

<b>Failure Analysis Session: I, II, III</b>	<b>November 14 - 15, 2014</b>	
<b>Convener</b>	<b>Dr. R.C. Prasad</b>	
<b>Affiliation</b>	<b>Professor, Dept. of Mechanical Engg. at Pillai Institute of Information Technology, Panvel</b>	
<b>Academic Qualification</b>	<b>B.ScMet. Engg.</b>	<b>BIT Sindri, Ranchi University</b>
	<b>M.Tech. (Phy. Met.)</b>	<b>Indian Institute of Technology Madras</b>
	<b>Ph. D. (Met. Engg.)</b>	<b>Indian Institute of Science Bangalore</b>
<b>Areas of Specialization</b>	<b>Fatigue, Fracture Toughness. Fractography , Failure Analysis, Fracture Mechanics, Welding NDE, Stress Corrosion Cracking, Corrosion Fatigue, Hydrogen Embrittlement, Heat Treatment, Composites, Bio Materials and Implants</b>	
<b>Achievements / Awards</b>	<b>Distinguished Alumnus Award</b>	<b>BIT Sindri (2002)</b>
	<b>Independent Director</b>	<b>M/s Sanghvi Forging Limited,Vadodra</b>
	<b>Vice President</b>	<b>Society For Failure Analysis, Hyderabad</b>
	<b>Chairman</b>	<b>IIM Mumbai Chapter (1999-2000)</b>
	<b>Member</b>	<b>American Gear Manufactures Association</b>
	<b>Member</b>	<b>Metallographic and Heat treatment Sectional Committee, MTD22, Bureau of Indian standards</b>
	<b>Member</b>	<b>National Centre For Aerospace Innovation &amp; Research (Boeing-DST-Consortium)IIT BOMBAY</b>
	<b>Member Board of Studies</b>	<b>Defense Institute of Advanced Technology Pune</b>

# Theme Symposium on Failure Analysis

<b>Failure Analysis Session: I</b>	Friday, November 14, 2014 Time: 8:30 to 10:30 hrs.
<b>Session Chair</b>	Dr. Shirish Kale
<b>Affiliation</b>	Regional Director, Regional Centre for Military Airworthiness and Certification (Foundry & Forge-Fuel Oil Lubricants) i.e., RCMA (F&F-FOL).CEMILAC, DRDO, Bangalore
<b>Academic Qualification</b>	<ul style="list-style-type: none"> <li>• BE (Metallurgical Engineering) from VNIT, Nagpur (1989)</li> <li>• M Tech in 'Materials Technology' from IIT, Bombay (1992)</li> <li>• Doctorate in 'Stress Corrosion cracking' from IIT, Bombay (2014).</li> </ul>
<b>Areas of Specialization</b>	Airworthiness Certification of Aviation Materials specially Forgings, Castings, Metal matrix composites, Specialty materials, Paints, and Aircraft turbine fuel, oil and lubricants
<b>Achievements / Awards</b>	<ul style="list-style-type: none"> <li>• Received commendation from Scientific advisor to Raksha Mantri (SA to RM) for work on "Rationalization of aviation metallic materials" in 2009.</li> <li>• Laboratory Scientist of the year award 2012.</li> <li>• 'National aeronautical indigenization equipment award' from AeSI in 2012 on certification of Shape memory alloy and Ferrules for use on LCA.</li> <li>• DRDO's Agni Award along with DMRL team in 2014 for contribution in Development of aircraft Al alloys.</li> <li>• Life member of Aeronautical Society of India, Institute of Engineers (India), Indian Institute of Metals and Society of Failure Analysis.</li> </ul>

# Theme Symposium on Failure Analysis

## FAILURE ANALYSIS: SESSION 1

**FRIDAY, NOVEMBER 14, 2014 (8:30 -10:30 hrs)**

TIME	TITLE	AUTHORS
Session Chair: Dr. S. Kale, Regional Director, CEMILAC		
	<b>Invited talks (25 min + 5 min)</b>	
8:30-9:00	Failure Investigation of Aerospace Components	A.K. Jha, VSSC
	<b>Oral Presentation (12 min + 3 min)</b>	
9:00-9:15	Failure Analysis and Design Modification in Plunger Used in CNG Cylinder Valve Assembly of Passenger Vehicles.	Vikash Bhartia, Maruti Suzuki, Gurgaon
9:15-9:30	Metallurgical Investigation of Air Intake Casing of Gas Turbine Starter Unit (GTSU) Engine of a Military Aircraft	Vaisakhi Nandi, HAL, Bangalore
9:30-9:45	Failure Analysis of Waste Heat Boiler During Service	Surendra Patle, L & T, Mumbai
9:45-10:00	Failure Analysis of an Intermediate Shaft	Swati Biswas, GTRE, Bangalore
10:00-10:15	Failure of the Cooling Turbine Fan of an Aero-Engine: A case study	Chandan Mondal, DMRL, Hyderabad
10:15-10:30	Failure Analysis and Prevention Action of High-Chromium Iron Hot Strip Mill Work Rolls	Arbind Kumar Akela JSW Steel, Vijayanagar

# Theme Symposium on Failure Analysis

<b>Failure Analysis Session: II</b>	Saturday, November 15, 2014 Time: 11.00 to 13.00 hrs.
<b>Session Chair</b>	Professor Priam Pillai, PIIT New Panvel
<b>Affiliation</b>	Chief Operating Officer, Mahatma Education Society
<b>Academic Qualification</b>	<ul style="list-style-type: none"> <li>• B.S., M.S., University of California Berkley</li> <li>• PhD. MIT USA</li> </ul>
<b>Areas of Specialization</b>	Smart Materials, Bioinspired Sensors and instruments, Conducting polymers, Thermography and Failure Analysis
<b>Achievements / Awards</b>	<ul style="list-style-type: none"> <li>• Industry – Academia Interface with Airbus Industries.</li> <li>• Soldier Design Contest: Gore Innovation Award Winner (2010)</li> <li>• National Science Foundation (NSF) Graduate Research Fellowship Winner (2006-2009).</li> <li>• MIT Harrington Fellowship Winner (2005).</li> <li>• Materials Science and Engineering <i>Department Citation Winner</i> (2004).</li> <li>• Intel Corporation Research Scholar (2004).</li> <li>• Intel Student Research Contest Finalist (2004).</li> <li>• Joseph Pask Memorial Award (2004).</li> <li>• MK Fives Academic Scholarship (2002).</li> <li>• Dean and Margaret Lesher Foundation Scholarship (2001).</li> <li>• Launched Google Application for education in 48 Institutions of MES.</li> <li>• Developed Open –Source Software &amp; Technology for Education.</li> </ul>

# Theme Symposium on Failure Analysis

## FAILURE ANALYSIS: SESSION 2

**SATURDAY, NOVEMBER 15, 2014 (11:00 - 13:00 hrs.)**

TIME	TITLE	AUTHORS
<b>Session Chair: Prof. Priam Pillai, PhD(MIT USA), COO PIIT Panvel</b>		
	<b>Contributory Oral Presentations (12 min +3 min)</b>	
11:00-11:15	Investigation of Stainless Steel Lance Failure at Lime Calcination Plant	Amit Mogale JSW Steel, Dolvi Works
11:15-11:30	Failure Analysis of a Charge Roll of Reheating Furnace of a Bar Rolling Mill	Hrishikesh Jugade Tata Steel, Jamshedpur
11:30-11:45	Failure Analysis of AISI 309S Lance Tube used for Coal Injection in a Blast Furnace	Goutam Mukhopadhyay Tata Steel, Jamshedpur
11:45-12:00	Metallurgical Investigation of Failed Canned Motor Pump Impeller	Tony Mascarenhas, NMRL, Ambernath
12:00-12:15	Failure Analysis of Overhead Crane Bolts	Anumeha JEMCO Division, ISWP
12:15-12:30	Failure of Hot Bundle Tubes Used in Tunnel Furnace of a Thin Slab Caster	Soma Ghosh Tata Steel, Jamshedpur
12:30-12:45	Failure Analysis of Axles of Seal Valves in Blast Furnace and their Condition Monitoring through Non-Destructive Testing	Shivanandan S Indimath Tata Steel, Jamshedpur
	<b>Short oral presentation followed by a poster session</b>	
12:45 onwards	Failure analysis of pistons due to thermal fatigue: A review	Desai U. B. IIT Gandhinagar
	Qualifying Criteria Analysis in rails due to residual stresses & its measurement using strain-gauge method	Ketan Anand NIT Jamshedpur
	Failure Analysis of Grate Bars at 6 mtpa Iron Ore Pelletizing Plant at Tata Steel India	Chandra Sekhar Tata Steel, Jamshedpur

# Theme Symposium on Failure Analysis

<b>Failure Analysis Session: II</b>	Saturday, November 15, 2014 Time: 14.00 to 16.00 hrs.
<b>Session Chair</b>	Dr. R.K.P. Singh
<b>Affiliation</b>	Senior Director, Kalyani Center for Technology and Innovation, Bharat Forge Limited.
<b>Academic Qualification</b>	<ul style="list-style-type: none"> <li>• M Tech from IIT Bombay (1975)</li> <li>• Ph. D from IIT Madras in Metallurgical Engg. (1994)</li> <li>• Green Belt Six Sigma</li> </ul>
<b>Areas of Specialization</b>	<ul style="list-style-type: none"> <li>• Application engineering</li> <li>• Product development</li> <li>• Failure analysis</li> <li>• Steel making and processing</li> <li>• TQM</li> <li>• Structure Property Correlation</li> </ul>
<b>Achievements / Awards</b>	<ul style="list-style-type: none"> <li>• More than 70 National / International publications</li> <li>• Figures in Marquis book of "Who-is-Who in Science &amp; Engg"</li> <li>• Figures in "2000 Outstanding Scientist of 21st Century" compiled by International Biographical Centre, Cambridge, England.</li> <li>• Life Fellow, Indian Institute of Metals</li> <li>• Member, Education Committee ASM International, USA</li> <li>• Member, Apex Committee, Prime Minister's Ph.D. Program.</li> <li>• Member, CII National Committee on Technology</li> <li>• Member, Industrial Advisory Board COEP Pune for Met. Engineering and Production Engineering</li> <li>• Member, Board of Studies on Material Science and Engineering, DIAT, Pune</li> <li>• Life Member for ASME, ASNT, TMS and ISNT</li> </ul>



# Theme Symposium on Failure Analysis

## FAILURE ANALYSIS: SESSION 3

**SATURDAY, NOVEMBER 15, 2014 (14:00 - 16:00 hrs)**

TIME	TITLE	AUTHORS
<b>Session Chair: Dr. R.K. Singh, Senior Director, KCTI Bharat Forge</b>		
	<b>Contributory Oral Presentations (12 min + 3 min)</b>	
14:00-14:15	Creep behaviour of commercial P91B steel	J. Baral IIT Kharagpur
14:15-14:30	Analysis of Thermal Fatigue Behaviour of H13 Hot Work Tool Steel	D. H. Shinde COEP, Pune
14:30-14:45	Characterization of low cycle fatigue behavior of Inconel 718	Amborish Banerjee IIT Kharagpur
14:45-15:00	Failure Analysis of Wire Breakage During Crimping Operation	PiyasPalit Tata steel, Jamshedpur
15:00-15:15	Failure Analysis of Tyre Bead Wires During Drawing	Souvik Das Tata steel, Jamshedpur
15:15-15:30	Failure analysis of fiber reinforced polymer composite cross-ply laminate	Prasad B. Jadhav COEP, Pune
	<b>Short oral presentation followed by a poster session</b>	
15:30 onwards	Modal Analysis of Automotive Seating System	Uday M. Jamdade Sinhgad College of Engg. Pune
	Effect of processing parameters on the quality of adamite grade castings	Anumeha Mishra JEMCO-ISWP
	Condition Monitoring Technique for Fault Detection of Rolling Element Bearings	SakshiKokil Sinhgad School of Engg. Pune
	Investigation into Severe Incrustation in Single Stage Wet Scrubber of a BOF Steelmaking Gas Cleaning Circuit	S. Mitra Mazumder SAIL, Ranchi
	Design and Analysis of Leaf Spring for Tanker Trailer Suspension System	Mr. Sagar Gharate
	Analysis of bend test specimen	Mahendra Bokade VNIT