

## LEARNING CENTRE

ARAI, over five 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 pace 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-skilled personnel, ARAI recognizes the need for skill development to meet the demands of the automotive industry, not just in India but across the globe.

ARAI has embarked upon a programme of building up human resources by commencing educational programme (Graduate, Post graduate & Doctoral) with specialization in Automotive Engineering. It has tied up with VIT University (Vellore), VELTECH University (Chennai), College of Engineering (Pune), Christ University (Bengaluru), University of Alabama (USA), Tennessee Tech University (USA), Loughborough University (UK) and Braunschweig University (Germany).

**Brief summary of joint programmes is as follows:**

UNIVERSITY	PROGRAMMES	SPECIALIZATION	DURATION	NO. OF SEATS
<b>VIT, Vellore</b> <a href="http://www.vit.ac.in">www.vit.ac.in</a>	B. Tech.	Mechanical Engineering with specialization in Automotive Engineering	4 years	60
	M. Tech.	Automotive Engineering	2 years	60
	*M. Tech. <i>(for Industry Professionals)</i>	Automotive Engineering with specialization in Engine Technology	2 years	40
		Powertrain Electronics	2 years	40
		Manufacturing & Industrial Engineering	2 years	40
		*Following companies have collaborated with ARAI to admit their engineers for M. Tech Programme while continuing their work: Ashok Leyland, Cummins, Eaton, Magna Steyr, Mahindra & Mahindra, TACO-Hendrickson, Tata Motors, Woodward		
Ph.D.	Automotive Engineering	3/6 years	10	
<b>Vel Tech, Chennai</b> <a href="http://www.vel-tech.org">www.vel-tech.org</a>	B. Tech. <i>(in association with GARC, Chennai)</i>	Mechanical Engineering with specialization in Automotive Engineering	4 years	60
	M. Tech.	I. C. Engines	2 years	30
		Electronics Engineering with specialization in Automotive Electronics	2 years	25
<b>College of Engineering, Pune</b> <a href="http://www.coep.org.in">www.coep.org.in</a>	M. Tech.	Automotive Technology	2 years	36
<b>Alabama Birmingham, USA</b> <a href="http://www.uab.edu">www.uab.edu</a>	M. S.	Mechanical Engineering with Automotive Engineering Emphasis		
<b>Christ University</b> <a href="http://www.christuniversity.in">www.christuniversity.in</a>	B Tech	Automobile Engineering	4 Years	60

For further information and registration, please visit respective University website or contact **Dr. K. C. Vora**, Head, ARAI Academy at 02135-396660 /61 or [vora.pga@araiindia.com](mailto:vora.pga@araiindia.com). For placement of students, companies may like to contact **Dr. K. C. Vora**.

## KNOWLEDGE CENTRE

It has collection of around 24,000 books, standards, project reports, seminar/conference proceedings and around 78,000 SAE technical papers. It also has 387 ebooks. It subscribes to 35 national and international journals. It regularly publishes a monthly magazine 'Automotive Abstracts'. It also conducts literature / patent search for customer's projects. Knowledge Centre offers membership: Option 1- for reference only, Option 2 – with book borrowing facility.

To become a member of Knowledge Centre or to subscribe for Automotive Abstracts, please contact **Mrs. S. S. Das**, Manager, Knowledge Center on 020-3023 1192 or [das.lib@araiindia.com](mailto:das.lib@araiindia.com)

**For more details, proposals & partnership please contact: Dr. K. C. Vora, Sr. Dy. Director & Head, ARAI Academy at [vora.pga@araiindia.com](mailto:vora.pga@araiindia.com)**

ARAI: The Automotive Research Association of India, S.No.102, Vetal Hill, Off Paud Road, Kothrud, Pune-411 038.

ARAI FID: ARAI Forging Industry Division, Plot No. B-16/1, MIDC, Chakan, Taluka Khed, Pune-410 501. Ph: 02135 / 396660 / 396661

## TRAINING CENTRE

In line with Graduate, Post Graduate and Doctoral Programs conducted by various universities abroad, ARAI Academy has devised various Proficiency Improvement Programmes (PIPs), to be taught by ARAI, academia & industry experts. Based on the present system in universities, credits are proposed for each module, so that the graduate engineers can attend various modules and sum-up the credits required for Master's or Doctoral Programs. Participants also get chance to visit related laboratories of ARAI and get hands on experience. Certificates are issued on the basis of written test conducted at the end of the programme. We also conduct training programmes through eLearning, WEBEX and Domain Training Programmes for automotive industry at their preferred sites. ARAI has started developing web based eLearning Courses popularly known as 'ePIPs' (eLearning Proficiency Improvement Programmes) on various Automotive Engineering domain. ePIPs are highly engaging and effective eLearning modules, in which the licenced users can learn the subject matter online and gain practical as well as theoretical knowledge at their own pace, using a wide range of digital devices, anytime and anywhere.

### PROFICIENCY IMPROVEMENT PROGRAMMES (PIPs)

TITLE OF THE COURSE	DATE	DURATION IN DAYS	VENUE	PROPOSED PARTNER/S
Vehicle & Engine Testing	6 <sup>th</sup> – 7 <sup>th</sup> Jun 18	02	ARAI FID	
Automotive Foundry Technology	11 <sup>th</sup> – 12 <sup>th</sup> Jun 18	02	ARAI FID	ASM, Pune
Automotive Engineering	18 <sup>th</sup> – 22 <sup>nd</sup> Jun 18	05	ARAI FID	
Corporate Success through Systematic Innovation	28 <sup>th</sup> – 29 <sup>th</sup> Jun 18	02	ARAI FID	
Powertrain Engineering	02 <sup>nd</sup> – 05 <sup>th</sup> Jul 18	04	ARAI	
Balance Fuel Economy and Comfort using a Vehicle Level Test and Simulation Approach	10 <sup>th</sup> – 11 <sup>th</sup> Jul 18	02	ARAI FID	Siemens
Engine Testing & Certification	16 <sup>th</sup> – 20 <sup>th</sup> Jul 18	05	ARAI	
Engine Combustion and Simulation	08 <sup>th</sup> – 10 <sup>th</sup> Aug 18	03	ARAI FID	
Basic & Advances in Heat Treatments	29 <sup>th</sup> – 31 <sup>st</sup> Aug 18	03	ARAI FID	ASM, Pune
Automotive NVH	05 <sup>th</sup> – 07 <sup>th</sup> Sept 18	03	ARAI	
Automotive Engineering	17 <sup>th</sup> – 19 <sup>th</sup> Sept 18	03	Pillai College of Engg (PCoE)	PCoE, New Panvel
Advanced Fuels-Technology & Regulations	25 <sup>th</sup> – 27 <sup>th</sup> Sept 18	03	ARAI-FID	
Automotive Sensors & Actuators	08 <sup>th</sup> – 10 <sup>th</sup> Oct 18	03	ARAI-FID	
Vehicle Drivelines	24 <sup>th</sup> – 26 <sup>th</sup> Oct 18	03	ARAI-FID	
Automotive Testing and Certification	28 <sup>th</sup> – 30 <sup>th</sup> Nov 18	03	ARAI	
Failure Analysis (including Engine components)	12 <sup>th</sup> – 14 <sup>th</sup> Dec 18	03	ARAI FID	ASM, Pune
Tool Engineering	03 <sup>rd</sup> - 04 <sup>th</sup> Jan 19	02	ARAI FID	ASM, Pune
Engine Electronics & Management Systems	09 <sup>th</sup> – 11 <sup>th</sup> Jan 19	03	ARAI-FID	
Road Safety	16 <sup>th</sup> - 17 <sup>th</sup> Jan 19	02	ARAI FID	TACO
Engine Emissions & Control	18 <sup>th</sup> – 20 <sup>th</sup> Feb 19	03	ARAI-FID	
CQI 9 : For the Heat treators	28 <sup>th</sup> Feb 19	01	ARAI-FID	ASM, Pune
Automotive EMI & EMC	To be decided	03	ARAI	
Automotive Design and Styling	To be decided	03	ARAI	
Electric & Hybrid Vehicle	To be decided	03	ARAI	
Geometrical Dimensioning & Tolerancing	To be decided	02	ARAI FID	NTTF, Bangalore
Corrosion Engineering	To be decided	02	ARAI FID	ASM, Pune
Forging Technology	To be decided	02	ARAI-FID	
Statistical Process Control	To be decided	02	ARAI FID	
Design Failure Mode Effect Analysis	To be decided	02	ARAI FID	
Design & Analysis of Experiments	To be decided	02	ARAI FID	
Design for Manufacturing & Assembly	To be decided	02	ARAI FID	
Quality and Reliability Engineering	To be decided	02	ARAI FID	
Automotive Materials & Manufacturing	To be decided	03	ARAI-FID	
Advance Material & Characterization	To be decided	03	ARAI-FID	
Automotive Safety	To be decided	03	ARAI FID	
RoHS/ELV Solutions to Automobile industries with Cutting Edge Technology	To be decided	01	ARAI	Shimadzu
Industrial Safety	To be decided	02	ARAI FID	TACO
Metallurgy for Non-metallurgists	To be decided	03	ARAI FID	ASM, Pune
Engine Design & Development	To be decided	05	ARAI FID	
Hybrid Drives, Traction & Controls	To be decided	03	ARAI FID	
<b>e-PROFICIENCY IMPROVEMENT PROGRAMMES (ePIPs)</b>				
Reliability Engineering	Anytime	Course access-3 months Course time – 5 hrs.	Anywhere (Internet based)	
Engine Electronics and Management System (EEMS)	Anytime	Course access - 3 months Course time – 15 hrs.	Anywhere (Internet based)	RBEI

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, Manager, ARAI Academy at (02135) 396690/91/93 or [patil.pga@araiindia.com](mailto:patil.pga@araiindia.com); [training.pga@araiindia.com](http://training.pga@araiindia.com);