

SPEAKERS



Dr. S. S. Thipse : Dy. Director, Powertrain Engineering, ARAI, Pune. He did his Masters in Thermal Sciences from Bradley University, USA and Ph.D. from New Jersey Institute of Technology in the field of Alternative Fuels Combustion. Presently, he is at ARAI, working on the development of Hydrogen, CNG & LPG engines at Powertrain Engineering Department. He is an active faculty at ARAI Academy and serves as a core member in the expert committee on Alternative fuels of DST as a nominee of Director, ARAI. He is a Governing Board member of SAEINDIA Western Section, life member of Combustion Institute, ISTD and member of ISO TC 22 & BIS TED-26.



Mr. Aatmesh Jain : Engineer, ARAI Academy, Pune. He has done B.Tech in Automobile Engineering from SRM University and M Tech in I. C. Engines from Veltech University collaborated with ARAI. His expertise is in the field of Alternative Fuels, Engine performance Analysis based on parameters, Engine Emission and their Control strategies. He is also working on developing and implementing innovative teaching methods at ARAI Academy. He has published many national and international papers in technical and non-technical domain. He has also filed one patent in the area of biodiesel.

Besides, speakers from ARAI & other Industries are expected

**3 Day Proficiency Improvement Programme on
Advanced Fuels-Technology and Regulations
at ARAI-Forging Industry Division
from 04th to 06th Sept. 2018**

REGISTRATION FORM

Name, Designation, Dept., Office No., Mobile No. & Email ID :	
Delegate - 1	
Delegate - 2	
Delegate - 3	
Company Name & Address	
Co-ordinator's Name, Designation, Contact No., Email ID	
100% Advance Payment Details	

Please email/post duly filled-in registration form on or before 1st September 2018 to:
Dr. K. C. Vora, Sr. Dy. Director & Head, ARAI Academy
 ARAI-Forging Industry Division, Chakan, B-16/1, MIDC Chakan, Taluka Khed, Dist Pune 410 501 (INDIA)
 Contact No: 02135 3966 95/ 90/ 91
 Email: training.pga@araiindia.com; nadeshmukh.pga@araiindia.com; patil.pga@araiindia.com; tc.pga@araiindia.com
 Please visit www.araiindia.com & academy.araiindia.com for more information.



2015



2011

**3 Day Proficiency Improvement Programme on
Advanced Fuels-
Technology and Regulations**



at
ARAI-Forging Industry Division,
 (The Automotive Research Association of India)
 Plot No.B-16/1, MIDC, Chakan, Taluka: Khed, Dist: Pune 410 501.

from 04th to 06th Sept. 2018

Organized by



BACKGROUND & OBJECTIVES

To solve the typical issues of today's era i.e. Energy Crisis, Environmental Devastation and Economy; use of alternative fuels is no longer a matter of future: it is a need of the hour. Conventional fuel sources are getting a lot harder to extract and the environment is also being heavily polluted by emissions produced by burning petroleum products. It's time now to reduce degrading the environment further and the obvious way to walk with is through the use of alternative fuels, which are indeed a clean and efficient energy source! Challenge is to make these technology feasible and carbon neutral. Addressing these issues, this program is designed to give an in-depth analysis of fuel products, quality, policy & storage including futuristic energy sources like Fuel Cells, Synthetic Fuels.

INTENDED LEARNING OUTCOMES

On completion of the module, the delegates should be able to:

- Understand CNG & LPG / LNG & Biogas technologies.
- Understand regulatory trends for natural gas vehicles.
- Understand synthetic fuels & futuristic technologies on bio fuels.
- Understand hydrogen technology & HCNG engine development.
- Understand fuel cell technology.
- Understand recent trends in auto gaseous fuel cylinder.
- Understand dual fuel technology.
- Understand Bioethanol Technologies and ED 95 / Flex Fuel Vehicle Technology.
- Lead multi disciplinary teams.
- Demonstrate independent learning ability necessary for conducting professional development.
- Become self-disciplined and self-motivated, demonstrating personal responsibility in the pursuit of studies and professional practice

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

PROGRAMME

Day One

- 08.30 – Registration & Breakfast
- 09.30 – Overview of Alternative Fuels
- 12.30 – Lunch
- 13.30 – CNG/LPG/LNG Technology & Regulations
- 14.30 – Bio-CNG
- 15.30 – Cylinder Certification
- 16.15 – Conclusion

Day Two

- 09.00 – Bioethanol Technologies and ED 95 / Flex Fuel Vehicle Technology
- 10.30 – Synthetic Fuels (DME, ANG, GTL, P- Series, Pyrolysis Oil)
- 11.30 – Non-Automotive Alternate Fuels (CEV/ off road/ Genset/ Railway)
- 12.30 – Lunch
- 13.30 – Dual Fuel Technology with Case Study
- 15.00 – HCNG
- 16.15 – Conclusion

Day Three

- 09.00 – Alcohol (for SI and CI Engines)
- 11.00 – Biodiesel
- 12.30 – Lunch
- 13.30 – Hydrogen
- 15.00 – Written Test
- 15.30 – Summary, Discussion and Feedback
- 16.15 – Conclusion

Training Venue

ARAI-Forging Industry Division, Chakan

WHO SHOULD ATTEND ?

This training is useful for all industry professionals, who need to have comprehensive understanding of Advanced Fuels in the domain of :

- Engineers working in the field of Fuel Economy, Thermal Management, BS-VI norms, Systems, Engineering, Transmission, Vehicle Integration, Powertrain, Driveline, etc.
- Technicians / Engineers / Managers.
- Experts specializing in Fuel Economy.
- Teaching Professionals & Engineering Students.

MODE OF PAYMENT

At Par / Multicity cheque or demand draft in favour of

The Automotive Research Association of India
payable at Pune.

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 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 is classified into three divisions:

LEARNING CENTRE 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 (Bangalore), University of Alabama (USA), Tennessee Tech University (USA), Loughborough University (UK) and University of Braunschweig (Germany).

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.

TRAINING CENTRE: In line with Post Graduate and Doctoral Programs conducted by various universities abroad, ARAI Academy has devised various Proficiency Improvement Programmes (PIPs & ePIPs), to be taught by ARAI, Academia & Industry Experts. PIP gives engineers, faculty and student's

REGISTRATION FEES

Category	Registration Fees (Rs.) (per participant)	Total Fees including Tax of 18% (Rs.) (per participant)
Engineers & Professionals	15,000.00	17,700.00
Teaching Faculty	10,000.00	11,800.00
Engineering College Students	5,000.00	5,900.00

Registration fees include:

- Breakfast
- Lunch
- Delegate Kit

knowledge and technical expertise in a wide range of automotive disciplines. It helps in understanding system's view point for automotive design and manufacture, with specific skills in formulating automotive engineering solutions in terms of their function and performance, through optional modules.

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 attendance & written test conducted at the end of the programme. We also conduct Training Programmes through WEBEX and Domain Training Programmes for Automotive Industry.

Please visit www.araiindia.com & academy.araiindia.com for more information.

Direction Map :

Training Program Venue Address :
ARAI-Forging Industry Division, Chakan
 B-16/1, MIDC, Chakan, Taluka Khed, District PUNE - 410 501 (INDIA).
Contact No : (02135) 396695 / 690 / 691