



## Optimizing Crane Design to Improve Safety and Reliability

### Seminar Overview

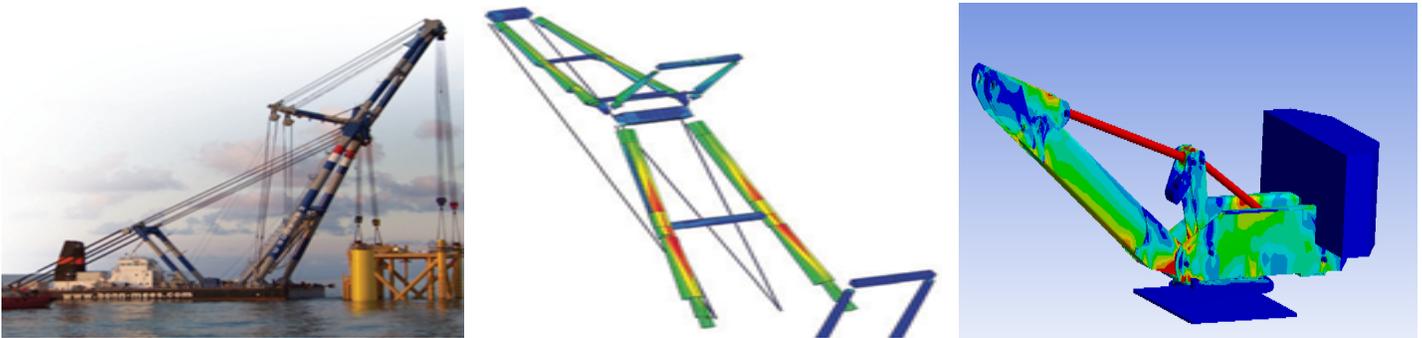
Manufacturers of both on & offshore crane face design challenges due to customization needs, rising material costs as well as environmental effects. To meet customer expectations and safety regulations, engineers need to achieve the highest possible design optimization for a robust and light weight component which results in a crane that can withstand turning moment as well as operation of 1 million duty cycle.

You can address these challenges by leveraging the power of ANSYS engineering simulation to design and verify cranes in a virtual, risk-free environment, minimizing the need for physical prototypes and tests. With its proven power to slash money and time from the development cycle — while still ensuring a high degree of product confidence — engineering simulation has revolutionized product development over the past four decades.

In this seminar, we will present on how ANSYS simulation tools provide a best-in-class solution to understand Structural integrity of cranes and its impact on lifting performance as well as addressing safety concerns. Case studies will also be shared on companies worldwide that have gained substantial ROI from incorporating simulation into their design workflow using ANSYS Simulation software.

### Who Should Attend

Engineers, managers involved in crane design and manufacturing.



### What customers say about our solutions

"3-D CAD and FE are the major tools in the virtual design process of cranes at Liebherr-Werk Eching. Since more than 20 years all important components of our cranes are systematically analyzed and optimized with FEA. ANSYS products are one of the central parts in our software world and they help us do our work quicker and with increased reliability and safety."

**Rainer-Michael Martsch, Head of Static Department, Liebherr-Werk Eching GmbH**

"The after-simulate is as close to reality as possible, and takes the least assumptions as possible. ANSYS allows you to do that. Once you see exactly what's going on, you can see what from simplified procedure can be borrowed and what can be completely

re-worked."

**Michael Tchainikov, Structural Engineering Lead, Mustang Engineering Dr. Loek Vrenegoor, Shell SRTCA**

"Simulation results assist us in the process of developing and evaluating design concepts as well as contributing to the evidence that a proposed design meets various rating criteria. Moreover, we use the software to produce visualisation for marketing purposes to enhance our communication with prospective clients. I don't see our use of this tool letting up any time soon."

**John Costello, LEED A P, Mechanical, Dunham Associates**

"We use ANSYS software because we need to speed up our development process for new products by speeding up all phases of design. With simulation we can investigate inside our products virtually, not physically, and look at detail that would be impossible to evaluate otherwise. We can improve the efficiency of our products by investigating small changes in parameters and spend less time than we would for creating a real prototype and testing."

**Matteo Cipelli, Advanced Engineering COE Manager, Lowara Srl**

## About the speaker

Hari Hara Sudhan is currently the Technical Sales Engineer for CAD-IT Consultants and part of a technical team that consists of more than 4 other PhDs consultants that support customers in various discipline domains.

He completed his Master of Science in Mechanical in National University of Singapore with his coursework focused on Design and Manufacturing. He is specialized in structural simulation, currently providing consulting and post-sales technical support on ANSYS Workbench, Mechanical and nCode fatigue tool.



## Seminar Information

**Date** : Friday, 29th May 2015  
**Time** : 2.00 pm - 5.00 pm  
**Venue** : CAD-IT Consultants (Asia) Pte Ltd  
159 Sin Ming Road, #03-05 Amtech Building, Singapore 575625 ([view map](#))

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- Register online for this FREE event.
- CAD-IT Consultants reserves the right to cancel or postpone the event due to unforeseen circumstances

**For enquiries, please call 6508-7575 or email at [caditevents@cadit.com.sg](mailto:caditevents@cadit.com.sg).**

## About CAD-IT Consultants

Founded in 1991, CAD-IT is a leading global ISO 9001:2008 certified Product Life Cycle Management (PLM), manufacturing and education provider. CAD-IT's mission is to provide world-class solutions and services that enable companies and their supply chains to achieve greater product innovation, quality and productivity with drastically reduced time-to-market and costs.

CAD-IT is honored to have received over 80 international and national awards since its inception for marketing and service excellence. Among its most recent accolades are the Singapore Enterprise 50 Award (2014, 2013, 2012), Singapore SME 1000 (2014, 2013, 2012, 2011), Asia Pacific Entrepreneur Award (APEA) - Outstanding Entrepreneur Award (2012, 2010, 2009), the Singapore Prestige Brand Award SPBA - Established Brand Award (2012, 2011, 2010, 2009), SPBA - Regional Brand Award 2012 and SPBA - Hall of Fame 2012.

CAD-IT Consultants' suite of PLM solutions include ANSYS (System-level, Multiphysics Simulation), Goldfire Innovator (Innovation Process Management), Moldflow (Plastics CAE), Stampack (Sheet Metal Forming), Deform (Bulk Metal Forming CAE), SpaceClaim (3D Direct Modeler), Mentor Graphics Valor DFM (Design For Manufacturing), Valor MSS (Complete Manufacturing Execution Suite) and Cortona3D (3D Technical Documentation).

Since February 2010, CAD-IT has partnered the Singapore Workforce Development Agency (WDA) to offer Advanced Certificate courses in PLM and Engineering Simulation, under the Workforce Skills Qualifications (WSQ) framework, with the charter to upgrade the technological capabilities of organizations in Singapore so as to enable them to undertake high value-add design, engineering, manufacturing and R&D activities.



### **CAD-IT Consultants (Asia) Pte Ltd**

HQ: 159 Sin Ming Road #03-05 Amtech Building Singapore 575625

Tel: (65) 6508 7575

Fax: (65) 6454 3766

Email: [sales@cadit.com.sg](mailto:sales@cadit.com.sg)

[www.cadit.com.sg](http://www.cadit.com.sg)

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