

Title: A short term course on reliability engineering and asset management

Keywords: Reliability, Maintenance, Asset Management,

Write-up:

Things fail. The impact of product failures varies from minor inconvenience and cost to personal injury, significant economic loss and death. Causes of these failures include bad engineering design, faulty construction or manufacturing processes, human error, poor maintenance, inadequate testing and inspection, improper use, and lack of protection against excessive environmental stress. Engineers responsible for product design must therefore include both reliability and maintainability as design criteria. Knowledge of “Reliability Engineering” is important for the same. Also, maintenance is generally used to extend the life of the product. A life cycle view of the maintenance, popularly known as “Asset Management” is generally required for ensuring long term availability and profitability of the systems. Reliability engineering and asset management are interrelated fields and are of high importance for industries. The proposed course on “Reliability Engineering and Asset Management” aims to introduce these interdisciplinary areas to the researchers and industry professional. It further explains the concepts with the help of tutorial/ laboratory hands-on and case studies. Case studies are mainly designed to provide real life application of reliability engineering and asset management.

The primary objectives of the course are as follows:

- (1) Exposing industry participants to the fundamentals of reliability engineering and asset management
- (2) Building in confidence and capability amongst the participants in the application of reliability engineering and asset management tools and techniques to the real world problems.
- (3) Providing exposure to practical problems and their solutions, through case studies and live projects in reliability engineering and asset management,