



## ASM International Bengaluru Chapter

Cordially invite you to ASM Online Technical Talk

**Titled**

**“FAILURE INVESTIGATION a powerful tool for Industry to increase safety and profitability”**

BY

**Sri Paresh Haribhakti**

Managing Director

TCR Advanced Engineering Pvt Ltd., India

***Date & Time: 28.01.2023, Saturday at 5:00 pm IST***

***Zoom Link:***

<https://us02web.zoom.us/j/81353015940?pwd=Wk5mWGRxVy9saUJBMzBYRzhvVWlkUT09>

***Zoom Meeting ID: 813 5301 5940***

***Passcode: ASMBLR***

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Time	Program Outline
4.40-4.45 pm	Login in Through ZOOM
4.45-5.00 pm	Networking with participants and speaker
5.00-5.02 pm	Welcome Speech by Chairperson
5.02-5.05 pm	Introduction of the Speaker by Secretary
5.05-6.20 pm	<b>Talk by Speaker</b>
6.20-6.30 pm	Q & A
6.30-6.32 pm	Vote of Thanks by Secretary and Log off

## ABOUT THE SPEAKER



**Sri Paresh Haribhakti**

### **Brief profile:**

Paresh Haribhakti has been at the helm of TCR Advanced Engineering Services (a TCR Engineering Services partner company) since its inception. He is a pioneer in promoting in-situ metallography, has solved more than 8000 industrial problems and is an acclaimed failure investigation expert for refinery, petrochemical, power and chemical process industries.

With a post-graduate in Materials Technology from M.S. University, He has contributed to a number of leading metallurgical and engineering journals, as well as presented papers at several conferences across the world. An active leader not only in the business world but in the community as a whole, Paresh's accomplishments are numerous. He is the founder member of Metallography Society of India and is an active member of the Institute of Engineers, Institute of Foundry Man, Indian Institute of Metals and Indian Institute of Welding. Paresh is passionate about knowledge sharing and believes that it promotes active learning. His commitment to training led him to create 'TCR Evolve', a learning academy for aspiring and existing professionals to hone their skills.

Paresh has authored 'Failure Investigation of Boiler Tubes: A Comprehensive Approach' and has the rare distinction of being published by ASM International, USA. Also written a chapter in the ASM Handbook, Volume 11A: Failure Analysis of Boilers and Related Equipment

He has been driven to build an organization that is deeply committed to making a real difference by solving complex problems and making meaningful progress. He has worked on many complex metallurgical challenges and Failure Analysis assignments across various industries with one purpose: to deliver measurable results.

He has developed a AIOM a software tool for Asset Integrity Management for process industries to prevent industrial disaster.

## Abstract of the Lecture

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Failure investigation is a multi-disciplinary process that involves the use of various technical expertise, including metallurgical expertise, to identify and analyze the root causes of failures. Metallurgical analysis plays a crucial role in the failure investigation process by providing insight into the microstructural, chemical, and mechanical properties of the failed material.

Advanced metallurgical laboratories are equipped with state-of-the-art equipment and techniques, such as scanning electron microscopy (SEM), energy dispersive spectroscopy (EDS), and X-ray diffraction (XRD), that allow for detailed analysis of the failed material. These techniques can be used to identify metallurgical defects such as cracks, corrosion, and material deformation, which can help determine the cause of the failure.

In addition to identifying the cause of the failure, advanced metallurgical labs with experienced team of experts can also help in determining the appropriate corrective actions to prevent recurrence. For example, metallurgical analysis can help identify the appropriate material for replacement, or the appropriate heat treatment for the component to improve its performance.

In summary, failure investigation is an essential tool for safety and productivity in industry, and metallurgical expertise plays a crucial role in this process. Advanced metallurgical labs, equipped with state-of-the-art equipment and techniques, provide organizations with the necessary tools to identify and analyze the root causes of failures and implement effective corrective actions to prevent recurrence and improve overall performance. In a country like India, it is of utmost importance to ensure **reliability** of service from ageing infrastructure of the process plants & equipment and even the slightest negligence would lead to **unsafe and disastrous situation**. The reliability of Engineering components builds images of Nation on a global platform. The **Failure prevention** will help to **optimise budget and has direct impact on safety and economy**.

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### SUSTAINING MEMBERS OF ASM (I) BANGALORE CHAPTER

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