

Programme Schedule*

(*Subject to Completion of Registration Formalities by the Participants)

Day 1: 25th July 2018

0800-0900	Registration	Reception, Convention Centre
0900-0930	Inauguration	Convention Centre, Hotel Marriott
0930-1300	Keynote & Plenary Lectures	
Chairman: Ashok Saxena, University of Arkansas, USA		
Session Coordinator: Mithun Palit, DMRL		
0930-1012	Keynote Lecture: Aero-Structural Solutions for the 2nd Century of Flight: Challenges & Opportunities Ravinder Chona , Air Force Research Laboratory, USA	
1012-1049	Plenary Lecture 1: Low Cycle Fatigue of Alloys in Hot Section Components: Progress in Life Assessment Luc Remy , Paris-MinesTech, France	
1049-1109	Tea	
Chairman: R Sunder, BiSS, Bangalore		
Session Coordinator: N Chittibabu, DMRL		
1109-1146	Plenary Lecture 2: Practical Fatigue Strength Prediction of Ductile Cast Iron Masahiro Endo , Fukoka University, Japan	
1146-1223	Plenary Lecture 3: Novel Sensor Technologies and Damage Detection Methodologies for Structural Health Monitoring S Gopalakrishnan , Indian Institute of Science, Bangalore	
1223-1300	Plenary Lecture 4: Scaling and fractality in fatigue crack growth: Implications to Paris and Woehler approaches Alberto Carpenteri , Politecnico di Torino, Italy	
1300-1400	Lunch	
1400-1430	Opening of Exhibition (Guest of Honour*) Opening of Poster Session (Guest of Honour*)	
	1	A Comparative Design Study of Front Pressure Bulkhead with Different Structural Arrangement Subjected to Ultimate Cabin Pressure Using Finite Element Techniques M . Harshitha , J. Raju, M S Narendra and Purushotham G Saravade Manipal Institute of Technology
	2	A comparative study of electromagnetic radiation response from soft PZTs under impact loading Sumeet Kumar Sharma , Ashok Kumar Sivarathri and Vishal S Chauhan Indian Institute of Technology Mandi
	3	A novel, multi-component, multi-phase AlCuTaVW alloy with high hardness and fracture toughness Ramya Sree Ganji , Rajesh Bura, P.V.V. Srinivas and K. Bhanu Sankara Rao Koteswararao V. Rajulapati University of Hyderabad, Hyderabad
	4	A Scientometric Dimensional analysis of Nickel Base Superalloys Research during 1998-2017 Biswajit Mohapatra , S Shashi Nath Defence Metallurgical Research Laboratory

5	A State-of-the-Art Review: On System Identification of the Base Isolated Structures R.B.Malathy , U.K. Dewangan and Govardhan Bhat National Institute of Technology Raipur
6	An Overall Aspects of Electroless Ni-P based micro and nano Composite coatings-A Review Souvik Brahma Hota and Rajsekhar Chakrabarti Techno India University, West Bengal
7	Analysis of Irregular Structures Under Earthquake Loads E . Siva Naveen , Nimmy Mariam Abraham and S D Anitha Kumari M S Ramaiah Univeristy of Applied Sciences, Bangalore
8	Comparative Study on Dynamic Response of Fixed Base and Base Isolated Building Frame Manoj Dhakar and Govardhan Bhatt National Intitute of Technology Raipur
9	Computational study of Air flow through Gas Turbine Engine Test Cell T. M. Shivakumara , Sunil Chandel and Amit Kumar Defence Institute of Advanced Technology, Pune
10	Corrosion and tribocorrosion of ultrafine grained active-passive metals in simulated body fluids G.P. Chaudhari , M. Divya and Kumar Subham Indian Institute of Technology Roorkee
11	Displacement and Stress Distribution for an Annular Disk with Continuously Varying Temperature Manoj Sahni and Partha Mehta Pandit Deendayal Petroleum University, Gandhinagar
12	Effect of chemo-mechanical coupling on crack propagation in an elastic body using phase field method Hirshikesh , Ratna Kumar Annabattula and Sundararajan Natarajan, Indian Institute of Technology Madras
13	Effect of constraint and hardening on crack tip fields in FCC single crystal Nipal Deka and Krishna N. Jonnalagadda Indian Institute of Technology Bombay
14	Effect of Crack Length and Specimen Thickness on Constraint in Centre Cracked Plate: A Numerical Analysis Nagaraj Ekabote , Abdul Khader Katigar, Sanjeev Kavale and Krishnaraja G Kodancha KLE Technological University, Hubballi, Karnataka
15	Effect of fibre off axis orientation on mechanical and acoustic emission behaviour of 2.5 D C/SiC composite Manish Patel , Jalaj Kumar, Phani S. Kiran, T. Jayakumar, Sweetly Kumari, Sarabjit Singh, A. Udayakuma, V.V. Bhanu Prasad, D.V.V. Satyanarayana and Vikas Kumar Defence Metallurgical Research Laboratory, Hyderabad

16	Effect of micro-alloying on mechanical properties of Al-Zn-Mg-Cu alloy: A review Rahul Samanta and Amitava Ghatak Techno India University, West Bengal
17	Effect of primary α phase fraction on tensile behavior of IMI 834 alloy Amit Singh , I. Balasundar, J.P. Gautam and T.Raghu Department of materials Engg. School of Engineering Science and Technology, University of Hyderabad, Hyderabad
18	Effect of Shape of Explosive Charge in Failure of Rolled Homogenous Armoured Plate Pankaj K. Choudha , A. Kumaraswamy, GG Dutta and Kusumkant D. Dhote Armament Research and Development Establishment, ARDE, Pune
19	Effect of soaking time on evolution of microstructure and hardness during annealing of H13 steel M.Haritha , G. Ramesh Rajiv Gandhi University of Knowledge Technologies, RK Valley, AP
20	Effect of strain gradients in crack propagation B V S S Bharadwaja and A. Alankar Indian Institute of Technology Bombay
21	Effect of Strain induced martensite reversal on the degree of sensitization of Metastable Austenitic Stainless Steel Sourabh Shukla and Awanikumar P. Patil Visvesvaraya National Institute of Technology, Nagpur
22	Effect of thickness on behaviour of E-glass/epoxy composite laminates under low velocity impact T Sreekantha Reddy , K Mogulanna, K Gopinadha Reddy, P Rama Subba Reddy and Vemuri Madhu Defence Metallurgical Research Laboratory, Hyderabad
23	Electrical Impedance of Hardened Cement Mortar at Low Radio Frequencies for Estimation of Moisture Saturation Conditions Gopinandan Dey , Abhijit Ganguli and Bishwajit Bhattacharjee Indian Institute of Technology Delhi
24	Evaluating stress corrosion cracking behaviour of stir zone of friction stir welded 7075-T651 aluminum alloy joints P.Prabhuraj , S.Rajakumar and V.Balasubramanian Annamalai University
25	Experimental Determination of Apparent Fracture Toughness (KINu) for Aluminum Sheets Mahendra Gattu and Bishnupriya Dehuri, National Institute of Technology, Rourkela
26	Failure Analysis Of Anti Jamming Lever Cap Sai Madhav and Satyapal Singh Defence Metallurgical Research Laboratory, Hyderabad

27	Fatigue Analysis of Wing-Fuselage Lug section of a Transport Aircraft K. Shridhar , B. S. Suresh and M. Mohan Kumar. BMS college of engineering, Bengaluru
28	Finite Element Analysis of Periodic Metallic Foams Ankush Borkar , Sagar Deshmukh, Sripriya Ramamoorthy, Alankar Alankar and Shankar Krishnan Indian Institute of Technology Bombay
29	Hierarchical multiscale modeling of crystalline Materials using computational tools: A case study on Titanium T. Chaitanya Sagar and CH. Viswanath Indian Institute of Technology Hyderabad
30	Influence of crack closing and local near-tip stresses on crack growth life estimation A.N Savkin , R. Sunder, D.S. Denisevich ,A.A. Sedov and K.A. Badikov Volgograd State Technical University, Russia
31	In-situ Study of the Effect of Hydrogen on Fatigue Crack Initiation and Propagation in Polycrystalline Nickel Aman Arora , J. Sai Nitin, Rakesh Kumar and Dhiraj K. Mahajan Indian Institute of Technology Ropar
32	Mechanical Properties of Amorphous Ribbons Processed by Melt Spinning V L Niranjani , D Arvindha Babu, Bhaskar Majumdar and T K Nandy Defence Metallurgical Research laboratory, Hyderabad
33	Mechanical properties of fine grained equiatomic CrCoFeNiMn high-entropy alloy Abhijit ; P. Sai Karthik and K. V. Rajulapati University of Hyderabad, Hyderabad
34	Metallurgical Evaluation of Service Exposed Thrust Vector Control (TVC) Flaps of Aeroengines Sweety Kumari , Rajdeep Sarkar, N Chitti Babu, B V N Siva, D V V Satyanarayana and Vikas Kumar Defence Metallurgical Research Laboratory, Hyderabad
35	Metallurgical failure analysis of components used in defence systems Mrityunjoy Hazra and Satyapal Singh Defence Metallurgical Research Laboratory, Hyderabad
36	Microstructure and mechanical properties correlation of weld joints of a high strength naval grade steel P D Gosavi , K K Sarkar, S K Khunte, V R Pawar and B Basu Naval Materials Research Laboratory, Ambernath

37	Microstructure and Mechanical Properties of Hot Isostatically Processed High Strength Nickel Base Superalloy B. Sreenu , CM. Omprakash, Rajdeep Sarkar, Subhradeep Chatterjee and G. Appa Rao Defence Metallurgical Research Laboratory, Hyderabad
38	Modelling and Simulation of Fatigue Failure in Bolted Joint under Different Loading Condition Vishal Achwal and Manoj Chouksey Mewar University, Chittorgarh
39	Modeling Diagnosis Processes of Layered Composite Materials I.P. Miroshnichenko and I.A. Parinov Don State Technical University, Russia
40	Multi frequency ACPD technique for creep damage measurements in DS CM 247 alloy C.M. Omprakash ; A.Kumara, Vajender Singha, M. Kamarajb and D.V.V. Satyanarayanaa Defence Metallurgical Research Laboratory, Hyderabad
41	Non-Destructive Evaluation Of Friction Stir Welded Dissimilar Aluminium Alloys Adirae Dinesh Mahatma Gandhi Institute of Technology, Hyderabad
42	Numerical Investigation on Plastic Hinge Relocation of Reinforced Beam Column Joint Retrofitted with FRP V. Balaji , Daniel Yumnam and Dr. H. M. Rajashekhar Swamy M S Ramaiah University of Applied Sciences, Bangalore
43	Numerical Simulation of Multiple Gear Faults and its effect on a Planetary Gearbox Dynamics K.B Harish , Nithin Venakataram, M. Rahul, Cadambi and Arun R Rao M S Ramaiah University of Applied Sciences, Bangalore
44	Numerical study of the effect of ceramic specimen shape in the Kolsky bar experiments J. Venkatesan , M. A. Iqbal and V. Madhu Indian Institute of Technology Roorkee
45	On the structural and microstructural aspects of equiatomic AlCrCoFeMoNi high-entropy alloy Samanwitha Kolli , K. Bhanu Sankara Rao and Koteswararao V. Rajulapati School of Engineering Sciences and Technology, University of Hyderabad
46	Performance Enhancement of Columns by External FRP Strengthening Technique – A Review Darshan Patel , Purvesh Patel, Tejash Patel, Mitali Patel, Tejendra Tank and Sandip Vasanwala Merchant Institute of Technology, Mehsana

47	Quantifying the Residual Strength of Ti-Alloy 834 at 600°C with Nonlinear Ultrasonic NDT Technique B. Nagaraja Kowmudi , Kartik Prasad, K. Gopinath and Vikas Kumar Defence Metallurgical Research Laboratory, Hyderabad
48	Role of Mechanical Loads on the Corrosion Behavior of Mild-Steel and AE-44 Structural Joint I.Adlakha , B. Gholami, N.C. Muthegowda and K.N. Solanki Indian Institute of Technology Madras
49	Seismic Performance of Direct Displacement Based Design Method for Reinforced Concrete Frame Structures Anurag Sharma , R.K Tripathi and Govardhan Bhat National Institute of Technology, Raipur
50	Stereomicroscopic Analysis of Fracture Surfaces of Cold Drawn Steel Wires S. S. Bargujer , Vikas Dagar and Pankaj chandna Ordnance Cable Factory (OFB), Chandigarh
51	Strain rate sensitivity and RT creep behavior of friction stir welded and electron beam welded IN-RAFM steels J. Varghese , V. L. Manugula, K. V. Rajulapati, G. M. Reddy and K. Bhanu Sankara Rao University of Hyderabad, Hyderabad
52	Structural Parameter Identification And Amending Using Computational Intelligence Techniques Amruth Raj, H M Rajashekhar Swamy and Abhishek Pulgur M S Ramaiah University of Applied Sciences, Bangalore
53	Study of Material Anisotropy on Elastic and Elasto Plastic Behavior of flat Specimens Ramesh Kumar , Ritu J. Singh, J. Mishra, V. Balasubramaniyan and H. S. Kushwaha Atomic Energy Regulatory board, Mumbai
54	Synthesis and characterization of equiatomic AlCrFeMoNbNi high entropy alloy for structural applications V Madhu Babu , K. Bhanu Sankara Rao and Koteswararao V. Rajulapti School of Engineering Sciences and Technology, University of Hyderabad
55	Synthesis and optimization of Steering mechanism of extra-long semi-trailer vehicle to improve its structural integrity. Vikrant Garud , Abhijit Kulkarni, Rushikesh Nanaware and Pravin Karunanithi Pimpri Chinchwad College of Engineering, Pune
56	System Identification and Finite Element Updating using Artificial Neural Network and Genetic Algorithm S.A Amruth Raj , H.M. Rajashekhar Swamy and Abhishek Pulgur M S Ramaiah University of Applied Sciences, Bangalore

	57	Torsional Behavior of Reinforced Concrete Under Combined Loading: A Systematic Review Atul Patane and Gaurang Vesmawala Sardar Vallabhbhai National Institute of Technology, Surat
	58	Ultrasonic Testing an Alternative for Radiography for Evaluation of PFBR Blanket Pin End Plug Weld Integrity Altaf Ali , Anish Kumar, B. Kamalesh Kumar, YRC Murthy, B. Ravinder, Komal Kapoor and C. Phani Babu Nuclear Fuel Complex, Hyderabad
	59	Use of Compression Geometry to Study Effects of Stoichiometry and Temperature on Fracture Toughness of NiAl Devi Lal , Praveen Kumar and Vikram Jayaram Indian Institute of Science, Bangalore
	60	Weight Optimization of Housing Bracket for Electrical Starter Motor using FEA Varatharaj Neelakandan , Thulasirajan Ganesan and Praveen Chakrapani Rao Comstar Automotive Technologies Pvt. Ltd
Plenary Session		Convention Centre, Marriott
1430-1544	Chairman: Vikram Jayaram , Indian Institute of Science, Bangalore Session Coordinator: Mahesh Kumar Kumawat, DMRL	
1430-1507	Plenary Lecture 5: Fatigue life assessment based on microstructure-controlled propagation of short fatigue cracks, H.-J. Christ , University of Siegen, Germany	
1507-1544	Plenary Lecture 6: Challenges in Predicting Crack Growth in Structures Operating in Extreme Environments Ashok Saxena , University of Arkansas, USA	
1544-1600	Tea	
Six Parallel Technical Sessions		
Hall A: Turquoise		
Session 1A: Structural Integrity I		
Chairman: G Madhusudhan Reddy, DMRL Session Coordinator: C M Omprakash, DMRL		
1600-1627	Invited Talk: Role of stress state on the structural integrity of welded structures S Suresh , PSG college of Technology, Coimbatore	
1627-1639	Lecture by Buehler India, Session Sponsor	
1639-1651	Laser Hybrid welding of Inconel 617 for Advanced Ultra Super Critical Boiler (A-USC) Applications Mohd Aqeel , G. Padmanabham, K.V. Phani Prabhakar and J.P. Gautam International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad	
1651-1703	Estimation of residual stresses developed in SS 304L / Zr-2.5%Nb joints V. Srikanth and A. Laik Bhabha Atomic Research Centre, Bombay	
1703-1715	Structural Integrity Assessment of a Propellant tank in presence of Welding Residual Stresses V. Viswanath , A. K. Asraff, P. Jayesh, Suresh Mathew Thoma, Krishna Kumar and R. Muthukumar Indian Space Research Organisation, Thiruvananthapuram	
1715-1727	Numerical study on the residual stress distributions in GTA welded dissimilar metal components	

	Ch. Vijay Sai , K Satish. Velaga, Biswanath Sen, B.P.C. Rao and A. Ravisankar Indira Gandhi Centre for Atomic Research, Kalpakkam
1727-1739	Characteristics of Strain-Induced Martensitic Transformation in Welded Joints with the Structure of Metastable Austenite Yu. Korobov , O. Pimenova, M. Filippov, M. Chadiev, N. Ozerets, S. Mikchailov, S. Morozov, Yu. Davidov and M. Razikov Ural Federal University, Russia
1739-1751	Microstructural evolution of brazed Ti joint using Ti ₂₀ Zr ₂₀ Cu ₅₀ Ni ₁₀ metallic glass ribbon as filler P. Rama Rao , Bhaskar Majumdar, K. Anil Bhatnagar and K. Muraleedharan CSIR-CGCRI, Kolkata
1751-1803	The effect of graphite size on tensile properties and hydrogen storage capability of ferritic ductile cast iron Takuya Yoshimoto , Takashi Matsuo and Tomohiro Ikeda Fukuoka University, Japan
1803-1815	Surface Modification Studies on ZrB ₂ -20v/oSiC-1w/oB ₄ C-0.1w/oCf Composite Jiten Das , J Janardhana Reddy, V Srinivas, Manish Tak and V V Bhanu Prasad Defence Metallurgical Research Laboratory, Hyderabad
1815-1827	Failure Analysis of Metallic Armoured Electro-Optic Mechanical Cables In Underwater Towed Sonar Systems V.Kiran Govind , N. Anshath Hussain, V.P Gopalakrishnan Nair and M.Sabu Sebastian Naval Physical and Oceanographic Laboratory, Kochi
Hall B: Jade	
Session 1B: Composite Materials and Structures- I	
Chairman: V V Bhanu Prasad, DMRL	
Session Coordinator: M L V Mahesh, DMRL	
1600-1627	Invited Talk: Fracture Toughness and Strength of the Interface of an Intrinsic Hybrid Laminate Robert Brandt , University of Siegen, Germany
1627-1639	Quasi-static compression behavior of glass filled epoxy composites Sarthak S. Singh , P. Chakraborty and R. Kitey Indian Institute of Technology Kanpur
1639-1651	Development of In-house Unidirectional Carbon/epoxy Prepregs and its Characterization for Aerospace Applications P. R. Krishna Mohan , M Anil Kumar, Sivagoutham Kumar and P. M. Mohite Indian Institute of Technology Kanpur
1651-1703	In-Situ 3-Axis Defect Growth Scanner for CFRP Composites Subject to Testing Under Static and Cyclic Loading K. Ramesh , H. Mahesh, M. Murali, H.P. Chandru, A. Somayya and R. Sunder Bangalore Integrated System Solutions Pvt. Ltd, Bangalore
1703-1715	Evaluation of Fracture Toughness of Al ₆ O ₈ 2-Al ₂ O ₃ /Al ₂ SiO ₅ Metal Matrix composites using Taguchi Method Puneeth N , Satheesh J, G J Naveen, Satyajeet Malla and Suraj S Tendulkar Vivekananda College of Engineering and Technology, Puttur
1715-1727	Effect of specimen width and crack length on the fracture properties of glass/epoxy laminated composites A.Satyanarayana and M.Gattu National Institute of Technology, Rourkela
1727-1739	Mixed-mode cohesive law estimation of composite joints made of toughened epoxy adhesive Mohd Tauheed and Naresh. V. Datla Indian Institute of Technology Delhi
1739-1751	Matrix cracking in polymer matrix composite under bi-axial loading

	N Jagannathan , S Gururaja and CM Manjunatha CSIR-National Aerospace Laboratories, Bangalore
1751-1803	Comparative Study of the Behaviour of CFRP and GFRP Laminates in a plate specimen using modified virtual crack closure technique (MVCCT) Shubha Javagal , J. Raju and Katta Venkataramana National Institute of Technology Karnataka, Surathkal
1803-1815	Designing the interphase in carbon fiber polymer composites using carbon nanotubes Harpreet Singh Bedi and Prabhat K. Agnihotri Indian Institute of Technology Ropar
	Hall C: Opal
	Session 1C: Structural Health Monitoring
Chairman: S Gopalakrishnan, IISc, Bangalore	
Session Coordinator: M Phani Surya Kiran, DMRL	
1600-1627	Invited Talk: Condition Monitoring of Metals and Fiber Reinforced Polymer Composites under Fatigue by Optical and Acoustic Means Sergey Panin , Institute of Physics of Strength of Materials, Russia
1627-1639	IoT Enabled Wireless Digital Data Acquisition and Warning Systems for Civil Structures Abdul Rehman Iftekhar , S A Amruth Raj, H P Deekshith Gowda, P Manjunath, H.M. Rajashekhar Swamy and Mr. Manish Haveri M S Ramaiah University of Applied Sciences, Bangalore
1639-1651	Integrated Vibro-Acoustic analysis and Empirical Mode Decomposition for fault diagnosis of gears in a wind turbine Vamsi Inturi , G R Sabareesh and Vaibhav Sharma BITS Pilani, Hyderabad campus
1651-1703	Development of Wireless Structural Health Monitoring for Aero Engine Test Stand Structure Srinivasan and Tushar Padwale Aeronautical Development Agency, DRDO, Bangalore
1703-1715	Strain Based Health Monitoring for Flutter Investigation in LP Compressor of Developmental Aero Engine Using High Speed Rotating Telemetry System. S. Gangabhavani , K. Banumathy, Owais Majid Kamili, K .Vishwanath and J. Chitra Gas Turbine Research Establishment, DRDO, Bangalore
1715-1727	Structural Health Monitoring of Existing Structures using Wavelet Transform Technique Nitesh Jain and S C Mohan BITS Pilani, Hyderabad
1727-1739	Detection of subtle damage in structures through smart signal reconstruction K. Lakshmi and A. Rama Mohan Rao CSIR-Structural Engineering Research Centre
1739-1751	Condition Monitoring and Structural Health of ageing in INCONEL- 718 G.V.S.Murthy CSIR- National Metallurgical Laboratory, Jamshedpur
1751-1803	High Frequency Dynamic Magnetic Shape Memory Alloy Responses Krishnendu Haldar Indian Institute of Technology Bombay
	Hall D: Amber
	Session 1D: Oxidation and Corrosion Resistant Coatings
Chairman: Dipak Kumar Das, DMRL	
Session Coordinator: Md. Zafir Alam, DMRL	
1600-1627	Invited Talk: Thermal Barrier Coatings Lifetime Assessment Vincent Maurel , Mines ParisTech, France

1627-1652	Invited Talk: Role of Phase Stability in durability of Zirconia Thermal Barrier materials A S Gandhi , Indian Institute of Technology Bombay
1652-1704	Performance of glass-ceramics as bond coat in thermal barrier coating (TBC) system Sumana Ghosh CSIR-Central Glass & Ceramic Research Institute
1704-1716	Development of new TBC materials with enhanced CMAS infiltration resistance through atmospheric plasma spraying G. Sivakumar International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad
1716-1728	Frictional contact and wear along virtual interfaces Basava R. Akula Mines Paristech Paris, France
1728-1740	Surface Alloying of Titanium Di-boride (TiB ₂) and Silicon Carbide (SiC) on Aluminium Al 5052 using Electric Discharge Processing Sandeep Das , Randhir Kumar Raman, N. Devarani and Shrikrishna N. Joshi Indian Institute of Technology Guwahati
1740-1754	Influence of substrate properties on the deformation behavior of TiN coating under cyclic impact testing P Suresh Babu , M Susmitha Srikantha, V Krishna, L Venkatesh, G Ravi Chandra and D Srinivasa Rao International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad
1754-1806	High speed nanomechanical property mapping of thermal barrier coating B. Vignesh , P. Sudharshan Phani and G. Siva Kumar International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad
1806-1818	Influence of Shot Peening Parameters on Surface Properties of Ti-6Al-4V Using Taguchi Technique R.K. Kumar, P. SampathKumaran, S. Seetharamu, S. Anand Kumar, T. Pramod and G.J. Naveen Indian Institute of Technology Jammu
1818-1832	High temperature corrosion studies on bare and Ni-20%Cr coated Inconel 825 super alloy in Na ₂ SO ₄ -V ₂ O ₅ environment at 900°C S.M. Muthu, D.Raghul, N.Arivazhagan and M.Arivarasu Vellore Institute of Technology, Vellore
1832-1844	Hot corrosion study of bare and Pt-aluminide (PtAl) coated Ni-base superalloy CM247LC Mahesh K. Kumawat , Md. Zafir Alam and Dipak K. Das Defence Metallurgical Research Laboratory, Hyderabad
	Hall E: Coral
	Session 1 E: Fatigue and Fracture- I
	Chairman: S V Kamat, DRDO Session Coordinator: Atul Kumar, DMRL
1600-1627	Invited Talk: Effects of Vacuum-like Environment on Small Internal Crack Growth Processes in Very High Cycle Fatigue Takashi Nakamura , Hokkaido University, Sapporo, Japan
1627-1639	Influence of retrogression and re-ageing heat treatment on the fatigue crack growth behavior of 7010 aluminum alloy M S Nandana , K Udaya Bhat and C M Manjunatha National Institute of Technology, Surathkal
1639-1651	Effect of hydrogen on short crack propagation in SA508 Gr.3 Cl.I low alloy steel under cyclic loading

	Rajwinder Singh , Amanjot Singh, Pawan K. Singh and Dhiraj K. Mahajan Indian Institute of Technology Ropar
1651-1703	Interlaminar fracture toughness of short fiber reinforced GFRP laminates K. Chawla , S. Raychaudhuri and R. Kitey Indian Institute of Technology Kanpur
1703-1715	Effect of notch orientation on fracture behaviour of textured Zr-2.5Nb material Priti Kotak Shah , Ashwini Kumar, B. N. Rath and J. S. Dubey Bhabha Atomic Research Centre, Mumbai
1715-1727	Proposal of new η factor equation for evaluation of J-integral of shallow cracked CT and TPB specimen considering R-O material strain hardening Deeprodyuti Sen and J. Chattopadhyay Bhabha Atomic Research Centre, Mumbai
1727-1739	Determination of J-initiation toughness using pre-cracked small punch test specimens Taslim Shikalgar ; B. K. Dutta and J. Chattopadhyay Homi Bhabha National Institute, Mumbai
1739-1751	A Generalization of Neuber's Rule for the Assessment of Local Stresses and Strains in Stress Concentration Zones for a Wide Range of Applied Strains Nikolay A. Makhutov and Dmitry O. Reznikov Mechanical Engineering Research Institute. Russian Academy of Sciences, Russia
1751-1803	Crack size dependency of shear-mode fatigue threshold in bearing steel subjected to continuous hydrogen charging Y. Akaki , T Matsuo, Y. Nishimura and S. Miyakawa Fukuoka University, Japan
1803-1815	A new semi-analytical approach for obtaining crack-tip stress distributions under variable-amplitude loading A.N Savkin , Denisevich D.S, K.A Badikov and A.A Sedov Volgograd State Technical University, Russia
	Hall F: Topaz
	Session 1F: Fatigue and Fracture – II
Chairman: N Eswara Prasad, DMSRDE	
Session Coordinator: V L Niranjani, DMRL	
1600-1627	Invited Talk: Deformation and damage mechanisms under thermomechanical fatigue of type 316LN austenitic stainless steel and its welds Nagesha A , Indira Gandhi Centre for Atomic Research, Kalpakkam
1627-1639	Experimental and numerical investigations of low cycle fatigue behavior of cryorolled AA 5754 Pankaj Kumar and Akhilendra Singh Indian Institute of Technology Patna
1639-1651	Effect of hold time on fatigue behaviour of Alloy 617M Sunil Goyal , K. Mariappan, Vani Shankar, R. Sandhya, S. K. Albert, K. Laha and K. Bhaduri Indira Gandhi Centre for Atomic Research, Kalpakkam
1651-1703	Influence of fretting on fatigue strength of modified 9Cr-1Mo steel V. Shiva ; Sunil Goyal, R. Kannan, R. Sandhya and A. K. Bhaduri Indira Gandhi Centre for Atomic Research, Kalpakkam
1703-1715	Evaluation of static, low-cycle fatigue and fracture mechanics properties through miniature specimens H. Ramakrishna and R. Sunder Bangalore Integrated System Solutions Pvt. Ltd., Bangalore
1715-1727	Laser shock peening induced fatigue life of SS316LN stainless steel Pardhu Yella , K. V. Rajulapati, K. Bhanu Sankara Rao, G. Varaprasad Reddy, R. Sandhya and P. Prem Kiran University of Hyderabad, Hyderabad

1727-1739	Effect of Cold Deformation on Pitting Corrosion and Corrosion Fatigue Behavior of Austenitic Stainless Steel in Acidified Chloride medium Poonguzhali and S. Ningshen Indira Gandhi Centre for Atomic Research, Kalpakkam
1739-1751	Fatigue Damage Evaluation of Riveted Joints under Tension - Compression Cyclic Loading with Acoustic Emission Approximate Entropy Approach S. Kalyana Sundaram , V.R. Ranganath and M.R. Bhat CSIR-National Aerospace Laboratories, Bangalore
1751-1803	Cyclic mean stress relaxation behaviour of P91 steel: Experiments and constitutive modelling Bimal Das and Akhilendra Singh Indian Institute of Technology Patna
1803-1815	Fatigue Life Benefits of Cold worked Holes in Fastener Joints L. Chikmath , M.N. Ramanath and B. Dattaguru Jain University, Bengaluru
1815-1827	Effect of Aluminide Coating on Isothermal and Thermomechanical Fatigue Behavior of Near α Titanium Alloy E. Hari Krishna , Kartik Prasad, Chandrakant Parlikar, D. K. Das and Vikas Kumar Defence Metallurgical Research Laboratory, Hyderabad
1845-1930: InSIS Award Distribution & Felicitation of Founder Fellows	
1930-2115: Cultural Programme & Banquet Dinner	

Day 2: 26th July 2018

Plenary Session Hall A: Turquoise	
Chairman: Remy Luc , Paris Mines-Tech, France Session Coordinator: Shahnawaz Ahmed , DMRL	
0900-0937	Plenary Lecture 7: Life assessment in isothermal and thermo-mechanical fatigue of ductile cast iron and metastable austenitic steel based on in-situ measurement of physical properties Tilmann Beck , University of Kaiserslautern, Germany
0937-1014	Plenary Lecture 8: Damage Tolerance based Design Optimisation of Aerospace Structures Raj Das , RMIT University, Australia
1014-1051	Plenary Lecture 9: On the problem of quantitative service life assessment for high-strength steel welded structures under the effect of corrosion medium Alexey V Ilyin , PROMETHEY, Russia
1051-1106	Tea
Six Parallel Technical Sessions	
Hall A: Turquoise	
Session 2A: Composite Materials and Structures – II	
Chairman: Reji John , AFRL Session Coordinator: Vivek K Chandravanshi , DMRL	
1106-1133	Invited Talk: Application of laser spallation technique in composites Rajesh Kittey , Indian Institute of Technology, Kanpur
1133-1145	Synthesis and characterization of reduced 12haviou oxide/RTM6 polymer nanocomposite N Selvakumar , G Ashok, Ramesh Bhojja, N Jagannathan, A. Anil Kumar, CM Manjunatha and H.C. Barshilia CSIR-NAL, Bangalore

1145-1157	Analytical Study of the Effects of Delamination in Glare Fibre-Metal Laminate Using Modified Virtual Crack Closure Technique(MVCCT) H.G Shashidhar Naik and Shubha Javagal Visvesvaraya Technological University, Karnataka
1157-1209	Blast response of Hollow glass (H-glass) fibre reinforced epoxy matrix composites C.Jayarami Reddy , B.Venkataramudu, K.Gopinadha Reddy, G.Seshagiri Rao, Rajesh Kumar and V.Madhu Defence Metallurgical Research Laboratory, Hyderabad
1209-1221	Numerical Simulation for Predicting Low velocity Impact Delamination in Composite Laminate using VCCT approach S.Supreeth and S.B Manjunath Dayananda Sagar College of Engineering, Bangalore
1221-1233	Effect of Filler Functionalization on the Thermo-Mechanical Behaviour of Polypropylene Nanocomposites Vivek Khare , Shubham Srivastava, Sudhir Kamle and G.M. Kamath Indian Institute of Technology Kanpur
1233-1245	Uncertainty Analysis of Fatigue Life Prediction Model for Short Fiber Reinforced Metal Matrix Composites Abhishek Tevatia Netaji Subhas Institute of Technology, New Delhi
1245-1257	Stress Analysis of Composite Rectangular Plate with Central Hole and various End Conditions M.L. Pavan Kishore and Avinash Malladi ICFAI Foundation for Higher Education, Hyderabad
1257-1309	Thermal shock resistance and strength of ZrB ₂ -SiC composite Manish Patel and V V Bhanu Prasad Defence Metallurgical Research Laboratory, Hyderabad
	Hall B: Jade
	Session 2B: Structural Integrity II
Chairman: Kulvir Singh, BHEL (R&D), Hyderabad	
Session Coordinator: Rajdeep Sarkar, DMRL	
1106-1133	Invited Talk: Mechanical Properties of Additively Manufactured Cobalt and Nickel Based Superalloys used in Gas Turbine Hot Gas Path Components Dheepa Srinivasan , Consultant, Additive Technologies and Adjunct Faculty, Indian Institute of Technology Ropar
1133-1145	A testing methodology to evaluate the structural integrity of a high speed transmission system designed for the military application Praveen Kumar , Rajesh Sundrani and Benny Thomas Gas Turbine Research Establishment, DRDO, Hyderabad
1145-1157	Structural Integrity testing on MALE UAV wing module B.Siddappaji , Saugata Tribedi, Rajagopal, V. Sarveswaran, V.Prabhakaran and V.Ashokrangan Aeronautical Development Establishment, DRDO, Bangalore
1157-1209	Tensile testing of Single Fibres Ramesh Babu Adusumalli , Karthik Chethan Venkateshan, Chandrakala Kunchi and R.Surya, Vadlamani BITS Pilani, Hyderabad
1209-1221	Evaluation of Dynamics of Tip Shrouded Turbine Blade of a Developmental Aero Engine using Integrated Test- Analysis Approach Owais Majid Kamili , Reshma Khan, T N Suresh, S.Ganga Bhavani and Thimmaraya Setty Gas Turbine Research Establishment, DRDO, Bangalore
1221-1233	Structural Damage Analysis of Explosive testing Experimental Bay using HEXDAM Modelling Software

	S.Thalapathi Raj , SL Silan and VK Devgan Terminal Ballistics Research Laboratory, DRDO, Chandigarh
1233-1245	Experimental study on shock response of SS-304 circular plates P K Sharma , B. P. Patel, G K Mishra and Rajan Kumar Centre for Fire, Explosive & Environment Safety, DRDO, Delhi
1245-1257	Nonlinear transient simulation of a missile launch from inclined launcher Shaik Ismail , A Prasad Goud, P C Jain and P S R Anjaneyulu Defence Research & Development Laboratory, DRDO, Hyderabad
1257-1309	Numerical Investigation of Modal Parameters for an Airborne System A Karthik , Veerabhadra Reddy, Manoj Kumar and A Linga Murthy Research Center Imarat, DRDO, Hyderabad
Hall C: Opal	
Session 2C: Mechanical Behaviour of Light Alloys and Structural Integrity-III	
Chairman: Amit Bhattacharjee, DMRL	
Session Coordinator: Vivek K Chandravanshi, DMRL	
1106-1133	Invited Talk: Multi-scale Modeling of Fatigue Crack Nucleation in Titanium Alloys Pritam Chakraborty , Indian Institute of Technology, Kanpur
1133-1145	Effect of temperature and cooling rates on the $\alpha+\beta$ morphology of Ti-6Al-4V alloy Afroz Shaikh , Santosh Kumar, Ashish Dawari, Shreyas Kirwai, Atul Patil and Rajkumar Singh Kalyani Centre for Technology & Innovation, Bharat Forge Ltd
1145-1157	High Strain Rate Behaviour of Aluminium produced by Powder Metallurgy Tulsi Chouhan , Hemant Chouhan and Manoj Soni IGDTUW, Delhi
1157-1209	Size Effect in Bending and Indentation of FCC Metals T.Guruprasad , Shantanu Bhattacharya and Sumit Basu Indian Institute of Technology Kanpur
1209-1221	Structural integrity of ultra-fine grain Al-3%Mg alloy under dynamic loading conditions S Chidambaram , S Giribaskar, Gouthama and P. Venkitnarayanan Numaligarh Refinery Limited, India
1221-1233	The Test System in the 'Internet of Things' (IOT) K. Ramesh , A. Somayya and R. Sunder Bangalore Integrated System Solutions Pvt. Ltd, Bangalore
1233-1245	Customer Correlated Durability Tests – One Step towards Reliability Improvement Santosh Gosavi Tata Technologies Ltd, Pune
1245-1257	Load Capacities of Fastener Clusters Kotur S Raghavan Cyient Limited, Hyderabad
1257-1309	A comparison of Shot Peening Vs Laser Peening on a Duplex aged Beta Ti alloy S. Sudhagara Rajan , Geetha Manivasagam, M.NageswaraRao, S. Swaroop and Dheepa Srinivasan Vellore Institute of Technology, Chennai
Hall D: Amber	
Session 2D: Creep deformation, damage and fracture	
Chairman: Ashok Koul, LPTi, Canada	
Session Coordinator: C M Omprakash, DMRL	
1106-1133	Invited Talk: Study of fatigue, creep and fracture behaviour in a newly developed advanced austenitic stainless steel for structural integrity evaluation Guocai Chai , Linköping University, Sweden
1133-1145	Effect of strain gradients on power law creep in bending Syed Idrees Afzal Jalali , Praveen Kumar and Vikram Jayaram Indian Institute of Science, Bangalore

1145-1157	Assessment of creep deformation and rupture behaviour of 304Hcu austenitic stainless steel K. C. Sahoo , Sunil Goyal and K. Laha Homi Bhabha National Institute, Mumbai
1157-1209	Stress rupture studies of V-notched grade 92 steel for high temperature applications Ashish Vaidya , Atul Ballal, Hari Krishan Yadav and Dilip Peshwe Indian Institute of Technology Delhi
1209-1221	Microstructure based creep model for Ni-based gamma prime strengthened Superalloys Adarsh Shukla , Ramkumar Oruganti, Sachin Nalawade, Sanket Sarkar and Sanjay Sondhi GE India, Bangalore
1221-1233	Creep studies of Cold Worked Austenitic Stainless Steel Hari Krishan Yadav , A.R. Ballal, M.M Thawre and V.D. Vijayanand Visvesvaraya National Institute of Technology, Nagpur
1233-1245	A Numerical Study of Creep Crack Growth in an Aero-engine Turbine Disc using XFEM M. Kumar , V.B. Pandey, I.V. Singh, B.K. Mishra, S. Ahmad, A.V. Rao and Vikas Kumar Indian Institute of Technology Roorkee
1245-1257	Predicting non-steady state bending creep behaviour using uniaxial data Priya Goel , Praveen Kumar and Vikram Jayaram Indian Institute of Science, Bangalore

Hall E: Coral

Session 2E: Damage Mechanics, Modelling and Simulation

Chairman: Jean-Leop Strudel, France

Session Coordinator: Jalaj Kumar, DMRL

1106-1133	Invited Talk: The mechanics of evolution of damage in structural materials Soumitra Tarafder , CSIR-National Metallurgical Laboratory, Jamshedpur
1133-1145	An Asynchronous Integration Method for Accelerated Finite Element Analysis Pratik Sarkar and Pritam Chakraborty Indian Institute of Technology Kanpur
1145-1157	Failure analysis of woven composites using hierarchical application of variational asymptotic method unit cell homogenization technique Rajeev G. Nair , T Sundararajan and PJ Guruprasad Department of Aerospace Engineering, Indian Institute of Technology Bombay
1157-1209	Analysis, Modeling and Simulation of Ambient Creep-Fatigue Phenomenon in Ti-6Al-4V Alloy: A Damage Mechanics Approach Jalaj Kumar , S. Ganesh Sundara Raman and Vikas Kumar Defence Metallurgical Research Laboratory, Hyderabad
1209-1221	New insights on the stress intensity factor of edge notched clamped bend specimen Balila Nagamani Jaya and Vikram Jayaram Indian Institute of Technology Bombay
1221-1233	Computational generation of the yield surfaces Mayank Chouksey and Sumit Basu Indian Institute of Technology Kanpur
1233-1245	Implementation of internal-state-variable based model into finite element code and its applicability to study the tensile behaviour of type 316L(N) SS with different notch radii C. Praveen , J. Christopher, V. Ganesan, Vani Shankar and B.K. Choudhary Indira Gandhi Centre for Atomic Research, Kalpakkam
1245-1257	Effect of Annealing on Structural Integrity of Cu-Filled-Through Si Dipali Sonawane and Praveen Kumar Department of Materials Engineering, Indian Institute of Science, Bangalore.

1257-1309	Fatigue Crack Growth Prediction of a Semi-Elliptical Surface Crack in Pressure Vessel using AFGROW Vinay K and S.B Manjunath Dayananda Sagar College of Engineering, Bangalore
1309-1321	Finite Element Modeling and Simulation of Projectile Impact on Ductile Target Sanan H Khan , Md. Quaiyum Ansari, Puneet Mahajan and Shahnawaz Ahmad Indian Institute of Technology Delhi
Hall F: Topaz	
Session 2F: Ceramics, Composites and Functional Materials	
Chairman: T K Nandy, DMRL	
Session Coordinator: G Prabhu, DMRL	
1106-1133	Invited Talk: Structural Integrity of ZrB ₂ -SiC based ultrahigh temperature ceramic composites at high temperatures and extreme environments Rahul Mitra , Indian Institute of Technology, Kharagpur
1133-1145	Application of periodic boundary conditions in estimating the elastic properties of short fiber composites Babu Reddy and Badari Narayana K Visvesvaraya Technological University, Kalaburagi
1145-1157	Buckling and vibrations of FGM circular plates in thermal environment Rahul Saini , Shivam Saini, Roshan Lal and Indra Vir Singh Indian Institute of Technology Roorkee
1157-1209	Geopolymer Composite Reinforced Concrete Beam Strengthened with Hybrid Fiber under Monotonic and Cyclic Loading L.V.Prasad M and Endow Mazumdar National Institute of Technology Silchar
1209-1221	Study on the Low and High Strain Rate Behavior of Fumed Nano Silica Dispersions Neelanchali Asija , Hemant Chouhan, Aisha Ahmed, Kartikeya and Naresh Bhatnagar Indian Institute of Technology Delhi
1221-1233	Modeling of arbitrary electronic constructions for mechanical and thermal effects A.S. Shalumov , E.O. Pershin, M.A. Shalumov and V. Khaldarov Scientific Research Institute ASONIKA, Russia
1233-1245	Fracture Behaviour of p-Aramid and Ultra High Molecular Weight Polyethylene Based Hybrid Composite Arun Kumar Singh , Dharmendra Kumar Shukla and N Eswara Prasad Defence Materials & Stores Res & Dev Establishment, Kanpur
1245-1257	Linear Regression Model to Find the Natural Frequency of Functionally Graded Materials Rushil Awasthi and Mali Kiran Dinkar BITS-Pilani, Goa
1257-1309	Numerical Investigation on Transient Structural Behaviour of Hybrid Honeycomb Structures Using FEA Soumya Ranjan , Tushar Srivastav, M.L.Pavan Kishore and S.Himam Saheb IFHE, Hyderabad
1309-1400	Lunch
1400-1500	Poster Session
Hall A: Turquoise	
Plenary Session	
Session Chairman: Vikas Kumar, DMRL	
Session Coordinator: Jalaj Kumar, DMRL	
1500-1537	Plenary Lecture 10: Probabilistic Simulation of Minimum Life Mechanisms for Component Life Prediction Reji John , Air Force Research Laboratory, USA

1537-1614	Plenary Lecture 11: Structural Integrity, Life Assessment and Monitoring of Gas Turbine Critical Parts B V A Patnaik , Gas Turbine Research Establishment, DRDO
1614-1630	Tea
Six Parallel Technical Sessions	
Hall A: Turquoise	
Session 3 A: Structural Integrity III	
Chairman: V Madhu, DMRL	
Session Coordinator: Bidyapati Mishra, DMRL	
1630-1657	Invited Talk: Structural Health Monitoring of Rocket Motor Casings by Acoustic Emission Testing MRM Babu , Advanced Systems Laboratory, Hyderabad
1657-1709	Development of High Impact Polycarbonate Based Nano-composites for Body Armours & Their High Strain Rate Characterisation Aisha Ahmed , Neelanchali Asija and Naresh Bhatnagar Indian Institute of Technology Delhi
1709-1721	Development of Mounting Bracket for CCS electronic unit of Armoured Fighting Vehicle N.Venkateswaran , S.Senthur Nathan and R.Vinobakrishnan Combat Vehicles Research and Development Establishment, DRDO, Chennai
1721-1733	Landmine blast and occupant response: Effect of hull geometry and add-on sacrificial layer Inderpal Singh Sandhu , Aniket Joshi, Ritesh Goyal, Anindya Deb and Manpreet Singh Vellore Institute of Technology, Chennai
1733-1745	Finite Element Simulation of Armor Steel used for Blast Protection Kartikeya , Sanjay Prasad and Naresh Bhatnagar Indian Institute of Technology Delhi
1745-1757	Design Synthesis and Analysis of loader bucket, boom and linkages for amphibious infantry combat vehicle. Vikrant Garud , Akhilesh Kulkarni, Amit Singh and S. D. Patil Pimpri Chinchwad College of Engineering, Pune
1757-1809	Micro Structural Characterization of CF 8C Alloy and Its Effect on Tensile Properties at Various Temperatures Neeta Paulose , Anuradha Nayak Majila, D.Chandru Fernando and Parthasarathi Hans Gas Turbine Research Establishment, DRDO, Bangalore
1809-1821	Synthesis and Characterization of Submicron Sized Tungsten Heavy Alloy compacts-Processed through Spark Plasma Sintering Technique S. S. Kalyan Kamal , J. Vimala, Bhaskar Majumdar and L. Durai Defence Metallurgical Research Laboratory, Hyderabad
Hall B: Jade	
Session 3B: Materials Development	
Chairman: A K Mukhopadhyay, DMRL	
Session Coordinator: Rajnish Goyal, DMRL	
1630-1657	Invited Talk: Towards Self-reliance in High Temperature Materials for Indian Space Programme Sharad Chandra Sharma , Vikram Sarabhai Space Centre, Trivandrum
1657-1709	Influence of niobium microalloying on the microstructure and mechanical properties of high carbon nano bainitic steel P Ponguru Senthil , K Sudhakara Rao, Hillol Kumar Nandi, Suraj Kumar, S Sankaran, K Siva Kumar and Vemuri Madhu Defence Metallurgical Research Laboratory, Hyderabad

1709-1721	Hot Isostatic Processing of High Temperature Materials: Challenges G. Appa Rao , B. Sreenu and DVV. Satyanarayana Defence Metallurgical Research Laboratory, Hyderabad
1721-1733	Effect of addition of Fly ash and Al ₂ O ₃ particles on mechanical and tribological behavior of Al MMC at varying load, time and speed Vikas Verma , P. C. Tewari, Roshan Zameer Ahamed and Syed Touseef Ahmed LORDS Institute of Engineering and Technology, Hyderabad
1733-1745	Effect of tempering temperature and time on microstructure and mechanical properties of 26MnB5 martensitic steel tubes S Usha Rani and M Preethi Tube Investments of India Ltd, Chennai
1745-1757	Micromechanical Analysis of Effect of Morphology of Graphite in Cast Iron Ujjal Tewary , Alankar Alankar, Goutam Mohapatra, Shyamprasad Karagadde and I. Samajdar John Deere India Pvt. Ltd. Pune
1757-1809	Modelling and experimental verification of a Circular DEA Arpit Srivastava and Sumit Basu Indian Institute of Technology Kanpur
1809-1821	Master Curve of 20MnMoNi55 Steel from Miniature CT Specimens Nevil Martin Jose , J. Chattopadhyay and P. V. Durgaprasad Bhabha Atomic Research Centre, Mumbai
1821-1833	Effect of hygrothermal aging on the interlaminar shear strength of a carbon fiber composite Kishora Shetty , Shylaja Srihari and C M Manjunatha CSIR-NAL, Bangalore
	Hall C: Opal
	Session 3 C: Life Extension of Aeroengine Components & Structures and Structural Integrity IV
Chairman: R K Satpathy, DMRL	
Session Coordinator: N Chittibabu, DMRL	
1630-1657	Invited Lecture: Remaining Life Assessment of Aero-Engine Components-DMRL's Perspectives and Experience A Venugopal Rao, DMRL
1657-1709	Fatigue Life Estimation & Experimental Validation of Air-Borne Structure Subjected to Sine-On- Random Loading K Sreeramulu , A Prasad Goud, P C Jain, P S R Anjaneyulu Defence Research Development Laboratory, DRDO, Hyderabad
1709-1721	Life Extension of UAVs: A Case Study of Indian UAVs Manu Jain , S Rajashekar, V Subramanian, V Maharajan and V Ashok Rangan Aeronautical Development Establishment, DRDO, Bangalore
1721-1733	Behavior of Bolted Joints Subjected to Impact Loads Lakshman Kasina , Satish Ramanadham and Kotur S Ragahavan Cyient Ltd, Hyderabad
1733-1745	Physical Manifestation of a90/95 in Remnant Life Revision Studies of Aero-engine Components Vamsi Krishna Rentala , Phani Mylavarapu, J.P.Gautam, Gp.Capt.B.V.N.Shiva, K Gopinath and Vikas Kumar University of Hyderabad, Hyderabad
1745-1757	Structural Integrity Analysis and Life Estimation of Turbine Rotor Using Vibration Signature as a Tool Shahnawaz Ahmad , Aditya Suman, N S Vyas, BVN Shiva, A Venugopal Rao, DVV Satyanarayana and Vikas Kumar Defence Metallurgical Research Laboratory, Hyderabad

1757-1809	Dynamic Load Calibration of a Fatigue Test System N. Shivakumar , A. Somayya and R. Sunder Bangalore Integrated System Solutions Pvt. Ltd, Bangalore
1809-1821	Development of a direct current potential drop system for measurement of specimen crack growth measurement D. Rohit , H. Mahesh, Ramesh, M. Murali and R. Sunder Bangalore Integrated System Solutions Pvt. Ltd., Bangalore
1821-1833	Structural Integrity assessment of Pressure Vessel during in-situ repair work Manish U Sonar and Ravi D Mahatale Larsen and Toubro Ltd., Hazira, Gujarat
	Hall D: Amber
	Session 3 D: Corrosion, Environment effects on Mechanical Behaviour and SI-V
Chairman: I Gurrappa, DMRL	
Session Coordinator: S S Kalyan Kamal, DMRL	
1630-1657	Invited Talk: Grain size and grain size distribution effects on the corrosion behavior of materials Srikant Gollapudi , Indian Institute of Technology, Bhubaneswar
1657-1709	Equipment Handling Simulation for Structural Integrity and Protection Against Refractory Damage Rinkesh M Patel and Ravi D Mahatale Larsen and Toubro Ltd, Hazira, Gujarat
1709-1721	Numerical and experimental comparative study of aluminium and hybrid mounting interfaces of launch vehicle avionics for weight reduction G Vamsi Krishna , Tarak Nath De, Rajesh Kumar Burman, B Veera Sekhar and V. Govinda Rao Advanced Systems Laboratory, Hyderabad
1721-1733	Evaluation of Multi-Site Damage in Aircraft Structural Splice Joint Rahul Fakeerannavar , L. Ravikumar and M.Mohan Kumar B M S College of Engineering, Bangalore
1733-1745	Extraction of Opening and Closing States of Cracked Structure using Adaptive Volterra Filter Model J. Prawin and A. Rama Mohan Rao CSIR - Structural Engineering Research Centre, Chennai
1745-1757	Study for Analysis of Effect of Machining Parameter & To Predict the Behavior of Propellant Grain During Machining Operation Rohit Kumar Mahalle , O.P. Manhar, J.C. Chaudhary, S.S. Ahamad and G. K. Naik SF Complex, DRDO, Jagdalpur
1757-1809	Fatigue Crack Growth Studies on Power Plant Piping Materials under Corrosive Environment S. Vishnuvardhan , M. Saravanan, P. Gandhi and G. Raghava CSIR - Structural Engineering Research Centre, Chennai
1809-1821	Effect of Moisture on High Strain Rate Performance of UHMWPE fiber based Composite Hemant Chouhan , Neelanchali Asija, Aisha Ahmed, Kartikeya and Naresh Bhatnagar Indian Institute of Technology Delhi
	Hall E: Coral
	Session 3 E: NDE and Structural Integrity VI
Chairman: T Jayakumar, DMRL	
Session Coordinator: Amretendu Mukhopadhyay, DMRL	

1630-1657	Invited Talk: A perspective on quality assurance, non-destructive inspection and ageing management of nuclear plant components BPC Rao , Indira Gandhi Centre for Atomic Research, Kalpakkam
1657-1709	Advanced Nondestructive Evaluation and Inspection for Structural Integrity Assessment of Engineering Components Shyamsunder Mandayam GE Global Research, Bangalore
1709-1721	Quantification of Inclusion in Forged Steel Using Ultrasonic Imaging Technique Firoz Akhtar , Ashok Kumar, S. Palit Sagar and A. Ghosh CSIR-National Metallurgical Lab, Jamshedpur
1721-1733	Testing of Stainless Steel Material Using a New Transient Eddy Current Oscillations NDT Method to Detect the Change in Wall Thickness Chandra S Angani , Pradeep K Ladi and Sudhakar J Ongole GITAM Institute of Science, Visakhapatnam
1733-1745	Development of In-situ Inspection Methodology for Composite Structures with InfraRed Thermal Imaging Technique S.Kshama and S.Kalyana Sundaram Council of Scientific and Industrial Research, Bangalore
1745-1757	Use of Full-field Measurements for Understanding Acoustic Emission (AE) Signals from 15CDV6 ESR Steel Specimens Digendranath Swain , B.Binu, Yogesh, K K Purushothaman, G Sudarsana Rao, Binu P Thomas, Thomas Kurian and Jeby Philip Vikram Sarabhai Space Centre, ISRO, Trivandrum
1757-1809	Effect of fiber size on Mode-I fracture toughness of glass fiber reinforced epoxy: An experimental investigation M. K. Singh and R. Kitey Indian Institute of Technology Kanpur
1809-1821	Structural Integrity Assessment of Filament Wound Composite Pressure Vessel Using Through Transmission Technique Sameerkant Behera , S K Sahoo, Lokesh Srivastava and A. S. Srinivasa Gopal Advanced Systems Laboratory, DRDO, Hyderabad
1821-1833	Abrasive wear studies on special composite-Al ₂ O ₃ -ZrO ₂ -5CaO for tribological applications Abhinav Alliance University, Bangalore
1833-1845	Application of Frugal Innovation in Fire Safety Prateep Roy Gharda Institute of Technology (GIT), Ratnagiri, Maharashtra
Hall F: Topaz	
Session 3 F: Mechanical Behaviour of High Strength Steels	
Chairman: R Balamuralikrishnan, DMRL	
Session Coordinator: Sharat Chandra Rachuri, DMRL	
1630-1657	Invited Talk: On the Fracture Mechanics based Development of Cleavage Fracture Resistance Criteria for the Materials of Large-Size Welded Structures Vladimir Yu Filin , PROMETEEY, Russia
1657-1709	Damage Tolerance Behaviour of Weld Joints of High Strength Structural Steel: Resistance to Cold Cracking, Static Cracking and Dynamic Properties V. M. Nimbalkar , M Mohape, Vikas Katkar, S G Pandav, Tikaram Latalwar, J M Jangir, S K Dakhole, J Panigrahi, Naushad Saikh, A Roy and D S Chaudhari Naval Materials Research Laboratory, DRDO, Ambernath
1709-1721	Fatigue crack growth rate behaviour of HSLA steels at varying load amplitudes Sachin Bandgar , Chiradeep Gupta, Gaurav Rao, Pranshu Malik, R.N.Singh and K.Sridhar Naval Materials Research Laboratory, DRDO, Ambernath

1721-1733	Corrosion Fatigue Based Residual Life Prediction of Ship Building Materials Deependra Singh , Satyabrata Parida, Vivek Srivastava and VP Deshmukh Naval Materials Research Laboratory, DRDO, Ambarnath
1733-1745	Stress Corrosion Cracking Studies on HSLA steel N Chittibabu , DVV Satyanarayana and Vikas Kumar Defence Metallurgical Research Laboratory, Hyderabad
1745-1757	An investigation of performance of spray formed H13 tool steel Santosh Kumar , Pravin Jadhav, Akshay Patil, Shreyas Kirwai and Rajkumar Singh Kalyani Centre for Technology & Innovation, Bharat Forge Ltd, Pune
1757-1809	Comparison of microstructures and hardness of electron beam and friction stir weldments of reduced activation ferritic martensitic steel Vijaya L.Manugula , Koteswararao V.Rajulapati, G.Madhusudhan Reddy and K.BhanuSankara Rao Mahatma Gandhi Institute of Technology, Hyderabad
1809-1821	Determination and verification of triaxiality dependent cohesive zone parameters of SA333 Grade 6 Steel Viswa Teja Vanapalli , B.K. Dutta, J. Chattopadhyay and Nevil Martin Jose Homi Bhabha National Institute, Mumbai
1845-1930: AGM InSIS Members	

Day 3: 27th July 2018

Plenary Session Hall A: Turquoise	
Session Chairman: Ashok Gogia, DMRL Session Coordinator: Bidyapati Mishra, DMRL	
0900-0937	Plenary Lecture 12: Performance Enhancement of Structural Fiber Reinforced Composites Utilizing Binary Nanocomposites Mahesh Hosur , Tuskegee University, USA
0937-1014	Plenary Lecture 13: Characterization and modeling failure of ductile materials K Ravi-Chandar , University of Texas, USA
1014-1051	Plenary Lecture 14: Multi- scale defects induced criticality in damage tolerance and failure analysis Oleg Naymark , Russian Academy of Sciences, Russia
1051-1106	Tea
Session Chairman: T Jayakumar, DMRL Session Coordinator: Sony Punnose, DMRL	
1106-1143	Plenary Lecture 15: Intermittent and heterogeneous plasticity in hcp alloys: multiscale models and creep-fatigue interactions J.-L. Strudel , Paris-MinesTEch. France
1143-1220	Plenary Lecture 16: Study of Surface Integrity in Aerospace Materials M Ramulu , University of Washington, USA
1220-1257	Plenary Lecture 17: Qualification of Gas Turbine Hot Section Parts Life Extension Methodologies Using MIL-HDBK-1783B Guidelines A K Koul , LPTi, Canada
1257-1333	Plenary Lecture 18: Damage evolution and fracture in terms of the theory of phase transitions L Botvina , A A Baikov Institute of Metallurgy and Materials Science, Russia
1333-1415	Lunch

Six Parallel Technical Sessions

Hall A: Turquoise

Session 4 A: Structural Integrity VII

Chairman: **Ashok Koul**, LPTi, Canada

Session Coordinator: **Atul Kumar**, DMRL

1415-1442	Invited Talk: Corrosion and Aircraft Structural Integrity G M Kamath , Indian Institute of Technology, Kanpur
1442-1454	Design and analysis of formed bellows for nuclear applications- Case study S.C.S.P.Kumar Krovvidi , Sunil Goyal and A.K.Bhaduri Indira Gandhi Centre for Atomic Research, Kalpakkam
1454-1506	Structural integrity using effective field quality assurance practices for fabrication of glove boxes M V Kuppusamy , Shrikrishna Tripathi, B P C Rao and A Ravisankar Indira Gandhi Centre for Atomic Research, Kalpakkam
1506-1518	Assessment of delayed hydride cracking at volumetric flaws formed due to bearing pad fretting Ramesh Kumar , Ritu J. Singh, J. Mishra and V. Balasubramaniyan Atomic Energy Regulatory Board, Mumbai
1518-1530	Study the Effect of Anisotropy of Elastic-Plastic Properties on Residual Stress Development in Autofrettage of Thick Cylinder Ritu J Singh , Ramesh Kumar, J Mishra, V. Balasubramaniyam and H.S. Kushwaha Atomic Energy Regulatory Board, Mumbai
1530-1542	Structural stability of superheater and reheater tubing under hot corrosion conditions encountered in boilers in A-USC power plants P. R. Hari , N. Arivazhagan, M. Nageswara Rao and A. H. V. Pavan Vellore Institute of Technology, Vellore
1542-1554	Indentation and hydride orientation in Zr-2.5%Nb Pressure Tube material T. NarayanaMurty ; Sandeep A Chandashive and R. N. Singh Bhabha Atomic Research Centre, Mumbai
1554-1606	Issues in Optimizing Laser Shock Peening Parameters for Nickel Super Alloys L Sai Sandeep ; Vamsi Krishna Rentala, Phani Mylavarapu, D Govinda Rao, Nagaraju Guthikonda, P Prem Kiran, Gp.Capt.B.V.N.Shiva, K.Gopinath and Vikas Kumar Vasavi College of Engineering, Hyderabad
1606-1618	A cellular mechanics approach to the mechanical behavior of nanoscale interpenetrating phase composites K.R. Mangipudi and C.A. Volkert Indian Institute of Technology Bhubaneswar
1618-1630	Effect of End Constraints on the Ballooning of a Long Thin Walled Pressurized Tube Shekhar Suman and Sivasambu Mahesh Indian Institute of Technology Madras

Hall B: Opal

Session 4 B: Modelling of Microstructure and Plasticity

Chairman: **A Venugopal Rao**, DMRL

Session Coordinator: **Jalaj Kumar**, DMRL

1415-1442	Invited Talk: Multiscale Modeling of Complex Plastic Deformation Alankar Alankar , Indian Institute of Technology Bombay
1442-1454	Crystal Plasticity Modeling of Dynamic Recrystallization in Ti Ritam Chatterjee and A. Alankar Indian Institute of Technology Bombay
1454-1506	Modelling of Fatigue Crack Initiation and Propagation in Hydrogen Charged Polycrystalline Nickel Rakesh Kumar , Deepesh Meena and Dhiraj K. Mahajan Indian Institute of Technology Ropar

1506-1518	Microstructural Modeling of High Entropy Alloy using Crystal Plasticity Finite Element Method Prasanta Kumar Das and Prasenjit Khanikar Indian Institute of Technology Guwahati
1518-1530	Coupled Crystal Plasticity-Phase Field Modelling of multi-phase metals Ritesh Dadhich and Alankar Alankar Indian Institute of Technology Bombay
1530-1542	Constitutive modelling of creep in nickel-based single crystal superalloys A.K. Jha and C. S. Upadhyay Indian Institute of Technology Kanpur
1542-1554	Role of dislocation reactions on the plastic deformation of Copper Single Crystals Ashish Mishra and Alankar Alankar Indian Institute of Technology Bombay
1554-1606	Finite Element Analysis for Cable and Pipe Transit Seal for Nuclear power plant Applications Vikrant Gupta , N.P.SINGH and Ujjwal Baruah ITER-India, Institute for Plasma Research, Bhat, Gandhinagar, Gujarat
1606-1618	Small scale in-situ mechanical testing of Cu-Bi and the effect of microstructure on failure Ananya Tripathi , Vikram Jayaram and Praveen Kumar Indian Institute of Science, Bangalore
1618-1630	Dynamic Crack Propagation in Gas Turbine Engine Rotating Discs using FEM Technique Rajesh Kumar and Rajeev Jain Gas Turbine Research Establishment, DRDO, Bangalore
	Hall C: Opal
	Session 4 C: Structural Integrity VIII
Chairman: G Appa Rao, DMRL	
Session Coordinator: S S Kalyan Kamal, DMRL	
1415-1442	Invited Talk: Mechanisms for Fatigue Strength Degradation in Cementitious Materials J M Chandra Kishen , Indian Institute of Science, Bangalore
1442-1454	Analysis of Structures Subjected to Crowd Loads Angitha Vijayan , Nimmy Mariam Abraham, S.D Anitha Kumari and M.V Deepthi M S Ramaiah University of Applied Sciences, Bangalore
1454-1506	Effect of Elevated Temperature on the Mechanical Properties of Concrete D.AnupamaKrishna , R S Priyadarsini and S. Narayanan Kerala Technological University
1506-1518	A plasticity based model for computer aided simulation of concrete damage P.T.Ajesh kumar and Srinivasan Chandrasekaran Indian Institute of Technology Madras
1518-1530	A study on energy absorption of metallic tubes in expansion Pramod Kumar Gupta and Shashank Shekhar Singh Indian Institute of Technology Roorkee
1530-1542	Relocation of existing jacket platform in western offshore of India Praveen Bhat and S. Karunanithi Oil and Natural Gas Corporation Ltd. (ONGC)
1542-1554	External Strengthening of Shear Deficient RC Slabs Tejendra Tank , Krunal Thakor, Mitali Patel and C D Modhera Indus University, Ahmedabad
1554-1606	Failure investigation of super rapid gun mount cartridge case Rajesh Sharma , P Tekade, Ravi Kiran, Vijay Laxmi, Satyapal Singh and AK Singh Defence Metallurgical Research Laboratory, Hyderabad

1606-1618	Experimental Investigation on Steel Beam- to- Column Joints under Elevated Temperature A.Cinitha and G.S.Palani CSIR-SERC, Taramani, Chennai
1618-1630	Determination of optimal coupling stiffness using modal updating techniques for Stiffened Plates K. Shrivastava , K. Vijayan and V. Arora Indian Institute of Technology Kharagpur
Hall D: Amber	
Session 4 D: Failure Analysis	
Chairman: A Venugopal Reddy, Former Regional Director RCMA (Mat), DRDO Session Coordinator: Chandan Mondal, DMRL	
1415-1442	Invited Talk: Failure of strategic alloys during production and use - Some case studies Pallab Sarkar , Vardhaman College of Engineering, Hyderabad
1442-1454	Failure Analysis of a Cracked Splice Plate Used in a Power Transmission Line Tower S.K. Dhua , P.P. Sarkar, Santosh Kumar and Atul Saxena R&D Centre for Iron & Steel, Steel Authority of India Limited, Ranchi
1454-1506	Failure analysis of structural screw joint in a start-up neutron detector handling mechanism Sudheer Patri , Hemant kumar, K. Krishna Prasad, C. Meikandamurthy, B. K. Sreedhar, R. Vijayashree, V. Prakash and P. Selvaraj Indira Gandhi Centre for Atomic Research, Kalpakkam
1506-1518	Failure Investigation of Fuel Clad tube due to Ballooning at High Temperature and High Pressure Rosy Sarkar , V.D. Vijayanand, R. Suresh Kumar, Anil Kumar Sharma and Shaju K Albert Indira Gandhi Center for Atomic Research, Kalpakkam
1518-1530	Failure analysis of oil-pipe lines of an aero-engine Jivan Kumar , V.N Satish Kumar and Swati Biswas Gas Turbine Research Establishment, Bangalore
1530-1542	Failure Analysis of Spiral Bevel Gear of Engine Accessory Gear Box in a Fighter class Aero-engine N Moharana and Benudhar Sahoo Regional Centre for Military & Airworthiness (RCMA), DRDO, Sunabeda
1542-1554	Failure Analysis of Cooling Duct of Top Engine Cowl Panel of Fighter Aircraft Premkumar Manda , Satyapal Singh and A K Singh Defence Metallurgical Research Laboratory, Hyderabad
1554-1606	Failure Investigation and rectification of Rotor assembly of Rotary Engine P. K. Verma , A A Tapkire, D. Radhakrishna and Anil Kumar Vehicles Research & Development Establishment, DRDO, Ahmednagar
1606-1618	Structural Failure of Afterburner Diffuser of a Military Aircraft Engine P K Rao , S A Savanur, Benudhar Sahoo Hindustan Aeronautics Ltd, Koraput
1618-1630	Application of Machine Learning and Wavelet Analysis based on Vibration data from Gas Pipelines for Structural Health Monitoring Saurabh Zajam and Bishakh Bhattacharya Indian Institute of Technology Kanpur
Hall E: Coral	
Session 4 F: Additive Manufacturing and Structural Integrity IX	
Chairman: K Ravi-Chandar, USA Session Coordinator: S N Sahu, DMRL	

1415-1442	Invited Talk: Fracture behaviour of 3D printed thermoplastics Siva Nadimpalli , New Jersey Institute of Technology, USA
1442-1454	Residual Stress Measurement on 3-D Printed Blocks of Ti-6Al-4V using Incremental Hole Drilling Technique Digendranath Swain , S Karthigai Selvan, Binu P Thomas, Govind and Jeby Philip Vikram Sarabhai Space Center, ISRO
1454-1506	Small Scale Mechanical Testing for Laser Additive Manufacturing Sudarshan Reddy and Dheepa Srinivasan Intech DMRL Pvt. Ltd
1506-1518	Structural and Mechanical Behavior of Additive Manufactured IN 718 Superalloy Gururaj Telasan , K.Divya and G. Padmanabham International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad
1518-1530	Microstructural influence on damping for Friction stir welded Aluminum plates K. Vijayan , S.Jothi Indian Institute of Technology Kharagpur
1530-1542	Effect of Poisson's ratio on KI, T11 and T33 for SENB and CT specimen-A FE study Sanjeev M. Kavale , Krishnaraja G. Kodancha and Nagaraj Ekabote KLE Technological University, Hubballi, Karnataka
1542-1554	Ductile Fracture in Tube Impact Problem Using A Lode Angle Dependent Failure Criterion Dipankar Bora , Sachin S. Gautam and Manoj Kumar Indian Institute of Technology Guwahati
1554-1606	Case Study: Evaluation of External Local Thin Area in Multiwall Ammonia Converter Shell Parag Suryawanshi , Ravi Mahatale Larsen and Toubro Ltd
1606-1618	System Reliability of Randomly Vibrating Structures under Support Excitations: Computational Modeling and Laboratory Testing A.Somayya and C.S. Manohar Bangalore Integrated System Solutions Pvt. Ltd., Bangalore
1618-1630	A study on impact force attenuation capability of closed cell aluminium foams SN Sahu , T Sreekanth Reddy, P Ramasubba Reddy, P Sampath Kumar, GJ Reddy and AA Gokhale Defence Metallurgical Research Laboratory, Hyderabad
Hall F: Topaz	
Session 3 F: Structural Integrity X	
Chairman: G Malakondaiah, Former CCR&D (HR), DRDO	
Session Coordinator: Srinivas Rao Nandam, DMRL	
1415-1442	Invited Talk: High Temperature Low Cycle Fatigue Behaviour of C 263 Superalloy K Bhanu Sankara Rao , Mahatma Gandhi Institute of Technology, Hyderabad
1442-1454	Evaluation of Structural Integrity of Tactical Missile Ceramic Radomes under Combined Thermal and Structural Loads S. Narendar and M. Varadanam Defence Research Development Laboratory, Hyderabad
1454-1506	Role of fracture toughness on ballistic performance of glass composite laminates P Rama Subba Reddy , T Sreekantha Reddy, K Mogulanna, G Seshagiri Rao and Vemuri Madhu Defence Metallurgical Research Laboratory, Hyderabad
1506-1518	Investigation of Process Parameters on the Mechanical Properties of MTV Decoy Flare Pellets for Defence Applications Sukamal Adhikary , Himanshu Sekhar and D G Thakur Defence Institute of Advanced Technology, Pune

1518-1530	Effect of Notch Geometry on Structural Integrity of a Wrought Nickel base alloy used for Turbine Blade of a typical Aero-engine Asish Kumar Das , S.K.Panigrahi, Benudhar Sahoo and L K Sahoo Defence Institute of Advanced Technology, Pune
1530-1542	Bird Strike Damage and Analysis of Airframe Structures of UAV Akhilesh Kumar Jha , S Sathyamoorthy and Viswa Prakash Aeronautical Development Establishment, DRDO, Balgalore
1542-1554	Numerical Analysis and Effects on Rigidity of Combat Vehicle Structure Due to Blast Load D. R. Makwana , D. G Thakur and K. Senthilkumar Vehicles Research & Development Establishment, DRDO, Ahmednagar
1554-1606	A Material Selection for Re-generatively Fuel-cooled Scramjet Engine wall G. Vijayakumar and Y. Krishna Defence Research and Development Laboratory, DRDO, Hyderabad
1606-1618	Application of strain gauges for measurement of propeller torque Santanu Deori , Upendra Taywade and D. Radhakrishna Vehicles Research & Development Establishment, DRDO, Chennai
1618-1630	An Approach to the Design of Composite Console for Air Surveillance System Satish Kumar , S. K Panigrahi and M. R Shankar Centre for Airborne Systems, DRDO, Bangalore
1630-1645	Tea
1645-1730	Valedictory Function and Prize Distribution

**Subject to last minute changes*