

4th International Conference
on Contemporary Problems in Architecture and Construction
**SUSTAINABLE BUILDING INDUSTRY
OF THE FUTURE**

September 24-27, 2012

Czestochowa, Poland

Organizers:

Czestochowa University of Technology (Poland)
Yerevan State University of Architecture and Construction (Armenia)
Beijing University of Civil Engineering and Architecture (China)

**CONFERENCE PROGRAM
PROGRAM KONFERENCJI**

Under the honorary patronage:

Rector of Czestochowa University of Technology
Professor Maria Nowicka-Skowron

Rector of Yerevan State University of Architecture and Construction
Professor Hovhannes V. Tokmajyan

Rector of Beijing University of Civil Engineering and Architecture
Professor Zheng Wentang

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SUSTAINABLE BUILDING INDUSTRY OF THE FUTURE

Monday, September 24, 2012 / Poniedziałek, 24 września 2012r.

8.00-9.50 Registration / Rejestracja uczestników
(Auditorium of Faculty of Management / Aula Wydziału Zarządzania)

10.00-12.10 Opening Ceremony / Otwarcie konferencji
Conference Opening Session / Sesja otwierająca konferencję
(Auditorium of Faculty of Management, room no. WZ-1 / Aula Wydziału Zarządzania, sala WZ-1)

Chairs:

Prowadzący: Dean of Faculty of Management of Czestochowa University of Technology
Dziekan Wydziału Zarządzania Politechniki Częstochowskiej
Prof. Arnold Pabian

Dean of Faculty of Civil Engineering
of Czestochowa University of Technology
Dziekan Wydziału Budownictwa Politechniki Częstochowskiej
Prof. Jarosław Rajczyk

Welcome speeches:

Wystąpienia: Rector of Czestochowa University of Technology
Rektor Politechniki Częstochowskiej
Prof. Maria Nowicka-Skowron

Rector of Yerevan State University of Architecture and Construction
Rektor Uniwersytetu Architektury i Budownictwa w Yerewanie
Prof. Hovhannes Tokmajyan

Vice-Rector of Beijing University of Civil Engineering and Architecture
Prorektor Uniwersytetu Budownictwa i Architektury w Pekinie
Prof. Weiping Li

10.30-10.50 Lech Czarnecki, *Sustainable Concrete; Is Nanotechnology the Future of Concrete*

10.50-11.10 Kazimierz Flaga, *Technical sciences in the service of a man*

11.10-11.30 Fausto Pugnaroni, Cecilia Carolosi, *Urban recovery and sustainable planning. Current significant development models for minor centres*

11.30-11.50 Chengzhi Qi, Qihu Qian, Mingyang Wang, Jianjie Chen, *On temporal - spatial nature of deformation and fracture of quasi - brittle materials*

11.50-12.10 R. K. Aleksanyan, V. H. Yedoyan, D. R. Aleksanyan, *Composite circular plate stability under force and thermal influence*

12.10-12.30 Coffee break / Przerwa kawowa (Hall / Hol)

12.30-13.00 Business presentations / Prezentacje firm (room no. WZ-1 / sala WZ-1)

13.30-14.00 Business session with an interpreter / Sesja biznesowa z tłumaczem
(Main building of Faculty of Management room no. 510 / Budynek Główny WZ sala 510)
Session Chair: / Prowadzący: Adam Ujma, Piotr Tomski

14.00-15.00 Dinner / Obiad (rooms no. 107, 210 / sale 107, 210)

19.00-22.00 Banquet with a musical surprise / Uroczysty bankiet z niespodzianką muzyczną

Tuesday, September 25, 2012 / Wtorek, 25 września 2012r.

9.00-10.00 Breakfast buffet / Śniadanie w formie bufetu
(Hall of the Auditorium of Faculty of Management / Hol Auli Wydziału Zarządzania)

10.00-14.00 Session 1 / Sesja 1 (room no. WZ-2 / sala WZ-2)
Session Chair: / Prowadzący: Professor Hui Wu

- 10.00-10.20 **Givi Gavardashvili, Gela Kipiani, Revaz Tskhvedadze**, *Calculation of new anti-snow avalanche construction*
- 10.20-10.40 Tigran Dadayan, *Nonlinear analyses of reinforced concrete columns*
- 10.40-11.00 Tigran Dadayan, Hrant Dadayan, *Deformability of reinforced concrete columns*
- 11.00-11.20 Chiyun Zhao, Shimin Huang, Qiulai Yao, Yajing Chen, *Experimental research for flexural performance of reinforced concrete beams strengthened with steel wire - polymer mortar after fire damage*
- 11.20-11.40 Lusine Karapetyan, *Application of in-situ two-way prestressed concrete flat plate in Armenia*
- 11.40-12.00 Coffee break / Przerwa kawowa** (Hall / Hol)
- 12.00-12.20 Lusine Karapetyan, Mushegh Avetisyan, *The peculiarities of strengthening and reconstruction issues of Yerevan city housing stock*
- 12.20-12.40 Yanxia Zhang, Fan Yang, Luyao Wang, Huizhen Li, *Compared performance analysis of reduced beam section connection and strengthen - weaken connection in moment frame*
- 12.40-13.00 Discussion / Dyskusja

10.00-14.00 Session 2 / Sesja 2 (room no. WZ-3 / sala WZ-3)
Session Chair: / Prowadzący: Professor Janusz Rębielak

- 10.00-10.20 Jun Dong, Lei Zhao, Yuping Cui, Weize Sun, Fei Dong, *Studies on a seismic performance of an existed underground subway station with initial damages caused by the construction of approaching tunnels*
- 10.20-10.40 Chengzhi Qi, Qian Qihu, Wang Mingyang, Chen Jianjie, *Derivation of governing equations of strain gradient model of rock mass near deep level tunnels*
- 10.40-11.00 Janusz Kapuściński, Mariusz Zabielski, *Extreme geophysical phenomena and their impact on civil engineering constructions and architectural planning*
- 11.00-11.20 A. A. Sarukhanyan, T. A. Sarukhanyan, *Singularity of viscous fluid decelerating nonsteady plane-parallel laminar flow* (in Russian / język rosyjski)
- 11.20-11.40 V. H. Tokmajyan, V. A. Atanesyan, *Formworks for hydraulic tunnels lining concreting* (in Russian / język rosyjski)
- 11.40-12.00 Coffee break / Przerwa kawowa** (Hall / Hol)
- 12.00-12.20 Samvel M. Shahinyan, *About one peculiarity of rehabilitation of ancient sacred structures of people of Indo-European family and medieval Armenian churches* (in Russian / język rosyjski)
- 12.20-12.40 Alberto Di Taranto, Renata Stasiak-Betlejewska, *Entrepreneurial initiatives in the field of sustainable construction on the example of Italy*
- 12.40-13.00 Discussion / Dyskusja

13.30-14.30 Dinner / Obiad
(Main building of Faculty of Management, rooms no. 107, 210 / Budynek Główny WZ, sale 107, 210)

16.00-18.00 A visit to Jasna Góra Monastery - major pilgrimage center of the world
Zwiedzanie Jasnej Góry – światowego centrum pielgrzymkowego

Wednesday, September 26, 2012 / Środa, 26 września 2012r.

7.00 -22.00 A Trip to Cracow and Wieliczka Salt Mine
Wycieczka do Krakowa oraz do Kopalni Soli „Wieliczka”

Thursday, September 27, 2012 / Czwartek, 27 września 2012 r.

9.00-10.00 Breakfast buffet / Śniadanie w formie bufetu
(Hall of the Auditorium of Faculty of Management / Hol Auli Wydziału Zarządzania)

10.00-12.00 Session 3 / Sesja 3 (room no. WZ-2 / sala WZ-2)
Session Chair: / Prowadzący: Professor Givi Gavardashvili

10.00-10.20 Hui Wu, Yang Zhang, Jian Zhao, Guowei Zhang, *Seismic performance of existing RC frame structure retrofitted with buckling-restrained braces*

10.20-10.40 Janusz Rębielak, *Complex of tall buildings designed by means of the combined structural system*

10.40-11.00 Zaruhi Mamyan, Madlena Igitkhanyan, *The role of yard spaces in the structure of steady urban environment*

11.00-11.20 Dongfu Zhao, Yu Su, *Study on guidance efficiency of pedestrian traffic oriented sign*

11.20-11.40 Henryk Katowicz Kowalewski, *Disappearing architecture in urban landscapes of the third millennium*

11.40-12.00 Tamas Szalay, Imre Nemeth, Adam Ujma, *The sustainable energy active house with net zero heating costs*

12.00-12.20 Coffee break / Przerwa kawowa (Hall/Hol)

12.20-12.40 Barbara Rymśa, Jakub Zawieska, *Description and assessment of climate change impact on the elements of transport infrastructure*

12.40-13.00 Bartosz Kozłowski, *Vernacular architecture around the world as the result of local resources and climate factors*

13.00-13.20 Discussion / Dyskusja

13.30-14.30 Poster Session / Sesja posterowa (Hall / Hol)

14.30-15.00 Conference Closing Ceremony / Zamknięcie Konferencji (room no. WZ-1 / sala WZ-1)

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Prof. Jarosław Rajczyk

Vice-Rector for Science of Saint-Petersburg State University of Architecture
and Civil Engineering
Prorektor ds. Nauki Uniwersytetu Architektury i Budownictwa w St. Petersburgu
Prof. E.B. Smirnov

15.00-16.00 Dinner / Obiad
(Main building of Faculty of Management, rooms no. 107, 210 / Budynek Główny WZ, sale 107, 210)

Participants of the poster session

Uczestnicy sesji posterowej

Thursday, September 27, 2012 / Czwartek, 27 września 2012 r.
13.30-14.30

(Hall of the Auditorium of Faculty of Management / Hol Auli Wydziału Zarządzania)

- Janina Adamus, Monika Gierzyńska-Dolna, Wilhelm Gorecki, *Corrosion resistance of galvanised sheets used in the civil engineering*
- Włodzimierz Baranowski, Jarosław Rajczyk, Krzysztof Werner, *Analysis of the defect in polythene pipes because of their rapid cracking*
- Dariusz Dudek, *Artificial intelligence in intelligent building*
- Ghazal Fateh, *Design of tourism service centers according to sustainable tourism development (a review of approaches to strengthen tourism features in Semnan Region of Iran)*
- Gela Kipiani, Giorgi Gegenava, Marlena Rajczyk, Revaz Kakahidze, *Stability of three-layered plates with rectangular cuts*
- Darja Kubečková, Karel Kubečka, *Renovation and maintenace of buildings, industrial cities - new alternative methods of assesment of defects and failure*
- Lucjan Kurzak, *Active use of solar thermal energy in sustainable building industry*
- G. G. Madatyan, E. P. Yeroyan, R. G. Harutyunyan, *Some problems of sewerage and waste water treatment in rural areas of the republic of Armenia*
- Maciej Major, Izabela Major, *Trusses at Mitek Technology - effective solution of the roof structures*
- Maciej Major, Izabela Major, Judyta Różycka, *Propagation of discontinuities surface in the form of the plane acceleration wave in thin segmental rod made of Murnaghan's materials*
- Kh. Markosyan, M. G. Stakyan, S. H. Tokmajyan, G. A. Ivanyan, *University chairs as a factor of sustainable development of construction engineering education*
- Gianluigi Mondaini, Costantino Carluccio, *Re-arch. building sustainable re-generation*
- Peiheng Long, Jing Liu, *Crack resistance design and experimental verification of closure segment for long-span pre-stressed concrete continuous rigid frame bridge*
- M. Z. Poghosyan, H. V. Tokmajyan, H. Gh. Harutiunyan, *Natural oscillations of a pressure pipeline section taking into consideration shear strain and rotary inertia*
- Jarosław Rajczyk, *New methods of defining performance parameters of building structure surfaces*
- Jarosław Rajczyk, Zbigniew Rajczyk, Zbigniew Respondek, *The radiational cooling of building barriers*
- Marlena Rajczyk, Damian Jończyk, *Deflection beams calculation of glue laminated timber reinforced with Aramid cords*
- Marlena Rajczyk, Bartłomiej Stachecki, *Reinforcing Glulam beams with basalt-epoxy bars to increase their strength*
- Arestak Sarukhanyan, Sedrak Sedrakyan, *On hydraulic calculation of quick wash filters drain pipes*
- Nina Solkiewicz-Kos, *Some issues of regional architecture in the process of sustainable environment creation*
- Mariusz Zadworny, *The current problems of social housing development - selected designing and education aspects*
- Iosif Zonenashvili, Revaz Kakhidze, David Kipiani, Malkhaz Nikoladze, *Solution of homogeneous boundary-value problems of theory of elastic shells and plates by invariant immersion method*

Participants of the business session

Uczestnicy sesji biznesowej

Monday, September 24, 2012 / Poniedziałek, 24 września 2012r.
13.30-14.00

(Main building of Faculty of Management room no. 510 / Budynek Główny WZ sala 510)

Weiping Li
Hui Wu
Yanxia Zhang
Chiyun Zhao
Peiheng Long
Liang Wang
Jun Dong
Chengzhi Qi
Menghong Wang
Jian Luo
Wenjuan Zhou
Zu Su
Hovhannes Tokmajyan
Yelizaveta Yeroyan
Vardges Yedoyan
Sedrak Sedrakyan
Arestak Sarukhanyan
Yeghiazar Vardanyan

Samvel Shahinyan
Tigran Dadayan
Lusine Karapetyan
Vache Tokmajyan
Sofia Tokmajyan
Gohar Ivanyan
Zaruhi Mamyan
Ghazal Fateh
Fausto Pugnaroni
Alberto Di Taranto
Gianluigi Mondaini
Givi Gavardashvili
Gela Kipiani
David Kipiani
Tamas Szalay
Imre Nemeth
Darja Kubečková
Karel Kubečka

Business representatives of Polish enterprises
Przedstawiciele polskich firm

**Location of the premises of Faculty of Management of CUT
Lokalizacja Wydziału Zarządzania Politechniki Częstochowskiej**

CONFERENCE VENUE

**Main building of Faculty of Management
Budynek główny Wydziału Zarządzania
Al. Armii Krajowej 19B
Rooms no. / Sale 107; 210; 510**



**Auditorium of Faculty of Management
Aula Wydziału Zarządzania
Al. Armii Krajowej 19
Rooms no. / Sale WZ-1; WZ-2; WZ-3**





**120 papers have been accepted for the Conference
and publication in the Conference Proceedings**

**W ramach przygotowań do Konferencji zaakceptowano
120 referatów, które zostaną opublikowane
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