ANSYS Pre- Convergence Advanced Lecture Series
Structural Mechanics
May 2014

ANSYS is committed in providing solutions and services to help you obtain the maximum advantage from using simulation technology in your product development process. ANSYS India is pleased to announce several paid Pre- Convergence Advanced Lecture Series. These sessions are a part of our upcoming 2014 ANSYS Convergence Conference program and will be held at Bangalore and Pune in May 2014. Details of Lecture Series related to Structural Mechanics are listed below:

Name of the Topic	Location	Dates	Venue	Timings	Seating Capacity	Early Bird Offer uptil 15/04/14	Fees after 15/04/14	Combined Full Day Early Bird uptil 15/04/14	Combined Full Day after 15/04/14
Tips and Tricks for Contact analysis	Pune	5-May	Hotel Pride Regal Hall	9am-1pm	40	INR 8000	INR 9500	INR 14500	INR 17000
Fatigue and Fracture	Pune	5-May	Hotel Pride Regal Hall	2pm-6pm	40	INR 8000	INR 9500		
Fatigue and Fracture	Bangalore	8-May	Hotel Royal Orchid Autumn Hall	9am-1pm	100	INR 8000	INR 9500	INR 14500	INR 17000
Tips and Tricks for Contact analysis	Bangalore	8-May	Hotel Royal Orchid Autumn Hall	2pm-6pm	100	INR 8000	INR 9500		

The above mentioned fees are per participant. Service Tax as applicable.

Early Bird Deadline: April 15, 2014, 05:00 pm IST
Final Deadline to register: April 30, 2014, 05:00 pm IST
The **Training fee** includes Lecture notes and Lunch.
For registrations and payment contact: mahek.khubchandani@ansys.com

Pune venue:
The Pride Hotel, 5, University Road, Shivaji Nagar, Pune - 411005

Bangalore venue:
Royal Orchid Hotels Ltd., #1, Golf Avenue, Adjoining KGA Golf Course, HAL Airport Road, Kodihalli, Bangalore - 560 008

LECTURE - 1

Advanced workshop on Fatigue and Fracture Mechanics

Most of the structural failures experienced on the field can be associated with fatigue phenomenon. These product failures are known to have severe business implications. Prediction of the potential failures in the design stage is highly desirable and engineering simulation gives a plethora of techniques for predicting failure due to fatigue and fracture.

This workshop will cover important theoretical aspects of fatigue, how to relate the experimental setup in a simulation environment and how to correlate the simulation results with the experiments. This advanced lecture series will also provide you with the insight to implement fatigue and fracture techniques in your structural engineering simulations using ANSYS technologies.

ANSYSncodeDesignLifeTM which is completely integrated in ANSYS Workbench framework enables engineers to evaluate product life using a complete fatigue simulation process. The seamless integration of ANSYSncodeDesignLifeTM with other ANSYS products facilitates the designers to ensure the reliability, sensitivity and six sigma designs along with the estimated life of the products.

TOPIC HIGHLIGHTS

- Fatigue life prediction methods & failure mechanisms
- Implementation of fatigue simulation using ANSYSncodeDesignLifeTM
- Recent developments in ANSYS fatigue and fracture technology

Outline of Agenda
- Fatigue life prediction methods
- Failure mechanisms
- Over view of fatigue testing
- Random vibration fatigue
- Weld fatigue
- Crack modeling and propagation using ANSYS Mechanical
- Recent developments in ANSYS fatigue and fracture technology

Speaker Profiles

Swati Athavale
Engineering Consultant
Former -Assistant Director and in-charge of NVH and CAE laboratory, ARAI

Mrs. Swati Athavale is a Mechanical Engineering Graduate from College of Engineering, Pune. She has around 30 years of experience in simulation. Presently she is working as an independent Engineering Consultant (NVH and CAE). Earlier she has worked as Assistant Director and in-charge of NVH and CAE laboratory at ARAI. She is associated with various automotive, machinery and component manufacturers for providing simulation solution on critical industrial problems. She has rich experience of relating experimental data in developing the simulation processes. She has published several technical papers in national and international conferences and proceedings.

Bharat Jidugu
Technology Specialist
ANSYS India

Bharat Jidugu holds a Bachelor's degree in Mechanical Engineering and a Master's degree in Aerospace Engineering from IIT Madras. He worked with leading global OEMS in aerospace engineering and has been a part of some of the most innovative product development programs of the industry. At ANSYS he leverages his experience and exposure to maximize the value to the customers by enabling them to adopt improved simulation practices particularly in the area of nonlinear structural analysis, incorporating processes to redefine and improvise legacy design practices in the life cycle prediction. He facilitates customers to absorb the technologies and simulation methods by customers' user groups through trainings and OTS sessions. He has a unique trait of reinforcing the learning processes through substantive theoretical orientations and perspectives.

Dilip Kumar Damera
Technology Specialist
ANSYS India

Dilip Kumar Damera holds a Master's degree in Engineering Mechanics from IIT, Delhi. With 8 years of experience in working on FEA using ANSYS products, he helps simulation and research teams of various engineering and product companies by supporting them to perform complex structural dynamic simulations. He facilitates customers to adopt emerging technologies like ACP and ANSYSncodeDesignLifeTM by bench markings and trainings. He has created a number of industry examples in the area of fatigue, enabling customers to estimate product life of components subjected to complex dynamic loading phenomenon.

LECTURE - 2

Contact Analysis in ANSYS: Advances in R15 and Best Practices

This Advanced Lecture Series will provide you with the detailed insight into contact technology in ANSYS, latest developments in R15 and best practices. The technical presentations will be complemented by representative application examples.

Furthermore, the Lecture Series gives you an opportunity to discuss your applications and requirements with our experts from the ANSYS India Technical Support Team. We encourage the advanced ANSYS Mechanical users to join us for this Lecture Series so that you can enhance your understanding of the Contact Analysis.

TOPIC HIGHLIGHTS

- Contact analysis in ANSYS
- Recent developments in contact technology
- Best Practices for carrying out contact analysis
- Demonstrations and discussions on specific applications

Outline of Agenda
- Understanding ANSYS contact technology
- Industry specific applications
  - ➤ Press Fits & Pull-out simulations
  - ➤ Virtual Bolt Thread Modeling
  - ➤ Gaskets
  - ➤ Debonding
  - ➤ Friction Stir Welding
  - ➤ Fluid Pressure Penetration
  - ➤ Coupled field contact applications
  - ➤ Wear
  - ➤ Relevant case studies and demonstrations
- Best practices
- Recent developments

Grama Bhashyam
Director, Software Development, ANSYS Inc.

Grama Bhashyam holds a Ph.D. in Engineering Mechanics and over 30 years of experience in commercial finite element software development. Grama has been with ANSYS since 1995 in various capacities and currently based out of Cannonsburg in US. From being a Senior Developer to a corporate fellow of research, he has contributed to ANSYS in various forms of his talent. His main interests are in nonlinear analysis and advanced element technology for structural analysis. In his current role, he is responsible for identifying future requirements for the company, development of ANSYS core analysis capabilities, future product strategies and technology development. His team is involved in the areas of nonlinear analysis, solution strategies, dynamics and multibody analysis among many others.

Shivakumar P
Technology Specialist
ANSYS India

Shivakumar P holds a Master's degree in Machine Design from Manipal University and has been associated with ANSYS for the last 9 years. He primarily works on ANSYS products related to Structural Mechanics, Fatigue Life prediction, Composite modeling & Simulation and Customization Toolkit. He is responsible for activities like technical support, product awareness programs and delivery of customized and advanced trainings as per the client requirements.

Rahul Phadke
Technology Specialist
ANSYS India

Rahul Phadke holds a Ph.D. in Mechanical Engineering from the University of Virginia, USA where he worked on friction modeling for microslip damping estimations in turbine blades vibrations. He has been associated with ANSYS for the last two years. He primarily works on Structural Mechanics and Customization Toolkit. He actively provides technical support, presales activities and trainings as per the client requirements.