

DEPARTMENT OF STRUCTURAL MECHANICS

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I. STAFF

Professors

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Senior Lecturers

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II. EQUIPMENT

II.1 Teaching and Research Laboratories

Small laboratory for experimental mechanics

II.2 Special Measuring Instruments and Computers

25 PCs connected to a local network
 Static/dynamic tensometric equipment
 Photoelasticimeter
 Helium-neon laser
 Memory-oscilloscope for analysis of dynamic processes

III. TEACHING

III.1 Graduate Study

Architecture and Civil Engineering

| Subjects | Semester | Hours Per Week | | Lecturer |
|---|----------|----------------|----------|------------------------------|
| | | Lectures | Seminars | |
| Statics | 2 | 2 | 2 | Z. Mistríková O. Hubová |
| Theory of Elasticity | 3 | 3 | 3 | J. Ravinger J. Dický |
| Structural Mechanics | 4 | 3 | 2 | J. Králik N. Jendželovský |
| Building Analysis | 8 | 2 | 2 | M. Sokol |
| Numerical Method in Structural Mechanics | 7 | 2 | 2 | J. Králik |
| Structural Dynamics | 7 | 2 | 2 | M. Sokol |
| Plate and Spatial Structures | 8 | 2 | 2 | J. Sumec |
| Non-Linear Mechanics | 9 | 2 | 2 | J. Ravinger |
| Interaction of Structures and Foundations | 9 | 2 | 2 | N. Jendželovský |
| Special Problems in Dynamics and Statics | 10 | 2 | 2 | Y. Koleková |

Engineering Construction

| Subjects | Semester | Hours Per Week | | Lecturer |
|--------------------------------|----------|----------------|----------|------------------------------|
| | | Lectures | Seminars | |
| Statics | 2 | 3 | 3 | M. Sokol Y. Koleková |
| Structural Mechanics I | 3 | 3 | 3 | P. Marton J. Dický |
| Theory of Elasticity I | 4 | 3 | 2 | Y. Koleková Z. Mistríková |
| Theory of Elasticity II | 5 | 3 | 2 | J. Ravinger |
| Structural Mechanics II | 6 | 3 | 2 | N. Jendželovský |
| Structural Dynamics | 7 | 3 | 2 | P. Marton |
| Structural Mechanics (English) | 7 | 2 | 2 | J. Dický O. Hubová |

Optional Subjects

| Subjects | Semester | Hours Per Week | | Lecturer |
|-----------------------------------|----------|----------------|----------|-----------------|
| | | Lectures | Seminars | |
| Stability of Structures | 8 | 2 | 2 | J. Ravinger |
| Plasticity Analysis of Structures | 9 | 2 | 2 | J. Králík |
| Aeroelastics | 9 | 2 | 2 | O. Hubová |
| Seismic Engineering | 10 | 2 | 1 | J. Králík |
| Statics of Reconstructions | 10 | 2 | 1 | N. Jendželovský |

Recommended Subjects

| Subjects | Semester | Hours Per Week | | Lecturer |
|--|----------|----------------|----------|-----------------|
| | | Lectures | Seminars | |
| Use of Computers in Civil Engineering | 5 | 2 | 2 | M. Sokol |
| Structural Modelling Using FEM | 6 | 2 | 2 | J. Ravinger |
| Automation in the Statics of Structures | 7 | 2 | 2 | J. Králík |
| CAD in the Design of Structures | 7 | 0 | 2 | Ľ. Prekop |
| Automation in Structural Dynamics | 8 | 2 | 2 | J. Králík |
| Viscoelasticity of Structural Systems | 8 | 2 | 2 | J. Sumec |
| Automation in Non-Linear Structural Analysis | 9 | 2 | 2 | J. Ravinger |
| Modelling Subgrades | 9 | 2 | 2 | N. Jendželovský |

III.2 Postgraduate Study

Selected Aspects of Structural Mechanics
 Selected Aspects of Applied Mathematics
 Selected Aspects of Applied Physics
 Planar and Spatial Structures
 Mechanics of Bodies Made from Composite Materials
 Finite Element Methods
 Stability of Truss and Planar Structures
 Structural Dynamics
 Optimization of Structures

IV. RESEARCH TARGETS

The research activities of the Department are aimed at problems such as the spatial effects of monolithic and assembled girders, grates, and plates on elastic foundations; the safety and reliability of nuclear power plant buildings under seismic, explosive and impact loads; seismology – the behaviour of building structures in seismic regions; the optimal design of multi-layered two-dimensional structures under static and dynamic loads; limiting the strain and collapse of structures; static and dynamic analyses of post-buckling behaviour of thin-walled structures; using dynamic post-buckling effects for non-destructive testing of thin-walled structures; singular perturbations in optimal control problems applied to non-linear structural analysis; mechanical responses of intervertebral discs in pathological curvatures of the spine; and the development of computer methods in static, dynamic and non-linear structural analyses.

V. RESEARCH PROJECTS

VEGA, KEGA

1. Optimal Design of Structures Having Unilateral Bonds with Respect to the Non-Linear Behaviour of Materials (2003-2005, J. DICKÝ, VEGA 1/0322/03)
2. Non-Linear Analysis of the Interaction Between a Civil Construction and Subsoil (2002 - 2004, N. JENDZELOVSKY, VEGA 1/9058/02)
3. Dynamic Structural-Soil Interaction Solution with Non-Linear Parameters. Upgraded Safety and Reliability of Nuclear Power Plant Buildings under Extreme Loads. Seismic Resistant Analysis of Nuclear Power Plant Buildings. Slovak Grant Agency Research Grant (2002-2004, J. KRÁLIK, VEGA 1/9355/02)
4. Non-Linear Problems of the Dynamic Responses of Building Structures (2002-2004, M. SOKOL, VEGA 1/9360/02)
5. Dynamic Post-Buckling Behaviour of Thin-Walled Structures (2002-2004, J. RAVINGER, VEGA 1/9059/02)
6. Stress-Deformation Analysis of the Human Spine with Regard to Pathological Changes (2002-2004, J. SUMEC, VEGA 1/9361/02)
7. DICKÝ, J. - MISTRÍKOVÁ, Z.: Elasticity and Plasticity in Civil Engineering. Academic Textbook. (2002 – 2004 KEGA 3/004/02)

EU PROJECTS

1. DICKÝ, J.: Socrates – Erasmus Thematic Network Project: European Civil Engineering Education and Training (EUCEET). Faculty Coordinator.
2. DICKÝ, J.: 6th Framework Program on Research, Technological Developments and Demonstration - Marie Curie Host Fellowships for the Transfer of Knowledge - SUT Gliwice - Poland.
3. KOLEKOVÁ, Y.: Slovak-Greek Bilateral Cooperation Working Programme on Science and Technology.

VI. COOPERATION

VI.1 Cooperation in Slovakia

1. Institute of Construction and Architecture of the Slovak Academy of Science
2. Technical University of Košice
3. University of Žilina
4. Slovak Society of Mechanics
5. VUJE, Trnava
6. VUEZ Levice
7. Building Testing and Research Institute, n. p. o. Bratislava
8. Dopravoprojekt Bratislava
9. Geoconsult Bratislava
10. Nuclear Power Plants, Jaslovské Bohunice
11. ALLMEDIA spol.s.r.o.
12. OBO BETTERMANN, Bratislava

VI.2 International Cooperation

1. Civil Engineering Institute of the Polish Academy of Science, Poland
2. Technical University of Opole, Poland
3. Silesian University of Technology, Gliwice, Poland
4. Cracow University of Technology, Poland
5. Fakultät der Bauingenieurwesen Ruhr-Universität, Bochum, Germany
6. Bundesforschung und Prufzentrum, Arsenal, Vienna, Austria
7. Czech Academy of Sciences, Prague, Czech Republic
8. Technical University of Ostrava, Czech Republic
9. Brno University of Technology, Czech Republic
10. Czech Technical University in Prague, Czech Republic
11. Budapest University of Technology and Economics, Budapest, Hungary

VI.2.1 Visitors to the Department

1. Assist. Prof. João Paulo C. Rodrigues, University of Coimbra, Portugal
2. Dr. Jerzy Skrzypczyk - Silesian University of Technology, Gliwice, Poland
3. Dr. Tadeusz Tataara - Cracow University of Technology, Poland
4. Dr. Krzysztof Stypula - Cracow University of Technology, Poland
5. Ass. Prof. József Györgyi - Budapest University of Technology and Economics, Hungary
6. Ass. Prof. Gyula Galaskó - Budapest University of Technology and Economics, Hungary
7. Prof. Victor Gioncu - Technical University of Timisoara, Romania
8. Ass. Prof. Mihnea Truta - Technical University of Timisoara, Romania
9. Ass. Prof. Marius Mosoarca - Technical University of Timisoara, Romania
10. Prof. Pavel Marek - Czech Academy of Science, Prague, Czech Republic
11. Prof. Ondrej Fischer - Czech Academy of Science, Prague, Czech Republic
12. Prof. Miroš Pirner - Czech Academy of Science, Prague, Czech Republic
13. Assoc. Prof. Jiri Horak, Palacky University of Olomouc, Czech Republic
14. Assoc. Prof. Alois Materna, - Technical University of Ostrava, Czech Republic

VII. THESES

VII.1 Graduate Theses

| No. | Student's name | Title | Supervisor |
|-----|-----------------|---|-----------------|
| 1. | Lenk Peter | Static and Dynamic Analyses of High-Rise Office Building | O. Ivánková |
| 2. | Lukáč Rastislav | Static and Dynamic Analysis of the Bearing System of a Combined 30-Storey Building | M. Sokol |
| 3. | Malast Miroslav | Static and Dynamic Analysis of Multifunctional Building with Reinforced Concrete Shell Roofing | O. Ivánková |
| 4. | Poloha Emil | Static Design of the Assembled Reinforced Concrete Structure of a Shopping Center | N. Jendželovský |
| 5. | Šatalová Jana | Analysis of Coupled Ceilings, Considering the Reduction of the Interacting Width in the Place of Negative Moments | J. Ravinger |

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| 6. | Šmida Tibor | Analysis of a High-Rise Building under Seismic Loading | N. Jendželovský |
| 7. | Urban Erik | Analysis of the Foundation and Underground Structures of an Office Building | N. Jendželovský |

VII.2 Doctoral Theses

| No. | Student's name | Title | Supervisor |
|-----|-----------------|--|-----------------|
| 1. | Fajna Pavol | Soil-Structure Interaction Problem Based on Characteristics of Non-Linear Material during Seismic Action | J. Králik |
| 3. | Kleiman Peter | Vibration of Imperfect Slender Webs | J. Ravinger |
| 4. | Prekop Ľubomír | Interaction of a Wall System with Subsoil, Including the Effect of Material Nonlinearity | N. Jendželovský |
| 7. | Véghová Ivana | New Experimental and Analytical Methods in the Verification of Structures Subjected to Dynamic Effects | M. Sokol |
| 8. | Vyskoč Eduard | Non-Linear Analysis of Reinforced Concrete Structures | J. Ravinger |
| 9. | Tvrdá Katarína | Structure-Subsoil Interaction Problem in the Optimal Design of Plates with Unilateral Bonds | J. Dický |
| 11. | Bekő Adrián | Nonlinear Dynamic Analysis of Structures | M. Sokol |
| 12. | Paštéková Petra | Biomechanical Response of the Human Spine to Stationary Force Effects | J. Sumec |
| 13. | Tínes Radoslav | Nonlinear Dynamic Analysis of Wall-Coupled Systems | J. Králik |
| 14. | Varga Tomáš | Probability Analysis of Reinforced Concrete Structures Under Degradation Processes | J. Králik |
| 15. | Karetka Róbert | Nonlinear Analysis of Construction and Subgrade Interaction | N. Jendželovský |
| 16. | Bondor Pavol | Fire Safety and the Resistance of Steel Structures | J. Králik |

VIII. OTHER ACTIVITIES

VIII.1 Special Lectures

- [1] SUMEC, J.: Some Aspects of Lattice Shell Instabilities Using Continuum Modelling. International Colloquium on Recent Advances and New Trends in Structural Design. May 2004, Timisoara, Romania.

VIII.2 Commercial Activities for Firms and Institutions

1. KRÁLIK, J.: Evaluation of the Project Documentation on Complex Reconstruction of Demewater Storage Tanks. STU Bratislava, 2004.
2. KRÁLIK, J.: Probability Analysis of a Deaggregation Alert in the Seismic Resistance of Buildings. SvF STU Bratislava, 2004.

3. KRÁLIK, J.: Analysis of Damage to Mojš 70 House. Expert report. ÚSZ SvF STU Bratislava 2004.
4. SOKOL, M.: Calculation of Stress Increments Caused by Manufacturing Defects at the Site of the Joint of a Short Clamp on a Beam Wall. SvF STU Bratislava, 2004.
5. AGÓCS, Z., SOKOL, M.: Static and Dynamic Calculations of the Dunaujvaros Bridge in Hungary. SvF STU Bratislava, 2004.

VIII.3 Conferences and Workshops Organized

1. Postgraduate Summer School Course on Aeroelasticity and Seismicity, May 24-26, 2004, Kočovce
2. International Conference on New Trends in the Statics and Dynamics of Buildings, October 21-22, 2004. Slovak University of Technology in Bratislava, Slovak Society of Mechanics.

IX. PUBLICATIONS

IX.1 Journals

- [1] HLAVÁČEK, I. - LOVIŠEK, J.: Semi-Coercive Variational Inequalities with Uncertain Input Data. Applications to Shallow Shells. M3 AS - Turin, Vol. 24, No. 3, 2004, pp. 1-27.
- [2] HUBOVÁ, O.: Aerodynamic Instabilities of Footbridges. Inžinierske stavby, Nos. 3-4, 2004, pp. 4 - 7 (in Slovak)
- [3] IVÁNKOVÁ, O. - JAVOREK, T.: Comparison of Different Results of Static and Dynamic Analyses Obtained from Computer Programs. Konstrukce pro stavebnictví a strojírenství, 2004, Vol. 3, No. 1, pp. 18-19 (in Slovak)
- [4] IVÁNKOVÁ, O.: Bearing Elements of a Structure. Všetko o stavbe domu Vol. 1, 2004 (in print) (in Slovak)
- [5] KRÁLIK, J.: Nonlinear Probability Analysis of Reinforced Concrete Containment Damage Due to High Internal Overpressure. Journal of Engineering Mechanics, Brno 2004 (in print)
- [6] KRÁLIK, J.: Reliability and Safety Analysis of Reinforced Concrete Containment Due to High Internal Overpressure. ESRA Newsletter, November 2004 (in print)
- [7] LOVIŠEK, J.: Optimal Control for a Pseudoplate. ZAMM, Z. Angew. Math. Mech. 82 2004 (in print).
- [8] RAVINGER, J. - PSOTNÝ, M.: Slender Web Loaded by Compression. Roczniki inżynierii budowlanej, Vol. 4, 2004 (in print).
- [9] SUMEC, J., SOKOL, M., VÉGHOVÁ, I. :Service Instability of a Pipeline System Due to Its Ovality. Roczniki Inżynierii Budowlanej, 4, 2004, pp. 63-70.

IX.2 Books and Textbooks

- [1] AEROELASTICITY AND SEISMICITY. Postgraduate Summer School Course Textbook. KSM SvF STU Bratislava 2004 (in Slovak).
- [2] DICKÝ, J. - JENDŽELOVSKÝ, N.: Structural Mechanics. University Textbook. ES STU, Bratislava 2004. ISBN 80-227-2056-9, 242 pp. (in Slovak)
- [3] DICKÝ, J.: co-author with MANOLIU, I., et al.: Inquiries in European Higher Education in Civil Engineering. Third volume of Socrates - Erasmus Thematic Network Project EUCEET. Bucharest, Romania 2004, ISBN 973-85112-6-7. 254 pp.
- [4] LOVIŠEK, J.: co-author with HLAVÁČEK, I., et al.: Uncertain Input Data Problems and the Worst Scenario Method. Chapter IV: Parabolic Problems. pp. 120 - 128. Chapter VI: Elastic Plates and Pseudoplates. pp. 163 - 188. North Holland Publishing Company, Amsterdam, New York, 2004.
- [5] PSOTNÝ, M.: Stable and Unstable Paths in the Solution of Geometrically Nonlinear Problems. ES STU, Bratislava 2004. ISBN 80-227-2044-5. 104 pp. (in Slovak)
- [6] SOKOL, M.: co-author with ŽILINSKÝ et al.: Selected Problems of the Design and Analysis of Enclosure Walls. STU Bratislava, ISBN 80-227-2157-3 (in Slovak)
- [7] SOKOL, M.: EUROCODES 0-1. Part 8 - Snow Loading. Postgraduate Study Textbook. STU Bratislava. pp. 85-96. ISBN 80-227-2141-7 (in Slovak)
- [8] SOKOL, M.: EUROCODES 0-1. Part 11 - Extreme Loads - Explosions and Crashes. Postgraduate Study Textbook. STU Bratislava. pp. 129-140. ISBN 80-227-2141-7 (in Slovak)
- [9] SOKOL, M.: EUROCODES 0-1. Part 12 - Extreme Loads - Seismicity. Postgraduate Study Textbook. STU Bratislava. pp. 141-156. ISBN 80-227-2141-7 (in Slovak)
- [10] HUBOVÁ, O.: EUROCODES 0-1. Part 6 - Eigen Weight and Utility Loading. Postgraduate Study Textbook. STU Bratislava. pp. 65-72. ISBN 80-227-2141-7 (in Slovak)
- [11] HUBOVÁ, O.: EUROCODES 0-1. Part 6 - Wind Loading. Postgraduate Study Textbook. STU Bratislava. pp. 79-114. ISBN 80-227-2141-7 (in Slovak)

IX.3 Conferences

- [1] BALÁŽ, I. – KOLEKOVÁ, Y.: Factors C1, C2, and C3 for Computing Critical Elastic Moments M_{cr} . In: Proceedings of 6th Symposium on Timber in Building Structures. Kočovce, October 28-29, 2004. pp. 29-34 (in Slovak)
- [2] BALÁŽ, I. – KOLEKOVÁ, Y.: Resistance of Timber Beams to Out-of-Plane Buckling. Proceedings of 6th Symposium on Timber in Building Structures. Kočovce 28.-29.10.2004. pp. 35-42 (in Slovak)
- [3] BOCK, I. - LOVIŠEK, J.: On a Contact Problem for a Viscoelastic Plate with Geometric Nonlinearities. In: IMET 2004, Iterative Methods, Preconditioning, and Numerical PDEs. Prague, May 25-28, 2004. pp. 38 - 41.
- [4] DICKÝ, J. - TVRDÁ, K.: Optimal Design of Non-Uniform Plate Thickness. In: Proceedings of International Conference on Static - Structural and Building - Physical Problems in Civil Engineering, Tatranská Lomnica, November 26-28, 2004, pp. 33 - 36. ISBN 80-232-0230-8.

- [5] DICKÝ, J. - TVRDÁ, K.: Optimal Topology Design of Plate Thickness. In: New Trends in Statics and Dynamics of Buildings, October 21 - 22, 2004, Svf STU Bratislava, pp. 137 - 140. ISBN80-227-2116-6.
- [6] HUBOVÁ, O.: Verification and Comparison of Aerodynamic Coefficients of Wind in the Dynamic Instability of a Steel Bridge. In: Experiment 04, Brno, October 14 - 15, 2004, pp. 121-126, ISBN 80-7204-354-4 (in Slovak)
- [7] HUBOVÁ, O.: Vortex Shedding and Aeroelastic Instabilities on Suspension-Bridge Decks. In: New Trends in Statics and Dynamics of Buildings, October 21 - 22, 2004, Svf STU Bratislava, pp. 99 - 104. ISBN80-227-2116-6.
- [8] IVÁNKOVÁ, O. - LENK, P.: Comparison of Normative Codes Applied to the Static and Dynamic Analyses of a High-Rise Building. In: New Trends in Statics and Dynamics of Buildings, October 21 - 22, 2004, Svf STU Bratislava, pp. 59 - 64. ISBN80-227-2116-6 (in Slovak)
- [9] IVÁNKOVÁ, O. - LENK, P.: Effects of Horizontal Reinforcement on the Static and Dynamic Characteristics of a High-Rise Building. In: MODELLING IN MECHANICS 2004, January 28, 2004, FAST VŠB-TUO, Ostrava - Poruba, pp. 61 - 65. ISBN 80-248-0546-4 (in Slovak)
- [10] IVÁNKOVÁ, O. - MALAST, M.: Optimisation of the Design of Reinforced Concrete Shells. In: Proceedings of International Conference on Static - Structural and Building - Physical Problems in Civil Engineering, Tatranská Lomnica, November 26-28, 2004, pp. 81 - 86. ISBN 80-232-0230-8 (in Slovak)
- [11] IVÁNKOVÁ, O.: Design Errors and Damage to a Timber Beam Ceiling in a Dwelling. In: Reliability of Structures. March 24, 2004, Ostrava, pp. 223 - 228. ISBN 80-248-0573-1 (in Slovak)
- [12] IVÁNKOVÁ, O.: Damage to Timber Beam Ceiling in a Dwelling. In: Proceedings of International Conference on Static - Structural and Building - Physical Problems in Civil Engineering, Tatranská Lomnica, November 26-28, 2004, pp. 87 - 92. ISBN 80-232-0230-8 (in Slovak)
- [13] JENDŽELOVSKÝ, N. - MISTRÍKOVÁ, Z.: Comparison of Two Approaches to the Solution of a Foundation Plate Problem on an Elastic Half-Space. In: 12th ANSYS Users' Meeting, September 30 - October 1, 2004. SVS FEM Brno (in Slovak)
- [14] JENDŽELOVSKÝ, N. - MISTRÍKOVÁ, Z.: Foundation Plate - Comparison of the Impact of Two Models of an Elastic Half-Space. In: Proceedings of International Conference on Static - Structural and Building - Physical Problems in Civil Engineering, Tatranská Lomnica, November 26-28, 2004, pp. 105 - 110. ISBN 80-232-0230-8 (in Slovak)
- [15] JENDŽELOVSKÝ, N. - ŠMIDA, T.: Reinforcement of a Foundation Plate in the ANSYS Software System. In: 12th ANSYS Users' Meeting, September 30 - October 1, 2004. SVS FEM Brno (in Slovak)
- [16] JENDŽELOVSKÝ, N.: Modelling a Refined Subgrade under a Foundation Plate. In: New Trends in Statics and Dynamics of Buildings, October 21 - 22, 2004, Svf STU Bratislava, pp. 219 - 222. ISBN80-227-2116-6 (in Slovak)
- [17] JENDŽELOVSKÝ, N.: Interaction between Subgrade - Plate Stripe - Rail. In: 2nd Conference on Ground Communications and Railways. Herľany, September 9-10, 2004. SvF TU Košice, pp. 19-22 (in Slovak)

- [18] KOLEKOVÁ, Y. - SCHMID, G.: Remarks on Dynamic Soil- Structure Interaction. JDGK SIMPOZIUM 04. Vrnjačka Banja, 29. Sept.- 01. Oct. 2004, pp. 235-241.
- [19] KOLEKOVÁ, Y.: Lateral Torsional Buckling of Timber Beams. In: New Trends in Statics and Dynamics of Buildings, October 21 - 22, 2004, Svf STU Bratislava, pp. 187 - 194. ISBN80-227-2116-6.
- [20] KORMANÍKOVÁ, E. - LOVÍŠEK, J.: Classic Theory of Laminates Composed of Orthotropic Layers. In: MODELLING IN MECHANICS 2004, January 2004, FAST VŠB-TUO, Ostrava - Poruba, pp. 84 - 89. ISBN 80-248-0546-4 (in Slovak)
- [21] KRÁLIK, J. - CESNAK, J.: Nonlinear Analysis of Resistance and Reconstruction Project of an Emergency Water Storage Tank at NPP with VVER 440. In: 12th ANSYS Users' Meeting, September 30 - October 1, 2004. SVS FEM Brno.
- [22] KRÁLIK, J. - ŠIMONOVÍČ, M.: Protection of Humans and Buildings from Harmful Transportation and Technological Vibrations. In: Reliability of Structures. March 2004, Ostrava, pp. 69 - 74. ISBN 80-248-0573-1 (in Slovak)
- [23] KRÁLIK, J. - TÍNES, R.: Seismic Analysis of Reinforced Concrete Wall with Consideration of Its Ductility. In: Proceedings of JUNIORSTAV 2004 Conference, February 4 - 5, 2004, FAST VUT Brno, p. 210. ISBN 80-214-2560-1.
- [24] KRÁLIK, J. - TÍNES, R.: Seismic Analysis of a Wall System Considering Its Ductility. In: MODELLING IN MECHANICS 2004, January 28, 2004, FAST VŠB-TUO, Ostrava - Poruba, pp. 90 - 95. ISBN 80-248-0546-4 (in Slovak)
- [25] KRÁLIK, J. - VARGA, T. - TÍNES, R.: Seismic Durability of Reinforced Concrete Frames Using Their Plastic Reserve Capacity According to the Eurocodes. In: Proceedings of International Conference on Static - Structural and Building - Physical Problems in Civil Engineering, Tatranská Lomnica, November 26-28, 2004, pp. 161 - 166. ISBN 80-232-0230-8.
- [26] KRÁLIK, J. - VARGA, T.: Analysis of the Fire Resistance of a Steel Frame. In: Proceedings of JUNIORSTAV 2004 Conference, February 4 - 5 2004, FAST VUT Brno, pp. 211. ISBN 80-214-2560-1.
- [27] KRÁLIK, J. - VARGA, T.: Analysis of the Fire Resistance and Sensitivity of a Steel Frame. In: MODELLING IN MECHANICS 2004, January 28, 2004, FAST VŠB-TUO, Ostrava - Poruba, pp. 96 - 101. ISBN 80-248-0546-4 (in Slovak)
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