

8th International Conference of Engineering Against Failure (ICEAF VIII)

Final Agenda

Registration & Welcome | 22.06.2025

17:00	19:30	Registration
19:30	21:00	Welcome Drink
End of the Day		

8th International Conference of Engineering Against Failure (ICEAF VIII)

Final Agenda

DAY 1 | 23.06.2025

8:00	9:00	Registration
ROOM	HALL A	
9:00	9:10	Opening Ceremony
9:10	9:40	KEYNOTE SPEECH Overview of Machinable Brasses: Structure, Properties and Failure Mechanisms by Dr. George Pantazopoulos ELKEME S.A., Greece

ROOM	HALL A	HALL B	HALL C	HALL D	HALL E
Session Title	Failure and Damage Modelling of Joints in Fibre Composite Structures	Additive Manufacturing Process Optimization and Mechanical Behaviour of AM Parts	Sustainability-driven design and new trends on design (Part I)	Applied Surrogate Modeling	Failure in civil engineering - analysis / prevention / repair (PART I)
Session Chair	Prof. Oliver Völkerink (Technische Universität Braunschweig, Germany)	Prof. Fani Stergioudi (Aristotle University of Thessaloniki, Greece)	Prof. Angelos Filippatos (University of Patras, Greece)	Prof. Erdem Acar (Tobb University Of Economics and Technology, Turkey)	Dr. Marta Kałuza (Silesian University Of Technology, Poland) & Dr. Konstantinos Koulouris (University of Patras, Greece)
9:40 10:00	Dependence of Mode-I Interfacial Fracture Energy of a Fusion Bonded Metal-FRP Hybrid on Parameters of Laser Surface Treatment of the Metal Adherend Mr. Muhammad Anas Athar , Mr. Mohammed Haseeb Ulla, Prof. Dr. Sven Hartwig	On the Optimization of Additively Manufactured Parts Quality Through Process Monitoring: The Wire DED-LB Case Dr. Panagiotis Stavropoulos , Mr. Konstantinos Tzimanis, Mr. Michail-Swtirios Koutsokeras, Mr. Nikolas Porevopoulos	3D Modelling, Analysis and Construction of an Exhaust System in a Formula Student Car Prof. Antonios Lontos, Dr. Andreas Gregoriou	Surrogate-Based Structural Optimization of the Battery Enclosure of an Electric Vehicle Mr. N. Berk İçten, Mr. M. Enes Maral, Mr. Cihan Savaş, Prof. Erdem Acar	Advanced Strategies for Strengthening and Repairing Historic Structures of Religious Buildings in Areas Subject to Mining Influence Dr. Leszek Słowik , Dr. Leszek Chomacki, Prof. Janusz Rusek, Dr. Piotr Knyziak
10:00 10:20	A Fatigue Damage Model for Epoxy Resin and Its Application to Fiber Reinforced Plastics Dr. Caroline Lüders	Adopting Multi-Material Wire DED-LB in Naval Industry: A Case Study in Stainless Steel and Nickel-Based Alloys Dr. Panagiotis Stavropoulos , Mr. Konstantinos Tzimanis, Mr. Nikolas Gavalas, Mr. Nikolas Porevopoulos	Towards a Machine Learning-Driven Optimization of A-Pillar Design for Sustainable Automotive Engineering Prof. Angelos Filippatos , Mr. John Apostolopoulos, Dr. Harry Psihoyos, Dr. Anastasios Zavos, Mr. Vasilis Lazaridis, Mr. Athanasios Kyriazis	Integration of Machine Learning (ML) and Fuzzy Inference SYSTEMS (FIS) in the Risk Assessment of Buildings Affected by Industrial Impact From Underground Mining Prof. Janusz Rusek , Mr. Adrian Jędrzejczyk, Mr. Karol Firek	Studies of Aerodynamic Failures in Slender Multi Span Stress Ribbon Bridges Prof. Santiago Hernández , Prof. Aitor Baldomir, Prof. Jose Angel Jurado, Prof. Luis Romera, Ms. Antia Troche
10:20 10:40	A Comparative Study of FEM Modelling Strategies for the Fibre Composite Adherend to Predict the Strength of Bonded Joints Mr. Patrick Adrian Makiela	AI-Based Prediction of Mechanical Properties in Additively Manufactured Components Prof. Costanzo Bellini, Prof. Filippo Berto, Dr. Rosario Borrelli, Prof. Vittorio Di Cocco, Dr. Stefania Franchitti, Prof. Paolo Di Giamberardino, Prof. Daniela Iacoviello, Prof. Daniela Pilone, Dr. Carolina Schillaci	Simulation and Analysis of the Chill-down Process for the Design of a Handling and Distribution Cryogenic Subsystem Prof. Angelos Filippatos , Mr. Aristotelis Gkesoulis, Mr. Vasilleios Lazaridis, Mr. Thomas Kalam poukas	Optimization of Lattice Structures Under Uncertainties Predicted by Neural Networks Dr. Recep M Gorguluarslan , Mr. Yusuf Yamaner	Analysis of a Faulty Designed Detail of a Flyover Bent That Could Have Been the Cause of a Construction Disaster Dr. Bartosz Sobczyk , Prof. Mikolaj Miśkiewicz, Dr. Łukasz Pyrzowski, Prof. Jacek Chróścielewski
10:40 11:00	Numerical and Experimental Investigation of the Physical Effects of the Strength Increase and Disbond Arrest Using Surface Toughening in Composite Adhesive Joints Ms. Riem Kilian , Mr. Oliver Völkerink, Mr. Martin Schollerer	Effect of Stress Ratio on Fatigue Crack Growth of Annealed Ti6Al4V Alloy Fabricated by Laser Powder Bed Fusion A. H. Jabbari , F. Farahmand, E. Abdollahi, P. Auer, J. Domitner	Towards the Design of a Cryostat for Large Scale Testing Mr. Vasilleios Lazaridis , Mr. Thomas Kalam poukas, Dr. Anastasios Zavos, Mr. Christos Stergiou, Prof. Angelos Filippatos	Simulation-Based Design Optimization of Active-Control Rocket Canards in Subsonic Flight Mr. Simon Babcock , Ms. Kaelyn Haynie, Mr. Samuel Worthington, Mr. Christopher Jaus, Dr. Howie Fang	Preventing Failures of Improperly Maintained Prefabricated Multi-Family Buildings – Diagnostic Methods and Decision-Making Process Dr. Joanna A. Pawłowicz , Dr. Piotr Knyziak, Prof. Joanna Gil-Mastalerczyk, Dr. Monika Mackiewicz, MSc. Maciej Wardach, Prof. Janusz R. Krentowski, Dr. Szymon Spodzieja

11:00 11:20	Coffee Break				
ROOM	HALL A	HALL B	HALL C	HALL D	HALL E
Session Title	Recycled aluminium and its performance	Manufacturing defects and damage evolution in composite structures	Sustainability-driven design and new trends on design (Part II)	Manufacturing and Performance of Fiber Reinforced Polymers	Failure in civil engineering - analysis / prevention / repair (PART II)
Session Chair	Dr. Kjerstin Ellingsen (SINTEF, Norway)	Dr. Antonios Stamopoulos (University of L'Aquila, Italy) & Dr. Humberto Almeida Jr (Queen's University Belfast, UK)	Prof. Angelos Filippatos (University of Patras, Greece)	Dr. Isidoros Iakovidis (University Of West Attica, Greece)	Dr. Marta Kałuża (Silesian University Of Technology, Poland) & Dr. Konstantinos Koulouris (University of Patras, Greece)
11:20 11:40	Estimation of Fatigue Life After Prior Corrosion Using a Murakami-Based Approach in a Simulated Recycled 6082 Al-Alloy Dr. Aritra Sarkar, Mr. Simen Ulleberg Trastadkjølen, Dr. Havard Wilson, Dr. Jon Holmestad, Dr. Bård Nyhus, Dr. Nima Razavi	Experimental and Numerical Study of Mode II Fatigue Delamination via End-Loaded Split Specimens Mr. Johan Birnie Hernández, Dr. Maria Pia Falaschetti, Mr. Francesco Semprucci, Prof. Enrico Troiani	Promoting Sustainability in Aviation Engineering Through an Interactive Educational Platform Dr. Dionysios Markatos, Mr. Angelos Fotopoulos, Dr. Anastasios Zavos, Prof. Michalis Xenos, Prof. Angelos Filippatos	Design and Construction of a Strain Sensor for Monitoring Bending Information Dr. Isidoros Iakovidis, Dr. Dimitrios Nikolaos Pagonis, Dr. Sofia Peppas, Ms. Nektaria Maria Nikolaidaki	Numerical Analysis as a Method to Protect Underground Pipelines Under Dynamic Inputs Prof. Jacek Hulimka, M.Sc. Paweł Okroj, Dr. Marta Kałuża
11:40 12:00	Influence of Trace Elements on Mean-Stress Sensitivity in a Simulated Recycled 6082 Al-Alloy Dr. Aritra Sarkar, Mr. Fredrik Nes Fridheim, Dr. Bård Nyhus, Dr. Nima Razavi	Experimental Characterization of the Effect of the Adhesive Type and the Temperature Exposure on the Mode I Fracture Toughness of Hardwood Bonded Joints Eng. Gianluca Fantozzi, Dr. Antonios Stamopoulos, Dr. Martina Sciomenta	Thermomechanical and Sustainability Assessment of LNG and LH2 Membrane Tank Designs Mr. Thomas Kalampoukas, Dr. Dionysios Markatos, Dr. Anastasios Zavos, Prof. Angelos Filippatos	Design and Construction of a Floating Wind Turbine Scale Model With Composite Materials and its Integration Into Gravity-Based Offshore Structures Mr. Dimitrios Bartzikas, Prof. Thomas Mazararakos, Prof. Isidoros Iakovidis, Prof. Sotiria	Monitoring and Detection of Damage in Historic Brick Structures Using Non-Destructive Methods Prof. Joanna Gil-Mastalerczyk, Dr. Monika Mackiewicz, Dr. Joanna A. Pawłowicz
12:00 12:20	Effects of Sr on Microstructure and Properties of 5182 Aluminium Alloy With High Fe Content for ABS Applications Dr. Yong Yan, Mr. Huangjiang Hua	Evaluation of an AI-Empowered Materials Failure Knowledge Management System Prof. Nikolaos Melanitis, Dr. Pericles Giannaris, Dr. George Giannakopoulos, Mr. Konstantinos Stamatakis, Mr. Andreas Sideras	Towards a Decisions Support System for the Selection of SAFs in the Maritime Sector: Metrics and Application to NH3 Fuel System Mr. Georgios Kouvaras, Dr. Dionysios Markatos, Mr. Nikolaos Stamoulis, Dr. Peilin Zhou, Dr. Byongug Jeong, Dr. Haibin Wang, Dr. Ana Mesbahi, Mr. Konstantinos Sykaras, Mr. Astrinos Papadakis, Ms. Evanthia	Strength Performance of Carbon Fiber Sandwich Composites With an Additively Manufactured Fiber-Reinforced Polyamide Grid Core Dr. Sotiria Dimitrellou, Dr. Isidoros Iakovidis, Mr. Gerasimos Stratos, Mr. Ioannis Lemonis	Structural Condition Assessment of Historical Timber Using Digital Approach and Non-Destructive Techniques Dr. Piotr Bilko, Dr. Szymon Sawczyński, Dr. Joanna A. Pawłowicz, Dr. Edyta Kowalska
12:20 12:40	Microstructure Modification Strategies for High Fe Containing Recyclable Al-Si Cast Alloy Mr. Lai Chen, Mr. Xun Zhang, Prof. Hiromi Nagaumi, Mr. Jiang Tao Zhao, Ms. XiaoLei Zhang, Mr. Shuai Liang	Residual Tensile Strength of Fabric Reinforced Hybrid Epoxy Composites After Low Velocity Impact Dr. Marina Bunea, Dr. Vasile Bria, Dr. Mihai Botan, Dr. George-Catalin Cristea, Prof. Adrian Circumaru	3D-Printed Ceramic Solutions for Passive Cooling and CO₂ Absorption: Investigating Material and Fabrication Parameters in LDM for New Eco-Sustainable Design Paradigms Ms. Vaia Tsiokou, Ms. Despoina Antypa, Ms. Anna Karata, Dr. Elias Koumoulos	Methodology for Accurate Geometric Modeling of Filament Wound Structures and Mechanical Analysis Prof. Dimitrios Dragatogiannis, Mr. Panagiotis Christopoulos	The Influence of Corrosion of Steel Reinforcement on the Shear Strength of Existing Structure and 2nd Degree Pre-Earthquake Inspection Dr. Maria Basdeki, Dr. Konstantinos Koulouris, Prof. Charis Apostolopoulos
12:40 13:00	Exploring the Effect of Scrap Content, Increased Fe Levels and Cooling Rate on the Microstructure of Al-Si Foundry Alloys Dr. Astrid Marthinsen, Dr. Kjerstin Ellingsen, Arne Nordmark, Sigurd Wenner, Vegar Øygarden, Elisabeth Tronsen, Ingrid Hansen, Joachim Seland Graff		Cavitation Effects on Fullerene Enhanced Lubricants on Piston Ring Tribology Mr. Elias Tsakiridis, Dr. Pantelis Nikolakopoulos	Effects of Manufacturing Processes on the Mechanical and Physical Properties of Reinforced Polymers for Marine Applications Mr. Ioannis Lemonis, Dr. Isidoros Iakovidis, Assoc.Prof. Sotiria Dimitrellou, Dr. Thomas Mazararakos	Slip Effect on Rotational Capacity (Chord Rotation) of Corroded RC Members Due To Pull Out of Steel Reinforcement Dr. Konstantinos Koulouris, Dr. Maria Basdeki, Prof. Charis Apostolopoulos

13:00 14:00	Lunch Break				
ROOM	HALL A				
14:00 14:30	KEYNOTE SPEECH A Comprehensive Life Prediction Methodology for Pitted Cast Iron Water Pipes by Prof. Luca Susmel Sheffield Hallam University, UK				
ROOM	HALL A	HALL B	HALL C	HALL D	HALL E
Session Title	Metals surface degradation and protection: modelling, characterization and digitalization (PART I)	Artificial Intelligence and Sustainability: A Safer, Greener and Smarter pathway towards Greentelligent Manufacturing (Part I)	Damage tolerant design of AHSS for improved fracture and damage response with emphasis on alloy and microstructure engineering (PART I)	Uncertainty Quantification in Structural Health Monitoring applications	
Session Chair	Dr. Natalia Konchakova (Helmholtz - Zentrum Hereon, Germany) & Prof. Nikolaos Alexopoulos (University Of The Aegean, Greece)	Dr. Elias Koumoulos (Innovation in Research and Engineering Solutions, Belgium)	Dr. Alexandros Banis (National Centre For Scientific Research Demokritos, Greece), Prof. Spyros Papaefthymiou (National Technical University of Athens, Greece), Prof. Roumen Petrov (Ghent University, Belgium) & Dr. Ilchat Sabirov (IMDEA Materials Madrid, Spain)	Prof. Konstantinos Anyfantis (National Technical University of Athens (NTUA), Greece)	
14:30 14:50	Digitalization and Thermodynamic Simulations for Impurity Management in Recycled AlSi7Mg0.3 Alloys Mr. Lukas Cäsar Jarren , Dr. Alexandre Virdin, Dr. Eugen Gozenbille, Ms. Qiqi Li, Dr. Markus Apel, Dr. Janin Eiken, Mr. Alejandro Javier Guirao Blank, Dr. Franz Roters, Prof. Mikhail Zheludkevich, Dr. Daniel Hóche	Leveraging AI for Structural Health Monitoring: Ultrasonic Guided Waves in Predicting Delamination Damage in Aircraft Composites Mr. Panagiotis Kolozis , Mr. José Manuel Royo, Mr. Javier Hernandez-Olivan, Ms. Vanessa Thalassinou-Lislevand, Dr. Andrea Calvo Echenique, Dr. Elias Koumoulos	Precipitation Strengthening in Austenitic Low-Density Steels: The Role of κ-Carbides Dr. Alexandros Banis , Prof. Efthymios Polatidis, Prof. Spyros Papaefthymiou, Dr. Ilchat Sabirov, Prof. Roumen Petrov, Dr. Nikos Boukos	An Advanced Stochastic 1D Inverse Finite Element Method for Strain Extrapolation with Experimental Validation Mr. Jacopo Bardiani, Mr. Emanuele Petriconi, Mr. Georgios Aravanis , Dr. Andrea Manes, Dr. Claudio Sbarufatti	
14:50 15:10	Ecodesign Through Advanced Materials Digitization Dr. Natalia Konchakova , Dr. Marko Horvat, Prof. Heinz A. Preisig, Dr. Martin T. Horsh, Dr. Salim Belouettar, Dr. Peter Klein	Achieving Sustainable and Efficient Manufacturing Through IoT and ML-Driven, MES and CRM System Integration and Automation Mr. Manaf Al-ahmad , Dr. Song Yang, Prof. Yi Qin	Prediction of Different Recrystallisation Textures Under a Single Unified Physics-Based Model Description Dr. Konstantina Traka (Invited speaker) , Ms. Estefanía Sepúlveda Hernández, Dr. Nguyen-Minh Tuan, Dr. Karo Sedighiani, Prof. Spyros Papaefthymiou, Prof. Jilt Sietsma, Prof. Leo Kestens	Estimation of the Size of a Growing Crack Through Strain Sensing Under Uncertainty Ms. Anastasia Valma , Dr. Nicholas Siliotis, Prof. Konstantinos Anyfantis	
15:10 15:30	Modelling the Microstructure of Active Protective Coatings Based on 3D Image Data Ms. Jelena Zaninovic , Dr. Sijja Flenner, Mr. Michael Godehardt, Dr. Imke Greving, Dr. Christian Jung, Dr. Peter Klein, Dr. Natalia Konchakova, Mr. Oliver Müller, Dr. Tessa Nogatz, Dr. Claudia Redenbach, Dr. Katja Schladitz, Dr. Peter Visser	Smart System Design and Process Control Enabled Green Manufacturing of PM Parts Through Binder-Free FAST Sintering Mr. Bo Chen , Prof. Yi Qin, Dr. Jie Zhao, Dr. Song Yang, Dr. Yankang Tian, Dr. Wenlong Chang	Fatigue Crack Formation and Growth in Quenched and Partitioned (Q&P) Martensitic Stainless Steels Dr. Andres Sierra-Soraluce, Dr. Gaojie Li, Prof. Maria Santofimia, Dr. Ali Smith, Ms. Marta Muratori, Prof. Jon Molina-Aldareguia , Dr. Ilchat Sabirov	Reduction of the Estimation Error in Load Inversion Problems: Application to an Aerostructure Mr. George Panou, Mr. Sofiris Panagiotopoulos , Prof. Konstantinos Anyfantis	
15:30 15:50	Influence of Anodizing on the Fatigue Crack Growth Resistance of Artificially Aged AA2198 (Al-Cu-Li) Specimens Mr. Ioannis Goulas , Dr. Alexis Kermanidis, Dr. Nikolaos Alexopoulos, Dr. Christina-Margarita Charalampidou, Mr. Panagiotis Skarvelis	Probabilistic Algorithm for Waviness Defect Early Detection During High Precision Bearing Manufacturing Mr. Sergio Noriega Del Rivero , Dr. José Manuel Rodríguez Fortún, Mr. Luis Monzón Jaso	Damage and Microstructure of In-field Loaded Rails From Macro- to Nanoscale Prof. Roumen Petrov , Dr. Ankit Kumar, Dr. Jun Wu, Prof. Jilt Sietsma	On the Development of a Deep Learning-Based Surrogate Model for Fleet-Wide Probabilistic Modeling Mr. Georgios Aravanis , Prof. Marco Giglio, Prof. Claudio Sbarufatti	

15:50 16:10	Coffee Break				
ROOM	HALL A	HALL B	HALL C	HALL D	HALL E
Session Title	Metals surface degradation and protection: modelling, characterization and digitalization (PART II)	Artificial Intelligence and Sustainability: A Safer, Greener and Smarter pathway towards Greentelligent Manufacturing (Part II)	Damage tolerant design of AHSS for improved fracture and damage response with emphasis on alloy and microstructure engineering (PART II)	Crashworthiness of composite structures	
Session Chair	Dr. Natalia Konchakova (Helmholtz - Zentrum Hereon, Germany) & Prof. Nikolaos Alexopoulos (University Of The Aegean, Greece)	Dr. Elias Koumoulos (Innovation in Research and Engineering Solutions, Belgium)	Dr. Alexandros Banis (National Centre For Scientific Research Demokritos, Greece), Prof. Spyros Papaefthymiou (National Technical University of Athens, Greece), Prof. Roumen Petrov (Ghent University, Belgium) & Dr. Ilchat Sabirov (IMDEA Materials Madrid, Spain)	Prof. Enrico Troiani & Prof. Maria Pia Falaschetti (University of Bologna, Italy)	
16:10 16:30	A Conceptual Digitalisation Framework <i>Prof. Heinz A. Preisig</i> , <i>Dr. Peter Klein</i> , <i>Mr. Thomas F. Hagelien</i> , <i>Dr. Natalia Konchakova</i>	A Neuro-Symbolic AI Approach for the Modeling and Optimization of Sustainable Production Systems <i>Dr. Nikolaos Mekras</i> , <i>Dr. Christos Georgiou</i> , <i>Ms. Electra Mekra</i>	Microstructure Engineering Through Ultra-Fast Annealing: Innovations in Alloy and Processing Design of Advanced High Strength Steels <i>Prof. Spyros Papaefthymiou</i> , <i>Dr. Alexandros Banis</i> , <i>Dr. Marianthi Bouzouni</i>	Design Optimization of CFRP Crashbox for High-Performance Automotive Applications <i>Prof. Gerardus Janszen</i> , <i>Prof. Antonio Maria Caporale</i> , <i>Dr. Alessandro Amato</i>	
16:30 16:50	The Effect of Corrosion-Induced Hydrogen Absorption of the Al-Cu-Li Alloy and the Al-Cu-Mg Alloy AA2024 on Mechanical Property Degradation <i>Prof. Nikolaos Alexopoulos</i> , <i>Dr. Christina Margarita Charakampidou</i> , <i>Mr. Muhammed Salajee</i> , <i>Prof. Reza Jafarpour</i> , <i>Prof. Roelf Mostert</i>	Elastic-Plastic Constitutive Modeling Based on Equilibrium Informed Neural Network With Full-Field Data <i>Mr. Huanbo Weng</i> , <i>Dr. Cheng Luo</i> , <i>Prof. Huang Yuan</i>	Cleavage Fracture Micromechanisms of Advanced High Strength Steel and its Heat-Affected Zones <i>Dr. Virginia Bertolo (invited speaker)</i> , <i>Dr. Quanxin Jiang</i> , <i>Ms. Lea Vilasi</i> , <i>Ms. Maria Teról Sanchez</i> , <i>Dr. Ton Riemslag</i> , <i>Dr. Ursa Tiringier</i> , <i>Mr. Sean Scott</i> , <i>Dr. Sebastian Scholl</i> , <i>Prof. Roumen Petrov</i> , <i>Dr. Ude Hangen</i> , <i>Dr. Carey Walters</i> , <i>Prof. Jilt Sietsma</i> , <i>Dr. Vera Popovich</i>	Calibration of a Non-Local Damage Model for CFRP Fabric Laminate Using Compact Compression and Compact Tension tests <i>Dr. Maria Pia Falaschetti</i> , <i>Mr. Francesco Semprucci</i> , <i>Mr. Johan Birnie Hernandez</i> , <i>Dr. Francesco Rondina</i> , <i>Dr. Luca Raimondi</i> , <i>Dr. Enrico Troiani</i> , <i>Dr. Lorenzo Donati</i>	
16:50 17:10	Modeling of the Corrosion-Induced Damage and Assessment of the Residual Mechanical Properties of Artificially Aged AA2198 <i>Dr. Margarita Christina Charalampidou</i> , <i>Dr. Paraskevas Papanikos</i> , <i>Dr. Nikolaos Alexopoulos</i>	Safety Trough the Prism of Industry 4.0: Augmentation of Past Approaches <i>Dr. Spyridon Damilos</i> , <i>Mr. Stratos Saliakas</i> , <i>Ms. Adamantia Kostapanou</i> , <i>Mr. Panagiotis Kolozis</i> , <i>Ms. Vanessa Lislevand</i> , <i>Dr. Elias P. Koumoulos</i>	An Update on the Direct Quenching and Partitioning Route for the Realization of Tough, Ultrahigh Strength Steels <i>Prof. Mahesh Somani</i> , <i>Dr. Pekka Kantanen</i> , <i>Dr. Jaakko Hannula</i> , <i>Dr. Sumit Ghosh</i> , <i>Dr. Pentti Kaikkonen</i> , <i>Prof. Jukka Kömi</i>	Preliminary Evaluation of the Crashworthiness Properties of Sandwich Composite Panels With 3D Printed Cores <i>Dr. Maria Pia Falaschetti</i> , <i>Prof. Genevieve Palardy</i>	
17:10 17:30	The Dependence of Ageing Condition on Hydrpgen Embrittlement and Grain Boundary Attack in Exco-Exposed AA2024-T3 <i>Dr. Margarita Christina Charalampidou</i> , <i>Dr. Nikolaos Alexopoulos</i> , <i>Dr. Muhammed Salajee</i> , <i>Ms. Reza Jafarpour</i> , <i>Dr. Roelf Mostert</i>	Genetic Algorithm-Enhanced Deep Learning for Predicting Mechanical Properties of AISI Steels <i>Dr. Marcello Laurenti</i> , <i>Dr. Pietro Foti</i> , <i>Prof. Jacopo Tirillo</i> , <i>Prof. Fabrizio Sarasini</i> , <i>Prof. Filippo Berto</i>	Data-Based Estimation of Materials Behavior and Parameters in Design and Failure Analysis of Engineering Components <i>Prof. Robert Basan</i> , <i>Prof. Tea Marohnić</i> , <i>Assist. Ela Marković</i> , <i>Prof. Željko Božić</i>	Fiber Metal Laminates for Battery Boxes: A Compromise Between Strength and Rigidity <i>Dr. Claudio Mingazzini</i> , <i>Ing. Giulia De Aloysio</i> , <i>Ing. Mattia Morganti</i> , <i>Ing. Luca Laghi</i> , <i>Dr. Leonardo Ghetti</i> , <i>Dr. Stefano Bassi</i> , <i>Dr. Cristiano Valli</i> , <i>Ing. Edoardo Mariani</i> , <i>Ing. Matteo Scafé</i>	
End of the 1st Day					

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Final Agenda

DAY 2 | 24.06.2025

8:00	8:45	Registration				
ROOM		HALL A				
8:45	9:15	Sustainability by Design – How to Ensure Green and Lean Product Developments by Mr. Andreas Koetter Capgemini Engineering, Germany				
ROOM		HALL A	HALL B	HALL C	HALL D	HALL E
Session Title		Guidelines against failure	Correlation between Microstructure, Properties and Fracture	Characterisation of structural joints under static or cyclic loading	Simulation and experimental validation of aircraft structures and their manufacturing processes	Cyclic and Complex Loading Behavior in Advanced Metallic Systems
Session Chair		Prof. Michael Vormwald (Technical University of Darmstadt, Germany)	Dr. Wolfgang Von Bestenbostel (Airbus, Germany)	Prof. Giovanni Meneghetti (University of Padova, Italy)	Prof. George Lampeas & Prof. Konstantinos Tserpes University of Patras, Greece	Dr. Anna Zervaki (National Technical University of Athens, Greece)
9:15	9:35	Analysis of the Accuracy of Methods for Estimating Component Service Life Under Multiaxial Loading Prof. Michael Vormwald , Dr. Jan Kraft	Precipitation of A-Dispersoids in Al-Mg-Si-Cu Alloys and Associated Influence on Deformed Microstructure Prof. Qipeng Dong	Notes on the Fatigue Life of Welded Structural Nodes of Bus Bodies and Their Assessment, Database of S-N Curves and Service Stress Spectra Mr. Miloslav Kepka , Mr. Radovan Minich, Mr. Miloslav Kepka jr.	Mechanical Characterization of Recovered Fibers and Fiber/Matrix Interface After Water/Ethanol-Based Solvolysis of CFRPs Ms. Christina Vogiantzi , Prof. Konstantinos Tserpes	A Unified Viscoplasticity Model of CuCrZr Based on the Back Stress and Effective Stress Evolution Under LCF Dr. Hussein Zahran , Dr. Aleksandr Zinovev, Dr. Dmitry Terentyev, Prof. Magd Abdel Wahab
9:35	9:55	Fatigue Performance of Hot-Formed Automotive Antiroll Bars Dr. Christos Gakias, Dr. Efstratios Giannakis, Mr. Paschalis Adamidis, Mr. Yucheng Wang, Prof. Georgios Savaidis	Influence of Impurities on the Hot Shortness of Brass Alloys Dr. Vasilis Loukadakis , Ms. Eleni Skepetzaki, Dr. Marianthi Bouzouni, Prof. Spyros Papaefthymiou	Fatigue Strength Assessment of HFMI-Treated Welded Joints According to the Peak Stress Method Prof. Alberto Campagnolo , Dr. Miloslav Kepka Jr., Prof. Giovanni Meneghetti, Prof. Miloslav Kepka	Residual Fatigue Life and Strength Estimation of a Thermoplastic Mono-Stiffener Panel via FRF Analysis: A Numerical Exploratory Study Ms. Niki Tsivouraki , Prof. Konstantinos Tserpes, Prof. Spiliot Fassois	High Cycle Fatigue Analysis of 2D Chiral Auxetic Structures Mr. Žiga Žnidarič , Dr. Srečko Glodež, Dr. Branko Nečemer
9:55	10:15	On the Structural Integrity of Seam Welds in Cylindrical Pressure Vessels Mr. Paschalis Adamidis , Dr. Christos Gakias, Dr. Efstratios Giannakis, Prof. Georgios Savaidis	Microstructural Study of Welded and Repair Welded Dissimilar Creep-Resistant Steels Using Different Filler Materials Mr. Christos Roussos , Mr. Michael Mathioudakis, Mr. Emiliot Zervas, Dr. Stavros Chionopoulos	The Peak Stress Method Applied for Assessing the Lifetime of Welded Joints With Reinforcement Ribs Under Constant and Variable Amplitude Fatigue Loadings Dr. Alberto Visentin, Prof. Alberto Campagnolo, Dr. Vittorio Babini, Prof. Giovanni Meneghetti	Mechanical Performance of Inorganic Polymer-Based Fiber Reinforced Composites Under Static and Cyclic Loading Conditions Dr. Annalisa Natali Murri , Dr. Elettra Papa, Dr. Elena Landi, Dr. Claudio Mingazzini, Dr. Matteo Scafè, Dr. Valentina Medri	Laser Powder Bed Fusion: A Tool for Engineering Microstructures and Mechanical Behavior Prof. Efthymios Polatidis , Dr. Christos Sofras, Dr. Jan Capek, Mr. Xueyang Li, Dr. Christian Roth, Dr. Christian Leinenbach, Prof. Roland Loge, Prof. Markus Strobl
10:15	10:35	Innovative Fatigue Design Approaches for Tension Springs Using The FKM-Guideline „Analytic Strength Assessment for Springs“ Mr. Christian Otto , Dr.-Ing. Martin Petrich, Dr.-Ing. René Reich, Dr.-Ing. Veronika Geinitz, Prof. Dr.-Ing. Ulf Kletzlin	A Micromechanical Model for the Toughness of Hydrogels Prof. John Bassani , Prof. Prashant Purohit	Assessing the Shear Properties of the Adhesives by Improved Processing of Torsion Test Results Prof. Luca Goglio , Dr. Alessandro Benelli, Prof. Davide Salvatore Paolino	Performance Comparison of Isogrid Rib-Stiffened and Conventional Helicopter Fuselage Panels Under Discrete Source Damage and Complex Loading Conditions Dr. Odeh Dababneh	On the Developing Network of Adiabatic Shear Bands During High Strain-Rate Forging Process: A Parametric Study on the Effect of Specimen Aspect Ratio Karantza K., Manolakos D., Ioannis Christodoulou
10:35	10:55	Analysis of the Cause of Failure of the Receiving Bridge of the Spreader Prof. Przemysław Moczko, Dr. Jędrzej Więckowski , Mr. Maciej Olejnik, Prof. Mariusz Ptak	Microstructural Aspects of Fatigue Striation Formation Dr. Wolfgang von Bestenbostel	Determination of Fatigue Crack Size in High-Strength Bolting Assemblies Using Hydrogen-Induced Cracking Mr. Fritz Wegener , Prof. Dr.-Ing. Ralf Glienke, Prof. Dr.-Ing. Daniela Schwerdt, Dr.-Ing. Mathias Lorenz, Mr. Justus Mantik, Prof. Dr.-Ing. Wilko Flügge	Parametric Investigation of Adhesively Bonded Joints in Alternative Power Systems Integration Into an Aircraft Fuselage Panagiotis Gyftos , George Lampeas, Konstantinos Tserpes	Experimental Investigation on the Formation of Adiabatic Shear Bands (ASB) During Dynamic Compression of AISI 1045 Steel at Different Strain Rates Karantza K., Rämö J., Hokka M., Manolakos D., Ioannis Christodoulou
10:55	11:15	The Contribution of Human Factors in the Failure of Mechanical Components and Structures Dr. Greg Haidemenopoulos	Anomalous Fatigue Crack Propagation Behavior in Near Threshold Region of LPBF Prepared Austenitic Stainless Steel Michal Jambor , Tomáš Vojtek, Pavel Pokorný, Daniel Koutný, Pavel Hutař, Luboš Náhlík, Miroslav Šmíd	Failure Analysis of Steel-to-Aluminium Hybrid Welded Joints Under Multiaxial Fatigue Loading Prof. Luca Susmel , Mr. Chin Tze Ng	Multi-Physics Finite Element Model of Cryogenic Hydrogen Tanks Focusing on Joining and Integration Concepts Anastasia-Despoina Ioannou , George Tzourmakis, George Lampeas, Theodor Kermanidis	Advanced Failure Analysis in Tensile Shear Tests With Clinch Points D. Köhler , R. Kupfer, M. Gude

11:15 11:35	Coffee Break				
ROOM	HALL A	HALL B	HALL C	HALL D	HALL E
Session Title	Additive manufacturing and structural integrity of advanced materials (Part I)	Mechanical and functional performance of additively manufactured metallic parts	Phase change materials with structural resilience	Innovative Surface Engineering to Combat Failure (PART I)	Environmental degradation, corrosion and wear (PART I)
Session Chair	Dr. Anthoula Poulia (University of Oslo, Norway) & Dr. Amin Azar (3D-Components AS, Norway)	Prof. Sara Bagherifard & Prof. Mario Guagliano (Politecnico Di Milano, Italy)	Prof. Anette Eleonora Gunnæs (University of Oslo, Norway) & Prof. Ole Martin Løvvik (SINTEF, Norway)	Prof. Hanshan Dong (University of Birmingham, UK)	Prof. Angeliki Lekatou (University of Ioannina, Greece)
11:35 11:55	Examples of the Development of Printed Metal Components and Education in the Field of Additive Technologies Mr. Miloslav Kepka , Ms. Tetjana Tomaskova	Additive Manufacturing of Al-Fe Bimetals via Cold Spray Deposition Mr. Kiran Tulasagiri Raddi , Dr. Asghar Heydari Astarae, Prof. Sara Bagherifard	Theory of Intermediate Twinning and Spontaneous Polarization in Ferroelectric Potassium Sodium Niobate Dr. Georgios Grekas , Dr. Patricia-Lia Pop-Ghe, Prof. Eckhard Quandt, Prof. Richard D. James	Recent Development of Advanced Surface Engineering to Combat Failure Prof. Hanshan Dong , Dr. Xiaoying Li	High-Stability Passive Film for Enhancing Corrosion Resistance in Aluminum Cast Alloy Prof. Dongtao Wang , Dr. Rui Wang, Dr. Zibin Wu, Prof. Hiromi Nagaumi
11:55 12:15	Effect of Geometric Imperfections on Auxetic Lattice-Reinforced Concrete Composites Prof. Kshilij Kumar Yadav	High-Temperature Tensile Behavior of Additively Manufactured 316L Stainless Steel Deformed by High-Pressure Torsion Dr. Hossein Darban , Dr. Kamil Bochenek, Dr. S. Amir H. Motaman, Prof. Anton Hohenwarter, Dr. Witold Węglewski, Prof. Christian Haase, Prof. Michał Basista	Low Hysteresis and High Performance in Pyroelectric Energy Conversion Using Phase-Transforming Barium Strontium Titanate Mr. Ruiheng Geng , Dr. Xian Chen	Microstructure Characterisation and Property Evaluation of a Plasma Nitrided High Entropy Alloy Coating Dr. Xiaoying Li , Ms. Diandian Wu	Study on Improving Corrosion Resistance of 6000-Series Alloys With High Cu Content Dr. Zibin Wu , Prof. Nagaumi Hiromi, Mr. Zhixin Feng, Prof. Haitao Zhang
12:15 12:35	Effect of Solidification Mode on the Resulting Microstructure of 304L Steel Produced With L-PBF Dr. Christos Sofras, Dr. Jan Capek, Dr. Gowtham Soundarapandiyan, Mr. Antonios Baganis, Mr. Andac Özsoy, Dr. Miroslav Šmíd, Dr. Michal Jambor, Dr. Nicola Casati, Dr. Christian Leinenbach, Dr. Steven Van Petegem, Dr. Markus Strobl, Prof. Roland Loge, Prof. Efthymios Polatidis	Microstructural Evolution and Mechanical Properties of Cold Sprayed Copper-Graphene Composites Ms. Fatemeh Zarei , Dr. Amir Ardeshiri Loredehani, Ms. Siyuan Ruan, Dr. Apostolos Koutsiouskis, Dr. Shuo Yin, Prof. Valeria Nicolosi, Dr. Rocco Lupoi, Prof. Mario Guagliano, Dr. Sara Bagherifard	Supercompatibility and Stress-Free Interfaces in Shape Memory Alloys Mr. Mohd Tahseen , Dr. Vivekanand Dabade	Microstructure and Thermomechanical Properties of Electroplated Cu-Carbonaceous Nanocomposite Coatings for Advanced Interconnects in Power Electronics Applications Prof. Changqing Liu , Mr. Allan Yu Liu, Dr. Canyu Liu, Mr. Chunhua Zhang	Microstructure-Properties Control and Hydrogen Embrittlement of High Strength Precipitation-Hardened Martensitic Stainless Steel Dr. Linhao Tan, Prof. Kewei Gao
12:35 12:55	Fracture Mechanics Approach of Fatigue Life Assessment for Additively Manufactured Nickel-Based Superalloy Prof. Huang Yuan	An Average Strain Energy Density Method for Accurate Fatigue Predictions in Additive Manufactured Lattice Structures Dr. Raffaele De Biasi , Prof. Matteo Benedetti, Prof. Ciro Santus, Prof. Filippo Berto	Phase Change Materials for Elastocaloric Cooling Prof. Ole Martin Løvvik , Dr. Marit Stange, Dr. Lars Bumke, Prof. Eckhard Quandt, Dr. Jakub Kušnir, Dr. Tomas Grabek, Prof. Hanuš Seiner, Dr. Kalpna Rajput	Effect of Different Metal-Reinforcement Phases on PEO Discharge and Coating Growth Behavior of AZ91 Mg-Matrix Composites Prof. Jin Zhang , Dr. Jinchao Jiao, Dr. Yong Lian	Effect of Tantalum Low-Alloying on the Corrosion and Wear Performance of a Biomedical Co-28Cr-6Mo Alloy Fabricated by Vacuum Arc Melting Ms. Sevasti Emmanouilidou, Ms. Ioanna Tzala, Ms. Zoe Siaraka, Prof. Angeliki Lekatou
12:55 13:15	Hybrid Structural Health Monitoring for Impact Damage in PLA Plates Using Lamb Waves and Electromechanical Impedance Dr. Paresh Mirga , Dr. Pawel Malinowski	A review of the Roles of Biomimicry and Additive Manufacturing in Enhancing Solid-Solid Thermal Energy Storage with Shape Memory Alloys Patricia Nyamekye , Muhammad Hassan Maqsood, Ilkka Poutiainen, Kyle Foster	Size and Orientation Effects on Martensitic Phase Transformation in Cu-Zn-Al Micropillars Mr. Aleksander Amble Larsen , Ms. Xinyue Huang, Prof. Xian Chen	Enhanced Mechanical Properties of Metals Processed by Surface Mechanical Rolling Treatment Dr. Yanyao Jiang , Dr. Yuxuan Song, Dr. Zengliang Gao	Corrosion Fatigue Behavior of 304L and 316L Stainless Steels in MEA-Based Solutions Ms. Eleni Lamprou , Prof. Fani Stergioudi, Dr. Aikaterini Baxevas, Prof. Nikolaos Michailidis, Dr. Evie Nessi, Dr. Athanasios Papadopoulos, Prof. Panagiotis Seferlis

13:15 14:15	Lunch Break				
ROOM	HALL A				
14:15 14:45	Advancement of Cold Spray Additive Manufacturing: Load-Bearing Capacity and Geometrical Control by Prof. Sara Bagherifard Politecnico Di Milano, Italy				
ROOM	HALL A	HALL B	HALL C	HALL D	HALL E
Session Title	Additive manufacturing and structural integrity of advanced materials (Part II)	Crack propagation in materials and crack-stop engineering	Smart and Sustainable Aviation Engineering & Maintenance innovations	Innovative Surface Engineering to Combat Failure (PART II)	Environmental degradation, corrosion and wear (PART II)
Session Chair	Dr. Anthoula Poulia (University of Oslo, Norway) & Dr. Amin Azar (3D-Components AS, Norway)	Prof. Ehrenfried Zschech (Brandenburg University of Technology Cottbus-Senftenberg, Germany)	Prof. Konstantinos Stamoulis (Amsterdam University of Applied Sciences, Netherlands) & Dr. Claudio Mingazzini (ENEA TEMAF, Italy)	Prof. Hanshan Dong (University of Birmingham, UK)	Prof. Angeliki Lekatou (University of Ioannina, Greece)
14:45 15:05	On the Deformation and Energy Absorption Under Tension and Compression of an Auxetic Structure Made by SLA Resin Mr. Anargyros Stratis, Prof. George-christopher Vosniakas, Dr. Ioannis Papanтониου	Damage-Tolerant Engineered Materials and Structures - What Can We Learn From Nature? Prof. Ehrenfried Zschech	Post-Corrosion-Repair Thickness Measurements Using Lamb Wave Technology: An Aviation MRO Case Study Dr. Maria Zilidou , Prof. Konstantinos Stamoulis, Dr. Daniel Friesen, Mr. Robert Poppe, Mr. Marco Mout, Mr. Luca Brugaletta	Development of TiAlCuN Coatings With High Erosion, Cavitation and Antibacterial Properties for Marine Applications Prof. Jian Chen , Ms. Xiyu Zhang	Corrosion Fatigue Performance of Aluminum Alloys for Transportation: A Case Study on 6061-T6 vs. 6082-T6 Dr. Tetiana Avramenko , Mr. Alex Stutz, Mr. Silvain Michel, Dr. Ulrik Hans, Mr. Christian Affolter
15:05 15:25	LPBF-Processing and Multi-Technique Characterization of AlNiCo5 Hard Magnets Dr. Leonidas Gargalis , Mr. Leonidas Karavias, Dr. Ernesto Urionabarreneitxea, Mr. Joachim Seland Graff, Dr. Patricia Almeida Carvalho, Dr. Pavlo Mikheenko, Dr. Kalliopi Bazioti, Mr. Matej Zaplotnik, Dr. Katerina Argyrou, Dr. Nikolettta Sargioti, Dr. Elias P. Koumoulos, Dr. Spyros Diplas, Dr. Anette Eleonora Gunnæs, Dr. Evangelia Karaxi	Experimental Investigation of Small Cracks Propagation Under Cyclic Loading Ms. Marie Bouyx , Mr. Julien Réthoré, Mr. Vincent Bonnard, Mr. Grégoire Wisdorff	Standrard Specimen Geometries Lead to Inconsistent Structural Adhesives' Quasi-static and Fatigue Properties Prof. Anastasios Vassilopoulos , Mr. Filippo Mannino, Dr. Dharun Srinivasan	Plasma-Induced Healing of Cracks on Yttria-Stabilised Zirconia Prof. Hanshan Dong , Fangzhou Shi , Behnam Dashtbozorg , Xiaoying Li	Effect of Artificial Ageing on Mechanical Properties of Recycled Polypropylene Hollow Chamber Sheets Prof. Stamatina Theochari , Dr. Agathi Anthoula Kaminari, Dr. Angelos Kaldellis, Dr. Isidoros Iakovidis, Dr. Stavros Chionopoulos, Ms. Theano Vlachou, Prof. Athina Georgia Alexopoulou
15:25 15:45	Sustainable Recycling of AlNiCo-5 Production Waste and End-of-Life Magnets Through Additive Manufacturing Technologies for the Development of Bonded Magnets Mr. Hossein Naderi , Ms. Anna Karatza, Ms. Nikolettta Kontouli, Ms. Katerina Margeti, Dr. Elias Koumoulos	Invited Talk: Advances in Micro-Mechanical Fracture Toughness Measurements Dr. Eric Hintsala, Dr. Douglas Stauffer , Dr. Oden Warren	Integration of a Cobot Platform With an Advanced NDT Sensor System: A Sensitivity Case Study Using Direct Velocity Mapping Dr. Maria Zilidou , Mr. Jan-Willem Vrolijk, Mr. Dylan Gouwentak, Dr. Christiaan Schoemaker, Dr. Daniel Friesen, Prof. Konstantinos Stamoulis	Low Temperature Nitrogen Diffusion Treatment of Specialty Austenitic Alloys for Surface Hardening and Enhanced Wear Resistance Dr. Xiao Tao	Assessing the Ageing Effect of Green Organic Coatings under Development on Bronze Alloy Substrate Dr. Agathi Anthoula Kaminari, Dr. Angelos Kaldellis, Prof. Stamatina Theochari , Mr. Athanasios Karabotsos, Prof. Athina Georgia Alexopoulou
15:45 16:05	Flexural Strength Optimization of Flat-Oriented PLA Filament 3D Printing Parts Under Different Infill Patterns and Printing Conditions Dr. Nikolaos Fountas, Prof. John Kechagias, Prof. Stefanos Zaoutos , Prof. Nikolaos Vaxevanidis	Local Surface Toughening – Improvement of Stress Resistance by Using TPU Dr. Martin J. Schollerer , Mr. Jens Kosmann, Mr. Patrick Makiela, Mr. Dirk Holzüter, Prof. Dr. Christian Hühne	Guided Wave-Based Damage Detection Using Integrated PZT Sensors in Composite Plates Dr. Lenka Šedková , Mr. Ondřej Vích, Mrs. Anna Křelinová	Influence of Different Shot Peening Treatments on the Fatigue Behaviour of Modern Leaf Spring Steels Ms. Niki Nouri , Dr. Stefan Dietrich, Prof. Volker Schulze, Prof. Georgios Savaidis, Dr. Christos Gakias, Mr. Borja Escauriaza Ispizua	The Role of Heat Treatment on Fatigue and Fatigue Corrosion Behavior of Cast and Chip-Based Hot Extruded AA6060 Mr. Alexandros Prospathopoulos , Mr. Apostolos Argyros, Ms. Eleni Lamprou, Mr. Johannes Gebhard, Prof. Erman Tekkaya, Prof. Nikolaos Michailidis
16:05 16:25	Multifunctional Plate Lattice Architectures: Experiments and Simulations Dr. Georgios Tzortzinis , Ms. Habiba Eldababy, Dr. Panos Pantidis, Prof. Angelos Filippatos, Prof. Maik Gude, Prof. Mostafa Mobasher	Works on Fatigue Crack Propagation in Railway Mechanical Components Dr. Alexis Ratier , Mr. Philippe Feraud, Dr. Mac-Lan Nguyen-Tajan, Mr. Yann Cheynet, Mr. François Churlaud, Dr. Fabien Szymtka, Dr. Habibou Maitournam	Digital Twins in Aviation MRO Research: Connecting Inspection and Repair Processes to Diagnostics, Prognostics, and Data-Driven Decision Support Systems Dr. Daniel Friesen , Prof. Konstantinos Stamoulis	Advanced 3D Simulation of Surface Shot Peening Dr. Christos Gakias, Dr. Efstratios Giannakis, Mr. Paschalis Adamidis, Dr. Stefan Dietrich, Prof. Dr. Volker Schulze, Prof. Georgios Savaidis	Anisotropic Thermomechanical Fatigue in a Nickel-Base Single Crystal Superalloy: Effects of Strain rate, Rafting Microstructure and Thermal-Mechanical-Oxidation Damage Mechanisms Dr. Cheng Luo , Prof. Dr. Huang Yuan
16:25 16:45	Coffee Break				
16:45 18:00	Poster Presentations				
End of the 2nd Day					

8th International Conference of Engineering Against Failure (ICEAF VIII)

Final Agenda

DAY 3 | 25.06.2025

ROOM	HALL A				
8:40 9:10	KEYNOTE SPEECH Failure Initiation and Propagation in Fibre-Reinforced Composites Under Several Mechanical Loads Through In-Situ X-Ray CT Testing by Dr. Humberto Almeida Jr. LUT University, Finland				
ROOM	HALL A	HALL B	HALL C	HALL D	HALL E
Session Title	Fracture of metallic materials in hydrogen-rich environments	Strategies for Failure Mitigation in Lightweight Structures	Investigation of Fractures and Failures of Industrial Components (PART I)	Hydrogen for transportation: design of materials, fuel systems and components against failure	Deformation mechanisms in Engineering Materials: experimental characterization and modeling tools
Session Chair	Prof. Paraskevas Kontis (Norwegian University of Science and Technology, Norway) & Dr. Napat Vajragupta (VTT Technical Research Centre of Finland, Finland)	Prof. Anastasios Vassilopoulos (EPFL, Switzerland)	Dr. George Pantazopoulos (ELKEME S.A., Greece)	Prof. Efstathios Theotokoglou (University of Athens, Greece)	Prof. Efthymios Polatidis (University of Patras, Greece)
9:10 9:30	The Challenging Role of Diffusion Coatings in Protecting Superalloys in Hydrogen-Rich Environments <i>Prof. Paraskevas Kontis, Dr. E. Mysliu, Dr. H. Khanchandani, Prof. A. Erbe, Dr. M. Panella, Dr. C. Schwalbe, Dr. N. Sayer</i>	Core Shell Rubbers for Toughening and Life Extension of CFRPs <i>Ms. Sofia Terzopoulou, Dr. Dionisis Semitekolos, Prof. Costas Charitidis</i>	Interdisciplinary Communication of Fracture Analysis Via a New Three Phase Epistemologically Grounded Approach to Fractography <i>Ms. Deborah Aliya</i>	Mechanical Durability Assessment of CFRP Liquid Hydrogen Storage Tanks for Aviation <i>Dr. Mirko Simonetto, Dr. John-Alan Pascoe</i>	Strain Rate Dependent Fracture Behavior of AW5754 Aluminum Alloy: A Multiaxial Loading Study <i>Dr. Eray Arslan, Dr. Mehmet Haskul</i>
9:30 9:50	Adaptive Multiscale Material Modelling and Characterisation Suites for Assessing Interactions Between Hydrogen and Metallic Materials <i>Dr. Napat Vajragupta</i>	Predicting Fatigue-Driven Delamination in Curved Composite Laminates Under Non-Constant Mixed-Mode Conditions Using a VCCT-Based Approach <i>Dr. Carlos Mallor Turon, Mr. Mario Sanchez, Dr. Andrea Calvo, Dr. Susana Calvo, Mr. Hubert Roman Wasik, Dr. Federico Martin de la Escalera</i>	Visual Inspection: Holistic Versus Formulaic Approaches <i>Ms. Deborah Aliya</i>	Buckling of Wide Rectangular GLARE Fiber-Metal Laminates Subjected to Compression <i>Mr. Costas Kalfountzas, Dr. George Bikakis, Prof. Efstathios Theotokoglou</i>	In Situ Characterization of Strain-Induced Phase Transformations in L-PBF Multitextured Metastable Stainless Steel Using Advanced Neutron Imaging <i>Dr. Florencia Malamud, Dr. Christos Sofras, Dr. Efthymios Polatidis, Dr. Matteo Busi, Dr. Jan Capek, Mr Parth Rath, Dr. Robin Woracek, Dr. Thawatchart Chulapakorn, Dr. Takenao Shinohara, Dr. Yuhua Su, Dr. Markus Strobl</i>
9:50 10:10	Analysis of the Delayed Cracking Mechanism of an Industrial Hot-Dip Galvanized DP1180GI Steel Coil <i>Prof. Jinxu Li, Mr. Weiguo Li</i>	Lifetime-Centric Engineering Approach for Fiber-Reinforced Polymer Springs Regarding Fatigue and Material Degradation <i>Dr. Martin Petrich, Prof. Ulf Kietzin</i>	NTSB Investigations of High-Strength Steel Landing Gear Components Fracturing from Fatigue Caused by Excessive Grinding <i>Dr. Erik Mueller</i>	Effect of Stress Triaxiality, Strain Rate and Pressure on Hydrogen Embrittlement of X70 Steel Studied by Mini Specimens and Synchrotron Tomography <i>Mr. Eduardo Ballmann De Campos, Dr. Thilo Morgeneyer, Dr. Henry Proudhon, Dr. Andrew King, Dr. Victor Okumko, Dr. Yazid Madi</i>	Research on the Preparation of Stress-Free Standard Samples for Short-Wavelength Characteristic X-ray Diffraction <i>Dr. Linyang Wu, Prof. Jin Zhang, Dr. Jinghan Yang, Prof. Pengfei Ji, Dr. Shitao Dou</i>
10:10 10:30	Testing Gaseous Hydrogen Embrittlement in Steel Using Sub-Sized Fracture Toughness Specimens <i>Prof. Yazid Madi, Dr. Luciano M. Santana, Dr. Jacques Besson</i>	Enhanced Euler-Bernoulli Fiber Force-Based Beam Analysis Using Simpson's Integration <i>Ms. Vasiliki Tsofoliadi, Dr. Ambrosios Antonios Savvides</i>	Failure Investigation of Inconel 625 Alloy Boiler Tube <i>Dr. Ihho Park, Dr. Joe Hoon Jang, Dr. Won-jon Yang</i>	FGM Sandwich Curve Beam Under Thermomechanical Loads for the Hydrogen Mechanical Applications <i>Mr. Dimitrios Mallios, Prof. Efstathios Theotokoglou, Dr. Constantinos Koutsourmaris</i>	Texture Evolution in Transforming and Twinning Materials: A Comparison of Neutron Diffraction and MTEX-Based Simulations <i>Dr. Jan Capek, Dr. Efthymios Polatidis, Dr. Miroslav Šmid, Prof. Manas Upadhyay</i>
10:30 10:50	A Damage Model for the Simulation of Hydrogen Embrittlement in Metals: Mathematical and Computational Issues <i>Prof. Nikolaos Aravas, Dr. Sokratis Xenos, Dr. Ioanna Papadioti</i>	Integrated Strategies for Structural, Thermal and Fire Failure Mitigation in Lightweight TRC/CLC Composite Facade Panels <i>Pamela Voigt, Mario Stelzmann, Robert Böhm, Lukas Steffen, Hannes Peller, Matthias Tietze, Miguel Prieto, Jan Suchorzewski, Dionysis Kolaitis, Andrianos Koklas, Costas Charitidis, Vasiliki Tsofoliadi, Mario-Myrto Dardavila</i>	Research on the Behaviour of Diamond-Based Porous Structures Under Compression <i>Prof. Katarina Monkova, Dr. George Pantazopoulos, Dr. Marilanthi Bouzouni, Dr. Sofia Papadopoulou, Dr. Anagnostis Toulfatzis</i>	Early Detection, Evaluation and Continuous Monitoring of Hydrogen Induced Cracking in Oil & Gas Vessels <i>Dimitrios Kourousis, Dimitrios Papasalouras, Athanasios Anastasopoulos</i>	Phase Formation and Texture Evolution of 316L-CuCrZr Multi-Material Structures <i>Mr. Antonios Baganis, Dr. Efthymios Polatidis, Dr. Florencia Malamud, Dr. Jan Capek, Dr. Matteo Busi, Dr. Vigneash Pandiyan, Dr. Miroslav Šmid, Dr. Michal Jambor, Dr. Christian Leinenbach</i>
10:50 11:10	Numerical Analysis of Microstructural Characteristics on the Hydrogen Susceptibility of Pipeline Steels <i>Mr. Berk Tekkaya, Dr. Ioanna Papadioti, Mr. Ilias Bellas, Prof. Dr. Nikolaos Aravas, Prof. Dr. Sebastian Münstermann</i>		A Machine Learning Based Approach for the Design of Ductile Iron in a Critical Raw Material Perspective <i>Prof. Paolo Ferro, Prof. Keke Tang, Prof. Filippo Berto, Prof. Franco Bonollo</i>		Enhancing the Mechanical Behavior of L-PBFed Austenitic Steels by Tailoring Crystallographic Texture for Biaxial and Shear Deformation <i>Dr. Christos Sofras, Dr. Christian Leinenbach, Dr. Efthymios Polatidis</i>

11:10	11:30	Coffee Break			
ROOM	HALL A	HALL B	HALL C	HALL D	HALL E
Session Title	Microstructure, properties, and failure of casting alloys	Mechanical Response and Failure of Advanced and Additively Manufactured Materials and Components (PART I)	Investigation of Fractures and Failures of Industrial Components (PART II)	Processing – Microstructure – Properties Relation (PART I)	
Session Chair	Dr. Dirk Lehmus (Fraunhofer IFAM, Germany)	Prof. Nikolaos Michailidis, Prof. Georgios Savaidis & Prof. Fani Stergioudi (Aristotle University of Thessaloniki, Greece)	Dr. George Pantazopoulos (ELKEME S.A., Greece)	Prof. Alexis Kermanidis & Prof. Emmanouil Bouzakis (University of Thessaly, Greece)	
11:30	11:50	Automated Defect Recognition and Property Prediction Based on Non-Destructive Evaluation of High Pressure Die Cast (HPDC) Samples Based on Primary and Partially Secondary AISi10MnMg Alloys Mr. Stefan Bosse, Dr. Dirk Lehmus, Mr. Marco Haesche, Mr. Leonardo Fernandes Gomes	Fatigue of Additively Manufactured 18Ni300 Maraging Steel Mr. Antonios Tsakiris, Mr. Nikolaos Foroglou, Mr. Paschalis Adamidis, Prof. Georgios Savaidis	Study of the Strength of Mooring Lines of Floating Wind Turbine on Fatigue With Deterministic and Probabilistic Methods Mr. Nikolaos Mossialos, Dr. Dimitrios Konispoliatis	Optimizing Sol-Gel Hybrid Coatings for Corrosion Protection of Al AA2024-T3 Specimens Prof. Stergios Maropoulos
11:50	12:10	Optimizing Cooling Conditions for Increased Fe Tolerance in Recycled Aluminum Alloy Wheel Production Mr. Batuhan Dogdu, Mr. Eren Bozkurt, Dr. Emre Cinkilic	Modeling Tensile Properties in Selective Laser Melting of 316L Stainless Steel Using Statistical Multi-Parameter Analysis and Artificial Neural Networks Dr. Ioannis Papantoniou, Dr. Nikolaos Fountas, Prof. Dimitrios Manolakas, Prof. Nikolaos Vaxevanidis	Enhancing Characterization and Failure Analysis of the Biointerface Through Advanced Surface Analysis Techniques Mr. Wolfgang Betz, Dr. Norb Biedermann, Dr. Kateryna Artyushkova	Profile Cracking Prediction for 6000 Series High Strength and Toughness Aluminum Alloy During Hot Extrusion Dr. Guanglei Zhu, Prof. Nagaumi Hiromi, Mr. Xu Wang
12:10	12:30	Enhancing Precipitation Modeling and Property Prediction in Cast Aluminum Alloys Using Physics-Based Models and AI Dr. Emre Cinkilic	A Fatigue Life Calculation Procedure Implementing Surface and Depth-Graded Mechanical Properties Mr. Paschalis Adamidis, Dr. Christos Gakias, Dr. Efstratios Giannakis, Prof. Georgios Savaidis	Failure Analysis of Compressor Plate Valve Seat Mr. Darko Pastorcic, Mr. Igor Poljak, Mr. Ivan Pentek, Mr. Vedran Mrzljak	Design of Novel High Strength, High Electrical Conductivity and High Thermostability Twitch Aluminum Alloys Dr. Maria Ioanna Tzini, Prof. Gregory Olson
12:30	12:50	Influence of Graphite Degenerations on Mechanical Properties of Ductile Iron Mr. Tim Steingraber	Bending Behavior of the 95% and 99% Alumina Ceramics Dr. Sergiu-Valentin Galatanu, Victor Tiberiu Popi, Cosmin-Florin Papa, Prof. Liviu Marsavina	Failure of Corrosion-Resistant Alloys (CRA): Effect of Operating Environment and Stress Prof. Anna Zervaki, Prof. Gregory Haidemenopoulos	Study on the Correlation Between Microstructure and Cross Scale Stress in TIG Welding of 7A52 Aluminum Alloy Dr. Jinghan Yang, Prof. Jin Zhang, Dr. Linyang Wu, Dr. Pengfei Ji

12:50	13:50	Lunch Break				
ROOM		HALL A	HALL B	HALL C	HALL D	HALL E
Session Title		Composites Recycling	Mechanical Response and Failure of Advanced and Additively Manufactured Materials and Components (PART II)	Shape Sensing, Full-Field Response Reconstruction, and Damage Diagnosis	Processing – Microstructure – Properties Relation – (PART II)	
Session Chair		Prof. Lefteris Amanatidis (University of Patras, Greece)	Prof. Nikolaos Michailidis, Prof. Georgios Savaidis & Prof. Fani Stergioudi (Aristotle University of Thessaloniki, Greece)	Prof. Adnan Kefal (Sabanci University, Turkey)	Prof. Alexis Kermanidis & Prof. Emmanouil Bouzakis (University of Thessaly, Greece)	
13:50	14:10	Sustainability and Economic Viability of Chemical and Plasma Solvolysis Processes From End-of-Life CFRP Ms. Evangelia Stamkopolou, Mr. Georgios Kourouklidis, Dr. Vasiliki Ntagkonikou, Dr. Foteini Petraki, Mr. Dimitrios Marinis, Dr. Ergina Farsari, Prof. Eleftherios Amanatides, Dr. Elias Koumoulos	Fatigue Behavior of Miniaturized L PBF Ti6Al4V Strut-Junction Specimens: The Role of Node Filletting, its Design-Led Compensation, and the Influence of Build and Printing Orientation Dr. Simone Murchio , Prof. Matteo Benedetti, Mr. Alessandro Albertini, Dr. Gianluca Zappini, Prof. Damiano Pasini, Prof. Filippo Berto	Correlation of Normalized Strain From Image-Based Techniques With Optical Fiber Sensor Data in Mechanically Stabilized Earth Systems: Insights From Scaled Physical Modeling Prof. Alexander Savaidis , Dr. Elena Kapogianni	Influence of Artificial Ageing on Fatigue Crack Growth Behavior of Al-Cu-Li AA2198 Mr. Ioannis Goulas , Dr. Alexis Kermanidis , Dr. Nikolaos Alexopoulos, Dr. Christina-Margarita Charalampidou, Mr. Panagiotis Skarvelis	
14:10	14:30	Leading Edge Erosion of Wind Turbine Blades: Solutions From Recycling Prof. Vasileios Koutsos	Additive Manufacturing-Based Joining of 316L Stainless Steel and Poly(lactic Acid): Fabrication and Mechanical Validation Under Static and Dynamic Loads Mr. Apostolos Argyros , Prof. Georgios Mallaris, Prof. Nikolaos Michailidis	Numerical and Experimental Application of Particle Inverse Method for Crack Monitoring of Composite Structures Mr. Mahmut Hudayi Bilgin , Mr. Adnan Kefal	Analysis of Surface Layer Zone Properties With the Aid of Finite Element Simulation of Chip Formation in Machining Mr. Stylianos Machmoukiotis, Dr. Emmanouil Bouzakis	
14:30	14:50	Retention Analysis of Mechanical Properties of Carbon Fibers Recycled via Plasma-Assisted Solvolysis Ms. Ilektra Tourkantonis , Prof. Konstantinos Tserpes, Prof. Dimitrios Sotiropoulos, Mr. Dimitrios Marinis, Dr. Ergina Farsari, Prof. Eleftherios Amanatides	The Effect of Cross-Contaminations of AS110MG to CUCR1ZR Feedstock During Multi-Material Laser Powder Bed Fusion Prof. Nikolaos Alexopoulos , Ms. Ioanna Giavouta, Mr. Konstantinos Skaperdas, Dr. Christina Charalampidou, Mr. Christopher Singer, Mr. Maximilian Horn, Dr. Georg Schlick, Dr. Julia F.	An Inverse Finite Element Method for Modal Assessment and Damage Detection in Aerospace Structures Under Random Vibration Mr. Muhammet Yavuz Belur, Mr. Mahmut Hudayi Bilgin, Mr. Spiliotis Fassois , Mr. Adnan Kefal	Dissimilar FSW Lap Joints of Al-Cu-Li Alloys: Insights Into Microstructural Evolution and Mechanical Performance G. Rapsomanikis, A. Karanika, P. Skarvelis, A.D. Zervaki	
14:50	15:10	Plasma-Induced Oxidative Degradation of Epoxy/Anhydride Carbon-Fiber Composites Mr. Dimitrios Marinis , Dr. Ergina Farsari, Prof. Eleftherios Amanatides	Laser Powder Bed Fusion of 316L Stainless Steel and Metal Matrix Composite Development through Ball Milling of Reinforced Feedstocks Angelos Evangelou , Rafael Stylianou, Alexandros Loizou, Georgios Samourganides, Donghyuk Kimb, Anqi Liang, Philippa Reed, Georgios Constantinidesc, Theodora Kyratsi	Towards the Determination of the Remaining Life Time in Steel Structures Vassilis Zouzoulas , Tatiana Damatopoulou, Evangelos Hristoforou	Research on the Parameters Processing on the Structural Integrity of Aluminium-Graphene Composites Beata Smyrak , Marek Gnielczyk, Adriana Wrona, Sonia Boczkal	
ROOM		HALL A				
15:10	15:30	Closing Remarks & Best Poster Award				
End of the 8th International Conference of Engineering Against Failure (ICEAF VIII)						

8th International Conference of Engineering Against Failure (ICEAF VIII)

Final Agenda

Poster Session				
Poster Presentations: June 24th (Day 2), 16:45-18:00				
Poster #15	Poster #71	Poster #81	Poster #102	Poster #104
Reliability of Strength Test Results on Materials using Statistical and Computational Methods <i>Prof. Alexander Savaidis, Dr. Stamatina Gavela, Dr. George Papadakos</i>	Stress Monitoring and FEA Simulation of the Structure of a Dual-Axis Tracking Photovoltaic System <i>Dr. Jae-Seong Jeong</i>	Analysis of the Causes of Defects in Lead Tap Joints for Electric Vehicles <i>Dr. Wanjon Yang, Dr. Ihho Park, Dr. Jaehoon Jang, Mr. Yeongsu Ha</i>	Nanocellulose as a Filler for ABS Composites <i>Prof. Lubomir Lapcik, Dr. Barbora Lapcikova, Ms. Apurva Shahaji Vadanagekar</i>	Epoxy/Graphene Nanocomposites for Technical Applications <i>Prof. Lubomir Lapcik, Dr. Barbora Lapcikova, Ms. Apurva Shahaji Vadanagekar</i>
Poster #105	Poster #106	Poster #108	Poster #128	Poster #156
Degradation Processes of Large-Panel Building Thermal Modernization Due To Ineffective Room Ventilation <i>Dr. Aldona Skotnicka-Siepsiak, Prof. Carlos Serrat, Prof. Janusz Krentowski, Dr. Piotr Knyziak</i>	Technical Condition Assessment and Failure Prevention in Municipal Buildings: A Case Study From Northeastern Poland <i>Dr. Aldona Skotnicka-Siepsiak, Prof. Carlos Serrat, Prof. Verónica Royano García, Prof. Jacek Rapiński, Dr. Michał Bednarczyk, Dr. Jacek Zabielski</i>	A New Testing Procedure to Quantify and Assess Fatigue Properties of High-Performance Leaf Springs <i>Dr. Efstratios Giannakis, Mr. Paschalis Adamidis, Dr. Christos Gakias, Prof. Georgios Savaidis</i>	Engineering Hybrid ZnO-Based Nanostructures for Plant Protection Applications <i>Prof. Catherine Dendrinou-Samara, Dr. Kleoniki Giannous, Dr. Panagiota Tryfon, Dr. Julietta Moustaka, Dr. Ilektra Sperdouli, Prof. Michael Moustakas</i>	Tensile Behavior of Romanian 'Turcană' Sheep Wool Waste Fibers Influence of Body Region <i>Dr. Corina Sosdean, Prof. Susana Piçarra, Dr. Sergiu-Valentin Galatanu, Prof. Liviu Marsavina</i>
Poster #158	Poster #169	Poster #190	Poster #195	Poster #200
Development of a Method for Monitoring the Condition of a Remotely Controlled Demolition Robot to Prevent Structural Failures <i>Prof. Damian Derlukiewicz, Mr. Jakub Andruszko</i>	Failure Analysis of Metal Components in 500 kV Substations in West of China: Case Study of GIS Valves and Main Transformer Bellows <i>Prof. Cuiwei Du, Dr. Fang Yuan LU, Dr. Meng Hao LIU</i>	Silica Aerogels as Catalysts for Hydrogen Production via Water Splitting <i>Ms. Apurva Vadanagekar, Prof. Lubomir Lapcik, Dr. Barbora Lapčíková</i>	Applying Deep-Learning Techniques to Evaluating Risk of Damage to Masonry Buildings in Mining Areas <i>Dr. Adrian Jędrzejczyk, Prof. Janusz Rusek, Prof. Karol Firek</i>	Damage Intensity Index for Diagnosis and Prediction of the Technical Condition of Buildings <i>Mr. Karol Firek, Mr. Janusz Rusek, Mr. Adrian Jędrzejczyk</i>
Poster #208	Poster #210	Poster #217	Poster #222	Poster #226
A Multi-Criteria Decision-Support Tool for the Selection of Sustainable Composite Recycling Processes <i>Dr. Dionysios Markatos, Prof. Eleftherios Amanatidis, Prof. Sonia Malefaki, Prof. Angelos Filippatos, Prof. Dimitrios Mataras, Prof. Spiros Pantelakis</i>	Mechanical Properties and Failure Risk of Cement Mortars Containing Cement Kiln Dust and Gas Treatment Residues from Municipal Solid Waste Incineration <i>Prof. Małgorzata Ulewicz, Dr. Alina Pietrzak, Prof. Jacek Pietraszek</i>	Sustainability-Driven Assessment of Insulation Materials for Fuel Storage Applications in the Maritime Sector <i>Mr. Thomas Kalampoukas, Dr. Dionysios Markatos, Prof. Angelos Filippatos</i>	Mechanical Properties of High Density Poly(ethylene)-Perlite Nanocomposites <i>Prof. Lubomir Lapcik, Associate Professor Barbora Lapčíková, Mr. Jan Stehlik</i>	AI-Driven Predictive Modeling and Optimization of FDM Mechanical Properties Under Variable Static Strain Conditions <i>Dr. Marcello Lauretti, Dr. Irene Bavasso, Ms. Erika Palazzi, Prof. Jacopo Tirillo, Prof. Fabrizio Sarasini, Prof. Filippo Berto</i>
Poster #228	Poster #236	Poster #237	Poster #244	Poster #181
On the Development of an Advanced Fatigue Testing Machine for 3-Point Bending of Polymer Matrix Composites <i>Prof. George-Christopher Vosniakos, Mr. Nikolaos Davaris, Mr. Evangelos Tzimas, Dr. Emmanouil Stathatos</i>	Printability Assessment of an Atomized G91 Powder Steel Using Laser Beam Directed Energy Deposition <i>Dr. Pilar Rey Rodríguez, Mr. Adrian Alonso Rial, Mr. Alfonso Vazquez Castro, Mr. Marcos Díez Rodríguez, Dr. David San-Martin, Mr E.E. Alvarado, Dr. Isaac Toda-Caraballo, Dr. Carlos Capdevila, Dr. Rebeca Hernández-Pascual, Dr. Antonio Fernández-Viña, Dr. María Serrano</i>	Influence of Process Parameters on the Mechanical Properties of FDM-Printed Parts Using Commercially Available Materials <i>Mr. Ivan Goran Kovačić, Ms. Maja Dundović, Prof. Željko Vrcan, Prof. Kristina Markovic</i>	A Comparative Study of Directional Grown and Direct Energy Deposited Alnico 5 <i>P. Rey Rodríguez, F. Øvrebø, J. Graff, M. F. Sunding, P. Carvalho, C. Bazioli, P. Mikheenko, A.E. Gunnes, M. Zaplotnik, E. Urionabarrenetxea, S. Diplas</i>	Analysis of the Impact of Structural and Architectural Facade Detail Degradation on the Structural Condition of Historic Buildings: Application of Digital Twins and Photogrammetry in Risk Assessment <i>Prof. Joanna Gil-Mastalerczyk, Dr. Joanna A. Pawłowicz, Dr. Monika Mackiewicz, Prof. Janusz R. Krentowski, Dr. Piotr Knyziak, MSc. Szymon Spodzieja, MSc. Katarzyna Korcza, MSc. Michał Bogusławski</i>
Poster #253	Poster #262	Poster #E04	Poster #E06	Poster #E07
Hydrogen-Induced Plasticity in Titanium: In Situ Electron Microscopy and Nanoindentation Testing <i>Ms. Xiaohan Dai, Dr. Maria Jazmin Duarte Corre, Prof. Degang Xie, Prof. Gerhard Dehm</i>	Finite Element Analysis of Impact Behavior in Closed-Cell Aluminum Foams: A Comparative Study of Cell-Based and Continuum-Based Models <i>Dr. Emmanouil Smyrnaios, Mr. Christos Tegos, Prof. Fani Stergioudi, Prof. Georgios Mallaris, Prof. Nikolaos Michailidis</i>	On the Development of a New Standard Related to Steel Health Monitoring <i>Evangelos Hristoforou, Petros Tsakiridis</i>	On the Use of AMR Sensors for Stress Determination in Ships <i>Maria Tsironi, Gregorios Doumenis</i>	On a New Power Generator for Autonomous Stress Monitoring in Ships <i>Tatiana Damatopoulou, Gregorios Doumenis</i>
Poster #E08	Poster #E09	Poster #E11	Poster #E13	
New Steel Stress Coupons Based on Induction Heating and Consequent Quenching <i>Eleni Aivazoglou, Spyros Angelopoulos, Gregorios Doumenis</i>	Stress Field and Possible Crack Generation Monitoring Using Magnetic Techniques <i>Maria Tsironi, Petros Tsakiridis</i>	On the Effect of Dislocation Cell Structure on the Transformation Behavior of a Highly Metastable 304L Steel Processed by Laser Powder Bed Fusion <i>Michał Jambor, Christos Sofras, Efthymios Polatidis, Jan Čapek, Miroslav Šmíd</i>	Research on the Fatigue of Aluminium Wires used for Overhead Power Lines <i>Beata Smyrak, Tadeusz Knych, Andrzej Mamala, Bartosz Jurkiewicz, Kinga Korzeń, Anna Kula, Piotr Czarniecki, Piotr Włoch</i>	