5 Day Proficiency Improvement Programme on Automotive Engineering

SPEAKERS



Mr. Hemant Desai : Vice President (Mobility), TUV Rheinland India and Head, Engineering Centre India, Middle East, Africa, Turkey, TUV Rheinland. He has more than 20 years of experience in automotive testing, standardization, quality & laboratory management, business development and strategic planning. He has also represented in various Government Committees for Standardization of Motor Vehicle Regulations. He had earlier worked in ARAI as Head

of the Vehicle Testing and Certification Division.



Mr. A. B. Mulay: General Manager, Automotive Electronics Department, ARAI, Pune. He is responsible for evaluation of automotive electronic embedded systems for EMI/EMC, environmental conditions, reliability, etc. He is a trained technical assessor for NABL in the area of EMI/EMC and carried out assessment of various EMC laboratories as per ISO/IEC 17025.



Dr. S. A. Patil: Dy. General Manager, Academy, ARAI, Pune. He has his Ph.D. from University of Texas at Dallas. He has academic and research experience of 15+ years in the varied domain of speech under stress, speaker variability under stress, adult-child interaction for language learning, nonlinear modeling of speech and driver distraction modeling.



Mr. N. A. Sakle: Manager, ARAI Academy, Pune. He has done BE and ME in Mechanical Engineering. He has worked as a senior lecturer in Engineering College in Pune University for 8 years He was instrumental in establishment of ARAI Academy at Kothrud initially and presently is responsible for Learning Centre at ARAI Academy at Chakan.



Dr. Brijesh Patel: Dy. Manager, ARAI Academy, Pune. He has done PhD from IIT Bombay. He has 4 years teaching and 3 years industrial experience. His areas of expertise are Internal Combustion Engine, Advanced Combustion in Compression Ignition Engine, Numerical Simulation, etc. He has 7 publications in reputed International Journals and filed 1 Patent. He has presented his work at more than 8 national and international conferences.



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 Emission and their Control strategies. He has published many national and international papers in technical and non-technical domain.



Dr. K. C. Vora: Sr. Dy. Director & Head, Academy, ARAI, Pune. He has his Ph.D. from IIT-Bombay. He has a vast industrial & academic experience of 30+ years. He has specialized in the field of Automotive Education, Technology Development, Knowledge Management, Engine R&D and Emission Controls. He was instrumental in starting ARAI Academy. He is the Advisor in various activities of SAEINDIA, under which he conducts series of students' activities like AWIM & BAIA

SAEINDIA. He is Chairman of technical committee of FISITA 2018 & SIAT 2019.



Mr. M. M. Desai: Dy. General Manager, Automotive Electronics Department, ARAI, Pune. Presently he is responsible for Evaluation, Testing of Automotive Electronics (EMI/EMC) and Certification, testing of Electric and Hybrid Electric Vehicles. He has experience of around 15 years.



Mr. K. P. Wani: Manager, Academy, ARAI, Pune. He has total 17 years of combined experience in industry and academia. He has completed his M.E. (Mechanical - CAD/CAM). His area of specialization is Noise, Vibration & Harshness and Automotive Transmission System.



Mr. Mohammad Rafiq Agrewale: Dy. Manager, ARAI Academy, Pune. He has done Masters' Degree in Mechanical Engineering in Thermal Discipline and Bachelor's Degree in Automobile Engineering. Currently pursuing Ph.D. at Mumbai University. His area of specialization is Automotive Testing & Certification, Automotive Engineering Systems and CFD.



Dr. Yogesh Bhateshvar: Asst. faculty of Automotive Electronics, ARAI Academy, Pune. He has received the Bachelor of Engineering degree in electronics and communication engineering from Rajasthan University, Jaipur, India, and the M.Tech degree in Automotive Electronics from VIT University, Vellore, India. He received the Ph.D. degree from BITS-Pilani, India, in 2016. He have more than 8 years of teaching and research experience. His

research interests include intelligent control systems and their applications to automotive engineering and smart grid technologies in power systems.

5 Day Proficiency Improvement Programme on

Automotive Engineering

18th to 22nd June 2018 at ARAI-Forging Industry Division

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 fax/email/post duly filled-in registration form on or before 15th June 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 396 660/661/666

Email: training.pga@araiindia.com; patil.pga@araiindia.com; training.fid@araiindia.com







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5 Day ProficiencyImprovement Programme on



Automotive Engineering

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ARAI-Forging Industry Division

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

18th to 22nd June 2018

ORGANIZED BY



BACKGROUND & OBJECTIVES

Due to the shrinking life-cycle of new vehicles and models, the vehicle manufacturers have to keep an eye on the future to sustain in the competitive global markets. The amazing advancements in automotive technology have been driven by market preferences of the ever demanding customer and the opportunity presented by the new technology. At the same time, the new regulations regarding vehicle performance, safety, emission, clean air and fuel consumption have changed the way vehicles are designed and manufactured today. This programme encompasses fundamentals of Automotive Engineering and some of the latest technologies & regulatory aspects in India & abroad.

INTENDED LEARNING OUTCOMES

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

- Understand fundamentals of Automotive Engineering.
- Understand Automotive Testing & Certification.
- Understand I. C. Engine Design & Development.
- Understand Alternate Fuels.
- Understand Electric and Hybrid Vehicles and Test Procedures.
- Understand EMI/EMC Compliance.
- Understand Automotive Safety & Evaluation.
- Understand Automotive NVH & CAE.
- Understand Automotive Emission Legislation & Measurement.
- **Understand Emission Control & Aftertreatment** Devices
- Lead multi-disciplinary teams.
- Demonstrate independent learning ability necessary for conducting professional development.
- Become self-disciplined self-motivated, demonstrating personal responsibility in the pursuit of studies and professional practice.

PROGRAMME

Day One

- 08.30 Registration
- 09.30 Automotive Engineering
- 11.00 Tea Break
- 11.15 Automotive Engineering (Contd..)
- 13.00 Lunch
- 14.00 Automotive NVH
- 15.00 Tea Break
- Automotive NVH (Contd.) 15.15
- 16.15 Conclusion

Day Two

- 09.00 - Automotive Materials & Manufacturing
- 10.00 Automotive CAE
- 11.00 Tea Break
- 11.15 Alternate Fuels
- 13.00 Lunch
- 14.00 Development of Hybrid Electric vehicle

- 16.00 Tea Break
- 16.15 Conclusion

Day Three

- 09.00 IC Engine Design & Development
- 11.00 Tea Break
- 11.15 Electric Vehicles and Test Procedures
- 13.00 Lunch
- 14.00 EMI/EMC Compliance
- 16.00 Tea Break
- 16.15 Conclusion

Day Four

09.00 - Automotive Testing & Certification

- 10.00 Automotive Safety & Evaluation
- 11.00 Tea Break
- 11.15 Automotive Testing & Certification -International Type Approval Process
- 13.00 Lunch
- 14.00 Basics of Engine Combustion (SI+CI)
- 16.00 Tea Break
- 16.15 Conclusion

- 09.00 Automotive Emission & Control
- 11.00 - Tea Break
- 11.15 Automotive Electronics
- 13.00 Lunch
- 14.00 Written Test
- 15.00 Summary, Discussions and Feedback, Certificate Distribution
- Conclusion 16.15

WHO SHOULD ATTEND?

- Organizations involved in Automotive Research, Design, Development, Testing, Certification & Manufacturing
- Vehicle & Component Manufacturers
- Engine Manufacturing, Assembly & Service Engineers
- Engineering / Consulting Companies
- Professors / Engineering Students
- Engineers who are interested in pursuing further studies on part time / full time basis

REGISTRATION FEES

Category	Registration Fees (Rs.) (per participant)	Total Fees including Tax of 18% (Rs.) (per participant)
Engineers & Professionals	25,000.00	29,500.00
Teaching Faculty	15,000.00	17,700.00
Engineering College Students	10,000.00	11,800.00

Registration fees include:

- Breakfast
- Lunch
- Delegate Kit



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 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.

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

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 at their site.

Please visit www.araiindia.com for more information.



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