

2<sup>nd</sup> INTERNATIONAL CONFERENCE OF YOUNG SCIENTISTS  
“ENGINEERING MECHANICS & TRANSPORT 2011” (EMT-2011)

NOVEMBER 24-26 2011, LVIV, UKRAINE



## CONFERENCE PROGRAMME

### NOVEMBER 24

**08:30 – REGISTRATION OF PARTICIPANTS STARTS**

*In front of the Assembly hall of the 1<sup>st</sup> building of Lviv Polytechnic National University (Karpins'kogo street 2/4)*

**09:00 - 10:30 – LVIV STUDENT SHORT FILM RETROSPECTIVE**

*Assembly hall of the 1<sup>st</sup> building of Lviv Polytechnic National University (Karpins'kogo street 2/4).*

**10:30 - 12:00 – CEREMONIAL OPENING OF THE FESTIVAL OF SCIENCE**

*Assembly hall of the 1<sup>st</sup> building of Lviv Polytechnic National University (Karpins'kogo street 2/4).*

**12:00 - 13:00 – LVIV POLYTECHNIC TOUR**

**13:00 - 14:00 – LUNCH**

*Canteen in the 1<sup>st</sup> building of Lviv Polytechnic National University (Karpins'kogo street 2/4, basement).  
Alternatively – University canteen (Karpins'kogo street 6)*

**14:00 - 18:00 – CONFERENCE SESSIONS**

**SESSION 1. MODELLING OF MECHANICAL SYSTEMS. APPLIED PROBLEMS OF DYNAMICS AND STRENGTH OF MACHINES. PROBLEMS OF SYNTHESIS AND OPTIMIZATION OF ENGINEERING STRUCTURES**

*Room 61, 14<sup>th</sup> building of Lviv Polytechnic National University (Profesors'ka street 1)*

*Grabko Olena. Static contact problem of elastic spheres with rough surfaces*

*Koval Taras, Kostelnitska Halyna, Diveyev Bohdan. Dynamic vibration absorbers design*

*Leskiv Ihor, Diveyev Bohdan. A parametric investigation of noise protection properties of innovative barriers*

*Antonenko Nina. Modelling the Adhesive Joint of Parts with Various Elastic Response Characteristics*

*Bilous Vadym. Influence of Indents on a Tension of Cylindrical Shells of High-Pressure Apparatuses*

*Gursky Volodymyr, Lanets Olena. Frequency Response Modelling of Vibratory Electromagnetic Drive Systems*

*Sokil Maria, Chagan Yuriy. Development of a design procedure of longitudinal-angular oscillations of vehicles at nonlinear characteristics of the suspension*

*Sokil Maria, Khytriak Olga. The influence of kinematic parameters of motion on the vibration and strength of flexible elements of drive systems*

*Šmeringai Peter, Šmeringaiova Anna, Monkova Katarina. Static analysis of truss structures*

*Palchevskyy Bogdan, Shapoval Olga. Procedures of optimization synthesis of packing machines*

*Radhi H.E., Barrans S.M. Comparison between Multiobjective Optimization Algorithms*

*Korendiy Vitaliy. The Influence of Elastic Attachment of the Blades on Dynamics of the Wind Wheel*

*Korendiy Vitaliy. The Comparative Analysis of Horizontal- and Vertical-Axis Wind Turbines*

**16:00, 17:00, 18:00 – LVIV CITY WALKING TOUR STARTS**

*In front of the 1<sup>st</sup> building of Lviv Polytechnic National University (Karpins'kogo street 2/4).*

## NOVEMBER 25

### 10:00 - 13:00 – CONFERENCE SESSIONS

#### SESSION 2. NEW TECHNOLOGIES IN MECHANICAL ENGINEERING. AUTOMATION OF PRODUCTION. MODERN MATERIALS, TRIBOLOGY, SURFACE TREATMENT, PROTECTION OF MACHINE PARTS AND STRUCTURES

*Room 61, 14<sup>th</sup> building of Lviv Polytechnic National University (Profesors'ka street 1)*

*Filimonikhin Hennadiy, Nevdaka Andrew.* The technology of drum-disk rotors assembly

by two test assembly method with test of the prism pulsation

*Bublyk Mykhailo, Kosaryev Vasyl, Kosarev Oleksiy, Stepanenko Serhiy.* Modern purifying machines for thin seam mining

*Zhiguts Yuriy, Talabirchuk Victor.* Synthesis of thermite steel 35L

*Goncharov Vitaliy, Zazhigalov Valeriy.* Ion implantation as technology of superficial treatment of materials

*Umansky A.P., Akopian V.V., Storozhenko M.S.* Investigation of wetting and contact interaction in the system TiB<sub>2</sub>-(Fe-Mo)

*Niknejad Abbas, Elahi Seyed Ali.* Specific Energy Absorption by the Circular Tubes

with the Polyurethane Foam-Filler in Flattening Process

*Niknejad Abbas, Elahi Seyed Ali.* Prediction of the stress-strain diagram of circular tube material based on lateral compression tests

*Abduraimov Arsen.* Effect of minimum quantity lubrication (MQL) by aqueous solutions of drug plants

on cutting process in turning 40X13 (AISI 420) steel

*Stotsko Zinoviy, Stefanovych Tetyana, Bogdan Sheptytskyi.* Machine parts surfaces strengthening by moved jet apparatus

*Rehey Ivan, Behen Petro.* Development of a New Method of Folding Cardboard Packaging Patterns for Small-Scale Production

*Palchevskyy Bogdan, Varanitskyy Taras.* Methods of optimizational synthesis of packaging machines using genetic algorithm

### 13:00 - 14:00 – LUNCH

*Canteen in the 1<sup>st</sup> building of Lviv Polytechnic National University (Karpins'kogo street 2/4, basement).*

*Alternatively – University canteen (Karpins'kogo street 6)*

### 14:00 - 18:00 – CONFERENCE SESSIONS

#### SESSION 3. AUTOMOTIVE INDUSTRY. TRANSPORT TECHNOLOGIES

*Room 61, 14<sup>th</sup> building of Lviv Polytechnic National University (Profesors'ka street 1)*

*Golubchenko Oleksandr, Khozhilo Maksym.* Construction of perspective the film-stilling-tossing working body of the excavation-transport engine of continuous operation

*Najaf Pooya, Nezamianpour Jahromi Hosein.* Modeling of Driver Injury Severity

in Head-on Accidents Considering the Vehicle Mismatch

*Schober Tomaš.* Tiltrotor – no thoroughfare or way ahead?

*Schober Tomaš.* Alternative fuels – necessity for air transport of tomorrow

*Bublyk Roman.* Refinement Calculation of Road Carrying Capacity

*Mohyla Ihor, Boyko Maksym.* Application of Fuzzy Algorithm for Traffic Control at Signalized Intersection

*Isaev M.N., Umerov E.D.* Influence of operating parameters on length of route bus stretches

*Goban Jan, Horvat Tomaš, Monkova Katarina.* Comparison of three various kinematic analysis solutions of crank mechanism

*Umerov Ervin.* Methods of calculating V-belt transmission automatic tensioning

### 19:00 – INFORMAL MEETING (CLOSING PARTY)

*University canteen (Karpins'kogo street 6).*

## NOVEMBER 26

### EXCURSIONS DAY

For more information please visit the official conference website – <http://hss.ukrscience.org>