

**TOPTECH**  
on  
**APPLICATION OF FINITE  
ELEMENT ANALYSIS TO  
AUTOMOTIVE PARTS &  
OTHER SYSTEMS (Structural)**

*Conducted by*  
**Nakkeeran S**

on  
**29<sup>th</sup> & 30<sup>th</sup> June 2018**



*Organized by*

**SAEINDIA**  
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SOUTHERN SECTION

**Speaker**

**NAKKEERAN**

The Director of HEXDOF Engineering services Pvt Ltd, Chennai, India.

Having 26 years of rich experience in CAE Domain, holds a Master's degree in Engineering Design from College of Engineering, Guindy. He Started his career with HCL-HP as customer support engineer and moved to NIIT Ltd as technical support head for ANSYS India. He also worked for Mechanical Dynamics Inc. USA makers of S/W ADAMS and responsible for support, training, and consulting in the field of Multi-body dynamics. He Heads the consulting business for almost 15 years with specialization includes automotive, Heavy equipment, white goods etc. and delivered major pie in the area of CAE. Currently mentoring many PG/PHD students in the field of CAE with his rich experience in design and analysis software such as ANSYS, HyperMesh, Ls-Dyna, FE-Fatigue and ADAMS

**Introduction**

The Finite Element analysis has been widely implemented by automotive companies and is used by design engineers as a tool during the product development process. Design engineers analyze their own design while they are still in the form of easily modifiable CAD models to allow for quick turnaround times and to ensure prompt implementation of analysis results in design process.

While FEA software is readily available, successful use of FEA as a design tool still requires an understanding of FEA basics, familiarity with FEA process and commonly used modelling techniques as well as an appreciation of inherent errors and their effect on quality of results. When used properly, the FEA becomes a tremendous productivity tool helping design engineers reduces development time and cost. Misapplication of FEA however, may lead to erroneous design decisions which are very expensive to correct later in the design process.

**EVENT CHAMPION : D. BALAJI**

## Objectives

By attending this seminar, you will be able to

- Select preferable modelling approaches
- Analyze errors inherent to FEA results.
- Identify FEA advantages and shortcomings
- Avoid mistakes and pitfalls in FEA
- Produce reliable results on time
- Request FEA analysis and use results
- Provide effective FEA project management
- Ensure quality and cost-effectiveness of FEA projects

## Course Outline

- Relevance of Finite element method in Indian Industry.
- Basics and General applications of FEA and its best practices.
- Precautions in the use of packages.
- Choice of common elements and their appropriateness.
- Static, Eigenvalue, Transient and Random vibration Problems with application in Mechanical Engineering,
- Introduction to thermal and couple field problems.
- Case studies of problems solved for the Indian Industry covering Automobile, Process and Power Sectors.

## Mode of payment

Demand Draft / Cheque in favor of  
"SAEINDIA Southern Section Toptech",  
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## Registration fees

Rs. 13,000 per delegate for Non-SAEINDIA Member  
Rs. 10,000 per delegate for SAE INDIA Member  
Rs. 4,000 per faculty Advisor

## Venue

### Hotel Radha Regent \*

171 Jawaharlal Nehru Salai (100 Feet Road),  
Arumbakkam, Chennai – 600106.



\*Subject to change based on registration

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## TOPTECH

### on APPLICATION OF FINITE ELEMENT ANALYSIS TO AUTOMOTIVE PARTS & OTHER SYSTEM (Structural) 29<sup>th</sup> & 30<sup>th</sup> June 2018 at Chennai

We confirm the following will attend the above  
Seminar :

Name : .....

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Company: .....

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### Signature:

Please email/post the registration form duly  
filled, on or before 25<sup>th</sup> June 2018 to:

### Topotech Event Coordinator

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