Case Studies

FAC has conducted a variety of case studies and provided fruitful results to customers. The list includes:

- Compressor Blade FOD Case for a Jet Engine.
- Failure of Landing Gear Connector on a Trainer Aircraft.
- Hydraulic Pipe Failure Trend of Jet Aircraft.
- Bracket Failure of Jet Aircraft.
- Hinge Assembly Failure of Aircraft.
- Engine Bearing Failure.
- Axle Rod Assembly Failure of a Vehicle.
- Compressor Failure of a Trainer Aircraft.
- Stress Corrosion Cracking of Furnace Pipes in Oil Refinery.
- Fracture Analysis of Landing Gear T-Bolt of Boeing 737-400 Aircraft.

Who can come to us?
FAC is mainly supporting the aviation industry, however, other industries also make good use of the facility. It includes:

- Civil & Military Aviation Organizations.
- Strategic Organizations.
- Designers and Manufacturers in Marine, Automotive, Power Generation and Mechanical Sectors.

Failure Analysis Center
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Cell +92-323-547 6516
Email fac@scme.nust.edu.pk
Web http://scme.nust.edu.pk/fac.php
Failure Analysis Center provides expert analysis of failure events geared towards identifying what lead to the failure and how to prevent it in future.

**Failure Site**
We determine where the failure initiated.

**Root Cause**
We identify why the failure occurred (design defects, loads, mishandling etc).

**Prevention**
We provide comprehensive failure prevention recommendations.

**Training**
We Conduct short courses on Failure Analysis, Fractography and related topics.

**Why Failure Analysis?**

1. **Failure Event Conditions**
2. **Macroscopic Analysis**
3. **Microscopic Analysis**
4. **Microstructural Analysis**
5. **Chemical Composition Analysis**