

ESREL 2024 CONFERENCE PROGRAM

23-27.06. 2024. Cracow, Poland

Faculty Of Mathematics And Informatics (FMI)

Sunday, June 23, 2024; Time: 17⁰⁰-21⁰⁰

Time	Conference Events
17 ⁰⁰ -19 ⁰⁰	Registration (FMI Hall)
19 ⁰⁰ -21 ⁰⁰	Reception/Welcome Party (FMI)

Monday, June 24, 2024; Time: 8³⁰-23⁰⁰

Time	Conference Events						
8 ³⁰ -9 ⁰⁰	Registration (FMI Hall)						
9 ⁰⁰ -9 ³⁰	Opening Ceremony (Room S) Invitation and Welcome to ESREL 2024 by Krzysztof Kołowrocki, PSRA President and Conference Chairman Message from Michael Beer, ESRA Chairman Chair: Krzysztof Kołowrocki, Poland						
9 ³⁰ -10 ⁰⁰	Plenary Lecture (Room S) Title: <i>Health Aware Control and RUL Control of Degrading Systems</i> Speaker: Christophe Berenguer, France Chairs: Pierre Dersin, Sweden; Sylwia Werbińska-Wojciechowska, PSRA						
10 ⁰⁰ -11 ⁰⁰	Coffee/Tea Break (FMI)						
	Sessions						
	Stream A Room S1 Topic 1: Accident and Incident Modelling & Uncertainty Analysis Chairs: Lucas Restivo de Oliveira, Brazil Anca Hanea, Australia	Stream B Room S2 Topic 2: Reliability, Safety and Security of Components and Systems & Prognostics System Health Management Chairs: Tom Ivar Pedersen, Norway; Leticia Fontanela, Brazil	Stream C Room S3 Topic 3: Mathematical and Statistical Methods in Reliability, Safety and Security Chairs: Stefan Kaalen, Sweden; Han Liu, China	Stream D Room S4 Topic 4: Simulation Based Methods for Reliability, Safety and Security & Risk and Reliability Assessment and Management Chairs: Marek Amanowicz, Poland; Shenae Lee, Norway	Stream E Room S5 Topic 5: Human Factors in System Reliability, Safety and Security & Occupational Safety Chairs: Anna Cosmin-Spanoche, USA; Yochan Kim, Republic of Korea	Stream F Room S6 Topic 6: Complex Systems and Critical Infrastructures Reliability, Safety and Security Modelling and Optimization & Maintenance Strategies Chairs: Jacek Kałowski, Poland; Di Nardo Mario, Italy	Stream G Room S7 Topic 12: Special Sessions (SSi) Chairs: Sessions' Organizers

11 ⁰⁰ -11 ²⁰	<p>Title: Short Term Security Assessment Of Natural Gas Supply In European Union And Policy Insights</p> <p>Speakers: Behnam Akbari, Chao Zhang, Giovanni Sansavini</p>	<p>Title: Mitigation Ontology For Analysis Of Safety-Critical Systems</p> <p>Speakers: Nazakat Ali, Kristina Lundqvist, Kaj Hänninen</p>	<p>Title: Using Pre-Change Operational Evidence For Predicting Post-Change Reliability, Given Prior Confidence In Fault-Freeness</p> <p>Speakers: Robab Aghazadeh Chakherlou, Lorenzo Strigini</p>	<p>Title: Cybersecurity Awareness Provision: Case Study</p> <p>Speakers: Marek Amanowicz</p>	<p>Title: Human Guided Fault Diagnosis With Contrastive Sensor Transformer</p> <p>Speakers: Zaharah Bukhsh, Irina Stipanovic</p>	<p>Title: Predicting Complex System Reliability Through Neural Network Considering Interval-Censored Component Failure Data With Dependencies</p> <p>Speakers: Abdelhamid Boujarif, Oualid Jouini, Zhiguo Zeng, Robert Heidsieck</p>	<p>Special Session 1: Recent Ontological, Methodological, And Operational Advances In Resilience</p> <p>Organizers: Omar Kammouh, Hiba Baroud, Maria Nogal</p> <p>SS1.1</p> <p>Title: The Risk Of Divergence In Resilience</p> <p>Speakers: Hiba Baroud, Omar Kammouh, Maria Nogal</p>
11 ²⁰ -11 ⁴⁰	<p>Title: Advancing Nuclear Reactor Safety Analysis: Methodological Innovations And Results From Dynamic Probabilistic Safety Assessment</p> <p>Speakers: Masood Akmal, Falak Sher</p>	<p>Title: Analyzing Surface Quality Patterns Through Lens Of Transformer Algorithm</p> <p>Speakers: Candenz Cicek, Marcin Hinz</p>	<p>Title: Adaptive Maintenance Policy For Gamma Degrading Units With Bathtub-Shaped Degradation Rate Function In The Presence Of Random Effect</p> <p>Speakers: Nicola Esposito, Antonio Piscopo, Bruno Castanier, Massimiliano Giorgio</p>	<p>Title: Certification Scheme For Artificial Intelligence Based Systems</p> <p>Speakers: Yann Billeter, Stefan Brunner, Ricardo Chavarriaga, Philipp Denzel, Oliver Forster, Carmen Mei-Ling Frischknecht-Gruber, Monika Reif, Frank-Peter Schilling, Joanna Weng, Arman Iranfar, Marco Repetto</p>	<p>Title: Integrating Artificial Intelligence In Occupational Health And Safety Management System To Reduce Lost Time Injuries In The Construction Industry</p> <p>Speaker: Martha Chadyiwa</p>	<p>Title: Bemildo Alvaro Ferreira Filho, Gabriel Doria Xavier, Marina Ronconi de Oliveira, Moacyr Machado Cardoso Jr</p> <p>Speakers: Airport Complex System: Multifaceted Analysis With Extended Study On Accident Investigation</p>	<p>SS1.2</p> <p>Title: Effects Of Workforce Productivity On Infrastructure Resilience</p> <p>Speakers: Neetesh Sharma, Omar Kammouh, Maria Nogal, Paolo Gardoni</p>

11 ⁴⁰ -12 ⁰⁰	<p>Title: Bayesian Framework For In-Flight Calibration Of Spacecraft Operational Simulation Models</p> <p>Speakers: Federico Antonello, Daniele Segneri, James Eggleston</p>	<p>Title: Risk Factors Associated With The Violation Of Regulatory Requirements In The Maintenance Of Aircraft Components</p> <p>Speakers: Leticia Fontanella, Jose Pereira, Renan Ventura, Flavio Frade, Alexandre Sheremetieff</p>	<p>Title: Model Selection For Bounded Transformed Gamma Processes: Bayesian Approach</p> <p>Speakers: Massimiliano Giorgio, Fabio Postiglione, Gianpaolo Pulcini</p>	<p>Title: AvailSim4: Open Source Framework For Availability And Reliability Simulations</p> <p>Speakers: Milosz Blaszkiewicz, Andrea Apollonio, Thibaud Buffet, Thomas Cartier-Michaud, Lukas Felsberger, Jack Heron, Jan Uythoven, Daniel Wollmann</p>	<p>Title: Exploring Safety-Related Metrics To Assess Human-System Interactions In Heavy-Duty Automated Vehicles</p> <p>Speakers: Anna Cosmin-Spanoche, Camila Correa-Juillian, Xin Xia, Ali Mosleh, Jiaqi Mac</p>	<p>Title: SHEPHERD: A Digital Blueprint For Drone Based Logistic Networks</p> <p>Speakers: Gianluca Filippi, Tataghata Basu, Ben Personage, Christie Maddock, Edoardo Patelli, Marc Roper, Massimiliano Vasile, Marco Fossati</p>	<p>SS1.3</p> <p>Title: Operationalizing Resilience In The Context Of Complex Systems: A Systematic Roadmap</p> <p>Speakers: Yiping Fang, Adam Abdin, Min Ouyang, Hiba Baroud</p>
12 ⁰⁰ -12 ²⁰	<p>Title: Using AcciMap As Systemic Analysis Tool</p> <p>Speakers: Flávio de Azevedo Corrêa Junior, Elton Cecon, Rodrigo Mendes Cordeiro, Guilherme Manfrim Siviero, Moacyr Machado Cardoso Jr, Lucas Novelino Abdala</p>	<p>Title: Prediction Method Of Remaining Useful Life of Rolling Bearings Based On Hybrid Degradation Model</p> <p>Speakers: Mengqi Huang, Zhengyu Du, Changhong Peng</p>	<p>Title: Regularized Differentiation For Bioburden Density Estimation In Planetary Protection</p> <p>Speakers: Andrei Gribok, Michael DiNicola, Lisa Guan</p>	<p>Title: Improving Resilience And Robustness In Artificial Intelligence Systems Through Adversarial Training And Verification</p> <p>Speakers: Stefan Brunner, Monika Reif, Martin Rejzek</p>	<p>Title: An Explorative Application Of Task Reliability Index Framework For Human Reliability Data Collection</p> <p>Speakers: Yochan Kim, Vinh N. Dang, Luca Podofillini</p>	<p>Title: Comparing Homogeneous And Inhomogeneous Time Markov Chains For Modelling Degradation In Sewer Pipe Networks</p> <p>Speakers: Lisandro A. Jimenez-Roa, Tiedo Tinga, Tom Heskes, Marielle Stoelinga</p>	<p>Special Session 2: Towards Resilience Assessment Of Power Systems</p> <p>Organizers: Vytis Kopustinskas</p> <p>SS2.1</p> <p>Title: Modelling Power Disruption Scenarios In Baltic Region Using Pypsa</p> <p>Speakers: Isabel Asensio Bermejo, Hrvoje Foretić, Vytis Kopustinskas</p>

12 ²⁰ -12 ⁴⁰	<p>Title: Unavailability Calculation For North Sea Energy Island Using Fault Tree And Monte Carlo Simulation</p> <p>Speakers: Dikshya Bhandari, Jannie Cira Lund Andersen Bendixen, Jon Tømmerås Selvik</p>	<p>Title: Analysis Of Battery Cells Via Computer Tomography: Possibilities And Technical Limits Of De-tectability Regarding To Function- And Safety-Critical Failures</p> <p>Speakers: Georgios Ioannou, Olaf Günnewig, Martin Munker, Stefan Bracke</p>	<p>Title: Investigating Dependence Between Wet And Dry Event Characteristics: Case Study Of Geul River Basin</p> <p>Speakers: Srividya Hariharan Sudha, Elisa Ragno, Oswaldo Morales-Nápoles, Matthijs Kok</p>	<p>Title: Thermal Cycling Life Prediction Of TSV Microstructure Based On Accelerated Test</p> <p>Speakers: Zhengwei Fan, Xun Chen, Kaihong Hou, Yu Jiang, Shufeng Zhang, Yashun Wang</p>	<p>Title: Assessing Effects Of Human Success Event On Dependency Between Human Failure Events Based On EMBRACE Method</p> <p>Speakers: Yochan Kim, Vincent Philip Paglioni, Luca Podofillini, Jaewhan Kim</p>	<p>Title: Application Of Advanced Reliability Models To Operational History Of Maria Research Reactor</p> <p>Speakers: Jacek Kałowski, Aleksej Kaszko</p>	<p>SS2.2</p> <p>Title: Applications Of Contingency Analysis To Improve Robustness And Resiliency Of Power Systems</p> <p>Speakers: Illia Diahovchenko, Andrew Keane</p>
12 ⁴⁰ -13 ⁰⁰	<p>Title: The Biggest Industrial Disaster In Brazil: Six Stages Of Development</p> <p>Speakers: Graciene Santos Brito, Anastácio Pinto Gonçalves Filho</p>	<p>Title: Degradation Modelling Of Light-Emitting Diodes Using Gaussian Regression Method</p> <p>Speakers: Quoc Tiep La, Zdenek Vintr, David Valis</p>	<p>Title: Utilization Of AI-Based Driver Style Detection Using Vehicle Dynamics Measurements</p> <p>Speakers: Marcin Hinz, Matthias Becker, Peter E. Pfeffer</p>	<p>Title: Simulation Based Availability Optimization Of Dynamic Fault Compensation For Particle Accelerator RF Systems Applied To The MYRRHA Accelerator Driven System</p> <p>Speakers: Lukas Felsberger, Ulrich Dorda, Jarno van de Walle, Jan Uythoven, Daniel Wollmann</p>	<p>Title: On Evaluation Of Ship-Ship Accident Probability Novel Decision Support Tool</p> <p>Speakers: Jakub Montewka, Krzysztof Wróbel, Janusz Hemperek, Łukasz Nozdrzykowski, Marcin Mąka</p>	<p>Title: Preliminary Concept Of A Structured Expert Judgment Approach For Quantifying The Uncer-tainty Of Future Sea Levels Along The Dutch Coast</p> <p>Speakers: Paulina E. Kindermann, Gina Alexandra Torres-Alves, José A. A. Antolínez, Oswaldo Mo-roles Napoles</p>	<p>SS2.3</p> <p>Title: Cost Of Resilient Power System With High Penetration Of Renewable Energy Sources</p> <p>Speakers: Jonas Vaičys, Saulius Gudžius, Audrius Jonaitis</p>
13 ⁰⁰ -14 ⁰⁰	Lunch (FMI Venue 1 and FMI Venue 2)						

14 ⁰⁰ -14 ²⁰	Title: Improving Spatial Monitoring Of Rain Gauges For Flood Assessment Speakers: Chengjun Cao, Franck Schoefs	Title: Embeddable Fault Diagnosis Method Based On Improved Fuzzy Broad Learning System Speakers: Yunxiang Long, Chunyue Gu, Shaowei Chen, Shuai Zhao	Title: Predictive Reliability Modelling Based On Combination Of DoE And ALT Speakers: Fatima-Ezahra Indmeskine, Laurent Saintis, Abdessamad Kobi, Mihaela Barreau	Title: Flood Risk Communication And Perception In Longyearbyen Speakers: Katrine Djupvik Grindheim, Ida Bolkan, Bjorn Ivar Kruke	Title: Recommending Updates To The EMBRACE HRA Dependency Assessment Method To Account For Multiple HFE Cut Sets Speakers: Vincent Philip Paglioni, Yochan Kim, Jaewhan Kim	Title: Reliability And Operational Analysis Of Electronic Security Systems Operated Within State Critical Infrastructure Facilities Speakers: Jacek Paś, Jarosław Łukasiak, Michał Wiśnios, Adam Rosiński	SS2.4 Title: Analysing Railway Network Interdependencies: Simulation Of Reactionary Delay And Automated Rescheduling Speakers: Tan Kang Rui, Rasa Remenyte-Priscott, Darren Prescott, Julia Culley
14 ²⁰ -14 ⁴⁰	Title: Task Allocation And Control Transitions In Autonomous Driving System Operations Speakers: Camila Correa-Jullian, Marilia Ramos, Ali Mosleh, Jiaqi Ma	Title: Thermal Actions And Climate Changes According To New Eurocodes Speakers: Jana Markova, Holicky M., Jung K., Mezera A., Sykora M.	Title: Probabilistic Approach Using SMP Tool For Systems Safety Of Road Vehicles Speakers: Stefan Kaalen, Mattias Nyberg, Ted Strandberg, Fredrik Warg, Adrian Westerberg	Title: Formalized Identification Of Key Factors In Safety Relevant Failure Scenarios Speakers: Tim Maurice Julitz, Nadine Schlüter, Manuel Löwer	Title: Towards Ethical Risk Assessment Speakers: Vincent Philip Paglioni	Title: Forecasting Reliability Of Shipping Times In Single Wagonload Networks Speakers: Timo Ramsdorf, Birgit Milius	SS2.5 Title: Risk Of Blackouts And Social Vulnerability In The Italian Power Transmission System Speakers: Andrej Stankovski, Katherine Emma Lonergan, Blazhe Gjorgiev, Giovanni Sansavini
14 ⁴⁰ -15 ⁰⁰	Title: Challenges In Regulation Of Occupational Risk Management In Brazil Speakers: Speakers: Anastácio Pinto Gonçalves Filho, Diego Pinto de Barros Leal	Title: Remaining Useful Life Prediction From Degradation Zone Detected Of Microgripper For Intra-corporeal Surgeries Speakers: Liseth Pasaguay, Zeina Al Masry, Nouredine Zerhouni, Sergio Lescano	Title: Degradation Modelling Of Light Emitting Diodes Using Gaussian Regression Method Speakers: Quoc Tiep La, Zdenek Vintř, David Vali	Title: Reliability of Redundant M-Out-Of-N Architectures With Dependent Components: Comprehensive Approach With Monte Carlo Simulation Speakers: Tim Maurice Julitz, Antoine Tordeux, Nadine Schlüter, Manuel Löwer	Title: Petrochemical Plant Emergency Response: Reliability Assessment Using Human HAZOP And AcciMap Speakers: Qiyong Peng, Yuyang Xie, Xiaopeng Wang, Yang Liu, Jianwei Zhang	Title: Risk Informed Operational Planning Of Power Transmission Grids: Overview Of Recent Developments Speakers: Roberto Rocchetta, Lorenzo Nespoli, Vasco Medici, Davood Raoofsheibani, Blazhe Gjorgiev, Giovanni Sansavini	SS2.6 Title: Resilience Assessment Case Study Of A Gas Network Speakers: Vytis Kopustinskas, Bogdan Vamanu, Andrius Dagys, Clemente Fuggini

15 ⁰⁰ -15 ²⁰	<p>Title: System Analysis And LBE Evaluation Of Ship Collision Hazards In Floating Nuclear Power Plants</p> <p>Speakers: Lanxin Gong, Jinxiong Xiao, Changhong Peng</p>	<p>Title: A Review Of Overhead Power Line Component Degradation Models</p> <p>Speakers: Tom Ivar Pedersen, Maren Istad</p>	<p>Title: Application Of Quantum Technologies In Air Traffic Management</p> <p>Speakers: Jerzy Manerowski, Mariusz Zieja, Pawel Gołda, Justyna Tomaszewska, Tadeusz Zaworski</p>	<p>Title: Safety Aspects of Introducing Hydrogen For Power Supply Of Electric Construction Machinery</p> <p>Speakers: Shenae Lee, Marianne Rose Kjendseth Wiik , Kristian Rasmussen, Jens Hjorteset, Maria Vatshaug Ottermo, Knut Øien</p>	<p>Title: Evaluating Serious Games Effectiveness: Case Of Road Tunnel Safety</p> <p>Speakers: Skevos Polias, Konstantinos Kirytopoulos, Georgios Chatzistelios, Myrto Konstantinidou</p>	<p>Title: Integrated Inspection Planning Optimization And Routing Inspection Vessels For Multiple Petro-leum Offshore Equipment</p> <p>Speakers: André L. D. Rossi, Rodrigo M. Tamasi, Gabriel S. Malta, Adriana M. Schleder, Leonardo O. de Barros, Rene Thiago C. Orłowski, Marcelo R. Martins</p>	<p>SS2.7</p> <p>Title: On Selection Of Relevant Safety And Security Scenarios For Detailed Modelling</p> <p>Speakers: Babette Tecklenburg</p>
15 ²⁰ -15 ⁴⁰	<p>Title: IDEA Protocol For Structured Expert Judgement Elicitation</p> <p>Speakers: Anca Hanea</p>	<p>Title: Optimizing Group Turbine And Generator Replacement Times With Life Cycle Cost Model Ap-proach</p> <p>Speakers: Abdossaber Peiravi, Michel Blain, Denis Thibault, Mustapha Nourelfath, Masoumeh Kazemi-Zanjani</p>	<p>Title: Review On Safety Assessment And Validation Methods Of AI Module In Railway</p> <p>Speakers: Han Liu, Fei Yan, Yunlai Sun, Yiwei Zheng</p>	<p>Title: Modeling Impact Of Power Outages On Interdependent Critical Infrastructure</p> <p>Speakers: Benjamin Lickert, Kushal Srivastava, Kris Schroyen, Mirjam Fehling-Kaschek, Alexander Stolz</p>	<p>Title: Human Robot Collaboration: Experimental Layout For New Algorithms Development</p> <p>Speakers: Laura Salamina, Alessandra Ferraro, Giorgio Figliolini, Daniela Freda, Chiara Lanni, Enrico Masi, Matteo Melchiorre, Eugenio Monari, Massimo Sorli, Rocco Vertechy, Stefano Mauro</p>	<p>Title: A Risk Assessment Model Of Complex Systems Based On Evidential Reasoning Rule With De-pendent Evidence</p> <p>Speakers: Shuai-Wen Tang, You Cao, Hai-Yue Yu</p>	<p>SS2.8</p> <p>Title: Resilience Assessment Case Study Of A Gas Network</p> <p>Speakers: Vytis Kopustinskas, Bogdan Vamanu, Andrius Dagys, Clemente Fuggini</p>

15 ⁴⁰ -16 ⁰⁰	<p>Title: Neutrosophic MCDM Based Risk: Centric Six Sigma Assessment Approach For Supplier Selection</p> <p>Speakers: Anwesa Kar, Rajiv Nandan Rai</p>	<p>Title: Modeling Common Cause Failure In Dynamic PRA</p> <p>Speakers: Claudia Picoco, Valentin Rychkov</p>	<p>Title: Estimation Of Weibull Distribution Parameters Based On Repeated Minimal Repairs: Method Accuracy</p> <p>Speakers: Jacek Malinowski, Christian Tanguy</p>	<p>Title: Risk Management In Higher Education: Recent Developments And Challenges</p> <p>Speakers: Eivind Lorentzen Styr, Marie Røyksund, Terje Aven</p>	<p>Title: Comparative Study On Human Reliability Methods Based On Bibliometrics</p> <p>Speakers: Mengjie Shi, Zikai Chen, Renyou Zhang</p>	<p>Title: Decision-Making for UWILD Methods Selection for FPSOs: A Multicriteria Approach</p> <p>Speakers: Edilson Gabriel Veruz, Alécio Julio Silva, Marcos Ferreira Lopes Junior, Anderson Takehiro Oshiro, José Geraldo Vidal Vieira, Gilberto Francisco Martha de Souza</p>	<p>Special Session 3: Human AI Teaming & Collaborative Intelligence For Safety Critical Systems</p> <p>Organizers: Maria Chiara Leva, Hector Diego Estrada Lugo, Bernard Moser</p> <p>SS3.1</p> <p>Title: Defect Detection in Vehicle Painting: Case Study</p> <p>Speakers: Doaa Almhaithawi and Alessandro Bellini</p>
16 ⁰⁰ -16 ²⁰	<p>Title: Deceptively Simple Method For Uncertainty Quantification And Management At AIRBUS</p> <p>Speakers: Dorota Kurowicka, Judi Cheeseman, Teresa Reis, Sanijv Sharma, Roger Cooke, Tom Zang, Jimmy Tai, Dimitri Mavris</p>	<p>Title: Late or/and On-Line Presentation</p> <p>Speakers:</p>	<p>Title: Robust Anomaly Detection In Unmanned Ship Systems Based On Large Language Models</p> <p>Speakers: Dun Li, Huan Wang, Yan-Fu Li</p>	<p>Title: Quantifying Power System Adequacy And Security In Net-Zero Energy Transition Scenarios</p> <p>Speakers: Ambra Van Liedekerke, Blazhe Gjorgiev, Giovanni Sansavini</p>	<p>Title: Node Protection Method For Improving Resilience Of Combat System Under Continuous Attack</p> <p>Speakers: Jiuyao Jiang, Hongqian Wu, Renjie Xu, Hang Yang, Yihao Zhang, Jichao Li</p>	<p>Title: Function Analysis Of Safe Train Driving</p> <p>Speakers: Yang Sun, Anne Barros, Marc Sango, Guy André Boy</p>	<p>SS3.2</p> <p>Title: Wearable Devices Enhancing Human Capabilities In Direct Enamel Painting Defect Detection</p> <p>Speakers: Carlos Albarrán Morillo</p>

16 ²⁰ -16 ⁴⁰	Title: Bayesian Networks In Safety And Reliability Speakers: Dorota Kurowicka, Roger Cooke	Title: Late or/and On-Line Presentation Speakers:	Title: Late or/and On-Line Presentation Speakers:	Title: Material Degradation In Process Industry: Past Accident Analysis Speakers: Morena Vitale, David Javier Castro Rodriguez, Micaela Demichela, Antonello Barresi	Title: An On-Line Approach For Joint Optimization Of Data-Driven Predictive Maintenance And Production Planning Speakers: Xiaoyan Zhu, Hanchao Wang, Tao Yuan	Title: Modelling Degradation And Ageing Phenomena In Digital Twin Using Profile Based Stochastic Hybrid Automata Speakers: Gaël Hequet, Nicolae Brînzei, Jean-François Petin, Sophie Viot Coster, Didier Paen, Olivier Bruneau	SS3.3 Title: Building Integrated Legal And Ethical Framework For Collaborative Intelligence: Towards More Interdisciplinary Approach To Human-Robot Collaboration Speakers: Naira López Cañellas
16 ⁴⁰ -23 ⁰⁰	ESRA General Assembly (Room S4, Time: 16 ⁴⁰ -19 ⁰⁰) Individual Sightseeing of Cracow and Surrounding Areas						

Tuesday, June 25, 2024; Time: 8³⁰-23⁰⁰

Time	Conference Events						
8 ³⁰ -9 ⁰⁰	Registration (FMI Hall)						
9 ⁰⁰ -9 ³⁰	Plenary Lecture (Room S)						
	Title: <i>Reliability of Conventional Electric Power Supply Versus Self-Sufficient Supply</i> Speaker: Marko Čepin, Slovenia Chairs: David Coit, USA; Paweł Gołda , Poland						
9 ³⁰ -10 ⁰⁰	Plenary Lecture (Room S)						
	Title: <i>Sustainability, safety, and security related research challenges in times of dynamic global and regional changes</i> Speaker: Kazimierz Kosmowski, Poland Chairs: David Coit, USA; Paweł Gołda , Poland						
10 ⁰⁰ -11 ⁰⁰	Coffee/Tea Break (FMI)						
	Sessions						
	Stream A Room S1 Topic 1: Accident and Incident Modelling & Uncertainty Analysis Chairs: Adolphus Lye, Singapore; Katarzyna Stolecka- Antczak, Poland	Stream B Room S2 Topic 2: Reliability, Safety and Security of Components and Systems & Prognostics System Health Management Chairs: Abdossaber Peiravi, Canada; Name, Country	Stream C Room S3 Topic 3: Mathematical and Statistical Methods in Reliability, Safety and Security Chairs: Tong Xia, China; Rundong Yan, USA	Stream D Room S4 Topic 4: Simulation Based Methods for Reliability, Safety and Security & Risk and Reliability Assessment and Management Chairs: Benjamin Lickert, Germany; Grzegorz Mrugała, Poland	Stream E Room S5 Topic 5: Human Factors in System Reliability, Safety and Security & Occupational Safety Chairs: Vincent Philip Paglioni, USA; Elizabeth Solberg, Norway	Stream F Room S6 Topic 6: Complex Systems and Critical Infrastructures Reliability, Safety and Security Modelling and Optimization & Maintenance Strategies Chairs: Jacek Paś, Poland; Roberto Rocchetta, Switzerland	Stream G Room S7 Topic 12: Special Sessions (SSi) Chairs: Sessions' Organizers

11 ⁰⁰ -11 ²⁰	<p>Title: Severity Prediction Of Maritime Accidents Based On Feature Selection And Data Balance Method</p> <p>Speakers: Tianyi Li, Xinjian Wang, Yinwei Feng, Huanxin Wang, Yuhao Cao, Zhengjiang Liu</p>	<p>Title: Two Phase Physics Informed Deep Learning Architecture For Remaining Useful Life Prediction</p> <p>Speakers: Aditya Sanju, Zhiguo Zeng,, Mihaela Mitici, Anne Barros, David Coit</p>	<p>Title: Alternative Approach To Modelling Complex Failure Behaviors Of Technical Products: Comparative Study Sb</p> <p>Speakers: Jannis Weibull, Jannis Pietruschka, Alicia Puls, Stefan Bracke</p>	<p>Title: Bayesian Regularized Artificial Neural Network For Estimating Ignition Probability In Oil And Gas Plants</p> <p>Speakers: Stefano Marchetti, Francesco Di Maio, Enrico Zio, Luca Decarli, Laura La Rosa, Giuseppe Nicotra, Andrea Tortora, Anna Crivellari, Salvatore Cincotta</p>	<p>Title: Including Successful Performance In Event Causal Analysis: Test Of Instructional Intervention</p> <p>Speakers: Elizabeth Solberg, Prosper Kwei-Narh, Rossella Bisio</p>	<p>Title: Design And Analysis Method Of Maintenance Operation Space Based On Hand Operations</p> <p>Speakers: Yan Wang, Dong Zhou , Ziyue Guo, Qidi Zhou, Hongduo Wu, Zicheng Song</p>	<p>SS3.4</p> <p>Title: Lessons Learnt From Human-In-Loop Experimental Scenarios For Advanced Automation In Process Safety</p> <p>Speakers: Chidera Winifred Amazu, Joseph Mietkiewicz, Ammar N. Abbas, Gabriele Baldissone, Micaela Demichela, Davide Fissore, and Maria Chiara Leva</p>
11 ²⁰ -11 ⁴⁰	<p>Title: Analysis Of Influential Factors Of Maritime Accidents In Different Waters Based On Combined-AR And DEMATEL</p> <p>Speakers: Xinyi Lv, Huanxin Wang, Yinwei Feng, Xinjian Wang, Qing Yu, Zhengjiang Liu</p>	<p>Title: Reliability Prediction Of Ultra-High Performance Buffer For High Speed Applications</p> <p>Speakers: Gabriele Serpi</p>	<p>Title: Quantum-Based Optimization And Inference: A Risk And Reliability Perspective</p> <p>Speakers: Gabriel San Martín Silva, Enrique López Droguett</p>	<p>Title: Risk Assessment Due To Customs Delays In Supply Chains By Fuzzy Logic</p> <p>Speakers: Ievgen Medvediev, Dmitriy Muzylyov, Jakub Montewka</p>	<p>Title: Shaping Worker Safety Behavior: Role Of Safety Culture Perception In Structural Equation Model</p> <p>Speakers: Xiaopeng Wang, Yongli He, Yuyang Xie, Fengdong Bi, Jidong Wang</p>	<p>Title: Risk Based Maintenance For Drones In Compliance With EASA Requirements: Case Study From Norway</p> <p>Speakers: Selcuk Yilmaz, Jon Tømmerås Selvik</p>	<p>SS3.5</p> <p>Title: Comparative Analysis of Mental Workload in Adaptive Human-Robot Collaboration During Assembly Tasks</p> <p>Speakers: Carlo Caiazzo, Marija Savkovic, Milos Pusica, Nastasija Nikolic, Ivan Macuzic, Marko Djapan</p>

11 ⁴⁰ -12 ⁰⁰	Title: Stochastic Model Updating Using Jensen-Shannon Divergence For Calibration And Validation Under Limited Data Speakers: Adolphus Lye, Scott Ferson, Sicong Xiao	Title: Risk Based Analysis Of Autonomous System Guidance Of Inland Waterway Vessels Speakers: Olena Shyshova, Waldemar Boschmann, Dirk Söffker	Title: Quantum Based Optimization For Critical Infrastructure Health Monitoring Speakers: Gabriel San Martín Silva, Enrique López Droguett	Title: Modelling Reliability And Resilience Of Dual-Function Power Station Speakers: Darragi Messaoudi, Amr Abdellaoui, Dragan Komljenovic, Anh Chi Nguyen	Title: How To Train Staff In Using Safety Management Systems In High Risk Industries Speaker: Thomas Wold	Title: Statistics And Lessons Learned: Insights From Analysis Of Fuelling Station Component Failure Events In HyCReD Speakers: Ahmad Al-Douri, Katrina M. Groth, Olivia Robinson, Kevin Hartmann, Genevieve Saur, William Buttner	SS3.6 Title: The Role Of Human Dynamics In Effective Robot Learning Through Programming By Demonstration Speakers: Shakra Mehak
12 ⁰⁰ -12 ²⁰	Title: Agricultural Fatal Accidents Involving Use Of Self Propelled Machineries With Operator On Board: Preliminary Analysis Speakers: Leonardo Marrazzini, Martina Olivieri, Marcello Braglia, Francesco Di Paco, Marco Frosolini, Roberto Gabbrielli, Davide Gattamelata, Danilo Monarca, Pierluigi Rossi, Leonardo Vita	Title: Improved Approach To Probabilistic Safety Assessment Framework: Applicability In High Temperature Gas Cooled Reactors Speakers: Mina Torabi, Karol Kowal	Title: Copula Based Bayesian Networks For Hydrodynamic Load Estimation On Offshore Aquaculture Systems Speakers: Rieke Santjer, Patricia Mares-Nasarre, Ghada El Serafy, Oswaldo Moreales-Nápoles	Title: Importance Of Model Completeness In Reliability Studies Of Electrical Systems In High Temperature Gas Cooled Reactors Speakers: Grzegorz Mrugała, Karol Kowal	Title: Risk Spectrum HRA And Conditional Quantification Tools: Practical Plant Specific Implementation Speakers: Dusko Kancev, Gerben Dirksen, Rainer Hausherr	Title: Goal Programming Approach To Optimal Allocation Of Firefighting Resources During Domino Effects Speakers: Alireza Dehghanisani, Sina Khakzad, Nima Khakzad	SS3.7 Title: Human-Machine Teaming In Manufacturing Environment: Preliminary Interface Example Speakers: Hector Diego Estrada-Lugo, Maria Chiara Leva, Manuel Jesús Batista Sánchez, Txus Blasco García, Julen Aperribay, Javier Dominguez Ledo, Bernhard Heinzl, Agastya Silvina

12 ²⁰ -12 ⁴⁰	<p>Title: Predictive Degradation Modelling Using AI: Milling Machine Case Study</p> <p>Speakers: Hasan Misaii, Mitra Fouladirad, Bahman Askari, Amélie Durupt</p>	<p>Title: Reliability Test And Analysis Of Silicon And Nitrile Butadiene Rubber Seals Under Extremely Low Air Temperature</p> <p>Speakers: Yashun Wang, Xun Chen, Shufeng Zhang, Zhengwei Fan</p>	<p>Title: Circular And Toroidal Connected (r,2)-Out-Of-(m,n):F Systems: Exact And Asymptotic Results</p> <p>Speakers: Christian Tanguy</p>	<p>Title: Towards Application Of AI Algorithms In Manufacturing For Improving Productivity, Quality And Functional Safety In Life Cycle</p> <p>Speakers: Jan Piesik, Kazimierz T. Kosmowski</p>	<p>Title: Adapting Human Reliability Analysis For Small Modular Reactors</p> <p>Speakers: Claire Blackett</p>	<p>Title: Risk Assessment Of Liquid Hydrogen In Marine Transportation</p> <p>Speakers: Olga Aneziris, Ioanna Koromila, Zoe Nivolianitou</p>	<p>Special Session 4: Advances In Reliability Engineering And Risk Management In Oil And Gas Industries</p> <p>Organizers: Márcio José das Chagas Moura, Isis Didier Lins, Enrique Andrés López Droguett, Manoel Feliciano Silva</p> <p>SS4.1</p> <p>Title: Subsea Equipment Reliability: A Critical Analysis of Existing Literature</p> <p>Speaker: July Bias Macêdo</p>
12 ⁴⁰ -13 ⁰⁰	<p>Title: Beyond Single Causes And Unilateral Solutions: Naturalistic Decision Making Approach To Apollo 13 Accident</p> <p>Speakers: Lucas Restivo de Oliveira, Moacyr Machado Cardoso Junior</p>	<p>Title: Generalizing The Diagonal Approximated Signature To Systems With Multiple Component Types</p> <p>Speakers: Niklas R. Winnewisser, Julian Salomon, Yan Shi, Matteo Broggi, Michael Beer</p>	<p>Title: Logistic Regression In Practice: Determining Impact Resistance Of Polycarbonate Vision Panels With Limited Data Set</p> <p>Speakers: Eckart Uhlmann, Nils Bergström, Caroline Demidova, Florian Meurer</p>	<p>Title: Efficient Estimation Of Survival Signatures Through Simulation With Depth-First Search Of Indices</p> <p>Speakers: Sean Reed, Magnus Löfstrand</p>	<p>Title: Exploring Human Factors Considerations Of Remote And Automated Operations For Nuclear Domain</p> <p>Speakers: Níav Hughes Green, Stephanie Morrow</p>	<p>Title: An Economical And Reliable Energy Sharing And Storage Model For Multi-Microgrid Systems</p> <p>Speakers: Xiaoling Song, Na Pei</p>	<p>SS4.2</p> <p>Title: Integrated inspection planning optimization and routing inspection vessels for multiple petroleum offshore equipment</p> <p>Speaker: Adriana M. Schleder</p>
13 ⁰⁰ -14 ⁰⁰	Lunch (FMI Venue 1 and FMI Venue 2)						

14 ⁰⁰ -14 ²⁰	Title: ETFPGs Model Based Safety Assessment Method For Interval-Probabilistic Hybrid Uncertainty System Speakers: Wensheng Peng, Zhaoyang Zeng	Title: Dependence Of UD CFRP Fatigue Life On Interface Shear Strength Speakers: Shufeng Zhang, Guofeng Song, Fulei Zhu, Yashun Wang, Zhengwei Fan, Xun Chen	Title: Fuzzy-Logic Based Human-Machine Shared Control Method For Maritime Autonomous Surface Ships Speakers: Tong Xia, Yamin Huang, Linying Chen, Yuanqiao Wen, Liang Huang	Title: Comparison Of Brazilian Risk Assessment Guidelines With International Risk Assessment Approaches Speakers: Edmilson P. Silva, Fernanda A. Lima, Giovani S. Dellamea, André P. Soares	Title: Wearable Devices Enhancing Human Capabilities In Direct Enamel Painting Defect Detection Speakers: Carlos Albarrán Morillo, Micaela Demichela	Title: Remanufacturing In Vehicle Maintenance: Logistic Challenge And Constraint Or Opportunity For Increasing Sustainability Speakers: Ghofrane Boujemaa, Elodie Robert, Christophe Bérenguer	SS4.3 Title: Deep Learning For Fault Classification Using Digital Twin Centrifugal Pump Speaker: Eduardo Menezes
14 ²⁰ -14 ⁴⁰	Title: Natech Accidents Triggered By Heat Waves: Performance Of Safety Barriers Speakers: Alice Schiaroli, Federica Ricci, Dimitrios Tzioutzios, Nicola Paltrinieri, Valerio Cozzani, Federico Ustolin	Title: Industrial Tool Condition Monitoring: Integrated Direct And Indirect Approach For Automated DataBase Creation Speakers: Lorenzo Colantonio, Lucas Equeter, Pierre Dehombreux, François Ducobu	Title: When Are Customers Willing To Pay For Better Reliability And How Much: Empirical Study On E-Commerce Observational Data Through Causal Inference And Natural Language Processing Speakers: Adam Younsi, Jean Meunier-Pion, Zhiguo Zeng	Title: Average Reward Reinforcement Learning For Optimizing Condition Based Maintenance Policies Of Continuously Deteriorating Systems Speakers: Quang Khai Tran, Khac Tuan Huynh, Antoine Grall, Yves Langeron, Elham Mosayebi Omshi	Title: Identification And Analysis Of Human And Organizational Factor Issues In Event Investigations: Key Findings From State Of Practice Survey Speakers: Jinkyun Park, Elizabeth Solberg	Title: Perspectives And Challenges For Reliability And Health Management At System Of Systems Level Speakers: Pierre Dersin, Vitali Volovoi	SS4.4 Title: Safety In Light Workover Subsea BOP Operations Speaker: Márcio Dendena

14 ⁴⁰ -15 ⁰⁰	<p>Title: Hazards Caused By Hydrogen Explosion At Refueling Station Due To Uncontrolled Gas Release</p> <p>Speakers: Katarzyna Stolecka-Antczak, Andrzej Rusin, Wojciech Kosman, Krzysztof Rusin, Nicola Paltrinieri</p>	<p>Title: Intelligent Fault Diagnosis Method For Spacecraft Fluid Loop Pumps</p> <p>Speakers: Shouqing Huang, Yifang Yu, Qinghai Liu, Jing Wang</p>	<p>Title: Assessment Of The Bivariate Process-Based Mean Residual Time Model with Applications To Maintenance Planning In A Parallel System</p> <p>Speakers: Reza Ahmadi, Lucía Bautista, Inma T. Castro</p>	<p>Title: Comparison Of Flight Safety between Different Aircraft Modifications</p> <p>Speakers: Marta Woch, Justyna Tomaszewska, Mariusz Zieja, Michał Hinderer</p>	<p>Title: Empirical Evidence Of HRA Dependence In Operational Events</p> <p>Speakers: Luca Podofilini, Vinh N. Dang</p>	<p>Title: Societal Safety Coordinator As Remedy To Mitigate The Negative Effects Of Silos In Municipalities</p> <p>Speakers: Kristine Skogsrud Nesvik, Stine Bjerga Haga, Lise Peterson, Geir Sverre Braut, Ove Njå</p>	<p>Special Session 5: Hidden Markov Models In Reliability And Maintenance</p> <p>Organizers: Maria Luz Gámiz</p> <p>SS5.1</p> <p>Title: Bridging The Gap: Comparative Analysis Of Maintenance Practices In Industry 4.0</p> <p>Speakers: Mario Di Nardo</p>
15 ⁰⁰ -15 ²⁰	<p>Title: Advancing Nuclear Reactor Safety Analysis: Methodological Innovations And Results From Dynamic Probabilistic Safety Assessment</p> <p>Speakers: Masood Akmal, Falak Sher</p>	<p>Title: A Framework Of BIM-Based Digital For Fatigue Damage Evaluation In Railway Steel Bridges</p> <p>Speakers: Idilson Nhamage, José Campos e Matos, Dang Ngoc-Son</p>	<p>Title: Quantum Reliability And Its Application In Quantum Networks</p> <p>Speakers: Lian-Xiang Cui</p>	<p>Title: Towards Effective Hazard Analysis: Qualitative Modeling Approach For Diagnosing Control Function Failures Using Multilevel Flow Modeling</p> <p>Speakers: Jing Wu, Ruixue Li, Xinxin Zhang</p>	<p>Title: Performance Shape Factor Survey For Human Reliability Analysis Of TRIGA Research Reactor</p> <p>Speakers: Wasin Vechgama, Jinkyun Park, Yochan Kim</p>	<p>Title: Training And Road Safety Among Adolescent ATV Users in Norway</p> <p>Speakers: Jan Petter Wigum, Thomas Wold, Thor Ove Holmquist, Simon Minsaas Bromstad</p>	<p>SS5.2</p> <p>Title: The Path From Industry 4.0 To Industry 5.0: An Analysis Of New Trends In Safety Management</p> <p>Speakers: Mario Di Nardo - Virgilio Federico</p>

15 ²⁰ -15 ⁴⁰	<p>Title: Application Of Dynamic PSA Methods For Accidents In Mid-Loop Operation and Lessons Learned</p> <p>Speakers: Tanja Eraerds, Ines Mateos Canals, Jürgen Hartung, Josef Scheuer, Jan Soedingrekso</p>	<p>Title: An End-To-End Maintenance Model For Systems Under Different Working Conditions</p> <p>Speakers: Guo Shi, Bin Liu, Lesley Walls</p>	<p>Title: Stochastic Three-Dependence. General Analytic Models' Pattern</p> <p>Speakers: Jerzy K. Filus, Lidia Z. Filus</p>	<p>Title: Climate Adaption In The Arctic: Experiences From Longyearbyen</p> <p>Speakers: Stina M. H. Andreassen, Bjørn Ivar Kruke</p>	<p>Title: Occupational Safety And Health And Interventions For Effectiveness At The Workplace: Preliminary Evidence From The Literature</p> <p>Speakers: Gaia Vitrano, Guido J.L. Micheli, Angelo Castaldo, Alessia Marrocco, Alessandro Marinaccio, Vikash K.T. Kumaran</p>	<p>Title: Importance Reliability Measures For Ensemble Models In Machine Learning</p> <p>Speakers: Jose Divasón, Francisco Javier Martinez-de-Pison, Laura Moreno-Res, Idriss T. Sandoval, Eduardo Sáenz-de-Cabezón</p>	<p>SS5.3</p> <p>Title: How European Artificial Intelligence Act Impacts On Machinery Products</p> <p>Speakers: Marianna Madonna</p>
15 ⁴⁰ -16 ⁰⁰	<p>Title: Using Bayesian Network To Analyze Incident Datasets</p> <p>Speakers: Matteo Iaiani, Alessandro Tugnoli, Valerio Cozzani</p>	<p>Title: Advancements In Industrial Security And Safety: A Maintenance-Centric Paradigm</p> <p>Speakers: Mario Di Nardo, Francesco Vaiola, Maryam Gallab, Oivind Madsen Dag</p>	<p>Title: Data Driven Condition Based Maintenance Optimization</p> <p>Speakers: Bram de Jonge</p>	<p>Title: SIPPRA Framework For Condition And Risk Monitoring In Hydrogen Fueling Stations</p> <p>Speakers: Katrina M. Groth, S. Mohammad Hashemian</p>	<p>Title: Quantum Approaches for Reliability Estimation: A Systematic Literature Review</p> <p>Speakers: Lavínia Maria Mendes Araújo, Leonardo Streck Raupp, Isis Didier Lins, Márcio José das Chagas Moura</p>	<p>Title: AI Tools For Condition Evaluation And Anomaly Detection</p> <p>Speakers: Ana Gómez González, Rafael Espadas, Ainhoa Zubizarreta, Urko Leturiondo</p>	<p>Special Session 6: Safe And Sustainable Hydrogen Technologies</p> <p>Organizers: Nicola Paltrinieri</p> <p>SS6.1</p> <p>Title: Hydrogen Risk Mitigation By Catalytic Recombiners</p> <p>Speakers: Ernie Reinecke</p>

16 ⁰⁰ -16 ²⁰	Title: Reliability Analysis Of 1200 V SiC MOSFETs Under High Temperature And High Gate Voltage Step Stress Through Accelerated Lifetime Testing Speakers: Roman Mukin, Kai Hencken, Elena Mengotti, Enea Bianda, Gerd Schlottig	Title: Power Transformer Fault Detection And Classification By Coupling Conventional And Machine Learning Methods Speakers: Blazhe Gjorgiev, Laya Das, Giovanni Sansavini	Title: The NPP Safety Assessment With Consideration Of Smart Substation Reliability Speakers: Eugene Brezniev, Vyacheslav Kharchenko, Elena Zaitseva, Vitaly Levashenko	Title: Revolutionizing Maintenance Management In Transportation: The Role Of Digital Twins And Test Site Preparation Speakers: Klaudia Winiarska, Sylwia Werbińska-Wojciechowska, Jan Stoker, Robert Giel	Title: Enhancing Drowsiness Detection In Monitoring Tasks: Approach Using RESNET50 And Computer Vision Speakers: Plínio Ramos, Caio Maior, Márcio Moura, Isis Lins	Title: Robomate: Case For Reconfigurable Collaborative Robots In Manufacturing Speakers: Nobel J. William, Antonio Russo, Camillo Murgia, Philip Long, Maria Chiara Leva	SS6.2 Title: Risk In Hydrogen Refuelling Station Due To Uncontrolled Gas Release Speakers: Wojciech Kosman
16 ²⁰ -16 ⁴⁰	Title: Modelling Industrial Vulnerabilities To NaTech: Methodological Contributions From Historical Lightning Triggered Analysis Speakers: David Javier Castro Rodriguez, Joseph Mietkiewicz, Morena Vitale, Gabriele Baldissoni, Micaela Demichela, Antonello A. Barresi	Title: Multi Criteria Importance Measure For Identifying Critical Components Of Electro-Hydrogen Generator Speakers: Soufian Echabbari, Phuc Do, Hai-Canh Vu, Bastien Bornand	Title: New Extension For Inspection And Age Based Policy For Heterogeneous Components Considering Imperfect Inspections And Delay Time Speakers: Victor Hugo Resende Lima, Augusto José da Silva Rodrigues, Rafael Gomes Nobrega Paiva, Cristiano Alexandre Virginio Cavalcante	Title: Multidimensional Prioritization Of Flood Mitigation Barriers Based On Resilience And Bowtie Modelling Speakers: Lucas Borges Leal Da Silva, Dylan Jones, Marcelo Hazin Alencar, Adiel Teixeira de Almeida, Ashraf Labib	Title: Risk And Reliability Analysis Of A Drone Logistic Network For Healthcare System Speakers: Tathagata Basu, Gianluca Filippi, Edoardo Patelli, Massimiliano Vasile, Marco Fossati	Title: Late or/and On-Line Presentation Speakers:	SS6.3 Title: Comparing Inspection Strategies For Hydrogen Refuelling Stations: Time-Based And Risk-Based Approaches Speakers: Alessandro Campari
16 ⁴⁰ -23 ⁰⁰	Individual Sightseeing of Cracow and Surrounding Areas Folklore Picnic in The Inn Under The Great Salt (Testing Regional Food, Beer and Wine, Singing and Dancing, Time: 18 ⁰⁰ -22 ⁰⁰) Going by Buses to The Inn Under The Great Salt (Start at 17 ⁰⁰ from in front of Faculty of Mathematics and Informatics) Going Back by Buses from The Inn Under The Great Salt (Start at 22 ³⁰ from in front of Inn Under Great Salt) to in front of Faculty of Mathematics and Informatics						

Wednesday, June 26, 2024; Time: 8³⁰-23⁰⁰

Time	Conference Events						
8 ³⁰ -9 ⁰⁰	Registration (FMI Hall)						
9 ⁰⁰ -9 ³⁰	Plenary Lecture (Room S)						
	Title: <i>Bayesian Belief Nets Models in Safety and Reliability</i> Speakers: Dorota Kurowicka, Netherlands Chairs: Floris Goerlandt, Canada; Jakub Montewka, PSRA						
9 ³⁰ -10 ⁰⁰	Plenary Lecture (Room S)						
	Title: <i>Asymptotic Approximation Techniques for Reliability of Complex</i> Speakers: Nikolaos Limnios, France Chairs: Floris Goerlandt, Canada; Jakub Montewka, PSRA						
10 ⁰⁰ -11 ⁰⁰	Coffee/Tea Break (FMI)						
	Sessions						
	Stream A Room S1 Topic 7: Security, Vulnerability and Resilience of Systems & Disaster Preparedness, Mitigation and Response Chairs: Dariusz Rogowski, Poland; Martin Hromada, Czech Republic	Stream B Room S2 Topic 8: Complex Systems and Critical Infrastructures Business Continuity Modelling and Optimization & Reliability, Safety and Security Related Management Systems Chairs: Tomasz Barnert, Poland; Marcello Dantas Gomes Júnior, Brazil	Stream C Room S3 Topic 9: Crisis Management Support Systems & Monitoring and Early Warning Systems Chairs: Guillaume Levillain, France; Rossella Marmo, Italy	Stream D Room S4 Topic 10: Cybersecurity and Functional Safety in Hazardous Systems & Research Challenges Concerning Sustainability, Safety and Security Chairs: Andrzej Białas, Poland; Giulia Marroni, Italy	Stream E Room S5 Topic 11: Collection of Extended Abstracts Chairs: Antoine Grall, France Guido Jacopo Luca Micheli, Italy	Stream F Room S6 Topic 11: Collection of Extended Abstracts Chairs: Pierre Etienne Labeau, Netherlands; Xiaoyan Zhu, China	Stream G Room S7 Topic 12: Special Sessions (SSi) Chairs: Sessions' Organizers

11 ⁰⁰ -11 ²⁰	<p>Title: DyPASI And REWI Procedures Applied To Steel And Aluminum Manufacturing Sites Using Hydrogen</p> <p>Speakers: Elena Baboi, Federico Ustolin, Yiliu Liu, Nicola Paltrinieri</p>	<p>Title: Integrated Approach For Functional Safety And Cyber Security Analysis</p> <p>Speakers: Tomasz Barnert, Emilian Piesik, Jan Piesik, Marcin Śliwiński</p>	<p>Title: Fault Detection And Isolation For Electro-Mechanical Actuators With Metaheuristic Algorithms: Sparrow Search, Honey Badger And Dandelion Optimizer</p> <p>Speakers: Leonardo Baldo, Francesco Battaglia, Gaetano Quattrocchi, Matteo Davide Lorenzo Dalla Vedova, Paolo Maggiore</p>	<p>Title: First Experiences In Cybersecurity Evaluation And Certification Of IACS Components</p> <p>Speakers: Jacek Bagiński, Rafał Kurianowicz</p>	<p>Title: Introduction Of A Modified Sample Selection Scheme For The Adaptive Ensemble Learning-Based Sampling Approach</p> <p>Speakers: Maria Böttcher, Wolfgang Graf, Michael Kaliske</p>	<p>Title: Opportunistic Maintenance Policy Under Limited Human Resources With Skills Levels</p> <p>Speakers: Lucas Equeter, Pierre Dehombreux</p>	<p>Special Session 7: Next Generation Risk Assessment Modelling Methods (Dynamic and Dependent Tree Theory, D²T²)</p> <p>Organizers: John Andrews, Silvia Tolo</p> <p>SS7.1</p> <p>Title: Modelling Complexity In System Safety: Generalizing The D²T² Methodology</p> <p>Speakers: Silvia Tolo</p>
11 ²⁰ -11 ⁴⁰	<p>Title: Resilience Analysis Of The Intra-European Container Shipping Network Against Cascading Fail-ures</p> <p>Speakers: Yuhao Cao, Xuri Xin, Xinjian Wang, Zaili Yang</p>	<p>Title: Systems Integration Aimed At Improving Quality And Safety In Technical Training Managemen-tin Aircraft Engine Components Maintenance Organizations</p> <p>Speakers: Matheus Barros, Jose Pereira, Lucas Julião, Flavio Frade, Ueliton Leonidio</p>	<p>Title: Instructions For Selecting Suitable SMR For Czech Republic</p> <p>Speakers: Michal Cihlář, Dana Procházková, Václav Dostál</p>	<p>Title: IT/OT Cybersecurity Evaluation – State Of Art</p> <p>Speaker: Andrzej Białas</p>	<p>Title: A Dynamic IoT-Based Maintenance Model For Agricultural High-Tech Equipment</p> <p>Speakers: Ipek Kivanç, Claudia Fecarotti, Néomie Raassens, Geert-Jan van Houtum</p> <p>Title: Leveraging Two Reliability Approaches For Estimating Failure Probability And Its Sensitivity</p> <p>Speakers: Marcos A. Valdebenito, Matthias G.R. Faes</p>	<p>Title: Advancing Artificial Intelligence Systems: A Life And Generative Model Applications</p> <p>Speakers: Carmen Meiling Frischknecht-Gruber, Monika Ulrike Reif</p>	<p>SS7.2</p> <p>Title: Importance Measures For Fault Tree Analysis Using Dynamic And Dependent Tree Theory, D²T²</p> <p>Speakers: John Andrews</p>

11 ⁴⁰ -12 ⁰⁰	Title: Natural Hazard Triggered Technological Accidents Risk Assessment for Liquid Hydrogen Sys-tems Speakers: Lucas Claussner, Federico Ustolin, Dimitrios Tzioutzios	Title: Optimization Of Testing Strategy In Safety Systems Using Hierarchical Bayesian Models Speakers: Marcello Dantas Gomes Júnior, Pauli Adriano de Almada Garcia	Title: Multibranch Neural Network For Predicting Production Lot Quality In Semiconductor Industry Speakers: Joaquín Figueroa, Ibrahim Ahmed, Piero Baraldi, Enrico Zio	Title: Reliability And Costs Of Conventional Electric Power Supply Versus Self Sufficient Supply Speaker: Marko Čepin	Title: Robustness Of Interdependent Supply Chain Networks Considering Disruption Propagation Speakers: Lei Zhang, Jian Zhou, Yizhong Ma	Title: Multi Sensor Cross Layer Integrity Framework: Concept For Information Reliability Assessment Of Safety Critical Systems Speakers: Felipe Augusto Costa de Oliveira, Frank Sill Torres, Alberto García-Ortiz	SS7.3 Title: A Dynamic And Dependent Fault Tree Analysis For Shipping Systems Speakers: Francesco Pugliese
12 ⁰⁰ -12 ²⁰	Title: Identification Of Disruptive Scenarios For Airport Operations: Scoping Review Speakers: Johannes Dülks, Moritz Schneider, Daniel Lichte, Alexander Feket	Title: Risk Coupling Analysis On Ship Path Entering Into Port: Case Study In Shenzhen Port Speakers: Cunlong Fan, Bing Wang, Yamin Huang, Yuhui Qiu	Title: Transport Map Coupling Filter For State-Parameter Estimation Speakers: Jan Grashorn, Matteo Broggi, Ludovic Chamoin, Michael Beer	Title: Brief Review Of Options And Risks In Offshore Green Hydrogen Production: German Case Study Speakers: Susan Eden, Arto Niemi, Bartosz Skobieć, Frank Sill Torres	Title: Research On Mining Users' Daily Requirements Considering Variable-Order Dependencies: Behavior Analysis Based On Higher-Order Dependency Networks Speakers: Chang Gong, Jiaping Cao, Liwei Qian, Jichao Li	Title: Leveraging Two Reliability Approaches For Estimating Failure Probability And Its Sensitivity Speakers: Marcos A. Valdebenito, Matthias G.R. Faes	SS7.4 Title: D ² T ² Analysis Of An Offshore Deluge System Availability And Reliability Speakers: Francesco Pugliese, Leonardo Leoni, John Andrews, Filippo De Carlo
12 ²⁰ -12 ⁴⁰	Title: Research Of Multi-Scale Failure Behavior Of Through-Silicon Via Under Thermal Cycling Load Based On Crystal Plastic Finite Element Method Speakers: Kaihong Hou, Zhengwei Fan, Xun Chen, Shufeng Zhang, Yashun Wang, Yu Jang	Title: Benchmark Exercise On Safety Engineering Practices: Results And Recommendations Speakers: Atte Helminen, Essi Immonen, Joonas Linnosmaa, Jari Laarni	Title: European Union Global Critical Infrastructure Safety Management System Speakers: Krzysztof Kołowrocki	Title: Bayesian Network Analysis Of Offshore Decommissioning Waste Management Speakers: Joe Ford, Sean Loughney, Eduardo Blanco-Davis, Ava Shahrokhi, Ana Armada Bras, Jin Wang	Title: The IDEA Protocol for Structured Expert Judgment: A Recent History of Applications Speakers: Anca Maria Hanea	Title: Data-Driven Multi-Hazard Framework For Resilience Assessment Of Offshore Wind Turbine Decommissioning Speakers: Mahmood Shafiee	SS7.5 Title: D ² T ² Analysis Of A Loss Of Main Feed Water Accident Speakers: Silvia Tolo

12 ⁴⁰ -13 ⁰⁰	Title: Application Of Differentially Private Algorithms To Reliability Data Evaluation In Industrial In-ternet Of Things Context Speakers: Andreas Joanni	Title: Systems Integration Aimed At Improving Quality And Safety In Technical Training Management In Optimizing Tidal Power Plant Turbine Selection Through AHP And SMART Decision Making Methods Speakers: Rachmat Hermawan, Andika Eri Trianto	Title: Neural Network Based Probability Density Function Identification Speakers: Guillaume Levillain, Pierre Beaurepaire, Vincent Barra	Title: Performance-Based Audit Checklists Using Systemic Approach To Safety Speakers: Kateřina Grötschelová, Andrej Lališ, Natalia Guskova	Title: Insights From Expert Judgment Study On Source Attribution Of Foodborne Pathogens In Netherlands Speakers: Tina Nane, Lena Wijnen, Roger Cooke, Lapo Mughini-Gras	Title: Method To Evaluate Similarity Of Completion Equipment Using Deep Learning Speakers: Davi Souza, Eduardo Menezes, Isis Lins, Márcio Moura, Feliciano da Silva, Marcos Nóbrega	SS7.6 Title: Fault Tree Culling In The Dynamic And Dependent Tree Theory (D ² T ²) Framework Through Approximation Techniques Speakers: Rundong Derek Yan
13 ⁰⁰ -14 ⁰⁰	Lunch (FMI Venue 1 and FMI Venue 2)						
14 ⁰⁰ -14 ²⁰	Title: Operational Resilience Of Industrial Plants And Interdependent Infrastructure Systems Speakers: Kazimierz T. Kosmowski	Title: Measures To Protect Nuclear Power Plants From Fraudulent Items Speakers: Jan Jirousek, Jan Prochazka, Dana Prochazkova	Title: Indicator Based Framework To Quantify Hospital Resilience Speakers: Rossella Marmo, Bryan T. Adey	Title: Failure And Repair Rates For Lane Detection For Safety Assessment Of Autonomous Driving From CARLA Simulation Speakers: Ivo Häring, Rachana Padariya, Georg Vogelbacher, Fabian Höflinger, Alexander Richter, Jörg Fin-ger, Aishvarya Kumar Jain, Mirjam Fehling-Kaschek	Title: Improving Spatial Monitoring Of Rain Gauges For Flood Assessment Speakers: Chengjun Cao, Franck Schoefs	Title: Scoring Rules And Performance Evaluated With Expert Judgment Data Speakers: Gabriela F. Nane, Roger M. Cooke	SS7.7 Title: A Framework Modelling Approach For Standby Systems In Fault Tree Analysis / Petri Net Framework For Modelling Standby Dependencies In Fault Trees Speakers: Francesco Pugliese

14 ²⁰ -14 ⁴⁰	Title: Hybrid Renewable Energy Systems: Challenges and Research Opportunities Speakers: Reem Nasser, Yiliu Liu	Title: Inspections On Process Industry During The Pandemic: The Safety Management System Continuity Speakers: Romualdo Marrazzo, Fabrizio Vazzana	Title: Real-Time Three-Dimensional Safety-Security Assessment Of Process Facilities In Critical Areas Speakers: Giulia Marroni, Dino Dentone, Stefano Crosara, Sanneke Kuipers, Valeria Casson Moreno, Gabriele Landucci	Title: Failure Rates Per Time For Autonomous Driving Safety Assessment From CARLA Simulation Speakers: Ivo Häring, Nikhilesh Sandela, Rachana Padariya, Georg Vogelbacher, Fabian Höflinger, Alexander Richter, Jörg Finger, Aishvarya K. Jain, Kontantin Kirchheim	Title: Reliable Fault Detection From Synthetic Data Using Uncertainty Aware Neural Network Models Speakers: Laya Das, Blazhe Gjorgiev, Giovanni Sansa Vini	Title: Evaluating Multidimensional NaTech Risks Considering Flood Events In Natural Gas Pipelines Speakers: Francisco Filipe Cunha Lima Viana, Lucas Borges Leal da Silva, Marcelo Hazin Alencar, Adiel Teixeira de Almeida	SS7.8 Title: NxGen Toolbox: Overview Speakers: Silvia Tolo
14 ⁴⁰ -15 ⁰⁰	Title: Enhancing Business Continuity Preparedness Through Experiential Learning: Serious Game Ap-proach Speakers: Boris Petrenj, Paolo Trucco, Giada Feletti	Title: Application Of Self Organizing Map Algorithm For Analysis Of Products Quality Speakers: Doha Meslem, Marcin Hinz	Title: System Reliability Assessment Of Component-Integrated Wireless Sensor Networks With Consideration Of Data Accuracy Speakers: Sören Meyer zu Westerhausen, Gurubaran Raveendran, Daniel Rosemann, Johanna Wurst, Roland Lachmayer	Title: Testing Dental Implants: Development Of Test Rig That Enables Testing Under Realistic Conditions To Ensure Long Term Reliability Speakers: Philipp Heß, Marcel Schmidt, Niclas Albrecht, Sebastian Duy and Stefan Bracke	Title: Warm-Start Training Of Artificial Neural Networks In Context Of Polymorphic Uncertainty Quantification Speakers: Felix Harazin, F. Niklas Schietzold, Wolfgang Graf, Michael Kaliske	Title: Function Analysis Of Safe Train Driving Speakers: Yang Sun, Anne Barros, Marc Sango, Guy André Boy	Special Session 8: Advances In Maintenance Modelling And Its Applications Organizers: Lucía Bautista Bárcena, Inmaculada Torres Castro SS8.1 Title: Developing Maintenance Strategies For A Degradation Model With Partial Maintenance Effects Speakers: Margaux Leroy, Christophe Bérenguer, Olivier Gaudoin, Laurent Doyen

15 ⁰⁰ -15 ²⁰	Title: How To Apply Common Criteria Methodology To IACS Components Security Speakers: Dariusz Rogowski, Artur Kozłowski	Title: Genetic Algorithm And Availability Importance Measure Approach For Solving Redundancy Allocation Problem Speakers: Mateusz Oszczyńska, Jarosław Ziolkowski, Jakub Konwerski, Aleksandra Łęgas, Jerzy Małachowski	Title: Analyzing Spectrogram Parameters' Impact On Wear State Classification For Milling Tools Speakers: Neha Patel, Rajiv Nandan Rai	Title: How Do Organizational Factors As Safety Culture Influence Security Performance In Customs? A Literature Review Speakers: Olga Kvalheim, Lillian Katarina Stene	Title: Simulation Of Fuzzy Probability-Based Random Fields With Non-Gaussian Marginal Distributions By Efficient NATAF Transformation Method Speakers: F. Niklas Schietzold, Selina Heinzig, Marc Fina, Wolfgang Graf, Steffen Freitag, Michael Kaliske	Title: A BIM Methodology In Favor Of Railway Safety Speakers: Fahima Babas, Estelle Deloux, Antoine Grall	SS8.2 Title: Maintenance Of Degrading Units: A New Policy And Some Critical Considerations About The Value Of Inspections Speakers: Antonio Piscopo, Nicola Esposito, Bruno Castanier, Massimiliano Giorgio
15 ²⁰ -15 ⁴⁰	Title: Sustainability And Resilience For Infrastructure And Logistic Networks Speakers: Kris Schroven et al.	Title: Comprehensive Risk Assessment Of Industrial Radiography Process Within Industry 5.0: Towards Continuous Safety Improvement Speakers: Jose Pereira, Joana Costa, João Reis	Title: Causal Failure Root Cause Detection In Sensor Production Image And Machine Data Speakers: Mohammad Qalaji, Jawad Tayyub, Ivo Häring, Thomas Brox	Title: Sustainability In Safety: Evaluating Passive Safety Components Through Life Cycle Assessment Speakers: Francesco Di Paco, Marcello Braglia, Marco Frosolini, Roberto Gabbrielli, Luca Landi, Leonardo Marrazzini, Mauro Zampilli	Title: Data-Driven Stochastic Damage Identification With Conditional Invertible Neural Network (cINN)-Based Multilevel Bayesian Model Updating Speakers: Tairan Wang, Sifeng Bi	Title: Multiple Module PSA For Small Modular Reactors Speakers: Manuel Obergfell, Florian Berchtold	SS8.3 Title: Parameter Estimation In Bivariate Wiener Degradation Subject To Imperfect Maintenance Considering Five Observation Schemes Speakers: Inma T. Castro, Lucía Bautista, Christophe Bérenguer, Olivier Gaudoin, Lauren Doyen

15 ⁴⁰ -16 ⁰⁰	Title: Humanitarian Logistics: Combining Multidimensional Risk Evaluation With Agent Based Simulation Modeling On Flood Preparedness And Response Speakers: Nicolas Lennick Bomfim de Albuquerque, Lucas Borges Leal, Marcelo Hazin Alencar, Adiel Teixeira de Almeida	Title: Safety Analysis Of Functioning Domestic Distribution Systems In Buildings Speakers: Izabela Piegdoń, Barbara Tchórzewska-Cieślak, Iuliia Sokolan	Title: Review On High Voltage Circuit Breaker Failure Modes For Condition Monitoring Speakers: Ali A. Razi-Kazemi	Title: Retention Of Residual Chlorine By Green Infrastructure Speakers: Ieva Andriulaityte, Marina Valentukeviciene	Title: Data-Driven Risk Analysis Of Rare Events Based On Virtual-Reality-Generated-Data Speakers: Huixing Meng, Jinduo Xing	Title: Prediction Of Nuclear Material Properties Under Uncertainty Speakers: Zhen Yang, Yu Chen, Edoardo Patelli	SS8.4 Title: Parametric Estimation Of Ageing And Maintenance Efficiency For Left Censored Data Speakers: Théo Cousino, Laurent Doyen, Olivier Gaudoin, Florent Brissaud, Leïla Marle
16 ⁰⁰ -16 ²⁰	Title: Structural Condition Monitoring Using Deep Gaussian Process Regression Speakers: Jaebeom Lee, Wonjae Choi, Hong Min Seung, Jong Moon Ha	Title: Capacity Performance Modelling And Optimization Of Natural Gas Transmission Pipeline Networks Speakers: Behrooz Ashrafi, Masoud Naseri	Title: Late or/and On-Line Presentation Speakers:	Title: Evaluating Code Generation Capabilities Of Large Language Models To Solve Risk, Reliability And Resilience Related Problems Speakers: Jean Meunier-Pion, Zhiguo Zeng, Anne Barros	Title: Information-Based Maintenance Policies For Items From Heterogeneous Populations Speakers: Ji Hwan Cha, Maxim Finkelstein, Na Young Yoo, Hyunju Lee	Title: Incorporation Of Non-Gaussian Shell Imperfections By NATAF Transformation In Efficient Random Field Simulation Speakers: Marc Fina, F. Niklas Schietzold, Selina Heintzig, Steffen Freitag, Wolfgang Graf, Michael Kaliske	Special Session 9: Survival Signature For System Reliability Organizers: Frank Coolen SS9.1 Title: Efficient Estimation Of Survival Signatures Through Simulation With Depth-First Search Of Indices Speakers: Sean Reed, Magnus Lofstrand

16 ²⁰ -16 ⁴⁰	<p>Title: Resilience Analysis For The Electric Power Transmission Grid With A Criticality Measure Based On Cascade Simulations</p> <p>Speakers: Endika Urresti Padrón, Artur Świętanowski, Patryk Popiński, Kacper Samul, Alicja Massé, Maciej Mazurek, Gabriela Jurkiewicz, Marcin Gańko</p>	<p>Title: Late or/and On-Line Presentation</p> <p>Speakers:</p>	<p>Title: Late or/and On-Line Presentation</p> <p>Speakers:</p>	<p>Title: Late or/and On-Line Presentation</p> <p>Speakers:</p>	<p>Title: Late or/and On-Line Presentation</p> <p>Speakers:</p>	<p>Title: Late or/and On-Line Presentation</p> <p>Speakers:</p>	<p>SS9.2</p> <p>Title: Generalizing The Diagonal Approximated Signature To Systems With Multiple Component Types</p> <p>Speakers: Niklas R. Winnewisser, Julian Salomon, Yan Shi, Matteo Broggi, Michael Beer</p>
16 ⁴⁰ -23 ⁰⁰	<p>Individual Sightseeing of Cracow and Surrounding Areas</p> <p>Gala Dinner and Mechanical Music with DJ (Folwark Zalesie, Time: 18⁰⁰-22⁰⁰)</p> <p>Going by Buses to Folwark Zalesie (Start at 17⁰⁰ from in front of Faculty of Mathematics and Informatics)</p> <p>Gala Dinner in The Folwark Zalesie (Testing Food and Wine, Singing and Dancing, Time: 18⁰⁰-22⁰⁰)</p> <p>Going Back by Buses from Folwark Zalesie (Start at 22³⁰ from in front of Folwark Zalesie) to in front of Faculty of Mathematics and Informatics</p>						

Thursday, June 27, 2024; Time: 8³⁰-20⁰⁰

Time	Conference Events						
8 ³⁰ -9 ⁰⁰	Registration (Faculty of Mathematics and Informatics Hall)						
9 ⁰⁰ -9 ³⁰	Plenary Lecture (Room S) Title: <i>Multi-State Systems and Their Applications in Reliability Analysis</i> Speakers: Elena Zaitseva, Slovakia Chairs: Roger Cooke, Netherlands; Jacek Malinowski, PSRA						
9 ³⁰ -10 ⁰⁰	Plenary Lecture (Room S) Title: <i>Resilient Water Infrastructure at Climate Change Conditions</i> Speakers: Dieter Lompe, Germany Chairs: Roger Cooke, Netherlands; Jacek Malinowski, PSRA						
10 ⁰⁰ -11 ⁰⁰	Coffee/Tea Break (FMI)						
	Stream A Room S1 Topic 7: Security, Vulnerability and Resilience of Systems & Disaster Preparedness, Mitigation and Response Chairs: Kai-Dietrich Wolf, Germany; Matteo Spada, Switzerland	Stream B Room S2 Topic 8: Complex Systems and Critical Infrastructures Business Continuity Modelling and Optimization & Reliability, Safety and Security Related Management Systems Chairs: David Rowell, United Kingdom; Jarosław Ziółkowski, Poland	Stream C Room S3 Topic 9: Crisis Management Support Systems & Monitoring and Early Warning Systems Chairs: Erika Skýpalová, Slovakia; Marta Waldmann, Poland	Stream D Room S4 Topic 10: Cybersecurity and Functional Safety in Hazardous Systems & Research Challenges Concerning Sustainability, Safety and Security Chairs: Francesco Di Paco, Italy; Azadeh Seif, Norway	Stream E Room S5 Topic 11: Collection of Extended Abstracts Chairs: Lidia Filus, Poland/USA; Inmaculada Torres Castro, Spain	Stream F Room S6 Topic 12: Special Sessions (SSi) Chairs: Sessions' Organizers	Stream G Room S7 Topic 12: Special Sessions (SSi) Chairs: Sessions' Organizers

11 ⁰⁰ -11 ²⁰	<p>Title: Modeling Multi Modal Supply Chain Vulnerability To Earthquakes: Case Study On Canada West Coast</p> <p>Speakers: Luana Souza Almeida, Floris Goerlandt, Lauryne Rodrigues, Ronald Pelot</p>	<p>Title: Methodology For Assessment Of Coexistence Of Power Plant With Small Modular Reactor And Its Surrounding During Operation</p> <p>Speakers: Dana Prochazkova, Jan Prochazka, Vaclav Dostal</p>	<p>Title: STPA-Based Safety Analysis Of Pitch Control Actuator Integration For Subsonic Military Jet Aircraft</p> <p>Speakers: Milan Pšenička, Michaela Fukalová</p>	<p>Title: Towards Application Of AI Algorithms In Manufacturing For Improving Productivity, Quality And Functional Safety In Life Cycle</p> <p>Speakers: Jan Piesik, Kazimierz T. Kosmowski</p>	<p>Title: A Comparison Study Of Dependency Assessments: EMBRACE Method And EPRI Calculator</p> <p>Speakers: Seolsonghwa Song, Jaehyun Cho, Yochan Kim, Jaewhan Kim</p>	<p>Special Session 14: Hidden Markov Models In Reliability And Maintenance</p> <p>Organizers: Maria Luz Gámiz</p> <p>SS14.1</p> <p>Title: Hidden Markov Model For Remaining Useful Lifetime, Towards A New Strategy Form Training Models</p> <p>Speakers: Manuel Ávila-Gómez</p>	<p>Special Session 10: Case Studies On Industrial Predictive Reliability: Focus On Numerical Validation</p> <p>Organizers: Ewelina Czerlunczakiewicz, Maciej Majerczak, Marco Bonato</p> <p>SS10.1</p> <p>Title: Nonlinear Dynamic Simulations Of Automotive Component Undergoing Vibration Loadings</p> <p>Speakers: Maciej Majerczak, Ewelina Czerlunczakiewicz</p>
11 ²⁰ -11 ⁴⁰	<p>Title: Effect Of Weights And Criteria Uncertainty On Scoring In Multi Criteria Decision Analysis Ranking Problem: Application To Electricity Supply Resilience Index</p> <p>Speakers: Matteo Spada, Peter Burgherr, Flaminia Catalli, Eleftherios Siskos, Patrick Gasser</p>	<p>Title: Development Of Framework For Systems Based Risk Analysis: Offshore Wind Industry</p> <p>Speakers: David Rowell, David McMillan, James Carroll</p>	<p>Title: Quantum Generative Adversarial Networks For Wind Turbine Shaft Vibration Prognostics</p> <p>Speakers: Aaditty Tiwari, Gabriel San Martín Silva, Gustavo de Novaes Pires Leite, Enrique López Droguett</p>	<p>Title: Assessment Of Alternative Fuels For Deep Sea Vessels</p> <p>Speakers: Rushdie Rasheed, Sean Loughney, Eddie Blanco Davis</p>	<p>Title: A Comparison Study Of Dependency Assessments: EMBRACE Method And EPRI Calculator</p> <p>Speakers: Seolsonghwa Song, Jaehyun Cho, Yochan Kim, Jaewhan Kim</p>	<p>SS14.2</p> <p>Title: Hidden Markov Models To Estimate Maintenance Efficiency</p> <p>Speakers: Mari Carmen Segovia-García</p>	<p>SS10.2</p> <p>Title: Reliability Prediction Based On Predefined Standard Of Ultra-High Performance CMOS Buffer.</p> <p>Speakers: Gabriele Serpi</p>

11 ⁴⁰ -12 ⁰⁰	Title: Spatial Variability of Terrorist Vehicle Bomb Safety Risks Speakers: Mark G. Stewart	Title: Strategy of Capital Investment Decision-Making by Integrating Engineering Analysis to Financial Analysis at the Corporate Level for the Electricity Company Sustainability Speakers: Dheka Bakti Krisnamurti Winarno, Herry Nugraha	Title: Accidents Review And Control Assessment For Reliable Operation Of PEM Water Electrolyzer Stacks Speakers: Farhana Yasmine Tuhi, Marius Fredriksen, Johannes Jäschke, Marta Bucelli, Yiliu Liu	Title: Contribution Of Risk Science To Wind Power Policy Making In Norway: Study Of Stakeholder Involvement In Risk Communication Of Onshore Wind Farms Speakers: Azadeh Seif, Frederic Boudier	Title: Conversion Of Offshore Platform Under Decommissioning: Design And HSE Investigation Of Hydrogen Mixture Injection Plant Speakers: Valentina Furfaro, Anna Chiara Uggeri, Raffaella Gerboni, Amedeo Aliberti, Andrea Carpignano	Special Session 15: Cost-Benefit Decisions Under Uncertainty Organizers: Kai-Dietrich Wolf, Enrico Zio SS15.1 Title: Cost-Benefit Analysis For Critical Infrastructure Protection: Effectively Balancing Security And Resilience	Special Session 11: Reliability And Resilience Of Complex Systems, And Systems Of Systems Organizers: Pierre Dersin S11.1 Title: Modeling Reliability And Resilience Of Dual-Function Power Station Speakers: Darragi Messaoudi, Amr Abdellaoui
12 ⁰⁰ -12 ²⁰	Title: Assessing Resilience In Urban Systems Using Dynamic Multi-Regional Input-Output Model Speakers: Xiuke Tang, Pradeep V. Mandapaka, Kang Tai, Edmond Y. M. Lo	Title: Why Communication And Interpretation Matters For Safety Speakers: Thomas Wold	Title: New Lumped Parameter Numerical Model For Monitoring Electromechanical Actuators Speakers: Matteo D.L. Dalla Vedova, Alessandro Aimasso, Gaetano Quattrocchi, Pier Carlo Berri	Title: XAI And Cyber Resilience: Sociotechnical Perspective Speakers: Dorte Mathilde Kristin Vatn, Tor Olav Grøtan	Title: Use Of Criticality Criteria For Maintenance Of Medical Ventilators In Crisis Context Speakers: Molk Souguir, Lucas Equeter, Pierre Dehombreux	SS15.2 Title: Resilience Management Of Critical Infrastructures: Assessing Control Strategies Under Societal Values And Model Uncertainties Speakers: Tobias Demmer, Ingo Schönwandt	S11.2 Title: A Network Analysis To Evaluate The Resilience Of Urban Transit Systems Speakers: Celine Wehbe, Hiba Baroud, Kenza Saïah
12 ²⁰ -12 ⁴⁰	Title: Vulnerability Adjusted Metrics In Performance Based Physical Security Assessments Speakers: Thomas Termin, Daniel Lichte, Kai-Dietrich Wolf	Title: Multistage Multicriteria Dynamic Decision Making Framework For Fishing Route Planning And Optimization Speakers: Tiantian Zhu, Masoud Naseri, Sushmit Dhar	Title: Impact Of Sudden External Disruptions On Resilience Of Logistics Networks Speakers: Marta Waldmann, Adam Kolinski, Gonzalo Duran-Piñero, Othmane Lasri, Lillian Hansen	Title: Improvement Of Fire Human Reliability Analysis For Operator Manual Action Quantification Speakers: Sun Yeong Choi, Dae Il Kang, Yong Hun Jung	Title: Artificial Neural Networks For The Modern Commander Performance Improvement And Situation Awareness Assessment Speakers: Svajone Bekesiene	SS15.3 Title: Integrating Cost Benefit Analysis And Pareto Optimality In Security Concepts: Case Study Using Simplified Metric Speakers: Thomas Termin, Dustin Witte	SS11.3 Title: Enhancing The Resilience Of Critical Infrastructures By Optimal Allocation Of Redundant Interdependencies Speakers: Andrea Bellè

12 ⁴⁰ -13 ⁰⁰	Title: Training And Road Safety Among Adolescent Terrain Vehicles Users In Norway Speakers: Jan Petter Wigum, Thomas Wold, Thor Owe Holmquist, Simon Minsaas Bromstad	Title: Optimisation Of Road Transport Performed By Empty Vehicles, Theoretical Basis - Part 1 Speakers: Jarosław Ziółkowski, Aleksandra Łegas, Mateusz Oszczypała, Jakub Konwerski, Jerzy Małachowski	Title: Maritime Traffic Complexity Evaluation In Complex Waters Speakers: Xuri Xin, Kezhong Liu, Zaili Yang	Title: The Significance Of Socio-Economic Variables In Urban Growth Modeling Speakers: Alessandro Contento, Jessica Boakye, Lorena Fiorini, Alessandro Marucci, Paolo Gardoni	Title: Out-Of-Sample Validation Of Judgemental And Statistical Forecasts Of Antimicrobial Resistance Speakers: Abigail R. Colson, Itamar Megiddo	SS15.4 Title: On Pareto Optimality In Cost-Effectiveness Analysis Of Physical Security Concepts: A Case Study Using A Simplified Metric Speakers: Dustin Witte, Thomas Termin	S11.4 Title: Reliability and Resilience of Complex Systems, and Systems of Systems Speakers: Pierre Dersin
13 ⁰⁰ -14 ⁰⁰	Lunch (FMI Venue 1 and FMI Venue 2)						
14 ⁰⁰ -14 ²⁰	Title: System Dynamics Based Analysis Of Multimodal Port Accidents Speakers: Jinglin Zhang, Xuri Xin, Zhigang Liao, Zaili Yang	Title: Optimisation Of Road Transport Performed By Empty Vehicles: A Case Study From Poland - Part 2 Speakers: Jarosław Ziółkowski, Aleksandra Łegas, Mateusz Oszczypała, Jakub Konwerski, Jerzy Małachowski	Title: General Indicators Of Equipment Health State Perception Ability Speakers: Yong Zhang, Peng Yang, Kehong Lv, Wenxiang Yang, Qiang Guo, Guan Jun Liu, Jing Qiu	Title: Bias-Aware Service Life Assessment Of Existing Infrastructure Based On XAI Speakers: Francesca Marsili, Sylvia Keßler	Title: Public Risk Perception Of Hydrogen Technologies In Three Countries Speakers: Roser Sala, Lila Gonçalves, Toshiyuki Yamamoto, Hitomi Sato, Ning Huan, Haohui Yin	SS15.5 Title: Towards Fire-Resilient Landscapes: Strategies For Reducing Exposure To Extreme Wildfires Speakers: Erica Arango, Maria Nogal, Yue Dou, Hélder Sousa, José C. Matos, Mark G. Stewart	

14 ²⁰ -14 ⁴⁰	<p>Title: Vulnerability And Exposure Of Assets To Climate Change Related Hazards Models On Different Levels</p> <p>Speakers: Matthieu Dutel, Adam Abdin, Didier Soto, Karim Selouane, Nicolas Ziv, Anne Barros</p>	<p>Title: Assessing The Reliability Of Workplace Safety Inspections And Audits That Utilize The Observation Of Hazards</p> <p>Speakers: Victor Hrymak</p>	<p>Title: Work Domain And Control Task Analysis For Enhanced Fire Control Panels On RoRo Ferries</p> <p>Speakers: Hedvig Aminoff</p>	<p>Title: Future-Proofing Freight: ReMuNet's Pathway Towards A Resilient And Sustainable European Transport</p> <p>Speakers: Janis Simons, John von Stamm, Lars Klapper, Gerrit Hoeborn, Maik Schuermeyer, Ketki Kulkarni, Florian Krietsch, Maria Kontogianni</p>	<p>Title: Stochastic Degradation Modelling Based Monitoring And Predictive Maintenance Framework In Process Industries</p> <p>Speakers: Huxiao Shi, Micaela Demichela</p>	<p>Special Session 16: Assessment Of Physical Protection Systems</p> <p>Organizers: Zdenek Vintr</p> <p>SS16.1</p> <p>Title: An Approach To Analysis Of Security Measure Effectiveness Considering Epistemic Uncertainty In Scenario Likelihood</p> <p>Speakers: Dustin Witte, Daniel Lichte, Kai-Dietrich Wolf</p>	
14 ⁴⁰ -15 ⁰⁰	<p>Title: Spatial Variability Of Terrorist Vehicle Bomb Safety Risks</p> <p>Speakers: Mark G. Stewart</p>	<p>Title: Transmission Expansion Planning Via Multi-Objective Deep Reinforcement Learning</p> <p>Speakers: Anna Varbella, Blazhe Gjorgiev, Enrico Zio, Giovanni Sansavini</p>	<p>Title: Integration Of Safety And Security Aspects In EU Context: Comparative Analysis Of Legislative Frameworks</p> <p>Speakers: Sanneke Kuipers, Gabriele Landucci, Alessia Tortolini</p>	<p>Title: Towards Understanding Maximum Expected Time Of Rescue In Canadian Arctic Waters by Maritime Assets</p> <p>Speakers: Ronald Pelot, Kimia Mostaghimi, Mark Stoddard, Jack Gallagher, Floris Goerlandt</p>	<p>Title: Identifying Ambiguity And Potential Violations In Standard Operating Procedures Using Natural Language Processing Tools</p> <p>Speakers: Karl Johnson, Caroline Morais, Edoardo Patelli</p>	<p>SS16.2</p> <p>Title: Assessment Of The System Of Monitoring And Tracking Of People As Physical Protection</p> <p>Speakers: Erika Skypalova, Radoslav Kuffa, Tomas Lovecek</p>	<p>Special Session 12: Quantum-Based Optimization And Inference For Risk And Reliability Applications</p> <p>Organizers: Enrique Lopez Droguett, Marcio Moura, Isis Lins</p> <p>SS12.1</p> <p>Title: Quantum Inference And Optimization In Risk And Reliability: A Critical Review</p> <p>Speakers: Gabriel San Martin Silva, Enrique Lopez Droguett</p>

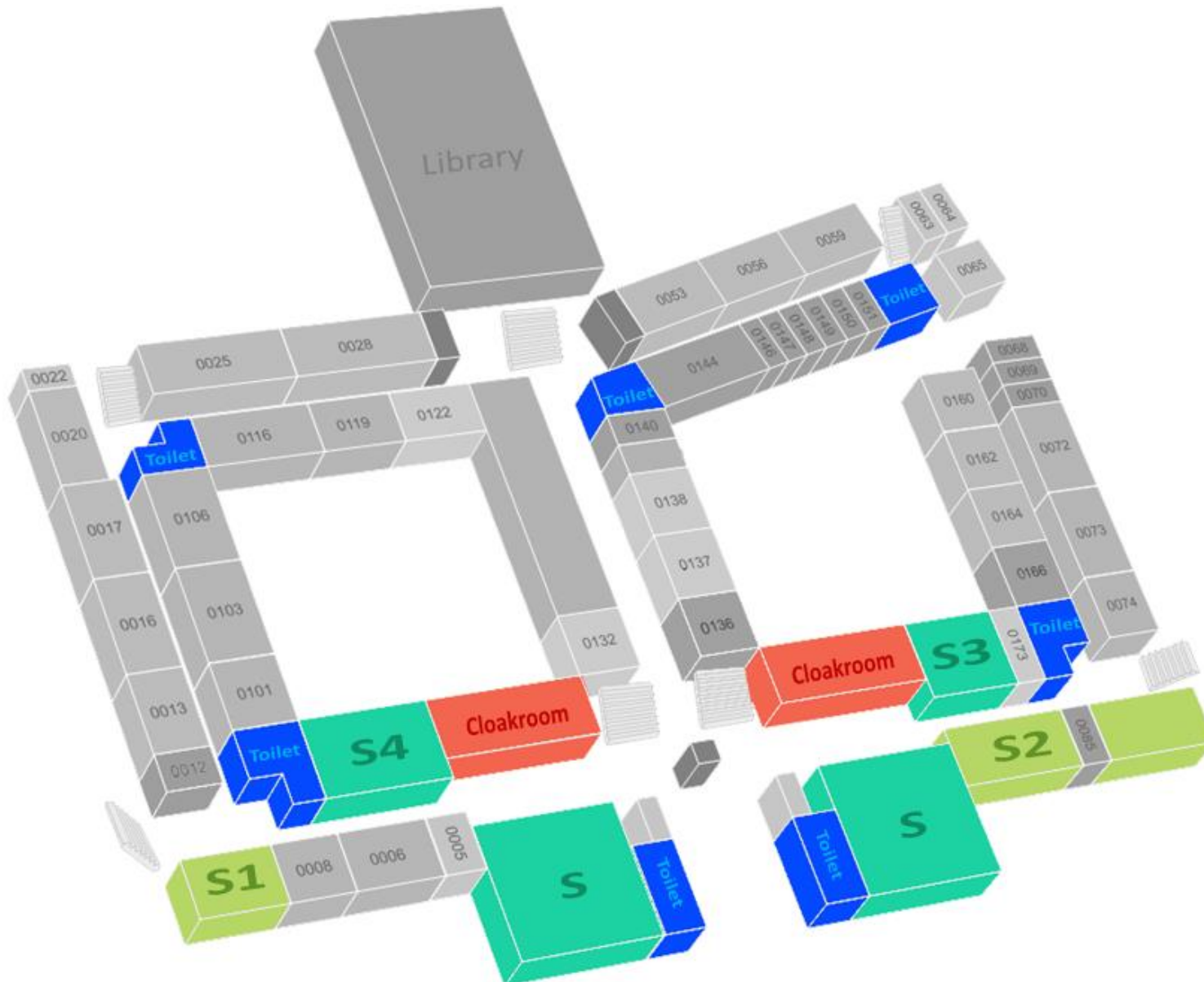
15 ⁰⁰ -15 ²⁰	<p>Title: Task Oriented Resilience Assessment Framework For System Of Systems</p> <p>Speakers: Xueming Xu, Renjie Xu, Jiahao Liu, Yihao Zhang, Hongqian Wu, Jichao Li, Haiyue Yu, Jiang Jiang</p>	<p>Title: Icing Challenges In Northern Norway Aquaculture: Insights From Field Data Collection And Analysis</p> <p>Speakers: Masoud Naseri, Sushmit Dhar</p>	<p>Title: Innovative Wildlife Census: Integrating UAV Technology And IT Systems For Accurate Fauna Population Monitoring</p> <p>Speakers: Paweł Gołda, Mariusz Zieja, Paweł Szczepaniak, Szymon Świergolik</p>	<p>Title: Conception Of Integrated IT System For Telemetry-Enhanced UAV Surveillance In Railway-Proximate Plant Inspections</p> <p>Speakers: Paweł Gołda, Mariusz Zieja, Krzysztof Cur, Justyna Tomaszewska, Szymon Świergolik</p>	<p>Title: Open-Source Demonstration Platform For Predictive Maintenance Of Robots Based On Digital Twins</p> <p>Speakers: Haibo Li, Zhiguo Zeng</p>	<p>SS16.3</p> <p>Title: Current Trends And Experience In The Soft Targets Protection</p> <p>Speakers: Martin Hromada, Martin Bajer</p>	<p>SS12.2</p> <p>Title: Exploring Quantum Optimization Methods For The Redundancy Allocation Problem</p> <p>Speakers: Isis Didier Lins, Lavinia Maria Mendes Araújo, Caio Bezerra Souto Maior, Márcio José das Chagas Moura, Vitória Milena Alves Bezerra</p>
15 ²⁰ -15 ⁴⁰	<p>Title: Towards Development Of Competence-Based Crisis Management Education Programs In Norway</p> <p>Speakers: Ensieh Roud, Riana Steen</p>	<p>Title: Prevention Of Violence Committed By Individuals With Serious Mental Disorders: Challenges In The Interprofessional Collaboration</p> <p>Speakers: Naska Xas, Bjørn Ivar Kruke</p>	<p>Title: Voting-Based Condition Monitoring Using Set Of Indicators For Fleet-Wide Fault Detection In Wind Energy</p> <p>Speakers: Théodore Raymond, Sylvie Charbonnier, Christophe Bérenguer</p>	<p>Title: Disruptions In The EU Transport Network: How Stakeholders View Them</p> <p>Speakers: Ketki Kulkarni, Sarah Schiffing, Anna Aminoff, Gyögyi Kovács</p>	<p>Title: The ELICIPY Expert Elicitation Tool Applied To Tsunami Hazard Assessment At Stromboli Volcano</p> <p>Speakers: Alessandro Tadini, Mattia de' Michieli Vitturi, Andrea Bevilacqua, Augusto Neri, Tomaso Esposti Ongaro, Matteo Cerminara, Emmie Bonilauri, Andrew Harris, Raphael Paris, Marco Pistolesi, Willy Aspinall</p>	<p>Special Session 17: Safe And Sustainable Hydrogen Technologies</p> <p>Organizer: Nicola Paltrinieri</p> <p>SS17.1</p> <p>Title: HRS Safety Critical Considerations From Incident Analysis / Safety Lessons From HRS Events Analysis</p> <p>Speaker: Eulalia Badia</p>	<p>SS12.3</p> <p>Title: Quantum-Based Optimization For Critical Infrastructure Health Monitoring</p> <p>Speakers: Gabriel San Martin Silva, Enrique Lopez Droguett</p>

15 ⁴⁰ -16 ⁰⁰	<p>Title: Effects Of Workforce Productivity On Infrastructure Resilience</p> <p>Speakers: Neetesh Sharma, Omar Kammouh, Maria Nogal, Paolo Gardoni</p>	<p>Title: The Importance Of The Safety Case In The Nuclear And Fusion Industry</p> <p>Speakers: Hector Diego Estrada-Lugo, Jill Garner, Susan Wright, Omar Afify</p>	<p>Title: Cut-And-Paste With Precision: A Content And Perspective-Aware Data Augmentation For Road Damage Detection</p> <p>Speakers: Punawat Siripathitti, Florent Forest, Olga Fink</p>	<p>Title: Perceived Safety Of Passengers On Coastal And Ocean Going Vessels: Construction Of A Global Assessment Questionnaire</p> <p>Speakers: Johannes H. Lehleitner, Gisela Müller-Plath</p>	<p>Title: Problems Of The Safety Analysis Of Functioning The Water Installations In Buildings</p> <p>Speakers: Izabela Piegdoń, Barbara Tchórzewska-Cieślak</p>	<p>SS17.2 Investigation Of Safety Barrier(s) Role In Hydrogen-Related Undesired Events</p> <p>Speakers: Giulia Collina</p>	<p>Special Session 13 Quantum Based Optimization And Inference For Risk And Reliability Applications</p> <p>Organizers: Enrique Lopez Droguet, Marcio Moura, Isis Lins</p> <p>SS 13.1 Exploring Quantum Optimization Methods For Redundancy Allocation Problem</p> <p>Speakers: Isis Didier Lins, Lavinia Maria, Mendes Araújo, Caio Bezerra Souto Maior, Márcio José das Chagas Moura, Vitoria Milena Alves Bezerra</p>
16 ⁰⁰ -16 ²⁰	<p>Title: Counterfeit Electronics Detection Via Physical Analysis</p> <p>Speakers: Simone Carta, Giovanna Mura</p>	<p>Title: Automatic Underwater Vehicle Fault Diagnosis Framework Based On Multi-Scale Attention Mechanism</p> <p>Speakers: PinZe Ren, Huan Wang, Yan-Fu Li</p>	<p>Title: Multi-Dimensional Health Assessment Of Complex Systems Based On Health State Hierarchical Flow Chart</p> <p>Speakers: Shu Xu, Laifa Tao, Shouqing Huang, Hao Li, Fangyong Li</p>	<p>Title: Late or/and On-Line Presentation</p> <p>Speakers:</p>	<p>Title: Late or/and On-Line Presentation</p> <p>Speakers:</p>	<p>SS17.3 Public Perception And Acceptance Of Hydrogen Technologies</p> <p>Speakers: Roser Sala</p>	<p>SS13.2 Title: Diagnosis Of Rolling Bearings Via Noisy Quantum Machine Learning</p> <p>Speakers: Lavinia Maria Mendes Araújo, Isis Didier Lins, Caio Bezerra Souto Maior, Márcio José das Chagas Moura</p>

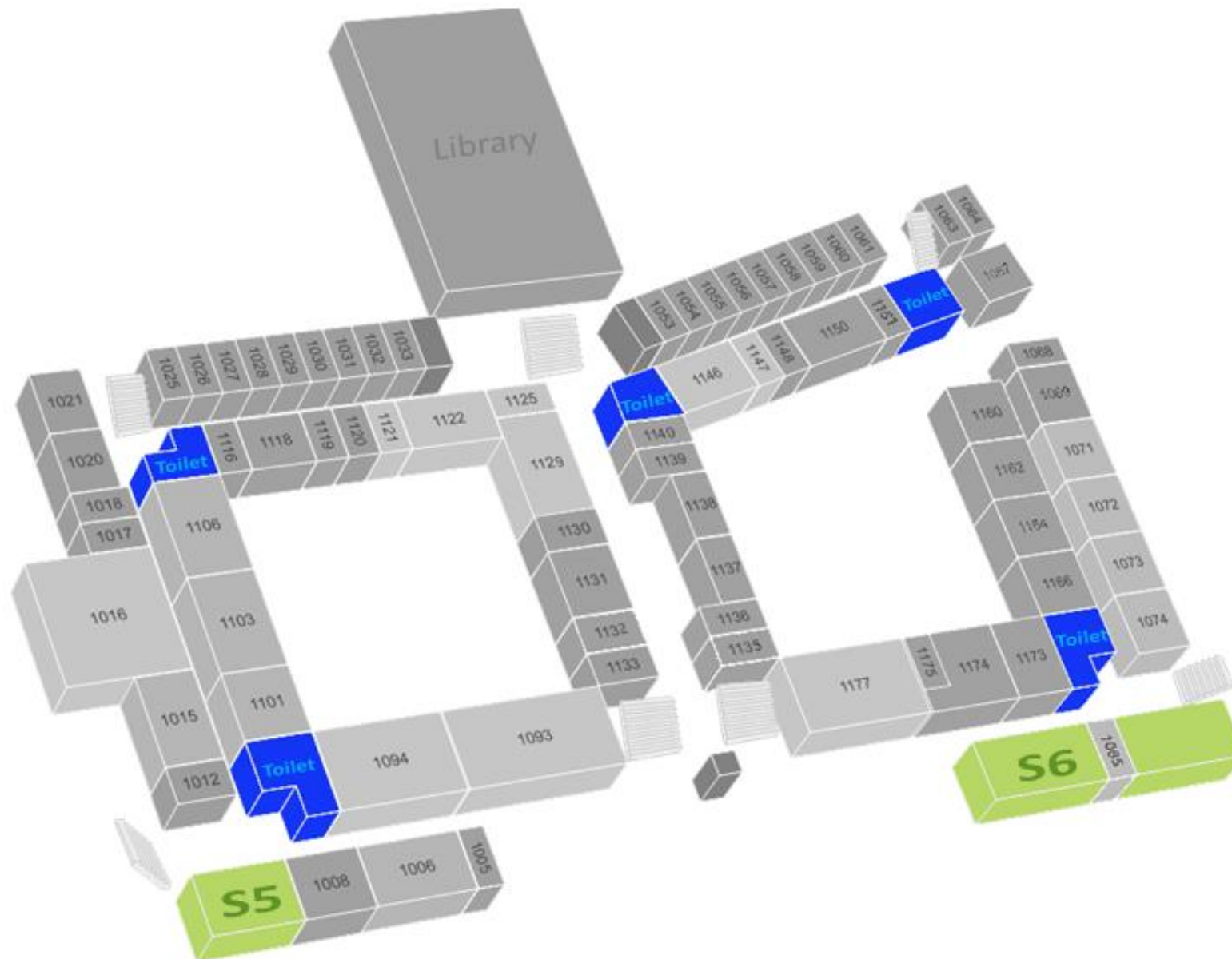
16 ²⁰ -16 ⁴⁰	Title: Resilience Assessment Of Liquid Hydrogen Bunkering Systems Speakers: Federica Tamburini, Yiliu Liu, Valerio Cozzani, Nicola Paltrinieri	Title: Reliability, Availability And Maintainability Analysis Based On Failure Data: Case Study On Vehicles Speakers: Jakub Konwerski, Mateusz Oszczypała, Jarosław Ziółkowski, Aleksandra Łęgas, Jerzy Małachowski	Title: Condition Monitoring Of Wind Turbine Blade Bearings Speakers: Wenxian Yang, Zian Wu, Yunyu Ma, Kexiang Wei, Andrew Ball, Robert Cattley	Title: Late or/and On-Line Presentation Speakers:	Title: Late or/and On-Line Presentation Speakers:	SS17.4 Title: Optimizing Inspection Strategies For Hydrogen Pipelines / Cost-Effective Perspective: Towards Cost Effective Inspection Strategies for Hydrogen Pipelines: Current Challenges and Potential Solutions Speakers: Leonardo Giannini, Genserik Reniers, Alessandro Campari, Yiliu Liu, Antonio Alvaro, Nicola Paltrinieri	SS13.3 Title: Evaluation Of Accident Reports With Quantum Natural Language Processing Speakers: July Bias Macêdo, Márcio José das Chagas Moura, Caio Bezerra Souto Maior, Isis Didier Lins
16 ⁴⁰ -17 ⁰⁰	<p style="text-align: center;">Closing Ceremony (Room S)</p> <p>Thanks to Participants and Summary of ESREL 2024 by Krzysztof Kołowrocki, PSRA President and Conference Chairman</p> <p>Message from Michael Beer, ESRA Chairman</p> <p>Chair: Krzysztof Kołowrocki, Poland</p>						
17 ⁰⁰ -20 ⁰⁰	Organized Guided and Individual Sightseeing of Cracow and Surrounding Areas						

SCHEME Of ESREL 2024 CONFERENCE CENTRE

FMI Venue – Ground Floor



FMI Venue – First Floor



Agenda: Room S – Lecture Room (1 Aula or 2 audiovisually connected Aulas); Rooms S1, S2, S3, S4, S5, S6, S7 – Lecture Rooms for 40-50 Persons; Hall – Open Space (Lobby).

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Room S [Krzysztof Kołowrocki, Students 1-6]
Room S1 [Kazimierz Kosmowski, Student 1]
Room S2 [Jacek Malinowski, Student 2]
Room S3 [Jakub Montewka, Student 3]
Room S4 [Sylwia Werbińska-Wojciechowska, Student 4]
Room S5 [Ewa Dąbrowska, Student 5]
Room S6 [Justyna Tomaszewska, Student 6]
Room S7 [Tomasz Barnert, Student 9]

Registration Desk and [Responsible Persons]

WMI Hall [Beata Magryta-Mut, Krzysztof Kołowrocki, Students 7-8]

Plenary Lecture Organization

KeyNote Speech – 25 minutes
Questions from Audience and KeyNote Speaker Answers – 5 minutes

Session Organization

Presentation – 15 minutes
Questions from Audience and Author Answer – 5 minutes
Special Sessions are chaired by their Organizers

Free Public Transport for ESREL 2024 Participants Funded by Mayor of Cracow

The public bus and tram transport in Cracow will be free of charge for ESREL 2024 Participants during the days of the Conference and Workshop.
To use it, all you need to do is show your ESREL 2024 badge.

Guided Tours Funded by Mayor of Cracow

4 groups of 25 people will be guided around Cracow on Thursday, 27.06.2024. from 16:30 to 19:00.
Those interested in them should register at the Conference Desk during Registration.

Associated event

Post ESEL 2024 Workshop

28-30.06. 2024.

Hotel Nowa Panorama

30-340 Cracow, Wacław Lipiński Street 3/1

<https://hotel-panorama.pl/> (gmaps: <https://maps.app.goo.gl/sg4LwirEXB6pXQmTA>)

<https://esrel2024.com/workshop-programme/>

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