



INTERNATIONAL  
FEDERATION  
FOR HEAT  
TREATMENT AND  
SURFACE  
ENGINEERING

# 6<sup>th</sup> ASIAN CONFERENCE HEAT TREATMENT & SURFACE ENGINEERING EXPO 2020 MARCH 05-07

## ONE DAY WORKSHOP ON COMPONENT FAILURE ANALYSIS & CASE STUDIES

ON 06<sup>th</sup> MARCH 2020

- By Debbie Aliya

### EXCLUSIVE TOPICS

Understanding the differences between  
Damage and Failure.

How to negotiate and evaluate a useful  
Failure Analysis.

#### CONVENOR

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#### CO-CONVENOR

Mr G. S Shankar  
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#### EVENT VENUE:

Chennai Trade Centre  
Mount Poonamallee High  
Road, Nandambakkam,  
Chennai - 600 089

[www.chennaitradecentre.org](http://www.chennaitradecentre.org)

VISIT [WWW.6ACHTSE.COM](http://WWW.6ACHTSE.COM) FOR EVENT DETAILS

## ABOUT HTSE 2020

The three-day 6th Asian Conference on Heat Treatment and Surface Engineering will host about 500+ delegates from India and Abroad. More than 150+ high quality technical papers are expected to be presented at the conference. Over 70+ exhibitors are expected to participate in the Expo and 5000+ business visitors are expected for the conference and expo. The event includes various plenary and keynote speakers from various parts of the world. The event will be co-organized and sponsored by leading industries, companies, government organizations and professional associations from India and abroad. There will be a parallel Workshop series on Failure analysis & case studies and innovative surface treatments and applications.

### WHO SHOULD ATTEND

- Design and Development Engineers.
- Metallurgy and Materials Engineers.
- Manufacturing Engineers.
- Corrosion Engineers.
- Pipeline / Oil/ Gas/ Petroleum Engineers.
- QA / QC / Inspection Personnel.
- Fabricators, Project Supervisors.
- Students, Researchers and etc.

## ABOUT THE FACULTY



**DEBBIE ALIYA** is the owner and president of Aliya Analytical, Inc. in Grand Rapids, Mich., and specializes in failure analysis and prevention. She was inducted as a Fellow of ASM International in October of 2019, for her work in developing new methodologies for teaching of failure analysis. Since 2009, she has had a failure analysis blog at

<https://www.industrialheating.com/authors/2216-debbie-aliya>

Which participants may wish to explore. Aliya founded Aliya Analytical in 1994, and has specialized in failure analysis and materials characterization for metallic and polymeric components for automotive, machinery, and furniture applications. If not for heat treat, weld and fastener failures, the business might not exist. But from a different point of view, most of the failures come down to imprecise material specifications. Aliya got her BS in Metallurgy and Materials Science in the US steel capital, Pittsburgh, at Carnegie-Mellon University, and her MS in Materials Science and Engineering from Northwestern University near Chicago.vz

## AGENDA AND WHAT THE PARTICIPANTS WILL TAKE AWAY

Physical damage of metallic and polymeric components comes in four basic categories, including Deformation, Fracture, Wear and Corrosion.

These damage categories may or may not cause failure. These damage categories may or may not result from failure! Documenting the damage appearance with photos that others can use to see for themselves is the necessary foundation for product improvement or assignment of responsibility. In this seminar, participants will get introduced to the different types of damage, and how to recognize them.

Learning to ask focused questions is what allows the stakeholders to choose reference parts for comparison to “the failed part.” Asking “Why did this part break so soon, when many others that were made the same way from the same material are still intact?” is a better question than “Why did it fail?” In this seminar, participants will be introduced to asking better questions, so that resources spent on failure analysis will provide ROI.

Any work that doesn’t show how “this wear” allowed “this crack” to “initiate here” and propagate in “three load cycles” or “millions of load cycles” is not a failure analysis. It may be a material analysis, but it’s not a failure analysis.

Bring your (sanitized if desired) failure analysis reports on a thumb drive if you are willing to share with the group.

### REGISTRATION FEE INCLUDING GST (Rs)

NON ASM / NON MMS MEMBERS	-	Rs. 7000
ASM /MMS MEMBERS	-	Rs. 6000
STUDENTS	-	Rs. 2000

### BANK DETAILS

ACCOUNT NAME	ASM INTERNATIONAL CHENNAI CHAPTER
ACCOUNT NUMBER	032494600000404
BANK NAME	YES BANK
BRANCH	ANNA NAGAR, CHENNAI – 600 102
MICR CODE	600532006
IFS CODE	YESB0000324
SWIFT CODE	YESBINBB