



## **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).

UNIVERSITY	PROGRAMMES			NO. OF SEATS	
	B. Tech.	Mechanical Engineering with specialization in Automotive Engineering	4 years	60	
	M. Tech.	Automotive Engineering	2 years	60	
	*M. Tech. (for Industry Professionals)	Automotive Engineering with specialization in Engine Technology	2 years	40	
VIT, Vellore www.vit.ac.in		Powertrain Electronics	2 years	40	
www.vic.ac.iii		(for Industry 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	
Vel Tech, Chennai www.vel-tech.org	B. Tech. (in association with GARC, Chennai)	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	
College of Engineering, Pune <u>www.coep.org.in</u>	M. Tech.	Automotive Technology	2 voarc	36	
Alabama Birmingham, USA <u>www.uab.edu</u>	M. S.	Mechanical Engineering with Automotive Engineering Emphasis	2 years		
Christ University <u>www.christuniversity.in</u>	B Tech	Automobile Engineering	4 Years	60	

Brief summary of joint programmes is as follows:

For further information and registration, please visit respective University website or contact **Mr. N. A. Sakle**, Manager, ARAI Academy at 02135-396670 or <u>sakle.pga@araiindia.com</u>. For placement of students, companies may like to contact **Mr. N. A. Sakle**, Manager, ARAI Academy at 02135-396670 or <u>sakle.pga@araiindia.com</u>.

## **KNOWLEDGE CENTRE**

It has collection of around 24,600 books, standards, project reports, seminar/conference proceedings and around 75,000 SAE technical papers. It also has 450 eBooks. It subscribes to 40 national and international journals. It regularly publishes a monthly magazine 'Automotive Abstracts'. It also conducts literature / patent search for customer's projects.

To become a member of Knowledge Centre or to subscribe for Automotive Abstracts, **please contact Mrs. S. S. Das, Manager**, Knowledge Centre on **(020) 30231192** or <u>das.lib@araiindia.com</u> and **Dr. Madhav Rao**, Deputy Manager, Knowledge Centre-FID on (02135) 396685 or <u>madhavrao.lib@araiindia.com</u>.

For more details, proposals & partnership please contact: Dr. K. C. Vora, Sr. Dy. Director & Head, ARAI Academy at 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	
Basic & Advances in Heat Treatments	29 <sup>th</sup> – 31 <sup>st</sup> Aug 18	03	ARAI FID	ASM, Pune	
Advanced Fuels-Technology & Regulations	4 <sup>th</sup> – 6 <sup>th</sup> Sept 18	03	ARAI FID		
Engine Combustion and Simulation	10 <sup>th</sup> – 12 <sup>th</sup> Sept 18	03	ARAI FID		
Automotive Research & Development	17 <sup>th</sup> – 19 <sup>th</sup> Sept 18	03	Pillai College of Engg (PCoE)	PCoE, New Panvel	
Design for Manufacturing	25 <sup>th</sup> – 27 <sup>th</sup> Sept 18	03	ARAI FID		
Fuel Cell Vehicles: Potential Power Source for Future (Blended)	27 <sup>th</sup> – 28 <sup>th</sup> Sep 18	02	ARAI FID		
Electric Vehicle Design & Validation	09 <sup>th</sup> – 12 <sup>th</sup> Oct 18	04	ARAI FID		
Automotive NVH	15 <sup>th</sup> - 17 <sup>th</sup> Oct 18	03	ARAI FID		
Engine Testing & Certification	22 <sup>nd</sup> -26 <sup>th</sup> Oct 18	05	ARAI FID		
Forging Technology	29 <sup>th</sup> – 31 <sup>st</sup> Oct 18	03	ARAI FID		
ECU & Diagnostics	22 <sup>nd</sup> – 23 <sup>rd</sup> Nov 18	02	ARAI FID		
Automotive Testing and Certification	28 <sup>th</sup> – 30 <sup>th</sup> Nov 18	03	ARAI FID		
Connected & Autonomous Mobility	5 <sup>th</sup> – 7 <sup>th</sup> Dec 18	03	ARAI FID		
Failure Analysis (including Engine components)	12 <sup>th</sup> – 14 <sup>th</sup> Dec 18	03	ARAI FID	ASM, Pune	
Vehicle Drivelines	18 <sup>th</sup> – 20 <sup>th</sup> Dec 18	03	ARAI FID		
Tool Engineering	03 <sup>rd</sup> – 04 <sup>th</sup> Jan 19	02	ARAI FID	ASM, Pune	
Engine Electronics & Management Systems (Blended)	07 <sup>th</sup> – 11 <sup>th</sup> Jan 19	05	ARAI FID		
Industrial Safety (Blended)	24 <sup>th</sup> – 25 <sup>th</sup> Jan 19	02	ARAI FID	TACO	
Embedded System for Automotive Application	6 <sup>th</sup> – 8 <sup>th</sup> Feb 19	03	ARAI FID		
Engine Emissions & Control (Blended)	18 <sup>th</sup> – 22 <sup>nd</sup> Feb 19	05	ARAI FID		
CQI 9 : For the Heat treators	28 <sup>th</sup> Feb 19	01	ARAI FID	ASM, Pune	
Engine Design & Development	15 <sup>th</sup> – 19 <sup>th</sup> Apr 19	05	ARAI FID		
Metallurgy for Non-metallurgists	24 <sup>th</sup> – 26 <sup>th</sup> Apr 19	03	ARAI FID	ASM, Pune	
Vehicle & Engine Testing	16 <sup>th</sup> -17 <sup>th</sup> May 19	02	ARAI FID		
Foundry Technology	5 <sup>th</sup> – 6 <sup>th</sup> Jun 19	02	ARAI FID	ASM, Pune	
Automotive NVH	12 <sup>th</sup> – 14 <sup>th</sup> Jun 19	03	ARAI FID		
Automotive Engineering	17 <sup>th</sup> – 21 <sup>st</sup> Jun 19	05	ARAI FID		
Powertrain Engineering	01 <sup>st</sup> - 04 <sup>th</sup> Jul 19	04	ARAI FID		
Basic & Advances in Heat Treatments	28 <sup>th</sup> – 30 <sup>th</sup> Aug 19	03	ARAI FID	ASM, Pune	
Forging Technology	$09^{th} - 11^{th} Oct 19$	03	ARAI FID		
Failure Analysis (including Engine components)	11 <sup>th</sup> – 13 <sup>th</sup> Dec 19	03	ARAI FID	ASM, Pune	
Tool Engineering	02 <sup>nd</sup> – 03 <sup>rd</sup> Jan 20	02	ARAI FID	ASM, Pune	
CQI 9 : For the Heat treators	28 <sup>th</sup> Feb 20	01	ARAI FID	ASM, Pune	
Automotive EMI & EMC	To be decided	03	ARAI		
Geometrical Dimensioning & Tolerancing	To be decided	02	ARAI FID		
Corrosion Engineering	To be decided	02	ARAI FID	ASM, Pune	
Design Failure Mode Effect Analysis	To be decided	02	ARAI FID		
Design & Analysis of Experiments	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		
Hybrid Drives, Traction & Controls	To be decided	03	ARAI FID		
Corporate Success through Systematic Innovation	To be decided	02	ARAI FID		
e-PROFICIENCY	IMPROVEMENT PROG	RAMMES (ePIPs)			
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; training.pga@araiindia.com;