

| <b>September 10<sup>th</sup>, Day 0</b>              |  |   |
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| 18:00 – 21:00  | <b>Welcome cocktail party on a boat</b>  |   |
| <b>September 11<sup>th</sup>, Day 1<sup>st</sup></b> |  |   |
|  | <b>Room A</b>  | <b>Room B</b>   |
| 8:50 – 9:00  | Opening ceremony   |   |
| 9:05 – 10:00   | Keynote lecture 1 – Zhu S.P.<br>Chairman: G. Lesiuk  |   |
| 10:00 – 10:15  | <b>Chairman: S.P. Zhu</b><br>Sedmak A., Sedmak S., Miladinov M., Kirin S., Milovanovic N., <i>Risk analysis of pipeline inlet elbows in hydro power plant Perućica based on fracture mechanics and structural integrity approach</i> |   |
| 10:15 – 10:30  | Sedmak S., Sedmak A., Miladinov M., Petrović A., Milovanovic N., <i>Risk analysis of pipeline branch in hydro power plant Perućica based on fracture mechanics and structural integrity approach</i>                                 |   |
| 10:30 – 10:45  | Bacco A., Giannella V., Sepe R., <i>Influence of the welding process on the stress corrosion cracking of high-strength steel welded joints</i>   |   |
| 10:45 – 11:00  | Mendez-Morales M., Tankova T., Branco R., Rebelo C., <i>Structural integrity and durability optimization of waam carbon steel elements for fatigue-sensitive components</i>  |   |
| <b>11:00 – 11:30</b>                                 | <b>Coffee Break</b>  |   |
| 11:30 – 12:25  | Keynote lecture 2 – Seitl S<br>Chairman: Sz. Duda  |   |
| 12:25 – 12:40  | <b>Chairman: A. de Jesus</b><br>Bohm M., <i>Influence of loading spectra and fatigue life assessment calculation domain on the safety of complex structures</i>  | <b>Chairman: D. Rozumek</b><br>Macek W., Deja M., Pojda D., Korphys M., Jiang C.P., Lesiuk G., <i>Quantitative techniques for assessing fatigue damage after failure</i>                  |
| 12:40 – 12:55  | Diaz Salamanca D., Muniz-Calvente M., Llavori I., Zabala A., Pando P., Papuga J., <i>Assessing the influence of surface roughness and residual stresses on the fatigue behaviour of 42CrMo4+qt steel</i>                             | Song X., Zhu S.P., Chen Z., Luo C., Wang L., <i>Probabilistic damage tolerant assessment of cracked structures under size effect</i>  |
| 12:55 – 13:10  | Meng D., Yang H., Yang S., Jesus A.M.D., Zhu S.P., <i>A hybrid modeling-based reliability optimization method for complex engineering structures</i>   | Grudnik M., Krysiński P., Polkowski J., Konarzewski M., Panowicz R., Paszula J., Szymanczyk L., Hara M., <i>Air blast tnt equivalence for explosive with and without aluminium powder</i> |
| 13:10 – 13:25  | Klusak J., Seitl S., Kunz L., Kozakova K., <i>Material characterisation of clinched joint subjected to cyclic loading</i>  | Gao J.W., Zhang H.S., Zhu S.P., Zhang J.F., Han J., <i>Damage tolerance of induction hardened s38c railway axles subjected with foreign object damage at low temperature</i>              |
| <b>13:25 – 14:30</b>                                 | <b>Lunch Break</b>   |   |
| 14:30 – 15:25  | Keynote lecture 3 Jose A.F.O. Correia<br>Chairman: S. Seitl  |   |
| 15:25 – 15:40  | <b>Chairman: S. Seitl</b><br>Smolnicki M., <i>Application for predition of crack path and fracture parameters in CTS specimens under mixed-mode I+II</i>   | <b>Chairman: W. Macek</b><br>Duda S., P. Zielonka, M. Smolnicki, G. Lesiuk <i>Numerical-experimental analysis of the effect of a stress concentrator on the strength of CFRP material</i> |
| 15:40 – 15:55  | Gevrek I., Gevrek M.I., <i>Risk assessment matrix for complex helicopter operations</i>  | Adamczak-Bugno A., <i>Assessment of the effect of fire temperatures on s235 steel using acoustic emission method, numerical analysis and metallographic tests – ONLINE</i>                |
| 15:55 – 16:10  | Lipiec S., Dzioba I., <i>Assessment of the fracture toughness of steam pipe material based on numerical simulations</i>  | Petrašchuk V., Shatskiy I., <i>Closure of collinear cracks in bending of multilayer plate with symmetrical structure - ONLINE</i>   |

| 16:10 – 16:25  | Paweł ZIELONKA, Szymon DUDA, Michał SMOLNICKI, Paweł STABLA, Grzegorz LESIUK<br><i>Mechanical behaviour prediction of the hybrid composite rebars for concrete structures based on micromechanical approach</i> | Dalyak T., Shatskyi I., <i>Equilibrium of plate with cyclic-symmetrical system of radial cracks healed near tips - ONLINE</i>  |
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| 18:00  | <b>Gala dinner</b>  |  |
| <b>September 12<sup>th</sup>, Day 2<sup>nd</sup></b> |   |  |
|  | <b>Room A</b>   | <b>Room B</b>  |
| 9:05 – 10:00   | <b>Keynote lecture 4 – F. Berto</b><br>Chairman: A. Sedmak  |  |
| 10:00 – 10:15  | <b>Chairman: S. Sedmak</b><br>Rozumek D., Lesiuk G., Duda Sz., Zielonka P., Correia J.A.F.O, Abilio M.P. De Jesus., <i>Fatigue crack growth rate description in long term-operated bridge steel</i>             | <b>Chairman: K. Kula</b><br>Rita DANTAS, Ana DANTAS, Gonçalo P. CIPRIANO, Felipe FIORENTIN, José A.F.O. CORREIA, Grzegorz LESIUK, Abílio de JESUS <i>Frequency effect in multiaxial fatigue behaviour of a structural steel for offshore wind turbine support systems</i>  |
| 10:15 – 10:30  | He J.C., Segurado J., Zarzoso G., Song X., Zhu S.P., <i>Fatigue life prediction of notched specimens under size effect using cp-fft: application to Ni-based superalloy GH4169</i>                              | Sybilski K. Application of multi-objective optimization to improve the reliability and stability of structure  |
| 10:30 – 10:45  | De Jesus A., Dantas R., Fiorentin F., Correia J., <i>GCYCLEFT: insights into ultra-highcycle fatigue behavior of engineering alloys</i>   | Seitl S., Khazali M.S.A., Kozakov a K., Klusak J., <i>Effect of specimen geometry on high cycle fatigue life of s460 nl,</i>   |
| 10:45 – 11:00  | Carlos SOUTO, Marco PARENTE, José CORREIA, Abílio DE JESUS <i>A damage-tolerant design framework for total fatigue life prediction applied to thin-walled and cold-formed mild steel structures</i>             | Mituica D.E., Felho C., Cernescu A.V., <i>Numerical and analytical analysis of roughness effects in pla fdm parts: Comparison between as-printed and post-machined surfaces</i>  |
| <b>11:00 – 11:30</b>                                 | <b>Coffee Break</b>   |  |
| 11:30 – 12:25  | <b>Keynote lecture 5 – Sylwia Werbińska-Wojciechowska</b><br>Chairman: M. Bohm  |  |
| 12:25 – 12:40  | <b>Chairman: M. Smolnicki</b><br>Krstevska A., Zdravetski F., Gavriloski M., Bogatinoski Z., <i>Hardness analysis of welded joints of p91 martensitic steel and 12x18h12t stainless steel - ONLINE</i>          | <b>Committee: R. Dantas, Sz. Duda</b><br>1. Kula K., Denisiewicz A., Socha T., Lopes C., Pedrosa B., Lesiuk G., Zielonka P., Duda S., Carvalho H., Correia J., <i>Hybrid frp rebars for rc beams numerical and experimental study</i>  |
| 12:40 – 12:55  | Durmus Z., <i>Composite adhesive to prevent cavitation damage in cylinder liners of locomotive diesel engines - ONLINE</i>  | 2. Smolnicki M., Analysis of damage in glass and carbon reinforced epoxy composites utilizing acoustic emission  |
| 12:55 – 13:10  | Doicheva A., <i>Variation of the shear force from a cantilever beam loaded with a linearly distributed load with intensity at the free end of the beam – part I, symmetrical cross-section - ONLINE</i>         | 3. Denisiewicz A., Socha T., Kula K., Błażejewski W., Wyjadłowski M., <i>Simulation-based evaluation of thin-walled beam strength</i>  |
| 13:10 – 13:25  | Doicheva A., <i>Variation of the shear force from a cantilever beam loaded with a linearly distributed load with intensity at the free end of the beam – part ii, asymmetrical cross section - ONLINE</i>       | 4. Szust A., <i>Analysis of the impact of loading modality on the structural integrity of hms type safety connectors</i>   |
| 13:25 – 13:45  | Yang S., Meng D., Jesus A.M.D., Yang H., Zhu S.P., <i>A adaptive kriging-assisted first order reliability method for efficient and accurate reliability analysis - ONLINE</i>                                   | 5. Wybraniec A., <i>Selection of the spatial structure of a personalized implant to fill a bone defect in the mandible - preliminary studies</i><br>6. Kerkar M.E., <i>Application of artificial intelligence methods to the analysis of failure problems in reservoir dams</i><br>7. Szymon Dziuba, Marcin Madeja, Michał Karoluk Patrycja Szymczyk Ziolkowska, Grzegorz Lesiuk |

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|              |  | <p><i>Analysis of fatigue resistance of titanium alloy produced by Electron Beam Powder Bed Fusion</i></p> <p>8. Alessandra R. M. Schifino, Grzegorz Lesiuk, Grzegorz Ziółkowski, Patrycja Szymczyk-Ziółkowska<br/> <i>Defects Characterization of Additively Manufactured A60601RAM2 Alloy</i></p> <p>9. Jakub HANSZKE, Maciej ROSZAK, Dariusz PYKA, Krzysztof JAMROZIAK, Miroslaw BOCIAN <i>Analysis of energy dissipation in multilayer composite structures under extreme conditions</i></p> |
| <b>13:45</b> |  | <b>Closing Ceremony</b>  |
| <b>14:30</b> |  | <b>Lunch Break</b>   |