

## Course Content



**Title:** Storage Tank Design and Maintenance (API 650, and API 653)

**Potential PDH:** 24      **Code:** BTT019

### Description:

An essential course for engineers and inspection and maintenance personnel involved in the design, purchasing, fabrication, repair, alteration, reconstruction, or maintenance of new atmospheric and low-pressure steel tanks to meet API Code requirements.

### Outline:

1. Tank Maintenance & Repair
  - Tank Maintenance
  - Tank Inspection
  - Tank Component Evaluation
  - Tank Repair and Alteration
  - Dismantling and Reconstruction
  - Examination and Testing
  
2. Tank Basic Design
  - Storage Tank Types and Features
  - Material Selection
  - Mechanical Design Requirement
  - Fabrication Details
  - Inspection and Testing Requirements

### Instructor:

Nadarajah ("Ranjan") Chithranjan, Ph.D, PE, career has spanned over 18 years of worldwide involvement in petrochemical industries for ExxonMobil Research and Engineering. Prior to joining Becht Engineering, he worked as a fixed equipment specialist at ExxonMobil Research and Engineering and he has worked in more than a dozen countries worldwide to solve complex mechanical plant problems as well as mechanical support for large scale projects. He has extensive knowledge in pressure vessels, piping, and storage tanks, design and maintenance codes. At ExxonMobil, he was the lead fitness for service specialist and he is very well versed with the fitness for service codes as well as linear and non-linear finite element methods to solve complicated plant problems. Ranjan was also the Mechanical Delayed Coker and Storage Tank subject matter expert at ExxonMobil Research and Engineering. He was a former member of API-650 Welded Steel Tank for Oil Storage and presently he is a member of the ASME Working Group on Section VIII, Division II, Design by Analysis and Working Group on Section VIII, Division II, High temperature design. He has more than twenty publications and two patents. Dr. Nadarajah received his PhD and Bachelors in Mechanical Engineering from the University of Strathclyde, Glasgow, United Kingdom.