

## CAE TRAINING and INTERNSHIP PROPOSAL

Thank you for considering partnering with **ELENO** Engineering Learning center to support your learning needs in Explicit Dynamic Analysis domain.

I have developed this training course proposal to detail training needs of academia and industry. I am happy to support you in learning.

If you have any queries, don't hesitate to get connected.

Thanks,

**Nachiket Phadke**

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### Here is list of all programs offered.

1. **Full Hypermesh Training for Mechanical & Civil Engineers**  
(2 Free Demo sessions you will find [here](#) as YouTube Playlist)
2. **Full LS-PrePost Training for Mechanical and Civil Engineers**
3. **LS- DYNA Training Program Level 1:**  
(Latest Recorded session is [here](#))
4. **Master CAE Certification Course:**  
**Full Hypermesh + LSDYNA Training Program Level 1 + Level 2 +Level 3 +**  
**Full LS-PrePost + Basics of Engineering + Placement assistance**  
Includes- 2 High Energy Projects + 1 Full Vehicle Crash + Full Seating system Product training including Seat CAE Calculations as per Govt.Standards (AIS, FMVSS, ECE, NCAP)  
(Seating System demo session you will find [here](#) & supporting presentation [here](#))

You can enroll for individual program as well.

I believe, this well-designed training program provided by **ELENO** will allow you to improve your proficiencies in these areas leading to faster Placements.

Our unique blend of industry knowledge and training expertise makes us uniquely qualified to administer training courses in **Hypermesh, LS-DYNA** and **Seating system domain**.

### Training Program details:

**1. Full Hypermesh Training for Mechanical& Civil Engineers**

<i>Execution and Syllabus for Hypermesh training Program</i>	
<b>Sessions</b>	<b>Content of Training</b>
Session 1	Understanding FEA Technology and what is discretization (Meshing)
Session 2	Complete know how of the tool commands
Session 3 & 4	Creating basic geometric shape using Hypermesh
Session 5	Prerequisite for meshing and Mid surface meshing
Session 6 & 7	Understanding mesh quality requirements and geometry cleanup
Session 8	1-D Meshing for beam components
Session 9 to Session 12	2-D Shell meshing on midsurface for Sheet metal components
Session 13 & 14	3-D Volume Tetra meshing
Session 15 to Session 19	2D Plastic Meshing
Session 20	Miscellaneous

## 2. Full LS-PrePost Training for Mechanical and Civil Engineers

For [Demo](#), click Preview buttons to watch 2 FREE sessions

<i>Execution and Syllabus for LS-PrePost training Program</i>	
Sessions	Content of Training
Session 1	All about LS-PrePost
Session 2	Let meshing begin
Session 3	Joy of Tetra mesh
Session 4	Full seat model
Session 5	1D meshing and 3D Hexa meshing
Session 6	Introduction to connection, Bolting and Pin joint, Spotweld connection
Session 7	Stress and Strain Based Failure : Basics How to check Energies, Stresses and how to create movie file in LS-PrePost? How to check Strain
Session 8	Automation Using LSPP
Session 9	Modal Analysis Setup using LSPP
Session 10	Mass Trimming and CoG Calculation
Session 11	Lets learn to Generate Smooth Input Curves and sequential curves

### 3. LS- DYNA Training Program Level 1:

LS-DYNA course syllabus will be delivered under 3 levels detailed briefly below. The most important and descriptive is Level 1.

**Level-1:** With less complex problems (standalone parts like RUPD/ Wheel/ Brackets etc will be tested using LS-DYNA).

<i>Execution and Syllabus For LS- DYNA Online training Program</i>		
Lecture no.	Content of LS-DYNA online training per lecture	Approx Hours Required
Lecture 1	Why CAE? Types of CAE Techniques. Nodes and Elements	2
Lecture 2	Inputs possible in LSDYNA. Explicit and Implicit	2
Lecture 3	Basics of LS-DYNA Solver, History, Current developments, applications in industry.	2
Lecture 4	Time-Step Control, Types of Elements, Hourglassing, Element size determination.	2
Lecture 5	Types of material in LS- DYNA, Contact Algorithm	1
Lecture 6	Boundary Conditions applications, Effect of parameters of Analysis	1
Lecture 7	Setting up Control cards and application of control card in analysis	1
Lecture 8	Reading procedure of LS-DYNA manual	1
Lecture 9	Model preparation and Debugging scenario	2
Lecture 10 to 13	Basics of Engineering	2
Lecture 14	Problem 1 - Crush Can (Using LSPP)	6
Lecture 15	Problem 2 – RUPD (Using LSPP)	4
Lecture 16	Problem 3 - Wheel Impact (Using LSPP)	4
Lecture 17	Problem 4– Seat Modal Analysis & Static loading using Quasi Static Analysis (Using LSPP)	4
Lecture 18	Problem 5 and 6 : Seat Sled Test using Acceleration	8
Lecture 18	Post processing of All models	4
Lecture 19	Understanding of CAE Tasks and Failure evaluations with appropriate suggestions	2

#### 4. Seating System Product and CAE Training:

This is a unique one of kind training program which will include all Seat Regulations in depth study.

This is going to be a Live Program conducted by Nachiket Phadke, a Seating CAE expert with 16 years exp.

➤ What is included?

##### 1. Full Seating System Product Training (15 Hours - 15 Sessions)

- a. Purpose of Seat
- b. Types of seats
- c. Components of seat
- d. Full nomenclature and function of every component
- e. Specifications of Recliners, Tracks and Latches
- f. H-Point / R Point Definitions
- g. Dummy specifications
- h. Why Regulations?
- i. How to understand regulations?
- j. Physical Interpretation and CAE Conversion

##### 2. Seating System CAE:

- a. Seat Meshing and mesh convergence
- b. Property assignment and penetration removal
- c. Material Models
- d. Ways of Connecting seat (Bolting /Welding / Adhesives/ Joints)
- e. Seatbelt Routing
- f. Dummy Positioning
- g. Slipping Definitions
- h. Contact Definitions
- i. Model Check
- j. Modal Analysis
- k. Shake Down Run (G Loading)

##### 4. Seating System Regulations:

- a. Seatbelt Anchorage Test
- b. Luggage Retention Test

- c. Head Restraint Performance Test
- d. Seat Back Strength Test
- e. Head Impact Test
- f. Bus Seat H1 and H2 Test
- g. Frontal Impact with Dummy Test
- h. Rear Impact with Dummy Test
- i. Child Restraint System test

5. **Post Processing using LS-PrePost will be taught for all analyses.**

6. **Report generation and automation will be discussed in detail.**

### 5. Master CAE Certification Course:

**LS-DYNA Advance** with assembly level problems on seating system, defense related problems Hyperview for post-processing and full training on Hypermesh 1D, 2D and 3D meshing followed by plastic mesh and tool tests. Complete post processing technique, failure models, material Models, strain rate dependency.

**LS-DYNA Advance** including domain specific training on Seating system or interior systems or Full vehicle crash with intricate large assembly model building, handling using Hypermesh followed by placement assistance along with online internship letter of 6 months of our service org. ELENO Energy LLP

*Course duration for all levels is roughly 5 months including some lectures in recorded format plus live Q & A session with me on every Sunday from 5:30pm to 7.00pm IST.*

### 6. Internship Program:

- A. Internship will commence after successful completion of training program.
- B. Internship will be provided based on performance and personal interview.
- C. No additional cost for Internship
- D. Internship duration will be maximum up to 6 months

**Payment Details:**

- ❖ For International Payments: [We](#) will share PayPal link
- ❖ Cheque should be drawn in favor of 'ELENO ENGINEERING LEARNING CENTER'
- ❖ Fees once paid, will not be refunded in any circumstances.
- ❖ UPI: 9881732144@icici

**Fee structure for Hypermesh, LS-DYNA and Seating system domain:**

Course	Registration Link	Price
Full Hypermesh	<a href="https://rzp.io//HM-Full">https://rzp.io//HM-Full</a>	₹12999/-
LS-PrePost (Bonus with LSDYNA)	<a href="https://rzp.io//LSPrePost">https://rzp.io//LSPrePost</a>	₹3150/-
Fusion 360 Training	<a href="https://nachiketphadke.teachable.com/purchase?product_id=2947956">https://nachiketphadke.teachable.com/purchase?product_id=2947956</a>	₹3499/-
Basics of Engineering (Bonus with LSDYNA)	<a href="mailto:ELENOELC@icici">ELENOELC@icici</a>	₹1999/-
Seating System Product Training (Bonus with LSDYNA)	<a href="https://rzp.io//SeatingSystem">https://rzp.io//SeatingSystem</a>	₹5,999/-
Crack Interview with Confidence (Bonus with Master Program)	<a href="https://rzp.io//ARJqj4T">https://rzp.io//ARJqj4T</a>	₹1499/-
LS-DYNA	<a href="https://rzp.io//LSDYNA-L1">https://rzp.io//LSDYNA-L1</a>	₹32999/-
Seating System CAE using LSDYNA (LSDYNA Knowledge Must)	<a href="https://rzp.io//SeatingCAE">https://rzp.io//SeatingCAE</a>	₹34999/-
Master certification Program With Internship	<a href="https://rzp.io//MasterTraining">https://rzp.io//MasterTraining</a>	₹78999/-

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