





SAEINDIA Southern Section
Toptech Program

Application of Finite Element Analysis (Automotive Parts & System)

- Dr.V.Ramamurti, FNA, FNAE, FASc, Consultant

On 26th & 27th Feb 2016 at Hotel Radha Regent, Chennai

Time: 9.00 A.M to 5.00 P.M

Course Content

DAY 1

Relevance of Finite element method in Indian Industry, Indian Scenario, Precautions in the use of packages. Choice of common elements and their appropriateness.

Day 2

Static, Eigen value, Transient and Random vibration Problems with application in Mechanical Engineering, case studies of problems solved for the Indian Industry covering Automobile, Process and Power Sectors.

Objectives

The automotive industry has understood the need for Finite Element Analysis for some time now. Wide range of software packages are available to carry out FEA with ease. Consequently Finite Element Analysis is being widely used by automotive engineers. However, there is considerable lack of understanding of formulating problems for FEA and interpreting the results. This program is designed to bring in better understanding of formulation and interpretation.

Benefits of attending this course

Since the course is handled by a person who is a reputed teacher with specialisation in finite element method and who has forty five years of industrial experience in solving field problems, the lectures will give valuable information to youngsters who have an urge to take this art as a profession.

- Select preferable modeling approaches
- Analyze errors inherent to FEA results
- Identify FEA advantages and shortcomings
- · Avoid mistakes and pitfalls in FEA
- Ensure quality and cost effectiveness of FEA projects

Who should attend?

Students and Fresh graduates who are working in Finite Element Analysis in Industry, Senior Engineers in consulting firms who are expected know the concepts. This program is designed for practicing Finite Element Analysis. The participants towards experience in automobile using FEA is preferable. The engineers working in vehicle, subsystem and component design will find this program very useful. Design team leaders and managers will also find this program beneficial.

About the Course

This course is about application of FEA to automotive situations in Indian industry. This is not a course on teaching FEA (Mathematical Formulation). Course will be through instruction and case studies.

The participants are encouraged to bring their own problems for discussions.

Course Date & Time

Application of Finite Element Analysis to Automotive Parts & System

26th & 27th Feb 2016

Starting Time: 9:00 A.M to 12.00 Noon & 1.00 P.M to 5.00 P.M

(Lunch 12 Noon to 1.00 P.M)

Dr. V. Ramamurti

Prof. Ramamurti got his PhD from IIT, Madras in the year 1970. He worked with IIT Madras between 1966 and 2001. He was a Professor between 1977 and 2001. He was the Head of the Department of Applied Mechanics between 1978 and 1981. He was INSA Senior Scientist at AUFRG CAD/CAM Centre, Anna University between 2005 and 2009.

Prof Ramamurti was with the Institute of Mechanics TU, Hannover, Germany between 1971 and 1973. On sabbatical leave he was a Senior Research Associate of NRC at NASA Lewis Research Centre, Cleveland, USA between 1981 and 1983. He was a visiting Professor of Mechanical Engineering in the US, Canada and Kuwait between 1991 and 1993. He was a Visiting Professor at UT Austin, USA in 1999. He was a Visiting Professor of Mechanical and Production Engineering in NANYANG Technological University, Singapore between 2001 and 2002.

Professor VR's career in Industry started as a Machine Tools Engineer in Heavy Engineering Division, KCP Limited between 1963 and 1966. He is an active consultant to an industry specifically in automobile and heavy engineering sectors. He has been solving design problems for Indian industry using FEA extensively for the last 45 years.

Prof. Ramamurti is involved in design problems of industries like KCP Group - Chennai, TVS Group - Chennai, Nuclear power Corporation - Mumbai, Tata Research and Development Centre - Pune, GE (INDIA) - Bangalore and TAFE, L&T e Engineering Solutions - Chennai and Bangalore.

Prof VR has guided 25 Ph D's and has over 185 International Journal Publications. He has written 5 books, all of them published in India and abroad. (TATA Mc Graw Hill, India and Mc Graw Hill, USA, NAROSA India and Alpha Sciences International UK) The book of relevance to this short term course "Finite Element Method in Machine Design" was published by Narosa India in 2009 and revised in 2012.

Prof VR has been elected Fellow of Indian National Science Academy, Indian National Academy of Engineering and Indian Academy of Sciences. He has received Import Substitution Award in 1973, Vasvik Award in Mechanical Engineering in 1983, INSA Hussain Zaheer Medal in 1995 and INSA Biren Roy Medal in 2007. He was chosen as a distinguished alumnus of IIT, Karagpur in the year 2012 during its diamond jubilee celebrations.

Benefit of the Participant

Benefit of the Participant	Student	Non-Member	Member	Faculty Advisor
	₹ 1,500	₹ 13,000	₹ 10,000	₹ 4,000
Free Membership with Magazine	No	Yes	No	No
Discount for next program	No	Yes	No	No
Course materials with Softcopy	Yes	Yes	Yes	Yes
Networking Lunch with Tea & Snacks	Yes	Yes	Yes	Yes
Delegate Kits (File, Notepad, Pen)	Yes	Yes	Yes	Yes
Certificate	Yes	Yes	Yes	Yes
T-Shirt	No	Yes	Yes	No

Please Note: Including Tax

Pay course fee through DD/Cheque or Transfer to our account

Name of the account holder	SAEINDIA Southern Section Toptech		
Bank Account Number	32506111653		
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Please send the completed registration form along with cheque / demand draft drawn in favour of "SAEINDIA Southern Section Toptech" payable at Chennai

Enrolment Procedure

- For Online registration: http://www.saeiss.org/TopTechProgram.asp
- Send us following details to **toptech@saeiss.org** for registration



RUNNING INTO FUTURISTIC AUTOMOTIVE WORLD

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Dr. S. Senthilkumar / Toptech Program Champion

Signature

To Contact

Mr. B. Dinesh Kumar

SAEINDIA Southern Section

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- Mahindra & Mahindra Ltd. (Truck & Bus Division).
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- Roots Industry India Ltd
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 Limited
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- SKF Technologies (India) Pvt. Ltd
- Sona Koyo Steering Systems Ltd
- Sri & Sri Consultants, Chennai
- Subros Limited
- TAFE
- Tata Motors Ltd, Pune
- TATA TECHNOLOGIES LTD
- Technology Information Forecasting & Assessment Council (TIFAC), New Delhi
- The Automotive Research Association of India
- Turbo Energy Limited
- TVS Motor Company Ltd
- TVU Rheihland India Pvt ltd
- Valeo India Private Limited
- VANAZ ENGINEERS LTD
- VE Commercial Vehicles Ltd
- Walchand Institute of Technology,
 Solapur
- Wheels India Ltd, Chennai

Top Academics Supporting

- Agni College of Technology, Chennai
- Amaljyothi College of Engineering, Kottayam
- Amrita School of Engineering Coimbatore, Coimbatore
- Aurora's Engineering College Bhongir, Nalgonda
- Aurora's Scientific and Technological & Research Academy, Hyderabad
- Birla Institute of Technology & Science, Hyderabad
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- C. Abdul Hakeem College of Engg& Technology, Vellore
- ChaitanyaBharathi Institute of Technology, Hyderabad
- ChristuJyoti Institute of Technology & Science, Jangaon
- CMR College of Engineering and Technology, **Hyderabad**
- College of Engineering -Trivandrum, Thiruvananthapuram
- Dhanalakshmi Srinivasan Engineering College, Perambalur
- Faculty of Science & Tech., IFHE University, Hyderabad
- GokarajuRangaraju Institute of Engineering & Technology, Hyderabad
- Hindustan University, Chennai
- Hindusthan College of Engg. & Technology, Coimbatore
- Jeppiaar Institute of Technology, Sriperumbudur
- JNTUH College of Engineering, Hyderabad
- Karunya University, Coimbatore
- KLN College of Engineering, Madurai
- KPR Institute of Engineering & Technology, Coimbatore
- Kumaraguru College Of Technology, Coimbatore
- Madras Institute of Technology, Chennai
- Malabar College Of Engineering And Technology, **Thrissur**
- Mar Ephraem College of Engineering and Technology, Marthandam,
- Meenakshi Sundarrajan Engineering College, Chennai Vellore Institute of Technology , Chennai
- Methodist College of Engg. & Technology, Hyderabad Vellore Institute of Technology, Vellore
- MLR Institute of Technology , Hyderabad
- Mookambigai College of Engineering, Pudukkottai

- MVSR Engineering College, Hyderabad
- National Institute Of Technology, calicut
- PadmasriDr.B.V. Raju Inst. Of Technology, Narsapur, Medak (Dist)
- Panimalar Engineering College, Chennai
- Panimalar Inst. Of Technology, Chennai
- Rajalakshmi Engineering College, Chennai
- Rajiv Gandhi College of Engineering, Sriperumbudur
- Ramco Institute of Technology, Rajapalayam
- RMK Engineering College, Tiruvallur
- RVS Educational Trust's Group of Institutions, Dindigul
- Saingits College of Engineering, Kottayam
- Sastra University, Thanjavur
- Sathyabama University, Chennai
- Saveetha Engineering College, Chennai
- SBM College of Engineering and Technology, Dindigul
- Sengunthar Engineering College, Erode
- SreeVidyanikethan Engineering Collleg, Tirupati
- Sri Eshwar College of Engineering, Coimbatore
- Sri Krishna College of Engineering & Technology, Chennai
- Sri Shakthi Institute of Engineering & Technology, Coimbatore
- Sri Venkateswara College of Engineering, Sriperumbudur
- Sri Vishnu Engineering College for Women, **Bhimavaram**
- SRM University, Chennai
- St. Martins Engineering College, Secunderabad
- St. Peters Engineering College, Hyderabad
- Tamilnadu College of Engineering, Coimbatore
- Turbomachinery Institute of Technology & Sciences, Hyderabad
- Vardhaman College of Engineering , Hyderabad
- Vasavi College of Engineering, Hyderabad
- Vel Tech Multi Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Chennai
- Vel Tech University, Chennai
- Velammal Institute of Technology, Chennai

- Veltech High Tech Dr. RangarajanDrSakunthala Engineering College, Chennai
- VimalJyothi Engineering College, Kannur