

SPEAKERS



DR. P. G. RENAIVIKAR: B.E. & M.E. in Metallurgy from College of Engineering Pune and Doctorate in Materials Engineering from Rensselaer Polytechnic Institute, Troy, NY, USA. He started his illustrious career in TELCO Pune (now Tata Motors), in ERC & Head, Materials Engineering function. Presently runs a metallurgical consultancy service. He is closely associated with ASM International activities in India. He was Chairman of Pune Chapter in 1997- 2001 and Chairman of India National Council, until 2012. He has played a pivotal role in organizing many ASM International Conferences in India.



MR. K. C. GOGATE: M.E. from College of Engg Pune, over 5 decades of experience. Presently a Consulting metallurgist. Chairman - Educational Activities of ASM Pune Chapter. Expert in forging and heat-treatment. Former secretary of India National Council.



MR. RAHUL GUPTA: Metallurgy from College of Engg Pune. Worked in Mukund Iron & Steel and Noduron Foundry (Now Maval Foundry). Is Now Partner in ND Gupta Enterprises - Heat-treatment unit and foundry for over 15 years. Practicing metallurgist for over 30 years in steel making, heat-treatment, surface treatment and foundry. Currently Secretary of ASM International Pune Chapter.



MR. S. G. KULKARNI: Graduate in Metallurgy, Over 4 decades of experience. Presently working as a Managing Director at SHRID Metals Industries and Chairman - Technical Program Committee of ASM Pune Chapter. Expert in forging and heat treatment.



MR. UDAYAN PATHAK: B. E (Metallurgy) from Visvesvaraya Regional College of Engineering (Now VNIT), Fellow, Institution of engineers (India) and has over 25+ Years of professional experience. At present working in Engineering Research Centre, Tata Motors Limited Pune, as Assistant General Manager – Materials Engineering. Previously worked with John Deere, DGP Hinoday, Spicer India & Bharat Forge. Chairman, Public Relations Committee, ASM Pune Chapter. Immediate past Secretary of ASM Int, Pune Chapter. Expert in Material forming and Heat-treatment, Materials Selection & Testing, Technology Strategist.



MR. VINEET MARATHE: M.E. - Metallurgy, from College of Engg Pune and a certified International Welding Engineer (IWE). He is a Proprietor in Vinarc Engg. at Bhosari - an expert in welding technology. Currently EC member of ASM International Pune Chapter, Chairman of Indian Institute of Welding, Pune. He has a professional experience of over 3 decades. He is active member of AWS (American Welding Society), IIW (Indian Institute of Welding) and ASM (American Society of Metals).



MR. Y. S. GOWAIKAR : A Metallurgist from Pune Engineering College having experience in building metallography machines, instruments and software for more than 30 years. He also has experience in standardizing metallography practices for various applications. He is Director of Metatech Equipments (India) Pvt. Ltd.



MR. D. G. CHIVATE: Graduate from College of Engg Pune and over 4 decades of experience. Consulting metallurgist. Coordinator for Students activities at Govt. Polytechnic, Pune for ASM Pune Chapter. Expert in forging and heat-treatment. Former secretary of India National Council. He is presently a Faculty with Govt Polytechnic Pune.



Mr. N. A. SAKLE: BE and ME in Mechanical Engineering. He has worked as a senior lecturer in Engineering College in Pune University for 8 years and presently working as Deputy Manager in ARAI from last 8 years. He was instrumental in establishment of ARAI Academy at Kothrud initially and presently is responsible for Training Centre at ARAI-Forging Industry Division at Chakan.



3 Day Proficiency Improvement Program on Metallurgy for Non Metallurgist

(Includes Materials Science for practicing Engineer)

at ARAI-Forging Industry Division

10th to 12th April 2017 (Monday to Wednesday)

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 8th April 2017 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 : Reliance : 02135 396 660, 61 & 66 BSNL : 02135 25 9595; 25 9042 / 44
 Email : nadeshmukh.fid@araiindia.com; sakle.fid@araiindia.com; training.fid@araiindia.com



3 Day Proficiency Improvement Program on Metallurgy for Non Metallurgist

(Includes Materials Science for Practicing Engineer)



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

10th to 12th April 2017 (Monday to Wednesday)

Jointly Organized by



BACKGROUND & OBJECTIVES

In today's times of Globalization it is essential to widen the knowledge base of Individuals. Metallurgy is a vital basis of every major engineering field, it contributes to all engineering applications where a materials are used and is a full gamut of engineering product/process design. It focus is on translating complex principles & procedures into easy to understand terms that will enable participants to gain understanding of fundamental of metallurgy; bridging the gap between theory and practice.

This training provides concise knowledge of metallurgy with a focus on industry applications for working professionals/ engineers (design, maintenance, manufacturing, service, sales, and purchase dept). As such it is essential to have an understanding of what metals are, how they behave, and why they behave differently than ceramics, glass, and plastics. This will help to obtain optimum properties for a given condition, to save money and enhance customer satisfaction. It is also important to understand how they can be made stronger or more corrosion resistant, how they can be shaped by casting, forging, forming, machining, or welding, and how these processes can alter properties. This ASM course provides an important knowledge who are not metallurgists, and it covers up metallurgy from history of metals to its fabrication into usable products.

The Faculty for program comprises of Senior Materials Engineering Professionals from Industry & Senior Educationists.

INTENDED LEARNING OUTCOMES

On the completion of program, participants will be able to implement techniques related to their work and will:

- Learn basic principles of Metallurgical & knowledge useful in Industry.
- Understand what is an ore, metal & alloy, outline availability of metals.
- Understand how steel is made & its impact on the properties.
- Understanding basic crystal structure, process of solidification, and phase diagrams.
- Understand tensile, hardness, fatigue testing, and define strength of metals.
- Define steel & distinguish between various grades of steels & cast irons.
- Understand basic heat treatment process & their applications.
- Understand metallography, NDT and its application.
- Understand various welding processes & metallurgical aspects of welding.
- Understand failure analysis procedure.
- Understand corrosion & methods of prevention.
- Demonstrate independent learning ability that is necessary for seeking personal development.
- Become self-disciplined, 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
- 09.00 - Inauguration & Welcome Address
- 09.30 - History of metals
- 10.30 - Steel and Cast Iron
- 11.30 - Tea break
- 11.45 - Steel and Cast Iron Contd...
- 12.15 - Making of Steels and Deformation of Metals (Videos of Steel making, Casting, Forming, Press-shop and Powder Metallurgy)
- 13.15 - Lunch
- 14.00 - Strengthening Mechanisms
- 14.45 - Tea break
- 15.00 - Corrosion & its Prevention
- 17.00 - Conclusion

Day Two

- 09.00 - Testing of Mechanical Properties
- 10.00 - Solidification of Metals
- 11.15 - Tea break
- 11.30 - Non Ferrous Metals & their Applications
- 13.15 - Lunch
- 14.00 - Heat - Treatment of Steels
- 15.00 - Case Hardening
- 16.00 - Tea break
- 16.15 - Metallography & Practical (In batches)
- 17.00 - Conclusion

Day Three

- 09.00 - Joining of Metals
- 10.00 - Characterization of Metals
- 11.30 - Tea Break
- 11.45 - Metallography
- 12.30 - Quality Control & Failure Analysis
- 13.15 - Lunch
- 14.00 - Written Test
- 15.00 - Tea Break
- 15.15 - Summary, and Feedback
- 16.00 - Valedictory Function & Certificate Distribution
- 17.00 - Conclusion

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 : Reliance : 02135 396 660, 61 & 66
 BSNL : 02135 25 9595; 25 9042 / 44
 Nearest Landmark : Beside TVS - Lucas OR Sansera
 Infront of Plastic Omnium - Varroc Pvt. Ltd.

WHO SHOULD ATTEND ?

Any Non Metallurgists working in the Engineering Industry in technical or techno commercial activity will benefit by attending this program.

Such as : Supply Chain Managers, Executive & Managers working in Quality Control, Purchasing & Sourcing, Manufacturing, Marketing, Inspection & Testing organizations who desire to acquire theoretical and practical knowledge of various fields of Materials Engineering so as to help in their day to day working. Also Departmental Heads will get required knowledge of materials & metallurgy.

This Program will be especially beneficial to SMEs who play a key role in today's era of globalization.

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).

TRAINING CENTRE, In line with 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. 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

REGISTRATION FEES

Category	Registration Fees (Rs.) (per participant)	Total Fees including Tax of 15% (Rs.)* (per participant)
Engineers & Professionals	8000.00	9200.00
Teaching Faculty	6000.00	6900.00
Engineering College Students	4000.00	4600.00

*Service Tax is as applicable at the time of program.

Registration fees include:

- Breakfast
- Lunch
- Delegate Kit

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.

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.

Please visit www.araiindia.com for more information.

ABOUT ASM INTERNATIONAL PUNE CHAPTER:

ASM is a society dedicated to serving the materials science and engineering profession. Through its network of 36,000 members worldwide, ASM provides authoritative information and knowledge on materials and processes, from the structural to the nano scale. As an engineering and scientific society, ASM International is led by members, guided by member needs and fuelled by member participation. ASM members share information and ideas through international conferences and expositions, seminars and local Chapter meetings, through publications like Advanced Materials & Processes and the renowned ASM Handbook series, and online through the ASM Community website. The Pune Chapter of ASM International was founded in the year 1991, which has been furthering the mission objectives through various activities. The chapter is very interactive with many societies, chapters and organizations, and also has a Mou with the ASM Detroit Chapter which is one of the oldest chapters. ASM Pune Chapter also supports two student chapters at the College of Engineering, Pune and Singhgad Institute of Technology, Pune.

Please visit : www.asmpune.org