

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 |
|--|--|---|----------|--------------|
| VIT, Vellore www.vit.ac.in | 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 | |
| Vel Tech, Chennai www.vel-tech.org | B. Tech. <i>(in collaboration 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 |
| College of Engineering, Pune www.coep.org.in | M. Tech. | Automotive Technology | 2 years | 36 |
| Alabama Birmingham, USA www.uab.edu | M. S. | Mechanical Engineering with Automotive Engineering Emphasis | | |
| Christ University www.christuniversity.in | B Tech | Automobile Engineering | 4 Years | 60 |

For further information and registration, please visit respective University website or contact **Dr. S. A. Patil**, DGM, ARAI Academy at 020-30231243 or sapatil.pga@araiindia.com. For placement of students, companies may like to contact Mr. Avinash Kulkarni, Manager, ARAI Academy at 020-30231242 or kulkarni.pga@araiindia.com.

KNOWLEDGE CENTRE

It has collection of around 23,000 books, standards, project reports, seminar/conference proceedings and around 75,000 SAE technical papers. It also has 237 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. 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

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: 02135-396666 / 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 |
|--|--|------------------|----------------|--|
| Automotive Engineering | 19 th – 21 st Jun 17 | 03 | ARAI | |
| Basic + Advanced Automotive Engineering | 19 th – 30 th Jun 17 | 12 | ARAI & Germany | AutoSol, Technical University, Chemnitz, Germany, Indo-Euro Synchronization, German Center for advanced Engineering and Management Studies |
| Excellence through Quality | 28 th - 30 th Jun 17 | 03 | ARAI FID | TACO |
| Engine Testing & Certification | 03 rd – 07 th Jul 17 | 05 | ARAI | AVL |
| Powertrain Engineering | 17 th – 21 st Jul 17 | 05 | ARAI | |
| Basics & Advances in Heat Treatment | 19 th - 21 st Jul 17 | 03 | ARAI FID | ASM International, Pune |
| Impact Biomechanics and Injury Criteria for the Assessment of Advanced Automotive Safety Systems | 9th - 10th Aug 17 | 02 | ARAI | IICAE, Indore |
| Futuristic Automotive Engineering | 17 th - 19 th Aug 17 | | | Kumaraguru College of Technology, Coimbatore (KCT) |
| New Product Development | 21 st - 22 nd Aug 17 | 02 | ARAI FID | India NPD School |
| Professional Development for Engineers | 28 th Aug – 01 st Sep 17 | 05 | ARAI FID | |
| Advanced Material Characterization | 11 th – 15 th Sept 17 | 05 | ARAI FID | |
| Advanced Fuels-Technology & Regulations | 13 th – 15 th Sept 17 | 03 | ARAI | |
| Impact testing: A tool to gain early part performance | 18 th - 19 th Sept 17 | 02 | ARAI FID | Instron |
| Systems Engineering | 18 th – 22 nd Sept 17 | 05 | ARAI | Cummins |
| Automotive Sensors & Actuators | 26 th – 28 th Sept 17 | 03 | ARAI | |
| Quality & Reliability Engineering | 03 rd – 07 th Oct 17 | 05 | ARAI FID | |
| Connected Vehicles | 4 th - 6 th Oct 17 | 03 | ARAI | |
| Design of Vehicle Drivelines | 30 th Oct – 03 rd Nov 17 | 05 | ARAI | |
| Human Factor Engineering | 30 th Oct – 03 rd Nov 17 | 05 | ARAI-FID | |
| Powertrain NVH | 06 th – 10 th Nov 17 | 05 | ARAI | |
| QFD and DFMEA | 15 th - 17 th Nov 17 | 03 | ARAI FID | India NPD School |
| Failure Analysis (Including Engine components Failures) | 13 th – 15 th Dec 17 | 03 | ARAI FID | ASM, Pune |
| Engine Emissions & Control | 08 th – 12 th Jan 18 | 05 | ARAI | ECMA |
| Road Safety | 16 th - 17 th Jan 18 | 02 | ARAI FID | TACO |
| Engine Electronics & Management System | 29 th Jan – 02 nd Feb 18 | 05 | ARAI | |
| Geometrical Dimensioning & Tolerancing | 15 th - 16 th Feb 18 | 02 | ARAI FID | NTTF, Bangalore |
| Design & Analysis of Experiments | 19 th – 23 rd Feb 18 | 05 | ARAI FID | |
| POSH | 07 th Mar 18 | 01 | ARAI FID | TACO |
| Industrial Safety | 08 th - 09 th Mar 18 | 02 | ARAI FID | TACO |
| Hybrid Drives, Traction & Controls | 02 nd – 06 th Apr 18 | 05 | ARAI | |
| Engine Design & Development | 16 th – 20 th Apr 18 | 05 | ARAI | |
| Product Design and Life Cycle Management | 23 rd – 27 th Apr 18 | 05 | ARAI FID | |
| Engine Control Systems | 23 rd – 27 th Apr 18 | 05 | ARAI | |
| Professional Development for Engineers | 18 th – 22 nd Jun 18 | 05 | ARAI FID | |
| Automotive Engineering | 18 th – 22 nd Jun 18 | 05 | ARAI | |
| Engine Testing & Certification | 09 th – 13 th Jul 18 | 05 | ARAI | AVL |
| Quality & Reliability Engineering | 09 th – 13 th Jul 18 | 05 | ARAI FID | |
| Powertrain Engineering | 16 th – 20 th Jul 18 | 05 | ARAI | |
| Systems Engineering | 06 th – 10 th Aug 18 | 05 | ARAI | Cummins |
| Automotive NVH | 03 rd – 07 th Sept 18 | 05 | ARAI | |
| Advanced Material Characterization | 25 th – 29 th Sept 18 | 05 | ARAI FID | |
| Automotive Fuels & Energy | 25 th – 29 th Sept 18 | 05 | ARAI | |
| Automotive Sensors & Actuators | 08 th – 12 th Oct 18 | 05 | ARAI | |
| Human Factor Engineering | 08 th – 12 th Oct 18 | 05 | ARAI FID | |
| Design of Vehicle Drivelines | 22 nd – 26 th Oct 18 | 05 | ARAI | |
| Engine Electronics & Management Systems | 07 th – 11 th Jan 19 | 05 | ARAI | |
| Engine Emissions & Control | 18 th – 22 nd Feb 19 | 05 | ARAI | |
| Automotive Functional Safety | 25 th Feb – 01 st Mar 19 | 05 | ARAI | |
| Design & Analysis of Experiments | 25 th Feb – 01 st Mar 19 | 05 | ARAI FID | |
| Systematic Thinking | To be decided | 03 | ARAI FID | TRIZ Asia |

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 020-30231245/48/39 or patil.pga@araiindia.com; training.pga@araiindia.com; training.fid@araiindia.com