



BIM university education in Poland

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POZNAN UNIVERSITY OF TECHNOLOGY
FACULTY OF CIVIL & ENVIRONMENTAL ENGINEERING
INSTITUTE of STRUCTURAL ENGINEERING
POZNAN, POLAND

2ème édition des journées de l'enseignement de la maquette numérique et du BIM
- Bâtiment et Infrastructures - EDUBIM 2016, 16-17 Juin 2016, ESTP, Paris, France



Agenda

- Introduction
 - Poznan, University, Faculty - Construction, Institute, AG
 - Poland – Construction Education, Economy, Spec
- Computations, Modeling, Simulation in Construction
 - Numerical simulations
 - FEM – ABAQUS, ALGOR, ROBOT, CFD – FLUENT, FDS, ...
 - Cost, Management,
- **Building Information Modeling**
 - **History, Status, Actors, Forum, Perspectives**
- **Final Remarks**



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NO CURRICULA





POZNAN UNIVERSITY OF TECHNOLOGY

Polska, Wielkopolska, Poznań



Polska, Wielkopolska, Poznań





POZNAN UNIVERSITY OF TECHNOLOGY

Technical University - Politechnika

Most attractive universities in Poland 2014: candidates / places

1. Politechnika	Warszawa	7,9
2. Politechnika	Gdańsk	6,6
3. Politechnika	Poznań	5,9
4. Politechnika	Łódź	5,7
5. Life Science University	Kraków	4,9
6. Warsaw University	Warszawa	4,2
7. Physical-Sport University	Wrocław	3,9
8. Stefan Wyszyński University	Warszawa	3,6
9. Life Science University	Lublin	3,4
10. Economics University	Wrocław	3,4



POZNAN UNIVERSITY OF TECHNOLOGY

Civil & Environmental Engineering

Most attractive study field in Poland 2014
candidates

!!!

1. Informatics

30 309





POZNAN UNIVERSITY OF TECHNOLOGY

Civil & Environmental Engineering

Most attractive study field in Poland 2014
candidates

!!!

1. Informatics
2. Law

30 309
20 418





POZNAN UNIVERSITY OF TECHNOLOGY

Civil & Environmental Engineering

Most attractive study field in Poland 2014

!!!

candidates

1. Informatics	30 309
2. Law	20 418
3. Management	19 158



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!!!

1. Informatics	30 309
2. Law	20 418
3. Management	19 158
4. Economy	16 061



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Civil & Environmental Engineering

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candidates

!!!

1. Informatics	30 309
2. Law	20 418
3. Management	19 158
4. Economy	16 061
5. Civil Engineering	15 982



POZNAN UNIVERSITY OF TECHNOLOGY

Polska - Civil Engineering Study

1. Warszawa
2. Gdańsk
3. **Poznań**
4. Łódź
5. Kraków
6. Wrocław
7. Gliwice
8. Szczecin
9. Lublin
10. Kielce

11. Bydgoszcz
12. Koszalin
13. Białystok
14. Rzeszów
15. ZielonaG
16. Częstochowa
17. Olsztyn
18. Radom
19. Opole
20. Płock

Technical
Life-Science
Agriculture
Architecture

Mining
Military
Ocean

50 000 students **43 courses**





POZNAN UNIVERSITY OF TECHNOLOGY

Polska – SPECIALITY in Economy

- ? **Technology**
- ? **Life-Science**
- ? **Agriculture**
- ? **Mining**
- ? **Military**
- ? **Ship**
- ?





POZNAN UNIVERSITY OF TECHNOLOGY

Technical University - Politechnika

Politechnika Poznańska (university over region)

20 000 students (Poznań 135 000 students)

10 faculties **CEE**, (**FA**, **FI**, **FM**, **FE**, ... , **FF**,
FCh)

29 study programs in Polish (7 MSc courses in English)

Post Graduation Studies

Center of Practices & Career (+Sport,+Culture)

International Cooperation & Exchange



POZNAN UNIVERSITY OF TECHNOLOGY

Technical University - Politechnika

received the award for cooperation with the economy section on 28 October 2014 from Polish Entrepreneurship Congress

Polish Innovation Prize 2014

Polish Innovation Award is a program run by Polish Agency for Enterprise and the editors of "Business Forum".

Its purpose is to reward institutions, whose business is innovation .

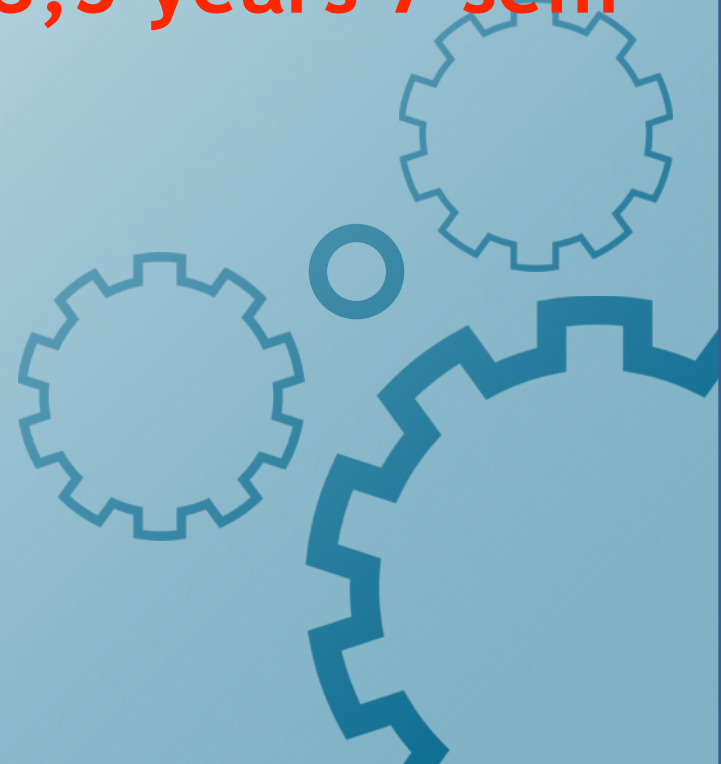




POZNAN UNIVERSITY OF TECHNOLOGY

Education

1. BSc Engineering Diploma - 3,5 years 7 sem





POZNAN UNIVERSITY OF TECHNOLOGY

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2. MSc Engineering Diploma - 1,5 years 3 sem



POZNAN UNIVERSITY OF TECHNOLOGY

Education

1. BSc Engineering Diploma - 3,5 years 7 sem
2. MSc Engineering Diploma - 1,5 years 3 sem
3. PhD Technical science - 4,0 years 8 sem



POZNAN UNIVERSITY OF TECHNOLOGY

Civil & Environmental Engineering

Faculty :

3 000 students (standard 2 100)

3 institutes for research and teaching

IKB (construction), IIL (infrastructure), IIS (build-in)

2 study fields (+ MSc course in English)

Civil Engineering Environmental Engineering

post graduation studies

International students exchange

ERASMUS



Architecture & Urbanism

Faculty :

till 1987 within the Faculty of Civil Engineering
courses of drawing, painting, sculpture, art
separated, isolated, good student -> fine artist
not structural and technological education

Role of Architect in Poland :

Number **ONE** in construction investment
principal to constructor, MEP, management, cost ...
formally responsible (law regulation) for whole invest
VISION CREATOR



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BIM in Poland

My personal perspective :

1. start of subject interest 2009 (from Ireland)
2. like the IT new technology on HTML (1980)
*useless *no practic *no future *just mind fun
3. German BuidlingSMART / BerlinForum source (2010)
4. BuildingSMART.pl - private hobby to collect news
5. Still actual question ! (2015)

Is it still time to start Polish Branch of
www.Buildingsmart.pl



BIM in Poland

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English

bim.put.poznan.pl

Czy już czas na polską gałąź **BuildingSmart** ?

buildingSMART.
International home of openBIM

INTERNATIONAL

OGŁOSZENIA

PRZEWODNIK

NORMY

ZGODNOŚĆ

BIM KLASTER

Nowości

BIM ?

START

POZNAJ

0 BIM HISTORY

1 IFC

2 EFEKT

3 STANDARD

4 ONUMA

5 KONSTRUKTOR

6 2008

7 TRENDY

8 NORDIC

9 13.FORUM

10 2009

11 KONKURS

12 US GSA

13 BIMtoFILED

14 CAM Dec'2010

15 GUIDE

16 BIMcity

17 BIM HUB

Kontakt



16-17.06.2015

EDUBIM 2015 in Caen, France, l'enseignement de la Maquette Numérique et du BIM en France



10-11.06.2015

Tekla Business Forum, Warszawa



05.2015

Using 3D Printers to Create Architectural Model - *Architectural Record*



28.05.2015

BIM ACADEMIC FORUM Italy, La Sapienza, Rome



21.05.2015

Konferencja "Dzień BIM" na Politechnice Krakowskiej



21-22.05.2015

Konferencja Izby Projektowania Budowlanego, Warszawa



15.05.2015

50 Virtual Reality Technologies in AEC



8-9.05.2015

MANIFESTO BIM ACADEMICO

Buildingsmart Polska, Poznań, Poland

info@buildingsmart.pl

My person

1. star

2. like

*use

3. Ger

4. Bui

5. 2015 - TIME OF COMMERCIAL COMPANIES ACTIVITY

Is it time to start Polish Branch of
www.Buildingsmart.pl



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5. 2015 - TIME OF COMMERCIAL COMPANIES ACTIVITY
6. BUILDINGSMART NORDIC BORD EU NION ISO/CEN/PKN STANDARDS V4 EA VYSEHRAD EA ADEMIC

Is it time to start Polish Branch of
www.Buildingsmart.pl



BIM in Poland

Country elements :

1. private communications www.buildingsmart.pl
2. conferences : scientific, commercial, fair events, vendors
*CMM2013Poznan *ProjektowaniePrzyszłości2014/2015/2016
*HALE STALOWE-BUDMA2013/2014 *TKI 2013/2016 *BUDMIKA 2013-2015
1. SKANSKA-MaltaHouse2013Poznan-first in BIM, 2015 M A R A T O N
2. Krakow Regional BIMkluster www.bimkluster.pl
3. BIM dla polskiego budownictwa www.plbim.org BUILDER MB
4. Association of Polish Engineers www.stpuk.org Great Britain
5. DataComp BIMvision software www.bimestimate.eu
6. UK Government BIM TaskGroup *seminar in embassy in Warsaw



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BIM in Poland - EDUCATION

- Software training for students : TEKLA at PUT
- Elective MSc courses BIM
- Diploma thesis BIM
- Students Mobility Exchange VIA Horsens, KIA, UPV
- **Students Group Training** ArchitectureConstrEng
- *editions *practices *field verification *instructors *scan+
- EU project POKL student competences
- Study Courses - some start signs



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BIM in Poland - EDUCATION

COURSES at Technical Universities

- March 2015 Krakow University of Technology
MSc construction spec in BIM
- ?2?0?1?6? Poznan University of Technology
MSc practical profile
- ?2?0?1?6? Warsaw University of Technology
MSc construction management

NO COURSES for VACATIONAL

NOR LONG LIFE EDUCATION



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BIM in Poland - EDUCATION

Several years :

- Domination of AutoDesk in CAD - AutoCAD BIM - Revit
- other software at university ArchiCAD, Bentley, Tekla,

Nowadays :

- Huge consortia come to IT solution
“the industrialization of construction”

AUTODESK **TRIMBLE** **DASSAULT SYSTEMES**

- openSOFTWARE academic licences edu perspective



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BIM in Poland - EDUCATION

Perspective for future :

- join effort of
 - governmental administration, universities/education, software vendors, training centers, industry
 - role of sponsors for support of seminar society fee expences
- organization of volunteer but supported
 - conference : BIM Poland
 - newspaper: Quarterly
 - association : BuildingSMART Poland
 - certification: BIM Manager (PM/ICT) Software TEKLA BuildingSMART.org
- European edu FORUM VIRTUAL CAMPUS
- ATTENTION : SPANISH EXAMPLE FOR POLAND
- EUBIM-2015-UPV



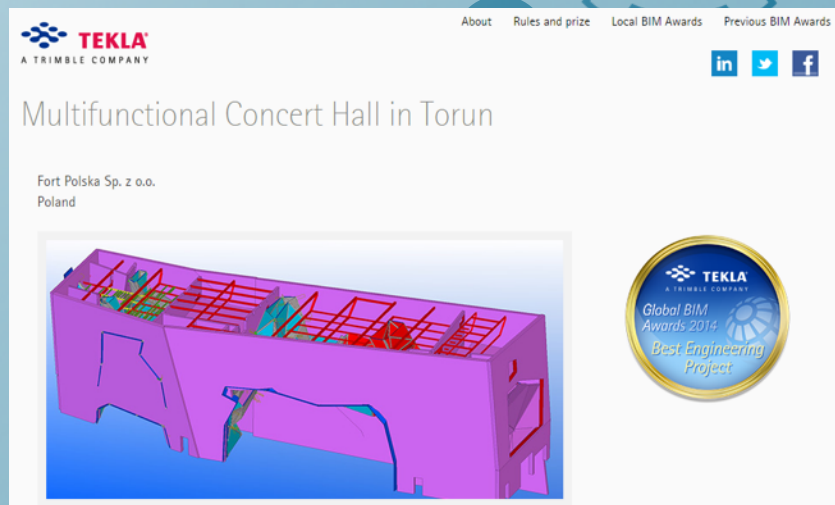
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BIM – EDUCATION - TRIMBLE

- Individual student interest
- Student excellence and professional implementation
- Examples of advanced modelling

GLOBAL BIM AWARD 2014 CATEGORY ENGINEERING

- Licenses to prepare diploma
- BUDMA Construsoft stand !
- Future cooperation





Final Remarks

1. POLAND at INITIAL LEVEL www.buildingsmart.pl
2. GLOBAL CONSTRUCTION PLAYERS - implementation
3. LOCAL DESIGN - INVESTMENT - unconvinced in cost
4. Manifestation in Education - qualifications + certification
5. NO START in governmental administration
6. END'2015 some BLINKS, will come in FUTURE



POZNAN UNIVERSITY OF TECHNOLOGY

Welcome to CIVIL from Dean

WYDZIAŁ BUDOWNICTWA I INŻYNIERII ŚRODOWISKA

Dziekan: prof. dr hab. inż. Janusz Wojtkowiak

Kadencja 2012-2016

Adres: ul. Piotrowo 5,
60-965 Poznań

Dziekanat: Tel.: +48 61 665 2413,
Fax.: +48 61 665 2444,

Strona: <http://www.bis.put.poznan.pl/>

E-mail: office_dceef@put.poznan.pl





POZNAN UNIVERSITY OF TECHNOLOGY

Welcome to PUT from Rector

POLITECHNIKA POZNAŃSKA

Rektor: prof. dr hab. inż. Tomasz Łodygowski
Kadencja 2012-2016

Adres: pl. Marii Skłodowskiej-Curie 5,
60-965 Poznań

Biuro Rektora: Tel.: + 48 61 665 3639,
Fax.: +48 61 665 3635,

Strona <http://www.put.poznan.pl>

E-mail: Biuro.Rektora@put.poznan.pl





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**Thank you for kind
attention !**

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<http://buildingsmart.pl/16062016.pdf>