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# Finite Element Analysis

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FEA is widely used as a powerful technique to identify design solutions to challenging structural analysis problems.

## Course Outline

Finite Element Analysis has emerged as a process that plays a vital part in keeping weight to a minimum and results in components that are designed at their optimum. The objective of this course is to provide delegates with a good introduction in the use of FE-based tools and how to use them within a 3D computer aided domain to design and optimise products.

FEA is widely used as a powerful technique to identify design solutions to challenging structural analysis problems. For engineers that are new to this concept and who want to work with these powerful design methods are often put off by the steep learning curve required.

This is done through providing guidance using practical examples of this process and applying it to real world problems.

## Content

- Finite element analysis overview
- Design variables
- Mesh optimisation
- Example one - plate with a 10mm hole
- Applying single point, multiple point constraints and load forces
- Example two - beam with spanning elements
- Component optimisation

## Who is this course for?

This course is perfect for engineers aiming to use FEA as a reliable predictive tool for stress and displacement analysis.

Companies moving into FEA technology will also find this course of use in order to improve product designs or assess prototype failures or speed of the design process. This course is perfect for those who are interested in learning the FEA approach to design assessment.

## Duration

1 day





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