

Technology Competence Program (TCP-DES) on
Advanced Design Concepts in Structural Engineering
Modern and Powerful Tools for Safety Assessment and Failure Prevention
 13-15 December 2010, Conference Spa (Paharpur Business Centre), Nehru Place, New Delhi

Faculty

Prof. Dr.-Ing. Lothar Issler - Director Steinbeis Transfer Centre, Safety and Integrity of Structures, Material and Joining Technology (BWF), University of Applied Sciences Esslingen (Germany)

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Course Content
◆ Fundamentals of Modern Design Approaches (13-14 December 2010)

1. Advanced Design Concepts
2. Design for Quasistatic Loading
3. Design for Cyclic Loading
4. Design Concepts for Welded Structures
5. Introduction into Structural Safety
6. Practical Design Studies - *Lifetime Assessment for a Car Structure, Application of Design Concepts for a Shaft in Mechanical Engineering*
7. Summary and Discussions

◆ Failure Investigation of Engineering Structures (14-15 December 2010)

1. Introduction
2. General Reasons for Failures
3. Methods of Failure Analysis
4. Concepts for Failure Prevention
5. Case Studies - *Failure Investigation and Design Optimization for a Welded Structure in Civil Engineering*
6. Summary and Discussions

◆ Failures Related to Corrosion & Weldments (15 December 2010)

Objectives

The objective of the course is to introduce engineers who are involved in industry, governmental bodies and academic institutions into modern design, manufacturing, testing and quality control applying the latest and advanced safety and design methods.

At the end of Technology Competence Program on Engineering Structures, the Engineers should be able to make enhanced creative and efficient use of funds, structural elements and materials to achieve the goals of style, safety, serviceability and performance of their designed structures.

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