

# SICE 2024

## Flash Presentation Schedule – 23<sup>rd</sup> October 2024

### Session -1 (9:15 - 9:45)

### (Venue - CRC 5<sup>th</sup> and 6<sup>th</sup> Floor)

Poster ID	Room 6-1 Paper Title	Presenter/Corresponding author
1	Novel test methodology for conducting low cycle fatigue test on notched tube specimen	Shreebanta Kumar Jena
2	Evaluation of strength of float glass using indentation technique and its comparison with results from conventional tests	Anil Bhimrao Penurkar
3	Evaluation of high temperature fracture toughness of Zircaloy-4 thin-walled specimens using internal conical mandrel technique	Ather Syed
4	Fatigue Life Evaluation of Composite Structural Components Under Service Load Conditions	Rachana Chidambar Hejib
5	Experimental Determination of Monotonic and Reversed Plastic-zone ahead of Crack-tip in Fatigue using High-resolution Digital Image Correlation	Suraj Kumar
6	Numerical investigation of the cyclic plastic deformation and ratcheting behaviour of crack geometry of c-mn steel	Prakash Bharadwaj
7	Numerical investigation of the cyclic plastic deformation and ratcheting behaviour of crack geometry of c-mn steel	Prakash Bharadwaj
8	Fatigue Crack Growth Studies on API 5L X46 Grade Steel	Mamatha S P
9	Study of geometric interference parameters on the stress distribution and fatigue crack growth of pin loaded lug joint	Abdul Khader Jilani Shaik
10	Flexural Fatigue Behavior of Concrete Incorporating Waste Plastic as Fine Aggregate Replacement	Sarella Vivek

Poster	Room 6-2	
ID	Paper Title	Presenter/Corresponding author
11	Dynamic Analysis of Base Isolated 15 Story Building With Soil-Structure Interaction	Prashant Bhaurao Wasnik
12	Cost optimization of a truss joint using genetic algorithm	Aditya Mehra
13	Synergistic impact of steel and polypropylene fibers on fresh and mechanical characteristics of high strength geopolymer concrete	Kampa Ravinder
14	Assessment of seismic performance of tuned particle dampers on multi degree of freedom system: an experimental and analytical approach	Animesh Kumar
15	Mechanical behavior of PHWR fuel cladding tested under simulated LOCA condition	Tapan K Sawarn
16	Comprehensive study on design and construction methodology of precast box-type minor bridge	Nikhil Rajendra Chaudhari
17	Investigation of cubic stiffness non-linearity for a bolted joint	Faisal Hussain
18	Assessment of seismic performance of tuned particle dampers on multi degree of freedom system: an experimental and analytical approach	Animesh Kumar

Poster	Room 6-3	
ID	Paper Title	Presenter/Corresponding author
19	Impact of Mass Rapid Transit Systems on Informal Transport: Economic Implications and Policy Recommendations	Wrushali Ramteke
20	Effect of moisture aging on mechanical properties of composite	Janhavi Khandare
21	Biodegradable Chitosan-Orange peel Composite Film: An Innovative Alternative to Polyethylene bags	Kalyan Jugade
22	Composition optimization of Ti-based Bulk metallic glass for biomedical applications	Juhi Rani Verma
23	Studies on corrosion behavior of Fe-based Metallic glass Coating and Ribbons	Ritik Khushal Nakhate
24	Machine Learning for Carbon Nanotube Design: Predicting Tensile Properties for Advanced Applications	Gershom Stanlin

25	From Aquatic Nuisance to Energy Solution: Supercapacitors Using Water Hyacinth	Nikita Uday Lote
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Poster ID	Paper Title	Presenter/Corresponding author
26	Probing the thermo-mechanical behaviour of multi-track, & multi-layer deposition of lightweight $\alpha+\beta$ Ti-alloy using finite element modelling tool	Ravi Prakash
27	Effect of Aging Time and Temperature on the Evolution of Microstructure and Mechanical Properties in a Selective Laser Melted Maraging steel.	Anand Madhav
28	Mechanical Response and Fatigue Life Assessment of Additively Manufactured IN939 Superalloy Using Miniature Specimen Geometry	Deepshree D. Awale
29	Room Temperature and High Temperature Fatigue Behaviour of Additively Manufactured Hybrid XH67_IN718 via Micro-Scale Fatigue Testing	Deepshree D. Awale
30	Hydrogen Embrittlement of Additively manufactured 316L Stainless Steel.	Sandeep A Chowriwar
31	Exploring Heterogeneous Steel Alloys Through Multi-Wire Arc Additive Manufacturing	Ganesan Gunasekaran
32	On corrosion behaviour of Cu-Cr-Zr alloy manufactured by selective laser melting vs its cast counterpart	Pawan T Bohane
33	Additively Manufactured UAV for Disaster Relief and First Aid	Prathamesh Satish Patil

Poster ID	Room 5-4	
	Paper Title	Presenter/Corresponding author
34	Corrosion Monitoring in Steel Bar Using Lead Zirconate Titanate (PZT) Patches: A Periodical Study of Experimental Weight Loss and Numerical Simulation Analysis	Ajay Singh Patel
35	Rare Earth Doping in Zirconia Thermal Barrier Coatings for Residual Stress Measurements using Photoluminescence Spectroscopy	Srikanth Batna
36	Study of the stress intensity factors and crack path in 3-2-1 lozenge pattern riveted joints using maximum energy release rate based crack advancement	Akash Shit
37	Study of evolution and distribution of defects and change in mechanical properties of alloy 690 in molten corrosive glass environment	Pankaj Kumar Sharma
38	Influence of secondary voids on the localization in combined tension and shear	Alok Kumar Dwivedi
39	Effect of two-scale void interaction on crack path behavior under mixed-mode loading	Alok Kumar Dwivedi
40	A multi-surface yield criterion for anisotropic sheet metals	Krunal Namdeorao Morey
41	Study of Effect of Strain Rate on Tensile Behavior of SS304 Steel	Prasanna Chintaman Dupare

**Session -2 (15:10-15:40)****(Venue - CRC 5<sup>th</sup> and 6<sup>th</sup> Floor)**

Poster ID	Room 6-1	
	Paper Title	Presenter/Corresponding author
42	High-cycle fatigue behavior of Haynes 282 superalloy subjected to accelerated ageing	Amey Parnaik
43	Numerical investigation of ballistic performance of Alumina against fragment-simulating projectiles	Nikhil Andraskar
44	Effect of temperature on high cycle fatigue behaviour of Ti-6Al-4V alloy	Vivekananda Swamy Taddi
45	Numerical Study on ballistic impact behaviour of natural rubber	Deepu Kumar Singh
46	Effect of proportional/ non-proportional axial-torsion cyclic loading on fatigue life of notched specimens of C-Mn steel	Shreebanta Kumar Jena
47	Mechanics of crack grain boundary interaction in bicrystal silicon	Sunil Kumar Dutta
48	Microstructural attributes of alloy 617M under resonance-induced high cycle fatigue loading	Sandeep Kale
49	Low cycle fatigue of 22MnB5 cold rolled steel: Insights on Microstructure and Crystallographic Bulk Texture	Peeyush Mahajan
50	Examining the effects of strain paths on cyclic behavior and martensite evolution in SS304L	Hitarth Maharaja
51	Generation of J-R curves for SA312 Type 304 LN Steel Welded Pipes with Through-wall Crack under Monotonic Loading	Prabhavathi J Ayli

Poster ID	Room 6-2	
	Paper Title	Presenter/Corresponding author
52	A CPFEE based 3D Model for Polycrystalline Plasticity with Diffused Grain Boundaries	Ayub Khan
53	Machine Learning to Accelerate Full-Field Crystal Plasticity Simulations	A Shivnag Sharma
54	Static analysis of micropolar web-core sandwich beams based on timoshenko beam theory	Sanjay Kumar Patel
55	An implicit cycle scale integrator for accelerated fatigue simulations	Manan Ghosh
56	Investigating the impact of indentation and scratch on $\alpha$ -Al <sub>2</sub> O <sub>3</sub> thin film coated al substrate: a molecular dynamics study	Gnaneshwar Sampathirao
57	Numerical Assessments of Cyclic Plastic Deformation and Strain Gradients in Dissimilar Metal Welds	Sudarshan Sanjay Solanki
58	Deformation behaviour of two-phase microstructures in load reversal and strain control low cycle fatigue using full field crystal plasticity simulations	Shruti Jain
59	Assessment of Elevated Water Tank using Fluid-Structure Interaction	Jyoti Babarao Chouhan
60	Multiscale finite element approach for free vibration and buckling analyses of carbon nanotubes at finite temperature	Akash Raikwar
61	Detection of multiple structural damages using Ultrasonic guided waves	Rutvik Rakhade/Anvesh Reddy Nandyala

Poster ID	Room 6-3	
	Paper Title	Presenter/Corresponding author
62	Cold Rolling and Its Impact on Mechanical Behavior in Maraging Steel-250 Grade	Deepshree D. Awale
63	Determination of elastic stiffness constants using nanoindentation	Anjali Gawande
64	Deep Learning Based Uncertainty Analysis on Material properties of Unidirectional Composites	Akash S S
65	"Investigating the behavior of Su-263 under Increasing Loads Using Small Punch Creep Testing"	Pramod Ravindra Kushwaha
66	Seismic retrofit of an existing RC bridge pier	Raubin Kumar Ravi

67	Influence of manufacturing deviation on the buckling strength of slender tubes	Suresh Kumar R
68	Enhancing Predictive Maintenance in Smart Transit Systems: A Data-Driven Approach	Sahil Wairagade
69	Numerical Investigation of Particle Impact Velocity in a Jet Impact Tester for Gas Solid Flow	Abhijit Parate
70	Strain localization in ductile materials at high strain rates	Alok Tripathy
71	Wear resistance of plasma sprayed coatings deposited on Ti-6Al-4V alloy	Monika V Petkar

Poster ID	Room 6-4	
	Paper Title	Presenter/Corresponding author
72	Effect of multi-axial state of stress on creep deformation behavior of Alloy 690 material	Pankaj Kumar Sharma
73	Effect of hold time on the creep-fatigue response and damage behavior of Ni-based superalloy at 750 °C	Chandan Kumar
74	Investigation of RT Creep in Ti6242 Through Bending	Raineesh Babu KP
75	Creep and stress relaxation in thin films: Experiments, modelling, and materials science-based insights for reliability improvement	Darshan C
76	High-temperature deformation behavior of dissimilar welded joint between Alloy 800 and Gr. 91 steel	Nikhil Suman
77	Creep deformation and rupture behaviour of thermo-mechanically processed austenitic stainless steel	Durga Prasada Rao Palaparti
78	Assessment of creep deformation and rupture behaviour of India-Specific RAFM steel by using Sin-Hyperbolic creep damage model	Korla M Krishna Chowdary
79	Analysis of the stress relaxation behavior of 316LN SS using sine hyperbolic rate law	Oruganti Venkata Ramana
80	Microstructure evolution and creep behavior of Ni based superalloy - UDIMET 720	Shubham Dwivedi

Poster	Room 5-4	
ID	Paper Title	Presenter/Corresponding author
81	Enhancing concrete performance using sustainable ternary blended mix with metakaolin, rice husk ash, and deccan basalt manufactured sand	Yash Rathore
82	Sustainable concrete incorporating waste glass powder and recycled aggregate: performance evaluation	Sphurty Raman
83	Effect of laser beam welding parameters on the properties of Haynes 188 superalloy	Nozendra R Meshram
84	Performance evaluation of reactive sintered Yb-silicate environmental barrier coatings	Gauri Waghmare
85	Effect of aging duration on the microstructure and corrosion characteristics of 17-4 PH stainless steel	G. Narasinga Rao
86	Deformation twinning and microstructure evolution of SS316L under biaxial tensile stress at room temperature	Rubal Dongarwar
87	An effective interaction of grain refinement by TiBAl, TiCaI and modification by AlSr for Eutectic Modification in Aluminium foundry alloys	Pallavi Yogesh Deshmukh
88	Yield Locus Development of Aa2219 -T87 TIG Welded Samples Using Improved Cruciform Design for Welded Samples	Priya Tiwari
89	Quantification of Microstructural Changes in Differently Heat-Treated Nickel-Based Single Crystal Superalloy CMSX-4 after High-Cycle Fatigue at Elevated Temperatures	Nabeel Hidayat



**Instructions for Flash Presentation:**

1. Please prepare only one slide ppt file. You may incorporate your data in innovative way to cover in 2 minutes.
2. You should be available for the Flash presentation before time and provide the slide to the technical committee well in advance on 22 October by 5 PM at the help desk in CRC 6<sup>th</sup> floor.
3. You need to be present at your poster at the given time for evaluation as per the schedule.
4. Evaluation will be based on your flash presentation and Poster presentation.