



INTERNATIONAL CONFERENCE - NBTAD 2016 NEW BUILDING TECHNOLOGIES AND ARCHITECTURAL DESIGN

KRAKÓW, 13-14 OCTOBER 2016



Conference Programme

Thursday 13.10. 2016

Plenary Session

Conference Hall 'Kotłownia'

9.00 - 10.00 Registration and coffee
10.00 - 10.30 Opening ceremony

Jan Kazior
Professor, Rector of Cracow University of Technology
Jacek Gyurkovich
Professor, Dean of Faculty of Architecture CUT

10.30 - 13.00 **Session**

Moderators:

Wacław Celadyn
Professor, Cracow University of Technology
Sabina Kuc
Professor, Cracow University of Technology
Zenon J. Pudlowski
Professor, World Institute of Engineering and Technology Education, Melbourne, Australia

Keynote Speakers:

Mark S.T. Anderson
Professor, University of California, Berkeley, USA
Teaching Architecture and Construction with Hand and Mind

Peter Anderson
Professor, California College of the Arts, USA
Assembly Required; Process Design for Industrialized Components and Assembly

Jan Cremers
Professor, University of Applied Sciences, Stuttgart, Germany
The Potential of Building Envelopes to Actively Provide Renewable Energy - an Overview and Outlook

Anton Ravindran
Professor, Bina Nusantara University, Jakarta, Indonesia
Digital Architects for Smart Buildings

Discussion
FAKRO Presentation

13.00 - 14.00 Opening of Exhibition 1: *International Cooperation of ICD*, Lunch

Conference Hall 'Galeria Gil'

Moderators: **S. Dousa, W. Celadyn**
Curator: T. Gaczol



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Panel 1a Architecture and New Building Technologies Conference Hall 'Kotłownia'

14.00 - 15.30 **Session 1 Structures**

Moderators:
M.S.T. Anderson, J. Cremers
Secretary: P. Mika

Speakers:
K. Lenartowicz, M. Szefer, J. Świegoda, J. Wodzicki, Z. Brytan
The Arch of the Colonel Kukliński Monument in Cracow as an Innovative Structure
J. Rębielak
Examples of Applying the Superposition Principle in Static Analysis and in Engineering Design
A. V. Valiulis, D. Mizeras
The Microarchitecture and Design of Three-dimensional Scaffolds
A. Zhussupbekov, A. Omarov
The Design of Foundations for the Mega Project Expo-2017 in Astana, Kazakhstan

Discussion
Fatrafol Presentation, Oknoplus Presentation

15.30 - 16.00 Opening of Exhibition 2: *Energy-efficient House Competition*, Coffee break Conference Hall 'Kotłownia'

Moderators:
S. Dousa, W. Celadyn
Curators: M. Melges, P. Markiewicz

16.00 - 17.10 **Session 2 Technologies**

Moderators:
P. Anderson, A. Ravindran
Secretary: Ł. Wesolowski

Speakers:
A. Jasiński
Building on the Slope - Technology Park Brainville in Nowy Sącz and 'Salt City' in Wieliczka
M. Jagiełło-Kowalczyk, B. Pyrzyk
Architectural Concrete - New Technologies and Applications
P. Zwirek
Selected Issues in the Design of Perforated Metal Claddings

Discussion

19.00 Dinner Restaurant 'Vidok'

Panel 3 Education of Architects and Engineers Conference Hall Galeria 'Gil'

14.00 - 15.30 **Session 1 Theory**

Moderators:
Z.J. Pudłowski, A. Drapella-Hermansdorfer
Secretary: R. Marcinkowski

Speakers:
S. K. Baimukhanov
Formation of Creative Thinking in the Process of Education
L. Vitkova
Research as a Method of Architectural Education
E. Ryńska
Interdisciplinarity in Teaching Architects and Engineers
T. Kusionowicz
The Use of Models in the Teaching of General Building Engineering

Discussion

15.30 - 16.00 Opening of Exhibition 2: *Energy-efficient House Competition*, Coffee break Conference Hall 'Kotłownia'

16.00 - 17.30 **Session 2 Energy and Sustainability**

Moderators:
L. Vitkova, S. Kuc

Speakers:
R. Spacek, H. Pifko, V. Trnovska
Teaching Sustainable Architecture: Small as Paradigm
S. Hengrasmee, S. Chansomsak
Approach Towards the Architectural Education in Sustainable Design.
A. Drapella-Hermansdorfer
The Need of Eco-friendly Design Standards and Ethics in Education of Architects and Landscape Architects
R. Marcinkowski
Effectiveness Factors in Engineering Education- Conclusions from Teaching Experience

Discussion

19.00 Dinner



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Friday 14.10.2016

Panel 2 Landscape Architecture and new Building Technologies Conference Hall 'Kotłownia'

10.00 - 11.20 **Session 1 Architectural and Urban Design**

Moderators:

K. Pluta, B. Majerska-Pałubicka

Secretary: P. Mika

Speakers:

L. Vitkova

Public Spaces as a Reflection of Society

L. Ruban

Urban Waterfront Territories: Natural - Hydrological Concept of Landscape Planning

L. Sabsabiova

Continuous Space Phenomena - Techniques in Spatial Composition

Discussion

11.20 - 11.40 Coffee break Conference Hall 'Kotłownia'

11.40 - 13.00 **Session 2 Architectural and Urban Design**

Moderators:

M. Jagiełło-Kowalczyk, T. Kusionowicz

Secretary: I. Piebiak

Speakers:

K. Pluta

New Urban Landscapes and Technological and Building Material Solutions

B. Majerska-Pałubicka

The Role of Architecture in Creating a Contemporary Sustainable Built Environment

S. Kuc

BUGA Exhibitions - Creating Landscapes

S. Sadykova, O. Semenyuk

Formation of the Inhabited Environment in the Northern Kazakh Cities

Discussion

13.00 - 14.00 Lunch Conference Hall 'Galeria Gil'

Panel 1b Architecture and New Building Technologies Conference Hall 'Kotłownia'

14.00 - 15.20 **Session 3 Technologies**

Moderators:

J. Kurek, L. Ruban

Secretary: B. Dziedzic

Speakers:

T. Kusionowicz

Radon Hazards in Buildings. Architectural - Building Security

J. Barnas

Modern Facade - a Shell or a Part of the Infrastructure?

P. Wróbel

The Architecture of Light and Shadow. Influence of the Problems Related to Maintaining the Indoor Climate on the Architectural Form

D. Zając

Application of Microelectromechanical Systems for Analysis and Regulations of Technical Conditions of Buildings

Discussion

15.20 - 15.40 Coffee break Conference Hall 'Kotłownia'

15.40 - 17.00 **Session 4 Energy and Technologies**

Moderators:

W. Celadyn, T. Kisilewicz

Secretary: B. Siedlecki

Speakers:

A. Turecki

Verification of the Interior Temperature in the Apartment with the Heating Turned off

A. Podhalański

Energy Efficiency of Multi-family Residential Complexes between 2010 and 2015 in Poland and in Germany - a Comparison of Selected Cases

S. Jurczakiewicz

Tensile-Strut Structures of Retractable Roofs

B. Dziedzic

Architectural Visions that Created New Technical Window Solutions

Discussion

17.00 Conclusion of Conference **W. Celadyn** Conference Hall 'Kotłownia'



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Panel 3 Education of Architects and Engineers

Conference Hall Galeria ,Gil'

10.00 - 11.20

Session 3

Moderators:

R. Spacek

Secretary: A. Szewczyk-Zakrzewska

Speakers:

D. Pusca, D. Northwood

Can Lean Principles be Applied to Course Design in Engineering Education?

G. Abdrasilova

Agro-industrial Sector as a Perspective Direction for the Development of Architecture in Kazakhstan

S. Sadykova, O. Semenyuk, E. Khvan, S. Kuc

Development of Creative Skills of Students by Means of Architectural Workshops

A. Pazyzbekova

Sketch Transformation of an Architectural Model in the Educational Process

Discussion

11.20 - 11.40

Coffee break

Conference Hall Galeria ,Gil'

11.30 - 13.00

Session 4 Theory and Practice

Moderator:

D. Northwood

Speakers:

B. Podhalański

Educating Students of Architecture through Design Practice in Architectural Studio

P. Markiewicz

Integrated Energy Design - a New Way of Teaching with the Use of Modern Tools to Support the Design Process

A. Szewczyk-Zakrzewska

Stereotype of the Engineer as Seen by the Students from Technical and Humanistic Departments

G. Zemelka

Learning Approach to Doctoral Students Education at the Faculty of Env. Engineering, CUT

Discussion

13.00 - 14.00

Lunch

Conference Hall Galeria ,Gil'

14.00 - 15.20

Session 5

Moderators:

B. Podhalański

Secretary: G. Zemelka

Speakers:

T. Laska, S. Golubkov

The Creation of Historical Reconstructions of Cultural Heritage as a Basis for Research and Training

S. Golubkov, T. Laska

Copying as an Integral Part of Teaching Fine Arts

E. Gorgul, E. Gorgul

Using Film as a Liberal Arts Teaching Model for Architecture and Engineering Education in China

S. Kuc

BUGA Exhibition as Part of the Landscape Architects' Education

P. Kuczia

Solarlux-Campus - a Case Study of an 'Educating Building'

Discussion

15.20 - 15.40

Coffee break

Conference Hall Galeria ,Gil'

15.40 - 17.00

Session 6

Moderators:

T. Laska, Z.J. Pudlowski

Speakers:

P. Marti

The Urbanism Programme for Architects at the University of Alicante, Spain

M. Jagiełło-Kowalczyk, M. Jamroży

Teaching BIM Technology. The Future in Now

I. Kozłowska, A. Rek-Lipczyńska

In Search of New Methods of Teaching Interior Designers

T. Gaczoł

Engineer Diploma Project as an Investment Proposal for the City of Oswiecim, performed by Students of the Faculty of Architecture

Discussion

17.00

Conclusion of Conference **Z.J. Pudlowski**

Conference Hall ,Kotłownia'