASDC, SIAM & AICTE
Real Driving Emissions (Blended)	18 th – 19 th Jan 22	06 hrs	Online	
Automotive Design & Styling	24 th - 25 th Jan 22	06 hrs	Online	
EV Performance Characteristics & Simulation	27 th -28 th Jan 22	06 hrs	Online	
National Road Safety Month Awareness Programs	4 th Feb 22	02 hrs	Online	ACMA, ASDC, SIAM & AICTE
Advances in Plastic Moulding	7 th Feb 22	06 hrs	Online	
Hydrogen: future of the fuel (Blended)	8 th – 9 th Feb 22	06 hrs	Online	
Vehicle Energy Ecosystem	10 th – 11 th Feb 22	06 hrs	Online	
Global eMobility Overview, future challenges & Opportunities	15 th – 17 th Feb 22	09 hrs	Online	IESA
Off Road Vehicles (specialization in tractor)	23 rd - 24 th Feb 22	06 hrs	Online	
National Road Safety Month Awareness Programs	25 th Feb 22	01	Online	ACMA, ASDC, SIAM & AICTE
Automotive Safety	1 st – 2 nd Mar 22	06 hrs	Online	
Electric Vehicles Batteries and Energy Storage Systems	8 th – 10 th Mar 22	09 hrs	Online	IESA
Advance technology in 2W and 3W	17 th – 18 th Mar 22	06 hrs	Online	
PROFICIENCY IMPROVEMENT PROGRAMMES (PIPs) TO BE PLANNED				
Automotive Manufacturing	To be decided	10 hrs	ARAI FID	ASM
Thermodynamic Simulation for Powertrain	To be decided	06 hrs	Online	AVL
Professional Development of Drivers	To be decided	01	ARAI FID	
In-Vehicle Infotainment	To be decided	01	Online	APTIV
Automotive Protocols	To be decided	01	Online	
Clean Energy and Clean Powertrain Technologies-an India Perspective	To be decided	01	Online	
Polymer and Composite Materials	To be decided	10 hrs	ARAI FID	ASM

Engine Design & Development	To be decided	09 hrs	Online	
Electric Vehicle Charging Infrastructure & Battery Swapping	To be decided	09 hrs	Online	IESA
Alternative Fuel	To be decided	09 hrs	Online	
Battery Diagnostic Software & IoT for EV	To be decided	09 hrs	Online	IESA
Hybrid Electric Vehicles (Blended)	To be decided	09 hrs	Online	
Electric Motor Performance Characteristics using CAE	To be decided	03 hrs	Online	
Computer Vision for ADAS Systems	To be decided	09 hrs	Online	Ansys
Engine Electronics & Management System (Blended)	To be decided	6 hrs	Online	
Battery Management System of Electric Vehicle	To be decided	09 hrs	Online	
Conference on Fuel Cell Technology	To be decided	10 hrs	Online	
Engine Emission & Control (blended)	To be decided	08 hrs	Online	ECMA
Particulate Filter (Blended)	To be decided	04 hrs	Online	
Bus & Coach Fire Safety	To be decided	03 hrs	Online	
Pedestrian Safety	To be decided	03 hrs	Online	
Tyres	To be decided	06 hrs	Online	
Conference on Automotive Safety	To be decided	04 hrs	Online	
Child Safety	To be decided	06 hrs	Online	
Automotive Lighting	To be decided	06 hrs	Online	
Latest Trends in After Treatment Systems (blended)	To be decided	06 hrs	Online	
Failure Analysis (including Auto & Engine components)	To be decided	10 hrs	Online	ASM
INTERNSHIP PROGRAMMES				
Hybrid Electric Vehicle (xEV)	To be decided	One month	Online	
Advanced Automotive Technology (AAT) and Analysis Led Design (ALD)	To be decided	Three months	Online	
Automotive Test Engineer Qualification Pack (QP)				
• Module 1: Foundation Course	To be decided	10	Online	ASDC
• Module 2: Engine Level Testing	To be decided	05		
• Module 3: Component Level Testing	To be decided	05		
• Module 4: Vehicles Level Testing	To be decided	05		
• Final Assessment	To be decided	05		
EV Test Engineer Qualification Pack (QP)				
• Module 1: Foundation Course	To be decided	10	Online	ASDC
• Module 2: EV Powertrain Testing & Certification	To be decided	05		
• Module 3: Indoor Testing of EV	To be decided	05		
• Module 4: Outdoor Testing of Vehicle and Charging	To be decided	05		
• Final Assessment	To be decided	05		

DOMAIN TRAINING PROGRAMMES (DTPs)	
Engine Design & Development	BSVI Regulations
Engine Testing & Certification	Design, Validation & Failure Analysis of IC Engine
Automotive / Vehicle Testing & Certification	DFMEA / DVP&R
Automotive Engineering	Heat Treatment
Fundamentals of Automotive Electricals and Electronics	Testing of Seating Systems
Engine Performance & Troubleshooting	Automatic Transmission
Welding Technology and Defects Analysis	AMT Technology
Drive Train System & Diagnosis	EV / HEV Technology
New Automotive Technology	Engine Technology

e-PROFICIENCY IMPROVEMENT PROGRAMMES (ePIPs)				
Reliability Engineering	Anytime	Course access- 60 days Course time – 5 hrs.	Anywhere (Internet based)	
Engine Electronics and Management System (EEMS)	Anytime	Course access–60 days Course time – 15 hrs.	Anywhere (Internet based)	RBEI
Fuel Cell Technology	Anytime	Course access- 60 days Course time – 2 hrs.	Anywhere (Internet based)	
Real Driving Emission	Anytime	Course access- 60 days Course time – 5 hrs.	Anywhere (Internet based)	
Emission Type Approval (BS-VI): 2 Wheeled Vehicles	Anytime	Course access- 60 days Course time – 2 hrs.	Anywhere (Internet based)	
Emission Type Approval (BS-VI): 3 Wheeled Vehicles	Anytime	Course access- 60 days Course time – 2 hrs.	Anywhere (Internet based)	
Emission Type Approval (BS-VI): Light Duty Vehicles	Anytime	Course access- 60 days Course time – 2 hrs.	Anywhere (Internet based)	
Selective Catalytic Reduction (SCR)	Anytime	Course access- 60 days Course time – 2 hrs.	Anywhere (Internet based)	
Combustion in IC Engines	Anytime	Course access- 60 days Course time – 1.5 hrs.	Anywhere (Internet based)	
Emission Measurement Techniques	Anytime	Course access- 60 days Course time – 1 hr.	Anywhere (Internet based)	
HC/CO Emission Formation	Anytime	Course access- 60 days Course time – 1.5 hrs.	Anywhere (Internet based)	
NO _x Emission Formation	Anytime	Course access- 60 days Course time – 1 hr.	Anywhere (Internet based)	
PM Emission Formation	Anytime	Course access- 60 days Course time – 2 hrs.	Anywhere (Internet based)	
Diesel Particulate Filter	Anytime	Course access- 60 days Course time – 2 hrs.	Anywhere (Internet based)	
Hybrid Electric Vehicles Architecture	Anytime	Course access- 60 days Course time – 2.5 hrs.	Anywhere (Internet based)	

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

ARAI Academy's eLearning Courses (ePIP)

LEARN YOUR WAY,
GO ONLINE

Highlights:

- ✓ Latest and up-to-date content
- ✓ Highly interactive, engaging & 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

eLearning Courses (ePIP):



01 Reliability Engineering
Course Seat Time: 5 Hours



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



03 Fuel Cell Technology
Course Seat Time: 2 Hours



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



05 Emission Type Approval (including
BS-VI): 2 Wheeled Vehicles
Course Seat Time: 2 Hours



06 Emission Type Approval (including
BS-VI): 3 Wheeled Vehicles
Course Seat Time: 2 Hours



07 Emission Type Approval (including
BS-VI): Light Duty Vehicles
Course Seat Time: 2 Hours



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



09 Combustion in IC Engines
Course Seat Time: 1.5 Hours



10 Emission Measurement
Techniques
Course Seat Time: 1 Hour



11 HC/CO Emission Formation
Course Seat Time: 1.5 Hours



12 NO_x Emission Formation
Course Seat Time: 1 Hour



13 PM Emission Formation
Course Seat Time: 2 Hours



14 Diesel Particulate Filter
Course Seat Time: 2 Hours



15 Hybrid Electric Vehicles
Architecture
Course Seat Time: 2.5 Hours

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