SPEAKERS

Mr. Ramalingam K S : A Seasoned designer with 50 years of expertise in Mechanical Engineering & Management. He is an entrepreneur and an expert in Design For Manufacturability-having been mentored by Dr. David M Anderson of 'Design For Manufacturability & Concurrent Engineering 'on DFM. He has served as Assistant Engineer in Tamil Nadu Agricultural Engineering Services doing Maintenance, a Works Engineer of a Trailer Unit developing & manufacturing Trailers & Tippers. A Shift Engineer in Royal Enfield Motors, a Production Manager of a Rocker Levers Manufacturing Unit -Hi Mu Group & a Director of December Tools P Ltd for Machining of OE Auto Components.

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, which conducts Graduate, Post Graduate and Doctoral Courses in Automotive Engineering. He is the Advisor in various activities of SAEINDIA, under which he conducts series of students' activities like AWIM & BAJA SAEINDIA. He is Chairman of technical committee of FISITA 2018 & SIAT 2019.

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 of ARAI Academy at Chakan.

Besides, speakers from ARAI & other Industries are expected

3 Day Proficiency Improvement Programme on

Design for Manufacturability

at ARAI-Forging Industry Division

from 25th to 27th Sept. 2018 (Tuesday to Thursday)

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 24th 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.

ARAI ACADEMY
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CREATING PASSIONATE AUTOMOTIVE ENGINEERS

2015

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Training Delivered by Industry Experts

3 Day Proficiency Improvement Programme on

Design for Manufacturability

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 25th to 27th Sept. 2018 (Tuesday to Thursday)

Organized by

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Progress through Research

BACKGROUND & OBJECTIVES

Worldwide the manufacturing firms are striving hard to improve competitiveness by incorporating the component manufacturing and assembly considerations during the product design stage. Use of Design For Manufacturing and Assembly (DFMA) during design process drastically reduces the production costs, improve quality, reduces the supply chain and helps to bring the product to market as quickly as possible. This training emphasis on the fact that "70% manufacturing cost is determined in design decisions". Design For Manufacturing (DFM) and design for assembly (DFA) are the aspects of concurrent engineering with integration of product design, manufacturing, assembly and process planning together.

This training include, how to manage a better design to bring out better results under QCD- Higher Quality @ Lower Cost under faster Delivery. It is not on basic design or CAD or Simulation. It is on how to embed better quality from the concept to scrapping of the engineering product or assembly

How a broad based Concurrent Engineering Team where there will be Domain Experts who can handle all the scientifically differentiated Eight Criterions of Tao of DFM (TDFM) like, Best Cost, Best Quality, Best Reliability, Best Compliance to Regulations / Sustainability, Best Safety, Best Time-to-Market ,Best Function/Style & Best Satisfaction to Customers for an integrated system comprising of Procurement, Manufacture, Assembly, Testing, Packing /Shipping, Supply /Delivery, Service & Repair.

INTENDED LEARNING OUTCOMES

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

- Tooled up with simple means to bring out reliable designs under rapid development with a responsive DFM
- Think 'out-off-box' like moving DFM to the QMS which is the final deciding wing to take control of all systems
- Synergizing between Logical thinking and Creative thinking
- Will be benefitted by the paradigm shift with required change of mindset /support from the top management
- Delegates will be taught on how to execute the Ten Commandments as per MFD

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

PROGRAMME

Day One

09.00 - Prologue to Tao of DFM -TDFM, Synergy of Yang & Yin -a Video on the internal structure of brains in men and women/Introduction to Design Thinking

11.30 - Rules/ Guidelines for Eight Criterions & Eight Systems under TDFM

14.00 - FMEA Analysis- Design /Process- for DFM

15.30 - Modified Concurrent Engineering Team & Synergizing Logic from 'Yang '& Creation from 'Yin'. Merging of Process Engineering Team with Design Team under TDFM

16.30 - Conclusion

Day Two

09.00 - Gap Analysis under TDFM & Software's on DFM

11.00 - QFD for TDFM with a case study on transformers.

14.00 - SWOT Analysis– Systems / Competency- for DFM

15.30 - A Case Study on DFMA implementation in a HVA Unit

16.30 - Conclusion

Day Three

09.00 - A Case Study from Design Management Institute on 'Ergo Screw Driver'

11.00 - Manufacturability Function Deployment & Summing up -Ten Commandments under MFD

14.00 - Objective type Test on Design, Development & Manufacture of Rocker Assembly for IC Engines for Automobiles

16.00 - Certificate Distribution & Valedictory Function

16.30 - Conclusion

Training Venue

ARAI-Forging Industry Division, Chakan

3 Day Proficiency Improvement Programme on **Design for Manufacturability**

WHO SHOULD ATTEND ?

The course is most appropriate for

- Engineering Students / Faculties & Practicing Design & Industrial Executives / Managers from Institutions / Industries
- Delegates from Manufacturing, Maintenance, SCM, Finance, ERP & Training

Prerequisite delegates are expected to have a preliminary knowledge on Design –Conventional or CAD – Manufacturing Practices

REGISTRATION FEES

Category	Registration Fees (Rs.) (per participant)	Total Fees including Tax of 18% (Rs.) (per participant)
Engineers & Professionals	12,000.00	14,160.00
Teaching Faculty	9,000.00	10,620.00
Engineering College Students	6,000.00	7,080.00

Registration fees include:

- Breakfast
- Lunch
- Delegate Kit

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).

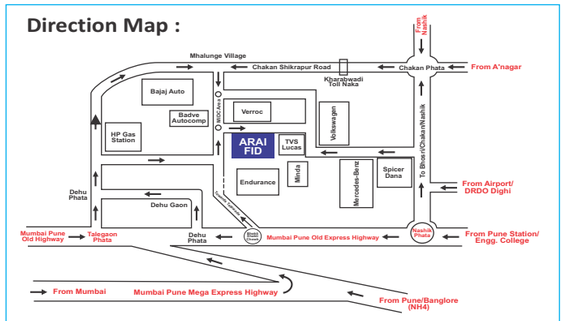
KNOWLEDGE CENTRE It has collection of around 24,600 books, standards, project reports, seminar/conference proceedings and around 75,000 SAE technical papers. It also has 450 eBooks. It subscribes to 40 national and international journals. It regularly publishes a monthly magazine 'Automotive Abstracts'.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