

## THURSDAY, 5<sup>th</sup> OF DECEMBER

All the sessions are held in the Civil Engineering Building (CEB), WUT,  
Aleja Armii Ludowej 16, room 101.

08:30-09:30	Registration, CEB, hall
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### CONFERENCE OPENING & GENERAL LECTURES

Chairman: **Stanisław Jemiolo**

9:30-9:45	<p style="text-align: center;"><i>Opening Ceremony</i></p> <p style="text-align: center;"><b>R. Tarczewski</b>, Chair of the Scientific Committee of LSCE 2024 <b>A. Garbacz</b>, Dean of the Faculty of Civil Engineering, WUT</p>
9:45-10:15 General lecture	<p style="text-align: center;"><i>J. B. Obrębski – researcher and educator</i></p> <p style="text-align: center;"><b>R. Tarczewski</b></p>
10:15-10:45 General lecture	<p style="text-align: center;"><i>Recent research progress in the structural design of tubular steel wind turbine towers</i></p> <p style="text-align: center;"><b>C. Gantes</b></p>

10:45-11:15	Coffee Break, CEB, hall
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### THEMATIC SESSION 1

#### OPTIMIZATION

Chairman: **Leszek Matyszko**

11:15-11:40 Invited lecture	<p style="text-align: center;"><i>Minimum compliance design with regard to material anisotropy</i></p> <p style="text-align: center;"><b>G. Dzierżanowski</b></p>
11:40-11:55	<p style="text-align: center;"><i>On minimizing potential energy of trusses subjected to distortions</i></p> <p style="text-align: center;"><b>T. Lewiński, T. Sokół</b></p>
11:55-12:10	<p style="text-align: center;"><i>Optimum designs of planar trusses subjected to given distortions</i></p> <p style="text-align: center;"><b>T. Sokół, T. Lewiński</b></p>
12:10-12:25	<p style="text-align: center;"><i>Optimum design of steel space truss roof with arithmetic optimization algorithm</i></p> <p style="text-align: center;"><b>B. Yakak, B. Atmaca, T. Dede, M. Grzywiński</b></p>
12:25-12:40	<p style="text-align: center;"><i>Reverse structural design of minimum bending footbridges</i></p> <p style="text-align: center;"><b>M. Pelczarski, R. Tarczewski</b></p>

12:40-14:00	Lunch, CEB, room 407
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THEMATIC SESSION 2  
**DYNAMICS & STABILITY**

Chairman: **Marcin Gajewski**

14:00-14:25 Invited lecture	<i>Analysis of the influence of the bolted interconnections spacing between the elements of a closely spaced build-up member – Case study</i> <b>J. Szafran, K. Juszczak-Andraszyk, P. Kaszubska</b>
14:25-14:40	<i>The influence of seismic excitations on the method of creating geodesic dome grids</i> <b>D. Bysiec, T. Maleska</b>
14:40-14:55	<i>Comparative analysis of earthquake and wind impact on a cooling tower</i> <b>D. Cornik, A. Padewska-Jurczak, A. Cińcio, R. Walentyński, H. Myrcik</b>
14:55-15:10	<i>Experimental and numerical determination of a wind force acting on an object in the shape of a bent pipe</i> <b>A. Padewska-Jurczak, Z. Buliński, T. Krysiński, M. Wiśniowski, D. Cornik</b>
15:10-15:25	<i>Investigation of possible causes of structural failures in large logistics warehouses due to the impact of heavy rainfall</i> <b>R. Walentyński, K. Gryboś, K. Kozieł, M. Matyl, M. Wiśniowski</b>

15:25-15:55	<i>Coffee Break, CEB, hall</i>
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THEMATIC SESSION 3  
**CONSTITUTIVE MODELLING & FEM IMPLEMENTATION**

Chairman: **Tomasz Lewiński**

15:55-16:20	<i>Atriumroof EDGE Südkreuz - a hybrid for a hybrid</i> <b>M.Elze</b>
16:20-16:35	<i>Expansion of football stadiums stands – Challenges, possibilities, implementations</i> <b>J. Szafran, C. Gorzeń</b>
16:35-16:50	<i>Constitutive modelling and numerical implementation for fibre-reinforced materials in ABAQUS</i> <b>A. Franus, S. Jemiolo</b>
16:50-17:05	<i>Influence of the FEM modeling assumptions on the compatibility of the obtained results with the experiment in case of bent thin-walled C-type element</i> <b>M.D. Gajewski, A. Piotrowski, C. Ajdukiewicz, D. Trinh-Duc, S. Jemiolo</b>
17:05-17:20	<i>Full-range continuous and smooth moment-curvature relationships for aluminium alloy beams</i> <b>A. Szwed, I. Kamińska</b>
17:20-17:30	<i>Invitation from Opole University of Technology to the future LSCE2025 conference</i> <b>D. Bysiec</b>

18:30	<i>Welcome Reception, CEB, room 407</i>
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## FRIDAY, 6<sup>th</sup> OF DECEMBER

### THEMATIC SESSION 4

#### NEW MATERIALS AND TECHNOLOGIES

Chairman: **Marcin Kamiński**

9:00-9:25 Invited lecture	<i>Effectiveness of sound mitigation walls and their environmental compatibility in the built environment</i> <b>R. Tarczewski</b>
9:25-09:40	<i>Connection and force transmission of thin-walled façade elements made of Carbon Concrete Composite</i> <b>M. Ayoubi</b>
09:40-9:55	<i>A new perspective on the use of mycelium-based composites in construction</i> <b>R. Walentyński, A. Jurkiewicz</b>
9:55-10:10	<i>Determination of tensile strength and elasticity modulus identification for high-performance PVC-coated fabrics</i> <b>M. Chronowski, M. Neubauer, B. Łazorczyk, M.A. Zmuda Trzebiatowski</b>
10:10-10:25	<i>Material identification of heterogeneous Kirchhoff-Love shell strips</i> <b>B. Łazorczyk, R. A. Sauer</b>
10:25-10:40	<i>Identification of orthotropic material model for technical fabric in the light of PN-EN 17117-1:2019-2</i> <b>B. Łazorczyk, M.A. Zmuda Trzebiatowski, M. Chronowski, F. Neubauer, P. Kłosowski, A. Tomaszewska</b>
10:40-10:55	<i>Influence of shape imperfections on behaviour of hyperbolic cooling tower</i> <b>D. Cornik, H. Myrcik, R. Walentyński, A. Padewska-Jurczak</b>

10:55-11:25	<i>Coffee Break, CEB, hall</i>
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### THEMATIC SESSION 5

#### TENSEGRITY & RELIABILITY

Chairman: **Ryszard Walentyński**

11:25-11:50 Invited lecture	<i>Challenges of tensegrity-like engineering structures in view of additive manufacturing</i> <b>W. Gilewski, A. Al Sabouni-Zawadzka</b>
11:50-12:05	<i>K-span structures – comparison of selected methods of design</i> <b>R. Walentyński, R. Cybulski, H. Myrcik</b>
12:05-12:20	<i>Prestressing a non-minimal triplex by changing the length of selected groups of members</i> <b>A. Rutkiewicz</b>
12:20-12:35	<i>On uncertainty quantification in elastic beams using stochastic Finite Difference Method and probabilistic entropy</i> <b>M. Kamiński</b>
12:35-12:50	<i>Reliability analysis of parallel systems of ductile and brittle components using Monte Carlo simulations</i> <b>E. K. Szeliga</b>
12:50-13:00	<i>Closing Ceremony</i>

13:00-14:00	<i>Lunch, CEB, room 407</i>
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