

Topics to be Covered

- Introduction to engineering failure analysis
- Design methodology in predicting failures
- NDT and early detection of failures
- Metallography & micromechanisms of failures
- Elevated temperature modes of failures
- Environmental effects in engineering failures
- Failure analysis of aero components

Who should attend?

Faculty Members and Research Scholars of Engineering Colleges, scientists & engineers from R & D organisations and industries are encouraged to attend this programme.

Registration Fee

SFA members	:	Rs. 1000/-
Non-members	:	Rs. 2000/-
Student members	:	Rs. 300
Student non-members	:	Rs. 500/-

Payable by DD drawn in favour of Amrita School of Engineering, Coimbatore. The number of participants is limited to 100 on a first come first served basis. Intimation of selection and confirmation of participation would be through E-mail only. All the non-members are invited to join membership of SFA.

Travelling / Accomodation

No TA / DA will be provided. Limited accommodation provided single/twin at Rs.500/- per day

Address for communication

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April 26, 2014



Organised by



**Amrita School of Engineering
Amrita Vishwa Vidyapeetham**

**Coimbatore
&**



**Society for Failure Analysis
Hyderabad**

Amrita Vishwa Vidyapeetham

Amrita School of Engineering (ASE) Coimbatore, established by Mata Amritanandamayi Math, is located on a sprawling 400 acre campus at the foot-hills of the Western Ghats. The School of Engineering was started in 1994 and is one of the engineering colleges under Amrita Vishwa Vidyapeetham (Amrita University). Amrita University is accredited with the highest grade of 'A' by the National Assessment Council (NAAC) and the Ministry of Human Resources Development, Govt of India has listed Amrita Vishwa Vidyapeetham in Category "A" along with 37 other premier institutions like IISc, Bangalore.

Society for failure Analysis (SFA)

Faculty Members and Research Scholars of Engineering Colleges, scientists & engineers from R & D organisations and industries are encouraged to attend this programme.

Founded in 2006 with the following aim and objectives:

To serve as National Society to promote, encourage and develop the growth of "Art and Science of Failure Analysis" and to stimulate interest in compilation of a database, for effective identification of root causes of failures and their prevention thereof.

To serve as a common forum for individuals, institutions, organizations and industries interested in the above.

To disseminate information concerning developments both in India and abroad in the related fields.

To organize lectures, discussions, conferences, seminars, colloquia, courses related to failure analysis and to provide a valuable feedback on failure analysis covering design, materials, manufacturing deficiencies/ limitations and maintenance.

Currently SFA centres are established in many parts of India. The Coimbatore Centre of Society for Failure Analysis (SFA) was formally inaugurated on 6th September, 2013 at Dr. Mahalingam College of Engineering and Technology (MCET), Pollachi. Interested participants are encouraged to become members of SFA.

For more details: www.sfaindia.org

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About The Seminar

The engineering components are designed with factors of safety to avoid any premature failure. However, failures are unavoidable due to complex interaction of factors like materials' choice, the manufacturing stage problems or service related unexpected loading or environmental effects. Therefore carrying out a systematic engineering failure analysis is a useful feedback to the engineers and scientists as it can throw useful information as to why a component or structure failed and this is appropriately addressed in future designs.

Due to the complexity of an engineering system, failure can manifest itself in a number of ways. It may be caused by a mismatch between structural and/or material properties or due to the system being exposed to a complex loading pattern during service possibly from unexpected high temperature excursions or by the presence of an environmental system. These effects manifest as cracking, corrosion, creep, fatigue, incipient melting, wear, excessive deformation and so on. The seminar proposes to discuss these modes of failure to give an insight into how a component was loaded and what form of loading or stress state led to failure and the degradation effects of service environments, prevention methods with case studies.

This one - day seminar aims to discuss the above aspects of design. In addition, considering the losses that may occur due to unexpected failures, on-line monitoring assumes importance to any industry. Thanks to a number of advanced Non-Destructive Testing methods that are currently available to monitor the system and provide an early detection of impending failure. The seminar aims to discuss various advanced NDT methodologies as well..

Topics in Engineering Failure Analysis

April, 26, 2014

Name:.....

Designation:.....

Department:.....

Mailing address:.....

Mobile:.....

Fax :.....

E-mail:.....

Reasons (max. 3) for interest in the participation in the workshop:

1.

2.

3.

Date: __/__/____

Signature:.....

Last date for registration: **23rd April 2014**