

4th Structural Integrity Conference and Exhibition-2022							
14-16th December, 2022, IIT Hyderabad							
Program Schedule of SICE-2022							
Day 1 (14th December, 2022)							
Session No.	Chair	Room	Time	Speaker	Title	Paper ID	
		C-Foyer	0800-0900		Registration		
		Auditorium-A	0900-0945		Inaugural		
		C-Foyer	0945-1000		High-Tea		
Plenary-1	CI: Prof. Arun Shukla	Auditorium-A	1000-1045	Dr. B. Venkatraman, IGCAR.	Role of NDE in Structural Health Monitoring of Fast Reactor Fuel Cycle Facilities		
1.1	CI: Prof. Bharat B. Panigrahi, IIT Hyderabad	Additive Manufacturing	C-LH2	1050-1120	Keynote: Prof. G. D. Janaki Ram, IIT Hyderabad	Structural Integrity of Additive Manufactured Metallic Components	
				1120-1140	Invited: Mayur Vaidya, IITH	Development of High Entropy Alloys for High Temperature Applications	
				1140-1200	Vikesh Kumar, Manoj D. Joshi, Nilesh Kumbhar, Santosh S. Hosmani	Microstructural and Corrosion Behaviour of Conventional and Selective Laser Melted AISI 316L Stainless Steel: Role of Severe Surface Deformation	
				1200-1210	Faizan Hijazia, Praveen Kumara, Vikram Jayaram	Material Volume Optimization for Creep Testing by Additively Manufactured Composite Cantilever Beams	872
				1210-1220	Yash Gopal Mittal, Pushkar Kamble, Gopal Gote, Avinash Kumar Mehta, K. P. Karunakaran	Optimization of Extruder Screw Geometry for Additive Manufacturing	1657
				1220-1230	D Manonmani and R Gnanamoorthy	Behaviour of 3-D Printed PLA-Al Multi-Material under Compressive Loads	3799
				1230-1240	Ganesan G , Neel Kamal Gupta, Siddhartha, Shahu Karade , Avinash Kumar Mehta , K. Narasimhan , K. P. Karunakaran	Fabrication of Functionally Gradient Material Using Hybrid Metal Additive Manufacturing	2475
				1240-1250	I. Kartikeya Sarma , N. Selvaraj, Adepu Kumar, Jai Prakash Gautam	Effect of Scan Strategies and Process Parameters on the L-PBF 17-4 PH Stainless Steel Corrosion Behavior	3994
				1250-1300	Hetram Sonwani, Sai Sidhardh, M. Ramji	Analytical Model of Adhesively Bonded Simple-lap Joined CFRP Laminates under Tension	152
1.2	CI: Prof. Ratna Kumar Annabattula, IITM	Computational mechanics	C-LH3	1050-1120	Keynote: Prof. A. Chatterjee, IITK.	On Shell Design Against Buckling using a Design Code	
				1120-1140	Invited: Ravi Shastri Ayyagari, IITGN	Orthotropic Tetraikadekahedral Foams Micro-mechanics Based Structure-Property Relations	
				1140-1200	Invited: Saswata Bhattacharya, IITH	Understanding Strain Tuning of Ferroelectric Thin Films Using Phase-Field Simulations	
				1200-1210	Pullela Ramalakshmia, Tunukoji Venkatapuram Vikramadityab, and Pinninti Ravinder Reddy	Predicting the Interfacial Shear Modulus in Multi-Walled Carbon Nanotube Anchored Carbon Epoxy Composite by Finite Element Analysis	193
				1210-1220	Mohammad Safiuddina, CH Likith Reddy, Ganesh Vasantadaa , CHJNS Harshaa , Srinu Gangolu	Establishing Process-Structure Linkages using Generative Adversarial Networks	254
				1220-1230	A. Rathan Babu, K. Sai Puravardhan, N.Surya Hevanth , V. Phaninder Reddy, D.Govardhan	Numerical Analysis of Mercury, Crude Oil, Honey and Water Droplet Impact on Solid Surface using OpenFOAM	1561
				1230-1240	Siddharth S, Shalvi Singh, and Pritam Chakraborty	Coupled Crystal Plasticity - Damage Model for Micro Crack Propagation in Polycrystalline Microstructure	1621
				1240-1250	Anurag Ghanta, Abhijit Ghosh , Saikat Sarkar	A Computational Mechanics based Study on the Role of Crystallographic Texture on Fissure Formation	2816
				1250-1300	A Chaudary and Supratik Mukhopadhyay	Continuity modelling technique for simulation of compressive	5491
1.3	CI: Dr. Vikas Kumar, DMRL	Fatigue and Fracture	C-106	1050-1120	Keynote: Dr. R. Sunder, BISS Labs.	Construction of Kitagawa-Takahashi Diagrams for Different Applied Stress Ratios	
				1120-1140	Invited: Piyush J, IIT Hyderabad	Residual Stress in Thin Films and Coatings	
				1140-1200	Invited: Sachin Yadav, IITD	Mechanics of simultaneously growing cracks using Linear Elastic Fracture Mechanics	
				1200-1210	Nitin Nehra, Praveen Bhat	Challenges in documenting Life Extension of Aged Offshore Jacket structures located in western offshore, India in view of missing foundation Pile data	1946
				1210-1220	P. Aurojyoti, A. Rajagopal	Modeling Fracture in Brittle Materials by Higher-Order Phase Field Method using C1 Non-Sibsonian Interpolants	1329
				1220-1230	Sharanagouda G Malipatil, N Nagarajappa , Ramesh Bojja, N Jagannathan, Anuradha N Majila, D Chandru Fernando, M Manjuprasad, CM Manjunatha	Fatigue Crack Propagation Behavior of a Nickel based Super Alloy Under a Turbine Standard Spectrum Load	3098
				1230-1240	Deepak Sharma, I.V. Singh, Jalaj Kumar, Shah Nawaz Ahmed	Microstructure based Fatigue Life Prediction of Polycrystalline Materials using SFEM and CDM	5351
				1240-1250	N Nagarajappa, Sharanagouda G Malipatil, MS Nandana, K Udaya Bhat, Shylaja Srihari, M Manjuprasad, CM Manjunatha	Prediction of Fatigue Crack Growth Behavior in 7010 Aluminum Alloy Under mini-FALSTAFF Spectrum Loads using FRANC3D	5798
				1250-1300			
1.4	CI: Prof. S. S. Rao, DRDO Kanpur	Central Mechanics	C-LH4	1050-1120	Keynote: Prof. Venkitnarayanan, IITK	Challenges and Excitements of Studying Fast Propagating Cracks: An Experimentalist's Perspective	
				1120-1140	Invited: Madhusudhan U, IITK	Measuring Adhesion Strength of Epoxy-Based Adhesives Under Quasi-Static and Dynamic Loading Conditions	
				1140-1200	Invited: K Lakshmi, SERC	Damage Detection in Bridges Using a Crisp Frequency Representation of Responses due to Moving Loads	
				1200-1210	Mahesh P, Viswanath Chinthapenta, Ramji M	A Study on the Effect Of Size in Open Hole CFRP Composite Laminates Subjected to Multi-Axial Loading	5825
				1210-1220	Prithvi Sangani , Smita Singh , Anil Agarwal	Residual Strength Estimation of Damaged Steel Tubular Columns using Digital Image Correlation	6814

			Experin		1220-1230	V. Ravulapalli, V. Narayanamurthy and G. Raju	Experimental Investigation of Buckling and Post-Buckling Response of 3D Printed Cylindrical Shell under Axial Compression	7149
					1230-1240	K. Ramesh, Naman Verma, Ganesh Ramaswamy , U. Saravanan	Experimental and Numerical Analysis of Crack-Contact Stress Field Interaction	7770
					1240-1250	Mansi, Tutika Kavya, Sonali Bhowmik	An Improved Methodology for Precise Estimation of Fracture Process Zone Size	7807
					1250-1300	T O Terefe, A Chawla, N V Datla	Experimental study of nail penetration at low velocity in soft ma	772
1.5	C1: Prof. Bhanu Sankara Rao, IIT Hyderabad	Mechanical Behaviour	C-LH9	1050-1120	Keynote: Prof. Vikram Jayaram, IISc Bengaluru.	High Throughput Creep Data from Bending of Cantilevers		
				1120-1140	Invited: V Karthik, IGCAR	Mechanical Behavior Using Small Scale Specimens for Structural Integrity Assessments		
				1140-1200	Invited: Narasimhan Swaminathan, IITM	Role of Irradiation Damage on the Mechanical Properties of Li2TiO3		
				1200-1210	Amrita Sengupta and Jeevanjyoti Chakraborty	Surface Effects on Performance of Nano-Structured Si Anode Particles	2695	
				1210-1220	Anay Shembekar, S. Gopalakrishnan	Atomistic and Continuum Length Scale Coupling in Materials using Quasicontinuum Method	3180	
				1220-1230	Pragyandipta Mishra , Ilaksh Adlakha	First-Principles Investigations into the Mechanical Properties of Stable Binary Magnesium Intermetallics	3845	
				1230-1240	Manab Mallik, Sayandip Sarkar, Manas Kumar Mondal	Influence of Y2O3 Content on Mechanical Properties of ZrB2-20 vol.% SiC Composites	4973	
				1240-1250	Gaurab Khanra , Praveen Krishna I. R. , Raveendranath P.	On the Satisfaction of Natural & Essential Boundary Conditions for Bending in Nanobeams within the Framework of Eringen's Nonlocal Elasticity Theory	4291	
				1250-1300				
1.6	C1: Ramesh Kumar, NAL	Composites	C-LH10	1050-1120	Keynote: Prof. M. Ramji, IIT Hyderabad	A Comprehensive Study on the Behavior of Bolted, Bonded and Hybrid Joint Configuration in CFRP Structure		
				1120-1140	Invited: Amitabha Datta, NAL Bengaluru	Estimation of Spring-In Deformation in Composite L-Angle Using Experimentally Measured Cure Residual Strain		
				1140-1200	Invited: Amit Chaudary, IITK			
				1200-1210	Manish Kumar Das, Ajaz A Deliwala, and Chandra Sekher Yerramalli	Effect of Solid Particle Erosion on Woven Fiber Reinforced Composites	1133	
				1210-1220	Manish Kumar, Supratik Mukhopadhyay	A Simplified Cohesive Segment Method to Simulate Interaction Between Intra and Interlaminar Failure in Composites	1255	
				1220-1230	P V Divakar Raju , P Venkataraman , M Nithyadharan	A Machine Learning Framework for Predicting the Elastic Properties of Fiber Reinforced Composites	1795	
				1230-1240	Devorshi Bhattacharjee , Indra Vir Singh	Homogenization of 2.5 D C/SiC Woven Composite for Evaluation of Thermo-Mechanical Properties using FEM	2959	
				1240-1250	Abhirami A J , Anup S	Stress Transfer in Two-hierarchical Non-self-similar Bio-inspired Composites	3215	
				1250-1300				
1.7	C1: Prof. D. R. Mahapatra, IISc.	SHM / NDE	C-LH7	1050-1120	Keynote: Prof. S. Gopalakrishnan, IISc	Deep Learning Approaches for Ultrasonic guided Wave based SHM and NDT&E Applications		
				1120-1140	Invited: Raj Kumar, CSIR	Structural Integrity Testing using a Portable Digital Holographic Camera		
				1140-1200	Invited: Srikanth Korla, NITW	Recent Advancements in Structural Health Monitoring Paradigm Using Embedded Piezoelectric Transducers		
				1200-1210	Vivek Samu. Murthy Guddati, Shane Underwood	Surface Wave Testing of Inverted Pavements	447	
				1210-1220	Lukesh Parida, Sumedha Moharana, Sourav Kumar Giri	Detection and Prediction of Bond Degradation for Piezo Impedance based Structural Health Monitoring (PISHM) Using Hybrid Deep Learning Model	808	
				1220-1230	Revanth Dugalam, Guru Prakash	An Integrated Approach For Damage Detection, Localization And Quantification In Beam Like Structure Using Vibration Measurements	1616	
				1230-1240	Anoop Kumar Dube , S. Gopalakrishnan	Spectral analysis of the structural waveguides with defects using the Semi Analytical Finite Element method	3204	
				1240-1250	Abilasha Ramadhas	A Comparative Study of Non Destructive Testing Techniques for defect detection in Wind Turbine Blades	5545	
				1250-1300	Jishnu S. Babu , Nelvin Jose , Hariprasad M. P , Sreedevi K. Menon	Analysis of CPW Fed Monopole Antenna as RF-based sensor for Strain Sensing	4886	
			B-Foyer	1300-1400	Lunch			
Plenary-04	Prof. Venki Inara yana	IITK	Auditorium-A	1400-1445	Prof. Arun Shukla, Univ. Rhode Island. Dynamic response of closed cell polymeric foams.	Dynamic Response of Closed Cell Polymeric Foams		
Premium Marketing			Auditorium-A	1445-1455				
2.1	C1: Prof. U Ramamurty, NTU Singapore	Additive Manufacturing	C-LH2	1500-1530				
				1530-1540	Sujith Reddy Jaggannagari, Ratna Kumar Annabattula, Yixiang Gan	Cohesive Contact Models Used for Modeling Spreading in Powder Bed-based Additive Manufacturing	6121	
				1540-1550	Aishwary Pratap, Ankur Kumar, and Anubhav Sinha	Cold Spray Particle Deposition – Effect of Nozzle Heating	6196	
				1550-1600	Vikash Kumar, Deepak Mudakavi, Somashekara M A	Preliminary Studies on the Development of Ceramic-Gradient Objects via Material Extrusion-Based 3D Printing	6916	

2.2	Cl: Prof. Anindya Chatterjee, IITK	Computational mechanics	C-LH3	1500-1530	Keynote: Prof. A. Rajagopal, IIT Hyderabad	Phase-Field Approach to Fracture: Modelling and Computational Aspects of Crack Nucleation and Growth Under Quasi Static and Dynamic Loads	
				1530-1540	Ritesh Gupta, Krishna Kumar , Abhishek Tiwari	Numerical Analysis of Miniature Disk Bend Specimens under Creep Condition	4802
				1540-1550	Sailendu Biswal, Gaurav Singh	Crack Propagation Simulation in Wood using Cohesive Zone Model	5434
				1550-1600			
2.3	Cl: Dr. R. Sunder, BISS Labs.	Fatigue and Fracture	C-106	1500-1530	Keynote: Dr. BVA Patnaik, GTRE.	Structural Integrity Aspects of Aero engine Critical parts	
				1530-1540	Adarsh Bharti, Abir Bhattacharyya, S. Sivaprasad	Effect of Strain Path on Multiaxial Fatigue Response of 304L (N) Stainless Steel	7405
				1540-1550	Swapnil Patil, Syed Khaderi, M. Ramji	Experimental Studies on Rigid Curved Inclusion Embedded in a So	7556
				1550-1600	Swanand Telpande, Praveen Kumar	High-Density Electropulsing Induced Crack Closure in Thin SUS316 Sheets	8156
2.4	Cl: Prof. Venkumarayan, IITK	Experimental Mechanics	C-LH4	1500-1530	Keynote: Dr. Syed Nizamuddin Khaderi, IIT Hyderabad	A methodology to perform dynamic triaxial tests using split-Hopkinson bars	
				1530-1540	Shaik Sadikbasha, V. Pandurangan	Analysis of sandwich structures with modified auxetic re-entrant core under high velocity impact	1913
				1540-1550	S Ranjithkumar , M Muthuraja., Khaderi S. N. , Prakash S. S	Crack Propagation and Fracture Behavior of Self-Compacting Concrete Under High Strain Rate Loading	5524
				1550-1600	Sasanka Kakati , Debabrata Chakraborty	Impact Response of a GLARE 5 Plate with Open Holes Subjected to Low-Velocity Cylindrical Impact	6497
2.5	Cl: Prof. Vikram Jayaram, IISc Bengaluru.	Mechanical Behaviour	C-LH9	1500-1530	Keynote: Dr. Praveen Kumar, IISc Bengaluru	Effect of Electric Field on Mechanical Behavior of Materials	
				1530-1540	Chandan Kumar, Praveen Kumar	Creep Behaviour of Nickel-Based Superalloy Inconel 740H	5219
				1540-1550	Lakshmi Prasad Maddi, Srinivas R Gavinola, Atul Ballal	Effect of Multiaxiality on the Stress Rupture Properties of P92 Steel	5596
				1550-1600	N K Eswaramoorthy, S Chatterjee and D Srinivasan	Effect of Heat treatment on creep Behaviour of Laser Powder Bed Fusion Inconel 939	5108
2.6	Cl: Prof. Anupam Saxena, IITK	Composites	C-LH10	1500-1530	Keynote: Ramesh Kumar, NAL	Offline & Online Method of Structural Health Monitoring of Composite Structures	
				1530-1540	Shubha Javagal, Sandeep M.J., Rammohan Bhanumurthy , Ravitej Y.P. , Shashidhara L.C	A Study of Delamination in a Natural Fibre Reinforced Composite Structure	3936
				1540-1550	Vishnu O S, Jhon Paul, G S Pavan	Micromechanical Analysis of Carbon/Carbon Composites by Pore Characterization	5041
				1550-1600			
2.7	Cl: Prof. S. Gopalakrishnan, IISc	SHM/NDE	C-LH7	1500-1530	Keynote: Prof. M.R. Bhat, IISc.	Acoustic Emission Technique – A Potent Structural Integrity Evaluation Tool	
				1530-1540	Rajeev Kumar , Chintamani Mishra , and Ranjan Kumar Mitra	Modelling and Diagnosis of High Contact Ratio Gear Faults	3445
				1540-1550	Eshwar Kuncham, Md Armanul Hoda, Subhamoy Sen	Identifying the Cracks in Beam Structures Using a Simplified Substructure Technique	4154
				1550-1600			
C-Foyer				1600-1615	Tea		
3.1	Cl: Prof. G. D. Janaki Ram, IIT Hyderabad	Additive Manufacturing	C-LH2	1615-1645	Keynote: Prof. Bharat B. Panigrahi, IIT Hyderabad	Additive Manufacturing (AM) and Powder Metallurgy (PM) of High Entropy Alloys	
				1645-1705	Invited: Prem Kiran, HCU	Pulsed Lasers as a Shock Physics tool: Opportunities and challenges to Material Processing	
				1705-1715	Sunil Kumar Prajapati, R. Gnanamoorthy	Abrasive Wear Damage of 3D As-Printed PEEK	7263
				1715-1725	Gaurav Sharma, Amol Vuppuluri, Kurra Suresh	Energy-Partitioning Concept of EWF Technique for Ascertaining the Influence of Raster Orientation Over Fracture Response of 3D Printed PEEK	8177
				1725-1735	Vignan Babu Dyavanapelly, Shivam Shukla, Gopinath Muvvala , Sneha Chilukuri	Laser surface polishing of additively manufactured components with beam shaping	7500
				1735-1745	Abdul Khalad , Viswanath Chinthapenta	Prediction of Relative Density of IN718 Additively Manufactured through SLM process using ANN.	2777
				1745-1755	Dharmendra Kumar, Sumant Yadav, Rukaiya Azma, K.P. Vineesh, Raghuram Karthik Desu , Murshid Imama, Viswanath Chinthapenta, J John Rozario Jegaraj	Numerical modeling of SLM process using coupled DEMCFD approach	2050
				1755-1805			
3.2	Prof. A. Rajagopal, IITH	Computational mechanics	C-LH3	1615-1645	Keynote: Ratna Kumar Annabatala, IITM	Design of cellular structures for in-plane response through out-of-plane actuation of stimuli-responsive bridge films	
				1645-1705	Invited: Anshul Faye, IIT Bhilai	Void Growth in Amorphous Glassy Polymers: Effect of Loading Rate	
				1705-1715	Aswathy M. and Arun C. O	Geometric Nonlinear Analysis of Timoshenko Beams using Element-free Galerkin method	6927
				1715-1725	Bobby Dudhe, Arun Kumar Singh and Pawan Kumar Soni	Numerical Study of Bulging Instability in a Porous Tube Under Internal Pressure	7426
				1725-1735	Nazim Khan and Pritam Chakraborty	Thermomechanical Homogenization of Corrugated Core Sandwich Structure using First Order Shear and Normal Deformation Theory	7785

	CI: Pr	Comp		1735-1745	Gopi Gulivindala , Madhu Kiran Karanam , Rakesh Kumar Mothukuru , Rajesh Korla , Viswanath Chinthapenta	Yield function of FCC single crystal for generalized 3D loading	8316
				1745-1755	Dravesh Yadav , Gaurav Srivastava	Characterization of blast loads due to explosion of energetic materials through multi-physics computer simulations	9396
				1755-1805			
3.3	CI: Dr. BVA Patnaik, GTRE.	Fatigue and Fracture	C-106	1615-1645	Keynote: Dr. Vikas Kumar, DMRL	NextGen Life Cycle Management (LCM) of Defence Platforms - Challenges & Opportunity for Academia-MSMEs-Defence Services Consortiums	
				1645-1705	Invited: Ramachandra Murty, SERC-CSIR	Effect of Tensile Overload on Fatigue Life of Tubular T- and Y- Joints	
				1705-1715	Sandipan Baruah , Subrato Sarkar, Indra Vir Singh	Residual Stress Prediction for Butt-Welded Plate Joint with Unequal Plate-Thickness using Artificial Neural Networks	5313
				1715-1725	Rohit Upadhyaya, Abhishek Tiwari	Effect of Under and Over Matching Mechanical Response on the Crack Driving Force	8905
				1725-1735	Apoorv Verma, Hrushikesh Sahasrabuddhe, Ashwini K Mishra, Nagamani Jaya Balila	Role of Wire Aspect Ratio and Crack Aspect Ratio on Fracture Behavior of Wire Specimen	9272
				1735-1745	Baskar Rao Mattapally , Balamurugan Gopalaswamy , Sathesh Kumar V	Experimental and Simulation studies on health monitoring of actuation system for an aircraft	9575
				1745-1755	Hari Krishna, Kartik Prasad, and Rajdeep Sarkar	Cyclic deformation behavior of conventionally cast Superalloy CM247LC under low cycle and thermomechanical fatigue conditions	2278
				1755-1805			
3.4	CI: Dr. Syed N Khaderi, IITH	Experimental Mechanics	C-LH4	1615-1645	Keynote: Dr. N. Eswara Prasad, DMSRDE, DRDO Kanpur	Toughening in Engineering Materials: Quantification Methodologies and Their Relevance to Novel Structural Materials	
				1645-1705	Invited: Vipin Chandra, IITK	Cyclic Loading Experiments using Digital Image Correlation	
				1705-1715	Ankit Rajpoot , Nikhil Khaire, Anoop Chawla , Naresh V. Datla	Low-velocity penetration response of Kevlar composites: Experiments and simulations	9747
				1715-1725	Manish Sharma, Tanmoy Bose	Low Velocity Impact Damage Detection on CFRP Plate using Vibro Thermography	3895
				1725-1735	Arun Valabhoju , Suresh Periyannan	Ultrasonic Strip Waveguide sensor for Solid surface Temperature Monitoring	4254
				1735-1755	Invited: Jalaj Kumar, DMRL	Indigenous development of damage mechanics based lifing approach for aeroengine materials	
1755-1805							
3.5	CI: Dr. Praveen Kumar, IISc Bengaluru	Mechanical Behaviour	C-LH9	1615-1645	Keynote: Prof. Bhanu Sankara Rao, IIT Hyderabad	Role of Materials Development and Fabrication Technologies in Ensuring Structural Integrity of Test Blanket Module of International Thermonuclear Experimental Fusion Reactor	
				1645-1705	Invited: K Eswara Prasad, IIT Indore	Deformation behavior of Mg and Mg alloys	
				1705-1715	Jyotish Kumar Das, Sahil Bansal , Shashank Bishnoi , Abhilash Shukla	Mix Design of Ultra-High Performance Concrete Using Particle Packing Optimization	5671
				1715-1725	Korrayi Roja Rani	Comparison of mechanical properties of refractory high entropy alloys with superalloys and conventional refractory alloys -Review	6739
				1725-1735	Spandan Bandyopadhyaya, Rajesh Kitey, and C. S. Upadhyay	Effect of Filler Content and Strain Amplitude on Dynamical Mechanical Properties of Filled Rubber	7038
				1735-1745	Abhiram B R and Debraj Ghosh	Effect of Nanoparticle Agglomeration in Polymer Nanocomposites : A Mutiscale Study	8703
				1745-1755	Ashish Singh, Gaurav Singh	The Calculation of Localised Stress Field for an Anisotropic Solid Using Atomistic Simulation for Different Interatomic Potentials	4035
				1755-1805	Abhinav Sharma, K. Eswar Prasad	Strain Rate Sensitivity of a Cu60Zr40 Metallic and Nanoglass	4503
3.6	CI: Prof. M. Ramji, IIT Hyderabad	Composites	C-LH10	1615-1645	Keynote: Prof. Anupam Saxena, IITK	Topology Optimization of Large Deformation Continua	
				1645-1655	Vinay Kumar, Prabhat K. Agnihotri	Interlaminar Damage Detection in Fiber Metal Laminates (FMLs)	6293
				1655-1705	Manoj K. Singh , R. Kitey	Effect of Filler Volume Fraction on Fracture Characteristics of Slender Filler Reinforced Epoxy Composite	6707
				1705-1715	M. Paleti , S.S. Prakash , V. Narayanamurthy	An Approximate Analytical Solution for Metal-FRP Circular Toroidal Pressure Vessel	6817
				1715-1725	Ishan Manoj, Atul Jain	3D Numerical Modelling on Stress Reduction Using Through the Thickness Compliance Tailoring of Bi-Adhesive	8145
				1725-1735	S Borchate, A Bagla, and P Mohite	A CDM Based Modelling and Prediction of Progressive Damage in Z-pinned Unidirectional Laminated Composites	8352
				1735-1745	R Sri lakshmi, SVNIT	Investigation of the Effect of Stiffener Parameters on Post Buckling Strength of Stiffened Composite Panels using FEA	
				1745-1755			
				1615-1645	Keynote: Prof. D. R. Mahapatra, IISc.	Integrated SHM and Supporting NDE Innovation Challenges	

3.7	C1: Prof. M.R. Bhat, IISc.	SHM/NDE	C-LH7	1645-1705	Invited: G V Balakrishna, IITM	Damage Assessment under Electromechanical Loading in Electric Vehicle Traction Motor Bearing Materials – Effect of Grease	
				1705-1725	Invited: Hemaraju Pollayi, GITAM Hyderabad	IoT and AI/ML based Intelligent Systems for Real-Time Structural Health Monitoring of Bridges	
				1725-1735	Lukesh Parida, Sumedha Moharana	Flexural Bond Strength Measurement of reinforced concrete structure Using Piezo Impedance-Based SHM (PISHM): A Review	6207
				1735-1745	Jishnu S. Babu , Nelvin Jose , Hariprasad M. P , Sreedevi K. Menon	Analysis of CPW Fed Monopole Antenna as RF-based sensor for Strain Sensing	4886
				1745-1755			
1755-1805							
End of the Day-1							
Day 2 (15th December, 2022)							
Session No.			Room	Time	Speaker	Title	Paper ID
Registration			C-Foyer	0800-0900		Registration	
Plenary-3			Auditorium-A	0900-0945	Prof. G. Ravichandran, Jio Institute. Dynamic behavior of lattice structures.	Dynamic Behavior of Lattice Structures	
4.1	C1: Dr. Karik Prasad, DMRL Hyderabad	Additive Manufacturing	C-LH2	0950-1010	Invited: Vineesh K P, NITC	Temperature and Residual Stress Analysis In WAAM Process Without Overlapping of Additive Beads	1388
				1010-1030	Invited: Rajnish Mishra, IIT Patna	Thermo-mechanical modelling of the wire arc based additively manufactured Inconel 625 superalloy	
				1030-1040	Ashok Kumar Dewangan , Syed Quadir Moinuddin, Ashish Rajak, N Yuvraj and Saurabh Jangir	Wire Arc Additive Manufacturing of Thin Walled Aluminium Alloy Components using Cold Metal Transfer Process	7611
				1040-1050	Srinivasagan M , Khirupasagar R , Jayabal K	Fracture Analysis on Micromechanical Modeled Ferroelectrics Embedded with Scaled Boundary Finite Element Method	9162
				1050-1100			
4.2	C1: Prof. Shaileendra Joshi, Univ. Houston.	Computational mechanics	C-LH3	0950-1010	Invited: Shyam KeralaVarma, IITM	Simulation of ductile failure using an instability-based crack initiation criterion	
				1010-1030	Invited: Sanghamitra Debta, IITM	Micromechanical Modelling of Soft Hydrogel Films with Water Cavity Inclusions	
				1030-1040	Hemaraju Pollayi, Praveena Rao , Dathathreya Chakali	Machine Learning based Modeling of Carbon Nanotubes in Attenuation and Shielding from Radio Waves for Next-Generation Stealth-Aircraft	1599
				1040-1050	Lokeswari Malepati, Nimesh Thammishetti, Nagarajan Ganapathy, S. Suriya Prakash, Vedhus Hoskere	Evaluation of deep learning architectures for multiple damage detection on concrete surface	6124
				1050-1100	T Chaitanya Sagar, Imran Ali Khan, J Chattopadhyay	Atomistic modeling of polycrystalline graphite under uniaxial loading	8863
4.3		Fracture	C-106	0950-1010	Invited: KVN Surendra, IIT Palakkad		
				1010-1030	Invited: A Venugopala Rao, DMRL	Structural Integrity Approach for Service Life Revision of Gas Turbine Aeroengines	
				1030-1040	Sivaranjani T, Arvind Kumar Yadav, Gajendra D G, Pradeep Kumar Sahoo, Siva Subba Rao P, Raja S	Fatigue Life Estimation of Aircraft Structural Component using FE Approach and Validation through Analytical and Experimental Methods	996
				1040-1050	Sharanagouda G Malipatil, Ramesh Bojja, N. Jagannathan, Anuradha N Majila , D Chandru Fernando , CM Manjunatha	Correlating Stress Ratio Effects on the Fatigue Crack Growth Rate Behavior of a Nickel Based Super Alloy GTM718	5881
				1050-1100	Praveena Rao , Hemaraju Pollayi	Fracture Mechanics based Approach for Modeling Beam-Column Connection in RCC Buildings Subjected to Seismic Loading	1367
4.4	C1: Prof. Krishna J, IITB	SmartMaterials	C-LH4	0950-1010	Invited: Prakhar Gupta, IIT Hyderabad	Designing piezoelectric-like devices from non-piezoelectric materials	
				1010-1030	Invited: Jaymalya Jena, IIT Roorkee	Extended finite element method for Sub-interface Crack in Limited Permeable Piezoelectric Bi-materials	
				1030-1040	Khushal Goparaju, Krishnendu Halder	Snap-Through Instability in Inflated Magneto-Viscoelastic Thin Toroidal Shells	5735
				1040-1050	Arijit Garai, Krishnendu Halder	Material Characterization and Numerical Simulation of Magneto Active Polymer	7066
				1050-1100			
4.5	C1: Prof. Prakash D Mangalagiri, IITK	Dynamics	C-LH9	0950-1010	Invited: Chandrika Prakash Vyasrani, IIT Hyderabad	Galerkin–Ivanov Transformation for Nonsmooth Modeling of Vibro-Impacts in Continuous Structures	
				1010-1030	Invited: Prabhat Kumar, IIT Hyderabad	Topology optimization of pressure-loaded multimaterial structures	
				1030-1040	Rajpurohit Kiran, and Sahil Bansal	Finite Element Model Updating using Modal Data	264
				1040-1050	Ishwari Mujumdar, Sanskar Pathak, S N Das , Sabareesh Geetha Rajasekharan	Influence of the Acceleration Response Location on the Vibration Attenuation of Thin Plates with Periodic Cavities	8936
				1050-1100			
				0950-1010	Invited: Kalyani Panigrahi, BITS-Hyderabad	Wind tunnel experimentation on flow-induced instability of a thin flexible plate-like structure in a uniform axial flow	

4.6	Cl: Dr. P C Jain, D Hyderabad	Aero	C-LH10	1010-1020	Vishnu Harikumar, IIST	The Digital Twin of a Simple Structural System for Damage Detection	
				1020-1030	K.Sudha Deepthi , Rammohan B , Suresh Nagesh	Digital Twin for Aeroservo Elasticity	3639
				1030-1040	Yelamarthi Sai Krishna, Gangadharan Raju, Maunendra Sankar Desarkar	Damage Classification in CFRP Composite Laminates using Acoustic Emission and Machine Learning	6292
				1040-1050	M.L. Pavan Kishore, B. Madhavi, S.Q. Moinuddin	Numerical Investigation for Stress Concentration Effects on Composite Aircraft Blade	4926
			C-Foyer	1100-1115	Tea		
5.1	Cl: Prof. Raj Das, RMIT Australia	Additive Manufacturing/ Advanced Manufacturing	C-LH2	1115-1145	Keynote: Prof. U Ramamurty, NTU Singapore.	Structural Integrity of 3D Printed Metals	
				1145-1205	Invited: Chandrashekar Murapaka, IITH	Controlling Polycrystalline Phase of Heavy Metals via Seed Layers: Comprehensive Study	
				1205-1225	Kishor Kumar Jha, Rajnish Mishra, Rahul Kesharwani, Murshid Imam	A clarification on local microstructural inhomogeneity in friction stir additively manufactured functionally graded composite materials	
				1225-1235	J C Atwal, R. K. Pandey	Rapid method to design a new micro-pocketed tilting pad thrust bearing	4266
				1235-1245	Kishor Kumar Jha, Rahul Kesharwani, Murshid Imam	Mechanical and Microstructural Characterization of Friction Stir Lap Welded AA6061-T6/ AA7075-T6 Joints	4946
				1245-1255	Arkajyoti Jha, Shivam Shukla, Vignesh Kartikeyan, M. Ramji, Muvvala Gopinath	Real-time monitoring and laser modulation for controlling anisotropy in L-DED	8268
				1255-1305			
5.2	Cl: Saswata Bhattacharya, IITH	Computational mechanics	C-LH3	1115-1145	Keynote: Prof. Sumit Basu, IITK.	Modelling Soft Solids	
				1205-1225	Invited: Sunil Dutta, IITD; Gaurav Singh	All Mean Field Homogenization Methods are Approximate: Some might be Useful	5656
				1225-1235	Darshan Singh Bisht, Nikesh Chelimilla, Naresh Kali, Srikanth Korla	Free Vibration Analysis of Hybrid Fiber Metal Laminated Panels	101
				1235-1245	Chalasanı Surya Kiran, Sasidhar Potukuchi, Vijayabaskar Narayanamurthy , Viswanath Chinthapenta	Tensile Characterization of High Strength Carbon- Epoxy Composite Laminates	4099
				1245-1255	Anmol Choudhary , Greegar George	Finite Element Analysis of Drilling Process in Carbon Fiber Composite Material Using Abaqus	6263
5.3	Cl: Dr. Sujatha, M. NAL Bengaluru	Fracture	C-106	1115-1145	Keynote: Prof. Zhou Wei, NTU Singapore	Repair and Restoration of High-Value Engineering Structures by Cold Spray Technology	
				1145-1205	Invited: Nagesha A, IGCAR	Elevated Temperature Fatigue Behaviour of Austenitic Type 316LN SS Weld Joint under Isothermal and Anisothermal Cyclic Loading	
				1205-1225	Invited: Naresh Datla, IIT Delhi	Experimental Study of Nail Penetration at Low Velocity in Soft Materials	
				1225-1235	Rakesh Ranjan, Supriya Pandey, Kuldeep Panwar, Arun Kumar Singh	Fatigue Analysis of Supercritical Power Plant Components Operating Under Cyclic Loading	6188
				1235-1245	Keerthana Kirupakaran, J. M. Chandra Kishen	Evaluation of Equivalent Elastic Crack Length in Concrete through Mechanisms of Fracture under Quasi-Static Cyclic and Fatigue Loadings	5947
				1245-1255	Krishnaa S , Veerendar Chetharajupalli , Suriya Prakash S	Experimental investigation of fracture behavior of concrete beams reinforced with high-strength steel rebars using acoustic emission	6999
5.4		SmartMaterials/SHM	C-LH4	1115-1145	Keynote: Prof. Krishna J, IITB	Structure-Property Correlations in Spin-Coated Polymer Films Using Full-Field Rheo-Optical Experiments	
				1145-1205	Invited: Raguraman M., IITDM Kancheepuram	LS-Dyna Driven Design of Composite Aero Engine Components for Impact Loads	
				1205-1225	Invited: Enos Dange, CSIR NAL	Design and Fabrication of Energy Harvesters for Low Power Devices	
				1225-1235	Ramesh Gomasa , Naveen Polagani , Visalakshi Talakokula , Sri Kalyana Rama Jyosyula	Crack Initiation and Propagation of Plain Concrete with Natural Mineral Admixture and Fibers Using Surface Bonded Piezoelectric Sensor	5788
				1235-1245	Maloth Naresh, Joy Pal	Bag of Visual Words based Framework for the Health Monitoring of Bolted Joint Steel Plane Frame Structure	6960
				1245-1255	Roshan Sahu , Debmalya Mukherjee , Shilpi Saha , S.K. Lahiri , D.A. Roy	Health assessment of buried carbon-steel pipelines using automated ultrasonic inspection	3429
				1255-1305	Kanchan G. M, Gopalakrishna M. Kamath, P. M. Mohite	Acoustic Emission-based Damage Detection with Fibre Bragg Grating Sensors	5295
5.5	Cl: Chandrika Prakash Vyasarani, IIT Hyderabad	Dynamics	C-LH9	1115-1145	Keynote: Prof. Prakash D Mangalagiri, IITK	Structural Integrity of Aircraft- Historical evolution and future perspective	
				1145-1205	Invited: Rajat Goswami, IIT Hyderabad	Analysis of Bistable Arches Connected at the Centre with Pinned Boundary conditions	
				1205-1215	Jyoti Ranjan Barik , Kishore Chandra Biswal	Influence of Geometric Variation of Internal Block on Dynamic Characteristics of Base-Isolated Rectangular Liquid Tank	9647
				1215-1225	Akshay Namdeo, Bikram Jyoti Sahariah, Parameswaran Venkitanarayanan, Prasenjit Khanikara	Dynamic behavior of additively manufactured high strength and high stiffness tetrahedral and strut-reinforced tetrahedral microlattices	5034
				1225-1235	Susmita Panda , Arnab Banerjee, Bappaditya Manna	Influence of Higher Vibration Modes on the Dynamic Analysis of Bridge Subjected to Moving Loads	2051
				1235-1245			
				1115-1145	Keynote: Prof. Suhas Ranjan Dey, IIT Hyderabad	New Generation Deep Drawable Steels	

5.6	C1: Prof. Srinivasan Chandrashekar, Purdue	Mechanical Behaviour	C-LH10	1145-1205	Invited: Pranav Kumar, IIT Madras	Effect of Oxygen on Plastic Deformation of Nb: an ab-initio Investigation	
				1205-1225	Invited: Paul Sudhahar, Honeywell	Analyzing the Saint-Venant End Effects in Cellular Lattice Structures	
				1225-1235	Nilesh K. Kumbhar, Rohan Jain, Vikesh Kumar , Manoj D. Joshi, Santosh S. Hosmani	Thermal Stability of Surface Mechanical Attrition Treated AISI 316L Stainless Steel	9365
				1235-1245	Shivam Shukla, Gopinath Muvvala	Detection and Prediction of Microstructural changes in Laser Material Processing through Real-time Monitoring	7523
			B-Foyer	1300-1400	Lunch		
Plenary-4			Auditorium-A	1400-1445	AVM P S Sarin, Indian Air Force (IAF).	Aircraft structural integrity programme of the IAF.	
			Auditorium-A	1445-1455	Premium Marketing		
6.1	C1: Prof. U Ramamurty, NTU Singapore.	Additive Manufacturing/Advanced Manufacturing	C-LH2	1500-1530	Keynote: Dr. Kartik Prasad, DMRL Hyderabad	In situ synchrotron diffraction study of additively manufactured Ni base superalloy	
				1530-1540	Rahul Kesharwani, Kishor Kumar Jha, Murshid Imam, Chiranjit Sarkar	Effect of SiC and Zn Powder Particles Reinforcement on the Microstructural and Mechanical Properties During Friction Stir Welding of 6061-T6 Aluminium Alloy	5989
				1540-1550	Sandeep M J, Umesh M Daivagna, Rammohan Bhanumurthy, Shubha Javagal	Experimental and Numerical Study of Stress Field Behaviour of Partially Replaced Eco-Friendly Material	6166
				1550-1600	R T P Rajendra Kumar, K Jayabal, M Kamaraj and Srinivasa Rao Bakshi	Modeling of cold spray coating with different angle deposition for repairing Aircraft Aluminum alloy	5135
6.2	C1: Prof. Sumit Basu, IITK	Computational mechanics	C-LH3	1500-1530	Keynote: Prof. Shailendra Joshi, Univ. Houston.	Slip, Twins, and Voids	
				1530-1540	G.Deepak kumar , B.Panigrahi	A Parametric Study on Influence of Slenderness Ratio on the Nonlinear Dynamic Behaviour of Rotating Tapered Beams	5636
				1540-1550	Anupama S, J.M. Chandra Kishen	Numerical Simulation of Crack in a Residual Stress Field	9048
				1550-1600	Sachin Chandran C , Pratiksha Rodewad , Anup S	Analysis of the Non-Circular Suture Designs on Bio-Inspired Materials	4344
6.3	C1: Prof. Sulhas Ranjan Dey, IIT Hyderabad	Mechanical Behaviour	C-106	1500-1530	Keynote: Prof. Srinivasan Chandrashekar, Purdue	Fracture, My Friend: The Cutting of Gummy Metals	
				1530-1540	Sidharth R, Shyam Keralavarma	Localized Necking in Thin Sheets Subjected to Biaxial Stretching	5659
				1540-1550	Anup Kulkarni , Saurabh Kumar , Dheepa Srinivasan, Vikram Jayaram , Praveen Kumar	Creep Behavior of Additively Manufactured High Strength Aluminum Alloy A205	6888
				1550-1600	Sai Naga Sri Harsha, Himanshu Gururani, Sayan Basu , Subha Narayan Rath, Kwong Ming Tse, Viswanath Chinthapenta	Fracture toughness and suture retention behavior of the human cornea	3111
6.4		Civil	C-LH4	1500-1530			
				1530-1540	Pratyusha Bandaru , Hemaraju Pollayi	Modelling Bearing Capacity of Bored Piles under Vertical Eccentric load within Python Framework	573
				1540-1550	Ananda Mitra, Shivanand R. Suryawanshi, Banti A. Gedam	Thermally-induced concrete properties at elevated temperature	3296
				1550-1600	V Y Palagala, M Nithyadharan	Mechanical characterization of calcium silicate boards	3552
6.5		Manufacturing	C-LH9	1500-1530	Keynote: Dr. Phani Mylavarapu, DMRL	Residual Stresses- Origin, Classification, Estimation and Its Impact on Structural Integrity	
				1530-1540	Bikram Keshari Khandai, Shivam Shukla, Gopinath Muvvala	Real-Time Monitoring of Bending Mechanisms in Multi-Pass Laser Forming Process under Laser Modulated Mode	7862
				1540-1550	Tanmaya and SS Panda	Investigation of Dissimilar Metal (Stainless Steel and Copper) Joining and the Effect of Offsetting and Other Welding Parameters	4895
				1550-1600	Kotla Sairam Goud, Phaniraj Madakashira and Rajesh Korla	Nano-indentation based approach to estimate the contribution of molybdenum to solid solution strengthening in Fe30Mn5Al1CxMo lightweight austenitic steels	8366
6.6	C1: Mr. Venkat Ganji, Honeywell	Aero	C-LH10	1500-1530	Keynote: Dr. P C Jain, DRDL Hyderabad	Criticalities and Challenges in the Design of Flight Vehicle Structures	
				1530-1540	Akash Deep , Naresh V. Datla , Raj Das	Damage detection in self-sensing composites via electrical impedance tomography	2786
				1540-1550	Isha Paliwal, Hetram Sonwani, Ramji M	Effect of Fastener Material and Stacking Sequence on the Single Lap Multiple-Micro Bolted Hybrid Joint Performance	6489
				1550-1600	Hemaraju Pollayi, Praveena Rao, Dathathreya Chakali	Development of Modern Stealth Technologies for Defence Vehicles in India	5037
			C-Foyer	1600-1615	Tea		
7.1	C1: Dr. Phani Mylavarapu, DMRL	Additive Manufacturing	C-LH2	1615-1645	Keynote: Prof. Raj Das, RMIT Australia	Analyzing the Effect of Defects on Stress Concentration and Fatigue Life of Additively Manufactured Aluminium (AlSi10Mg) Alloy using Finite Element Modelling	
				1645-1705	Invited: Jai Gautam, HCU	Correlative Structure-Property Characterization in Advanced High-Strength Sheet Steels for Automotive Applications	
				1705-1715	K.V. Rakhin , Prasad S Onkar , J. Hayavadana	Prediction of Haptic perception of Woven Fabrics Through the Structure and Mechanical Properties	9878
				1715-1725	Deepansh chourasiya , Viswanath Chinthapenta , Jayaprakash Murugesan	Parametric Study on the Al-Steel Dissimilar Weld Joint Fabricated by Cold Metal Transfer	139
				1615-1645			

7.2	Computation mechanics	C-LH3	1645-1705	Invited: Biswarup Bhattacharyya, IITH	Uncertainty Propagation through a Crash Box under Impact Loading by a Surrogate Model	
			1705-1715	Mohd. Aman Khalid , Sahil Bansal	Robust Design Optimization of Tuned Mass Damper	9295
			1715-1725	Kavadi Ravi Teja , Santhosh R , P. C. Jain	Mass optimization of bracket	470
7.3	Fracture	C-106	1615-1645	Keynote: Dr. Sujatha, M. NAL Bengaluru.	An aircraft accident due to widespread fatigue damage in the structural component	
			1645-1705	Invited: Deepali Sonawale, IISc	Kinetics of Dewetting of Cu Thin Films on Si substrate	
			1705-1715	K Akshaya Gomathi, Amirtham Rajagopal	Damage Evolution and Pressure Dependent Plasticity Model for Concrete Under Dynamic Loading	9294
			1715-1725	Vivek Kumar Singh, Krishnendu Halдар	Elastic response of hydrogels under finite deformations	6899
7.4	Civil	C-LH4	1615-1645			
			1645-1705	Invited: A. Agarwal, IIT Hyderabad	Experimental and Numerical Analysis on Confinement of RC Columns using Carbon Yarn as Transverse reinforcement	
			1705-1715	K Senthil, Mandeepak Singh , H S Chore	Evaluation of Load Carrying Capacity of Curved Concrete Beams under Two-Point Static Load	6886
			1715-1725	Rohit Vyas, Anoop I Shirkol	Strength and Deformation Assessment of a Tall RC-MRF Designed by Force;Based Design and Performance;Based Plastic;Design method	7827
7.5	Bio	C-LH9	1615-1645			
			1645-1705	Invited: Mohd. Suhail, IITH	Mechanics of fibrous biomaterials and cell-scaffold interactions	
			1705-1715	Anshul Shrivastava, Supreeth M and Namrata Gundiah	Methylglyoxal Crosslinking increases fracture toughness of gelatin hydrogels	7998
			1715-1725	Himanshu Gururani, Sai Naga Sri Harsha, Ramji Manoharan , Sayan Basu , Viswanath Chinthapenta	Birefringence Imaging Reveals Structural Changes in Human Cornea	2085
7.6	Aero/Civil	C-LH10	1615-1645	Keynote: Mr. Venkat Ganji, Honeywell	Aircraft Gas Turbine Engine Requirements and Challenges for Structural Integrity	
			1645-1705	Invited: Tanmay Bhandakkar, IITB	Two-Dimensional Linear Elasticity Solutions on Power-Law Functionally Graded Annulus	
			1705-1715	Abirami Manoharan, Jeevan Sneha, Muthumalini , Nandhini V , Shinisha T , C. Umarani	Improving the Setting Time Properties of Cement Paste Using Rice Husk Ash	6363
			1715-1725	Sahil Bansal ,Pawan Kumar	Assessment of One-Way Shear Design Method of IS-456:2000	3212
Banquet	Acad Quad-I Lawn	1745-1815	Cultural Programme			
		1815-1845	Award Distribution			
		1900-2100	Dinner			
End of the Day-2						

Day 3 (16th December, 2022)						
Session No.		Room	Time	Speaker	Title	Paper ID
Registration		C-Foyer	0800-0900	Registration		
Plenary-5		Auditorium-A	0900-0945	Prof. H. Gao, NTU Singapore. Defy the conventional rule of mixtures with gradient microstructures.	Defy the conventional rule of mixture with gradient microstructures	
8.1	Additive Manufacturing	C-LH2	0950-1020	Keynote: Prof. Surya Kumar, IIT Hyderabad	Large Area Metal Additive Manufacturing	
			1020-1040	Invited: Rahul Jiji George, IIT Palakkad	Effect of spark assisted polishing on the wear resistance of additive manufactured metallic components	
			1040-1100	Invited: Sidharth Beniwal, IITK	Direct-ink Based Manufacturing of Ceramic Phononic Crystals	7925
			1100-1110	Sahil Dhiman, Viswanath Chinthapenta	Particle Interaction during Direct Metal Laser Sintering	3247
8.2	Experimental Mechanics	C-LH3	0950-1020	Keynote: Prof. KVL Subramaniam, IIT Hyderabad	Insights into Sub-critical Crack Growth: Case study of FRP-Concrete Debonding	
			1020-1040	Invited: Chandra Prakash, IIT Hyderabad	Effect of Fiber Distribution on the Shock Response of Composite Material	
			1040-1050	Lekhana Chandran, K. Eswar Prasad, Ratna K. Annabattula	Modelling the Failure of Advanced Ceramics under High Strain Rate Deformation	852
			1050-1100	Yasam Palguna, Kotla Sairam Goud and Rajesh Korla	Investigation of serrated plastic flow behavior in Al0.2CoCrFeNiMo0.5 high entropy alloy	124
8.3	Fracture	C-LH5	0950-1020	Keynote: Prof. Raghu Prakash, IITM	Cyclic Indentation studies to understand Fatigue response of in-service materials	
			1020-1040	Invited: Sai Sidhardh, IIT Hyderabad	Full-field analytical solution for the partially debonded rigid line inclusion	
			1040-1050	Shanideo N. Jadhav, Prakash Nanthagopalan, Krishna Jonnalagadda	Static and Dynamic Strength and Failure in Fibre-Reinforced Ultra High-Performance Concrete	9172
			1050-1100	Mohammed Shafeeqe K K, K V N Surendra	Stress Intensity Factor for Symmetric pair of Surface Cracks in a Finite Solid	8611
8.4	Civil	C-LH4	0950-1020	Keynote: Prof. Suriya Prakash, IIT Hyderabad	Effect of Macro-Synthetic and Hybrid Fibres on the Behavior of Square Concrete Columns Reinforced with GFRP Rebars	
			1020-1030	B. Ira and A. Agarwal	Experimental investigation on the bond behavior between steel and concrete at high temperatures	8681
			1030-1040	G. Tamizharasi, and M.S. Harshir	Code Provisions to Contain Floor Flexibility in RC Buildings under Earthquake Shaking – An Elastic Study	9203
			1040-1050	Mandeepak Singh , K Senthil , H S Chore	Comparison of Load Carrying Capacity of Curved Concrete and Steel Beams under Two-Point Static Load	9464

8.5		Composites	C-LH9	0950-1020	Keynote: Prof. P J Guruprasad, IITB	Failure Analysis of Woven Composites Using Hierarchical Application of Variational Asymptotic Method Unit Cell Homogenization Technique	
				1020-1040	Invited: Akshath Bagla, IITK	Damage Initiation and Strength Predictions of Randomly Oriented Strands of Prepreg-Based Discontinuous Composites	
				1040-1050	Thoudam Sarnath Singh, Kanjarla A.K, R.K Annabattula	Effect of Elastic Contrast and Phase Geometry on the Fracture Toughness of Multi-Phase Material	6793
				1050-1100	Santhosh Ramaratnam, P C Jain, Gangadharan Raju	Optimization of orthogrid stiffened cylinder under axial force and external pressure	8978
8.6		Smart Mobility	C-LH10	0950-1020	Keynote: Prof. Rajalakshmi, IIT Hyderabad	Autonomous Navigation Research at IITH	
				1020-1040	Invited: Gunashekhar, IIT Hyderabad	Structural Health Monitoring of Oil & Gas Pipelines Inspections Using Autonomous Ground Vehicles (AGVs) with Deep Learning Methods	
				1040-1050	Sushma M N, Sharanprasad Rajesh B, Malavika Prakash and Imtiting Kichu	Integration of Solar and Hydro systems to Microgrid for Harnessing the Renewable Energy	6997
				1050-1100			
C-Foyer				1100-1115	Tea		
9.1	C1: Prof. Surya Kumar, IIT Hyderabad	Additive Manufacturing/Joining	C-LH2	1115-1135	Invited: Anirban Naskar, IITH	Grinding of laser powder bed fused Ti-6Al-4V	
				1135-1155	Invited: Nandha Kumar Eswaramoorthy, Subhradeep Chatterjee and Dheepa Srinivasan	Effect of Heat treatment on creep Behaviour of Laser Powder Bed Fusion Inconel 939	
				1155-1215	Invited: Tulika Dixit, IIT Indore	Static and Dynamic Compression Behavior of Selective Laser Melted Ti-6Al-4V Alloys	
				1215-1235	Invited: Arpit Sahu, Objectify	End use application of Additive Manufacturing	
				1235-1245	Gaurav Kishor, Hatim Khumri, Krishna Kishore Mugada, Raju Prasad Mahto	Microstructural and Mechanical properties of wire arc additively Manufactured aerospace alloys- State of Art	1709
				1245-1255	Kartik Umate, S Karthikeyan and Dheepa Srinivasan	High strain rate deformation behavior of laser powder bed fusion made IN718	6191
9.2		Computational mechanics	C-LH3	1115-1145	Keynote: Prof. Ashok Kumar Pandey, IIT Hyderabad	Experimental Analysis of Non-Uniform Cantilever Beam in Fluid with Variable Depth	
				1145-1205	Invited: K Jayabal, IIITDM Kancheepuram	Micromechanical Modelling of Smart Materials as Applied to Voronoi-Based Discretizations	
				1205-1225	Invited: Mustafa Kazim, IITK	Analysis of Dynamic Strain Aging in Titanium alloys using CPFEM	
				1225-1235	Mohammed Tazeem Khan, Sahil Kalra	Thermal distortion balancing of space reflectors using piezoelectric material based smart actuators	5930
				1235-1245	R. Mohapatra, S. Palathingal, V. Narayanamurthy, M. Ramji	Modeling the Behavior of Pre-tightened Screw Lap Joint	1997
				1245-1255	Sandeep Kumar, D K Mahajan, J Bouhattate, and Dheepa Srinivasan	An Experimentally Informed Computational Framework for Investigating the Role of Surface Roughness on High Cycle Fatigue Life of LPBF IN718	2869
9.3	C1: Prof. Raghu Prakash, IITM	Fracture	C-LH5	1115-1145	Keynote: Prof. Chandra Kishen, IISc	Insights into the Unpredictable Fatigue Damage in Quasi-Brittle Materials Through Acoustic Emission	
				1145-1205	Invited: Sansit Patnaik, Purdue University	Distillation of nonlocality in proous solids	
				1205-1215	Deepesh Yadav, Sanjay Sampath, B N Jaya	Structural and mechanical characterizations of thermal spray Ni-HVOF coating at different temperatures	4621
				1215-1225	Dhaladhuli Pranavi and Amirtham Rajagopal	A Phase Field Approach to Model Crack-Interface Interaction in Ceramic Matrix Composites	2697
				1225-1235	Rohit Kumar Yadav, B. Nagamani Jaya, Dheepa Srinivasan	Fracture and Fatigue Properties of Additively Manufactured Mar-M 509	1300
				1235-1245	Bhaskar Shukla, Lavudya Naresh and G. Raju	Experimental studies of CFRP laminates under repetitive low-velocity impact loading	5062
				1245-1255			
9.4	C1: Prof. Suriya Prakash, IIT Hyderabad	Civil	C-LH4	1115-1145	Keynote: Prof. Mahendra Kumar Madhavan, IIT Hyderabad	Design Shear Strength of the Welded and Bolted Cold-Formed Steel Clip-Angle Connection	
				1145-1205	Invited: R Preetha, IGCAR	Structural safety assessment and ageing management of important nuclear facilities	
				1205-1225	Invited: Shakir Rather, IITD	Operational Modal Identification Using Bayesian Approach	
				1225-1235	G. Tamizharasi, Abhishek Mandala, Dheeraj Gashikanti, and Parth Suthar	Effect of H-shaped Plan Geometry on Lateral-Torsional Response of Buildings under Earthquake Shaking – An Elastic Study	341
				1235-1245	K. Bavithra Devi , Dinesh Kumar. M, C. Umarani	Blended Binder Geopolymer Concrete: The-Current-State Of-Art	2324
				1245-1255	Varsha P, C.S. Manohar	Seismic Fragility Analysis of Dam-Reservoir System by Including Spatial Variability of Ground Motion	8005
9.5		Manufacturing processes	C-LH9	1115-1145	Keynote: Vijay Petley, GTRE	Material Joining – Aero Engine Perspective	
				1145-1205	Invited: Gopinath M, IIT Hyderabad	Laser-Material Interaction in Laser Directed Energy Deposition	
				1205-1225	Invited: Anurup Datta, IITH	Laser Based Advanced Manufacturing: Applications in Nanofabrication and Subwavelength Patterning	
				1225-1235	Pooja Verma, Gayatri Paul, Joyjeet Ghose, Vijay Pandey	Mechanical and Tribological Properties of Al/n-Al2O3 Composites Processed by Combined Stir-Ultrasonic-Squeeze Casting	829
				1235-1245	Sachin Kumar, Praveen Kumar , Sanjay Sampath , Vikram Jayaram	Study of Thermo-Mechanical Properties of Nicocraly Bond Coats Using Micro-Tensile Samples and 2D-DIC	4834
				1245-1255			
				1115-1145	Keynote: Prof. Venkatesham, IIT Hyderabad	System Integration of Autonomous Passenger Drone	

9.6	Cl: Prof. Rajalakshmi, IIT Hyderabad	Systems Engg.	C-LH10	1145-1205	Invited: Naga Praveen Babu Mannam, TiHAN	Flapping Wing as Wind Energy Device and Aerial Propulsor for Micro/Nano UAVs	
				1205-1225	Invited: Sudhir Kamle, IIT Kanpur	Spatial Load Distribution in Composite Flapping Wing Under Small Deformation	
				1225-1235	Naveen Kumar, Samrat Mandal, Chintamani Mishra and Nirmal Baran Hui	Modelling and Diagnosis of Faults in Deep Groove Ball Bearing	1199
				1235-1245	G Jayabharath Reddy and Maniprakash.S	Analysis of Prestressed Shape Memory Alloy Actuator for Compliance Mechanism	6756
				1245-1255	Arepalli Sri Rama Murty , Prabhakar Sathujoda , and Neelanchali Asija Bhalla	A Systematic Survey on Dynamic Analysis of Functionally Graded rotor systems	9392
		B-Foyer	1300-1400	Lunch			
Plenary-6			Auditorium-A	1400-1445	Prof. K. Ravi-Chandar, Univ. Texas, Austin. Nucleation of cracks in elastomers.	Nucleation of Cracks in Elastomers	
			Auditorium-A	1445-1455	Premium Marketing		
10.1		Advanced Manufacturing	C-LH2	1500-1530	Keynote: Bernard Rolfe, Deakin Univ.	On Smooth Topological Design Using SEMDOT	
				1530-1550	Invited: Atul Jain, IITKGP	All Mean Field Homogenization Methods are Approximate: Some might be Useful	
				1550-1610	Invited: Aryendra, IITH	Processing Induced Residual Stresses on the Efficacy of Laser Shock Peening- Numerical Study	
				1610-1620	Mohd Firasath Ali, Syed Azeem Pasha	Wear Behavior of MWCNT Reinforced Aluminum Metal Matrix Composite Fabricated Through FSP on Vertical Milling Machine	4937
10.2		SHM/NDT	C-LH3	1500-1520	Invited: Karupannan, CSIR	Non-Destructive Evaluation of Secondary Bonded Composite Joints	
				1520-1530	Aishwarya Banerjee, Arpita Mukherjee	Discrimination of Acoustic Emission Signals Generated from Different Sources using Support Vector Machine	3961
				1530-1540	Thulsiram Gantala, Krishnan Balasubramaniam	Ultrasound Wave Dynamics Modeling Using Data-Driven Simulation-Assisted-Physics Learned AI Network	784
10.3		Fracture	C-LH5	1500-1530	Sivaramanivas, GE Bangalore	Digital Twin for remaining life assesment studies	
				1530-1550	Invited: Gaurav Kishore, NIT Surat	Microstructural and Mechanical properties of wire arc additively Manufactured aerospace alloys- State of Art	
				1550-1600	Samiksha Moharana, Gnanamoorthy R, Yuichi Otsuka	Damage Assessment in Coated Femoral Stem Using Numerical Analysis	1296
				1600-1610	P. J. Saikia , M. Kumar , N. Muthu	The Effect of Hydroxyl Functionalized MWCNTs on the Interlaminar Fracture Toughness of Basalt Fiber Reinforced Epoxy Composite	9622
10.4		Civil	C-LH4	1500-1520	Invited: Shwetabh Yadav, IITH	In Situ Analysis of Large Strain Deformation in Metals Across Range of Strain Rates	
				1520-1530	Vadiraj Rao N R , Avinash R, Ritu N S, R Anusha, Mohammad Saad Shaikh	An insight into Hydrological and Geotechnical Characteristics on Landslide Susceptibility at Selected Locations of Chamundi Hill, Mysuru	2383
				1530-1540	Chandan Bharti and Debraj Ghosh	A New Reduced Order Model of Soil-Structure Interaction Problem Using Deep Learning	8354
				1540-1550	Smita Singh , Anil Agarwal	Study of Fire Resistance of Concrete Filled Steel Tubular Columns Exposed to Non-Uniform Heating	4273
10.5		Mechanical Behaviour	C-LH9	1500-1520	Invited: G V Prasad Reddy, IGCAR	Creep Deformation and Constitutive Modelling of 316LN SS with Varying Nitrogen Content	
				1520-1540	Invited: Sasidhar Potukuchi, IIT Hyderabad	Mode Shape Characterization in Hydrogels	
				1540-1550	Vivek Joshi, Sahil Kalra	A Concise Review on Auxetic Materials, Structure and their Engineering Applications	4645
				1550-1600	B. Karthikeyan, Narayan K. Sundaram	Punch Indentation of Metallic Cellular Solids	5308
10.6	Cl: Prof. Venkatesham, IIT Hyderabad	Systems Engg.	C-LH10	1500-1520	Invited: R Suresh Kumar and S. Raghupathy, IGCAR	Prototype component tests towards engineering life assesment	
				1520-1540	Invited: Raghuram Kartik Desu, NIT Trichy	Adaptive DOE using Bayesian Optimization	
				1540-1600	Invited: Jagan Mohan P., Mahindra Univ.	DEM Study of Effect of Boundary Conditions on Failure of Dense Granular Material	
				1600-1610	Suyog Mestry, Nathan D'Souza, Soham Limaye , Nilesh Raykar	Design of a novel timing belt-coupled synchronous span morphing mechanism	5721
		Auditorium-A	1610-1630	Closing Ceremony			
		A-Foyer	1630	High-Tea			
End of SICE-2022							